

In The Name of Allah, The All - Merciful, The Most Compassionate

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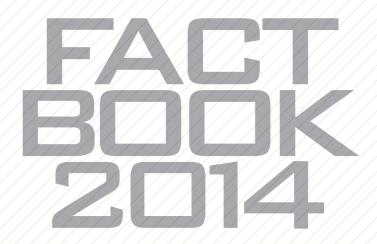
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- 1. Tehran University of Medical Sciences, as the largest and the most prestigious university of Iran, is in constant evolution and development. Therefore, the information given in this book is based on the latest data available at the time of its publication.

 In order to get access to the updated information, it is recommended to contact the University.
- 2. All dates are in Christian calendar.
- 3. Just a few pictures needed to be captioned.
- 4. All rights reserved. Any quotation or adaptation is authorized by citing the source.

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- -Paediatric Infections Research Center (PIRC)
- Biotechnology Research Center (BRC)
- Nephrology Research Center (NRC)
- Cardiac Transplantation & Surgery Research Center (CTSRC)
- Iranian Traditional Pharmacy Research Center (ITPRC) - Center for Research in Occupational Disease (CROD)
- Center for Research of Endemic Parasites of Iran (CREPI)

- Food Microbiology Research Center (FMRC)

- -Experimental Medicine Research Center (EMRC)
- Health Information Management Research Center (HIMRC) - Research Center for Molecular and Cellular Imaging (RCMCI)

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Message from the Chancellor

Welcome to Tehran University of Medical Sciences (TUMS),

Thanks to a history of more than 162 years, and taking pride in its reputable predecessor, Dar-ol-Fonoon, TUMS stands as one of the most prestigious universities of medical sciences in Iran, and in the region.

TUMS brings together an extraordinary community of faculty, students and staff who provide state-of-the-art education, conduct groundbreaking research and take the lead in public service initiatives in Iran.

TUMS academics collaborate with partners worldwide to advance knowledge and address daunting challenges of international significance in a wide spectrum of areas of medicine and health-related issues.

TUMS houses many dynamic and complementary research programs that will bring together some of the best minds in the region focused on creating new therapies for a broad array of medical issues related to the community's health and well-being. In this way, our graduate and professional schools express the University's commitment to research, rigorous standards, and innovative application of knowledge.

Tehran University of Medical Sciences (TUMS) is accredited by Accreditation Services for International Colleges (ASIC) as a PREMIER UNIVERSITY on February 1, 2013 thru January 2017. This is the first step of being an accredited international University.

In the midst of all the exciting new developments, our founding principles remain pristine and unwavering. In any action we take, our University places the highest priority on respect for the dignity and diversity of every member of our campus community and remains fully committed to supporting our students' professional, intellectual, and emotional growth so they may have the opportunity to fulfill their potentials and achieve their professional goals. These goals, in turn, would empower them to improve the quality of life of people around them which is the highest goal one may achieve.

Ali Jafarian,M.D. Chancellor



The Organizational Mission Statement

Attitudes and Values

As Imam Khomeini (PBH) put it, "Universities originate all changes, and decide the destiny of a nation". Those who receive the services of Tehran University of Medical Sciences (TUMS). are people, and the ultimate goal is their satisfaction and the lasting multidimensional progress of the society. To fulfill this wish, TUMS finds itself committed to the people, the ill, the students, the staff, the faculty, other medical universities, the Ministry of Health, Treatment and Medical Education, and the Supreme Council of Cultural Revolution under the following principles. Firstly, we have faith in the Islamic culture, spirituality, and observance of the moral principles, and we do our best to meet the needs of the staff and to provide for their spiritual growth. Secondly, we have faith in the sublime status of the faculty, the students, the staff, and all walks of life and their satisfaction is the initial step for satisfaction of the whole society. Thirdly, we value our human resources as the most precious asset, and provide for their participation, innovation, and group work. We also try to establish open and bilateral relationships, and a system for rule of meritocracy. Fourthly, we are concerned with applying scientific methods to problem solving, managing affairs, strict planning, and using the fruitful experiences. We believe that individuals should not be blamed for the problems and shortcomings; on the contrary, we should seek to adopt well-planned scientific and systematic measures to solve the problems. Last but not least, as a public institution, we feel greatly committed in achieving the best results, enhancing productivity at the lowest possible cost, and protecting the environment..

Background

According to the Supreme Leader, TUMS represents higher education, and symbolizes the nation's scientific life. TUMS is known as a mother university at the national level. Therefore, we wholeheartedly attempt to safeguard this status, and strengthen it in the future. TUMS is the oldest medical university in Iran, and enjoys a unique position from the point of view of number, experience, and educational background of its faculty members. If the three indexes of security, education, and health are considered as the pivotal factors in progress, medical universities have the responsibility of materializing two of them. This has provided them with a unique opportunity even in comparison with other universities in the world.

Mission

As a member of the national health system and in accordance with the general policies made by the Ministry of Health and Medical Education, TUMS renders services to the population covered and is active in the following areas:

1) Rendering educational services within the scope of health

sciences to extend the university's expertise to the community locally, nationally, and internationally in order to support health promotion, health maintenance, and the advancement of the health sciences proportion. This is done to serve community by the dissemination of knowledge through teaching and the discovery of knowledge through research, to emphasize offering specialized and sub-specialized courses, and PhD program for training manpower needed by other medical universities and health care and research centers.

2) Introducing health care oriented science and technology through conducting fundamental, applied and developmental researches for: solving health care problems at regional and national levels, acquiring the technology for production of strategic medical and drug supplies to meet local needs and boost exports, designing and promoting new software, and educational methods appropriate for the needs of the society, providing for joint efforts with other organizations, institutions, and universities to identify and meet mutual needs, and render scientific and specialized services, developing appropriate structural and managerial models and procedures within the national health system, participating in publication of renowned scientific resources and contributing to the production of science at the national and international levels. 3) Rendering health care services: At all levels (first, second. third, and fourth) to the covered population, in the specialized hospitals to the public, in the areas which comply with the national comprehensive health care policies in which the private sector is not inclined to invest.

4) Supervising and inspecting health care centers and authorizing the issuance of license on health care services in the covered area on behalf of the concerned ministry.

Vision

The gist of the vision of TUMS is summarized as accomplishing the followings in the coming decade:

- Promoting the university's academic status at the regional as well as the international level through acquiring the required capabilities in rendering higher educational services than those of the countries in the region.
- Increasing the university's role in production of science, research work, and publication of scientific articles in the international journals, and meeting health needs of the society,
- Obtaining the required technology for the production of the strategic medical supplies for the needed of the society, improving the health standards of the covered population, and enhancing the quality and the diversity of the sub-specialized health care services, and finally.
- Playing effective roles in introducing new methods and comprehensive plans for environmental preservation.

TUMS International Strategies

Tehran University of Medical Sciences, as the largest medical sciences university in Iran, clearly recognizes and comprehends the significance of stepping into international arenas of higher education. Here in TUMS, we firmly believe that our performance, educational services, and goals can no longer be measured by most local criteria, and it is for this reason that we have entered the international landscape of higher education. In line with this mindset, TUMS Office of Vice-Chancellor for Global Strategies and International Affairs (GSIA) has designed several frameworks and various strategies to effectively develop international aspects of TUMS.

One of the major dimensions of internationalization strategies of TUMS focuses on local, or intra-national (as opposed to international), potential aspects of development. Such aspects include, but are not limited to, faculty/staff training, providing infrastructural requirements, student services, etc. The fulfillment of these needs makes TUMS an effective and resourceful educational organization on its home turf.

Another strand in the internationalization of this university, which might carry more value and importance than the former, consists of numerous activities related to international and cross-border interactions. These practices consist of student/faculty mobility (both from and to TUMS), joint educational services with other universities and institutes of higher education, cooperation in shared research ventures, and much more. Such interactions, which are always in some sort of cooperation with other international educational entities, serve as the basis from which we can create and enhance the international identity of TUMS.

Tehran University of Medical Sciences has, for quite a while now, embarked upon an adventurous journey towards becoming a renowned international university. In due time, we approach, take up, and tackle any and all challenges with care and accuracy. Until now, we have witnessed significant improvements and advances with regard to international development, and we sincerely hope that we will be able to carry on with this trend in the future we have ahead of us.





School of Medicine, Iran 1940

General Information

▲ A Short History of Medicine in Iran

Medicine in Iran dates back to about the dawn of civilization. The ancient Iranian medicine has inseparable ties with Zoroastrianism mentioned in Avesta. According to some ancient Iranian myths, practicing medicine can be traced back to the era of Jamshid, the fourth mythical king of Iran and the oldest evidence of surgery demonstrates the trephination of a 13-year-old hydrocephalous girl performed 4850 years ago. Medicine in pre-Islamic era reached its zenith when the University of Jondishapoor was founded by the Sassanid Monarch; Shapoor I.

Jondishapoor remained as one of the most important universities of the ancient civilized world for several centuries and attracted many scientists from all over the world especially from Greece, Rome, etc. Later, Anooshirvan, the Sassanid Monarch, commanded the formation of the first academy of sciences by gathering all the famous physicians of the time, the university contributed a lot to the progress of medicine in Western Europe around the seventh and eighth centuries. Upon the rise of Islam and its expansion, Arabic became the official language of the Muslim World and Iranian Muslim scientists and physicians wrote their great works in that language. Writings of great Iranian physicians in the ninth and tenth centuries were the dominant works in the field of medicine in the world for many years.

The tenth and eleventh centuries witnessed the blooming of two great Iranian learned men -Avicenna and Birooni- who are considered as turning points in the evolution of medicine in Iran, and in the other parts of the world as well. Modern medicine flourished under the Qajar Dynasty after a great man called Amir Kabir established Dar-ol-Fonoon School in 1851 in which medicine; pharmacology, mathematics, literature, fine arts, and many others were taught. Through employing foreign teachers, and sending a number of students abroad in 1858, the School came to play a key role in the development and education of modern medicine.

▲ A Short History of Tehran University of Medical Sciences (TUMS)

Before the establishment of Dar-ol-Fonoon, there was no systematic approach to medical education in Iran. In 1851, Dar-ol-Fonoon School was established and medicine was considered as one of its main subjects. The first group of the Schools' graduates started practicing medicine in 1856. The Dar-ol-Fonoon School of Medicine can be considered as the first modern college of higher education in Iran.

In 1918, medicine was deleted from the syllabus of Dar-ol-Fonoon and started to be taught in a separate independent college named "College of Medicine" and in the Same year, the first women's hospital was officially inaugurated. In 1934, the National Consultative Assembly ratified establishment of the University of Tehran to bring together the institutions of higher education, and the government purchased a 200000 square meter tract in Tehran, the University of Tehran actually started its operation with the six Schools of Medicine, Law, Political Sciences, Science, Letters, Engineering, and Theology. At the same time, the main chairs of the School of Medicine including medicine, pharmacy, and dentistry were determined. On February 4, 1934, the Department of Anatomy was inaugurated as the first step to establish the School of Medicine in the main campus of University of Tehran.

In 1939, the University started offering doctorate degrees in pharmacy and dentistry. In the following year, all of the hospitals in Tehran were affiliated to the School of Medicine. Finally, in 1956 the Schools of Pharmacy and Dentistry were granted their academic independence.

In 1986, the Islamic Consultative Assembly ratified a bill for the establishment of the Ministry of Health and Medical Education. Since then, education of medicine and related disciplines, which had been performed under the supervision of the Ministry of Science, came under the Ministry of Health and Medical Education.

In line with this policy, universities of medical sciences were established and Tehran University of Medical Sciences, separating from the University of Tehran, came to existence to continue operating independently. After emerging regional health organizations in the universities of medical sciences in 1994, the mentioned universities, including Tehran University of Medical Sciences and Health Services, came to assume the responsibility of rendering health care services while offering medical education.



Dar-ol-fonoon







These five full-page anatomical drawings are from "Tashrih-e-Mansur ('Mansur's Anatomy') or "Kitab Tashrih al-Abdan" ('Book of the anatomy of the human body') consists of an introduction and five chapters on the five 'systems' of the body illustrated with a fullpage diagram of the system under discussion, with a final chapter accompanied by a diagram of a pregnant woman It was composed in Persian by Mansur ibn Muhammad ibn Ahmad ibn Yusuf ibn Ilyas, who was descended from a Shirazi family of scholars and physicians in Iran (15th century)





Islamic Republic of IRAN

/ History

The plateau of Iran is among the oldest civilization centers in the history of humanity and has an important place in archaeological studies. The history of settlement in the Plateau of Iran, from the new Stone Age till the migration of Aryans to this region, is not yet very clear. But there is reliable evidence indicating that Iran has been inhabited since a very long time ago.

According to archaeological excavations conducted in these civilization centers, some vestiges have been discovered, the antiquity of which date back to the 5th millennium BC. The migration of Aryan Tribes to the Plateau of Iran began in the 2nd millennium BC.

Out of these tribes, the Parthians dwelled in Khorasan,

the Medes in the west, and the Parsees resided in southern Iran. The Median Empire rose in Hegmataneh (Ekbatan). The Achaemenids established the first great Persian Empire after defeating the Medes and conquering of their capital. The limits of the Achaemenian territory during the reign of Dariush I (522-485 BC) extended from the plain of Sand River in the east to the borders of Greece in the west.

After the decline of the Achaemenian dynasty, succeeding Seleucids, dominated Iran for a short period of time. During this time, the interaction between Iranian and Hellenic cultures occurred.

Around the year 250 BC, the Parthians, who were an Aryan tribe as well as horse riders, advanced from Khorasan towards the west and south-west and founded their empire on Iran Plateau choosing Teesfoon as their capital. This empire survived only until the year 224 AD. The Sassanides, after defeating the last Parthian King in 225 AD, founded a new empire which lasted until mid 7th century AD. The influence of Islam in Iran began in the early 7th century AD after the decline of the Sassanid Empire.

From that time, a new era began in the history of Iran which caused fundamental changes in social, political, religious, governmental, and general conditions of the country. Iranians, who were very unhappy with the existing social and economic inequalities in the time of the

Sassanides, welcomed the just and sublime religion of Islam with pleasure and contribut-

ed to its expansion and enrichment.

After that, different local governments were appointed by Islamic Central Government. But due to differences among the local governments, the Iranian government became weak and declined. In the Safavid time (1501-

1732), the second great Iranian Empire was founded and the Shiite sect of Islam, disciples of which were seriously limited till then, was formalized. The dynamic nature of Shiism and its political and social commitments firmly safeguarded Iranian independence and national identity against Ottoman assaults.

Thus, Iran once again became a new political and religious power.

With the decline of the Safavid, Afsharieh and later the Zandieh took the throne. After the Zandieh rule, the Qajars took power. At this time, the influence of foreign powers such as Britain and Russia in the internal affairs of Iran significantly increased. In the Pahlavi period, despite the regime's oppositions, Oil Industry Nationalization Movement succeeded. Some years later in 1963, a popular uprising started against the regime which finally led to the victory of the Islamic Revolution in 1979. The government of Iran is "Islamic Republic" which was founded after the Islamic Revolution. The founder of the Republic and the leader of the Revolution was Imam Khomeini, who passed away in July 1989 and the Assembly of the Experts elected Ayatollah Seyed Ali Khamene'i as the Leader of the Islamic Republic of Iran.

△ Geography & Nature

Covering an area of 1,648,195 square kilometres, Iran is located in south western Asia. The Caspian Sea, Turkmenistan, Azerbaijan, and Armenia on the north; Afghanistan and Pakistan on the east; and Turkey and Iraq on the west surround the country.

Iran is one of the five littoral states of the Caspian Sea. On the south, Iran shares borders with the littoral states of the Persian Gulf and the Gulf of Oman. Total terrestrial borders of the country are 5,170 km and total water borders are 2,510 km. Iran is situated at the heart of the

Middle East and bridges Caspian Sea, the largest landlocked body of water in the world, to the Persian Gulf. It is also a crossroad between the East and the West. Thus, historically, Iran has been in the juncture of cultural, intellectual and political manifestations of both the East and the West, while preserving its unique identity.

Unique landscapes such as limpid water springs, pomegranate orchards, pistachio gardens, rows of lombardy poplars, decampment of nomads in different seasons, rocky mountains, endless high and low lands, extinct snow-clad volcanoes, dense forests of the Alborz Mountain Range, and coastlines of the Caspian sea, the Persian Gulf and the Gulf of Oman are all eye-catching and memorable.

Iran's landscapes vary remarkably through different seasons. Iranian artists have portrayed Iran's nature as a sign of diversity and charm in their different and diverse artistic works. Nature and its diversity in Iran are valuable parameters for development of the tourism industry. Among significant characteristics of the vast land of Iran are the existence of high mountains as well as flat plains, desert areas, rivers, and lakes contributing to unique geographical conditions in which, at any time of the year, and in each section of the country, one of the four seasons is visible.

✓ Climate

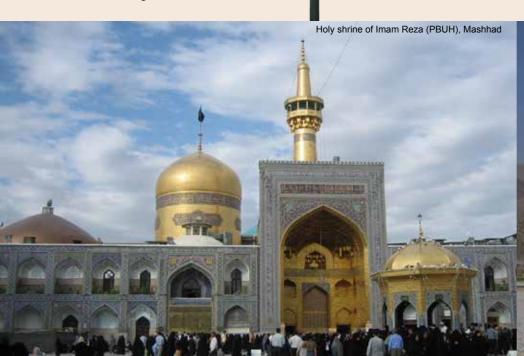
Iran is situated in the global arid zone and the Plateau of Iran suffers from a relatively dry climate. Alborz and Zagros mountain chains trap the humidity and air currents of the Caspian Sea and the Mediterranean climate preventing them from penetration into the inner parts. Due to its location between 25 and 40 degrees latitude as well as its mountains, Iran enjoys considerably variable climates. The average annual temperature increases from the northwest to the southeast throughout the country and varies from $10\Box C$ in Azarbaiejan to $25\text{-}30\Box C$ in the south and southeast in the same season. The northern and southern shores of Iran have diverse climatic conditions compared with the central and mountainous regions.

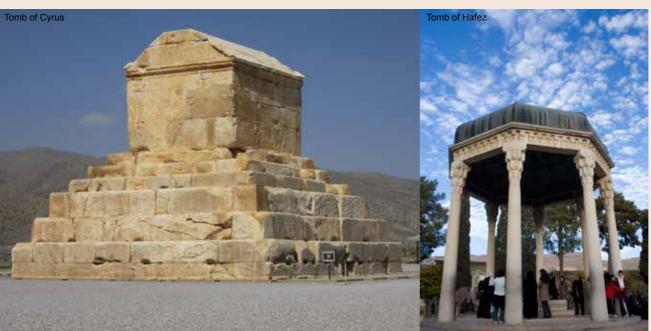
The best season for travelling to Iran is spring. However, in every season there are provinces which are more favourable than others from a climatic point of view.

Population

With a total population of 67,000,000 (2001), Iran is the 17th populous country in the world with an average density of 37.8 per Km2. In the 1996 census, 64.7% of the total population was urban. The capital Tehran by itself claimed no less than 10.87% of the country's population.







▲ Language

The official language spoken in Iran is Persian or Farsi. In addition, there are some other languages such as Turkish, Arabic, and Kurdish spoken in various parts of the country. The only script in use is Farsi script.

▲ Religion

Iran is the birthplace of Zoroaster, the founder of the Zoroastrian religion, one of the oldest religions of the world. The official religion of Iran, based on Article 12 of the Constitution, is Islam (Shiite), and about 99.56% of the people of the country are Muslim. Disciples of other branches of Islam such as Hanafi, Maleki, Shafei, Hanbali, and Zaidi in Iran are highly respected and live freely without any limitations. In the Constitution of the Islamic Republic of Iran, religions such as Zoroastrians, Christians, and Judaisms are officially recognized and their disciples have equal political, social and economical rights as Muslims. Religious minorities of Zoroastrian, Armenians, Jews, Assyrians, and Chaldeans have their own independent representatives in the Islamic Consultative Assembly (Parliament).

△ Culture

Cultural richness of Iran in different areas like different eastern art, literature and Gnosticism has global reputation. Iranian myths, fictions, philosophy, poetry, music, folklore, handicrafts, architecture, and fine arts are important parts of human thoughts.

▲ Flora and Fauna

Of the total land area of Iran some 180,200 Km2 is forested. The most extensive forest growth is to be found on the northern plains of the mountain slopes that face the Caspian Sea, where stands of oak, ash, elm, cypress, pine and other valuable trees grow abundantly. Outside this belt of rich forest, scattered forests of oak and wild pistachios are to be found on the well watered slopes particularly along the Zagros Mountains. The interior of the country is characterized by spring pastures on the higher levels and scanty short-lived shrubs on the lower. Most of the interior deserts are absolutely desolate without any sign of vegetation and life during most of the hot and long summers. Bears in the mountains, wild sheep and goats, gazelles, wild asses, wild pigs, wild cats and occasionally panthers and foxes together with a variety of pheasants, partridges, stork and falcons, are among the native animals and birds of Iran. A variety of wonderful and rare marine life such as shrimps and sturgeons can be found in Iranian sea waters in abundance.

▲ Economy

According to the Article 44 of the Constitution of the Islamic Republic, the economy of Iran is managed by three sectors: private, state, and cooperative. Presently, only 2.5% of the country's economy is owned by cooperatives; the most predominant monopolisers of the economy are the state and private sector. In the last four decades, the main source of income of the country has been oil and gas exports.

In spite of severe fluctuations in the global oil price, the oil export still plays a very important role in the economy of the country and is the main source of income in foreign currency. The Gross Domestic Product (GDP) is the total of revenues from:

agriculture, industry and mines, services, and oil. Iran enjoys a variety of mineral resources. Huge deposits of iron ore, copper, coal, cobalt, chrome and other metals emphasize this fact. Based on the statistics released by Iranian Statistical Center the total mineral reserves of the country amounted to 4855 million tons in 1998.

Since a long time ago, agriculture has played a major role in Iran's economy and development. This important sector, responsible for providing the food supply of the country, has employed about one third of the total employed population. Today, agriculture sector plays a very important role in the foreign exchange balance of the country for securing GNP and non-oil exports. Some of the most important agricultural products of Iran include:

crops, legumes, fruits, nuts, spices, tea, grains, vegetables, honey, and dairies. Caviar and shrimps are famous sea food exports of Iran. The unit of Iranian currency is Rial, internationally abbreviated into RIs. Coins in denominations of 50, 100, and 250 Rials and bank notes in denominations of 100, 200, 500, 1000, 2000, 5000, 10000, and 20000 as well as 50000 Rials are available. The exchange rate with other currencies varies and fluctuates daily depending on the money market.

Administrative Divisions

According to the latest divisions of the country, Iran is divided into 30 provinces, including Ardabil, Azarbayjan-e Gharbi, Azarbayjane Sharqi, Bushehr, Chahar Mahall va Bakhtiari, Esfahan, Fars, Gilan, Golestan, Hamedan, Hormozgan, Ilam, Kerman, Kermanshah, Khorasan-e-Shomali, Khorasan-e-Jonoobi, Khorasan-e-Razavi, Khuzestan, Kohkiluyeh & Buyer Ahmad, Kordestan, Lorestan, Markazi, Mazandaran, Qazvin, Qom, Semnan, Sistan & Baluchestan, Tehran, Yazd, Zanjan



Damavand Mountain, Iran

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Tehran

The plateau of Iran is a high land surrounded by the Caspian Sea on the north and the Persian Gulfand the Gulf of Omanin the south. Ranges of mountains alongside the Caspian Sea, called Alborz, separate the plains of Gilan, Mazandaran, and Gorgan from the southern lands, and extend from the northwest to the northeast. Another range of mountains, which extends diagonally from the northwest to the southeast and is called Zagros and has given the plateau an ecological variety.

The Alborz and Zagros Mountains and their snowcapped summits, the deserts and the low northern and southern plains have given the plateau unique geographical, natural, and life varieties.

Archaeological excavations, written documents and inscriptions, and other historical sources prove man's settlement in the plateau of Iran in the Palaeolithic Era. At the beginning of the second millennium B.C., the nomadic tribes settling in the northern and eastern plains of the Caspian Sea moved down to the more fertile lands of the plateau. Some of these migrating tribes left the mountainous passages behind to settle in the green valleys of the plateau, but other groups moved further to India and Europe. The tribes who reached Iran mixed with the native people, who earned their livings mainly by cultivating the land, and created a great civilization, which came to rule over the world for centuries. Since the time, the first central government came to power toward the end of the second millennium B.C., and due to the fact that monarchs came from different parts, cities like Takhte-Soleiman, Susa, Hegmataneh, Ray, Neishaboor, Isfahan, Shiraz, Tabriz and Tehran were chosen as the capitals of the country.

Tehran has been the capital of Iran for two centuries and is home for the main offices ruling the country. When the city of Rey was thriving, Tehran was a small village. The city of Rey was destroyed in the Mongol invasion, and since then the area has always witnessed the flourishing of a big city, first Varamin started its growth, but soon Tehran came to attract attention and grew into a big city, and the surrounding villages like Doolabe-Rey, Aliabad-e-Rey, Tarasht, Jei, Vanak, Beryanak,



Darband, Darakeh, and Farahzad formed its different

Meanwhile, Tehran is the cradle of a great civilization, which offered the Gray Baked Clay as a symbol of the late second millennium B.C. to archaeologists and Iranologists. This type of baked clay was first discovered in March 1900 by Ernest Amelius Rennie, the third Secretary of the British Embassy in Iran, in the hills around Qolhak and Qeitarieh in Tehran.

In 1539, King Tahmaseb I had the fortifications of Tehran built and Tehran came to be surrounded by walls. Tehran stopped to expand and grow under the Safavid Dynasty when Oazvin and Isfahan were chosen as capitals, and Shah Abbas (the Great) ignored Tehran. Early in the nineteenth century and at the outset of the Qajar Dynasty, Aga Mohammad Khan decided to make Tehran the capital city and had beautiful palaces built inside its citadel: a historical site from the Zandieh Era. Therefore, Tehran has been the nation's capital for two centuries and now it is one of the biggest cities in the world and the most populated city in Iran.

The City, which grew out of the ages, is becoming one of the most beautiful cities in the Middle East while maintaining its cultural and historical identity. Historical palaces such as Shams-ol-Emareh, Golestan, and Sa'ad Abad, which once were the tallest and strongest buildings in Tehran, prove how creative Iranian artists and architects have been. Mosques such as Sepah Salar, Imam, and Sheikh Abdol Hossein, the Traditional Bazar of Tehran, and museums like Iran Bastan, Reza Abbasi, Golestan, Abgineh, and Sofalineh are all signs of the several thousand year old Iranian heritage.

Tehran, now a great metropolis, lies on the southern slopes of Central Alborz, and has extended in all directions in recent years. Late in the 1970s, Tehran was considered as the center for the formation of the Islamic Revolution, and played a key role in its victory in 1979. What followed the victory of the revolution not only developed Tehran into one of the biggest and most populated cities in the world, but also made it the starting point for a new system of government.

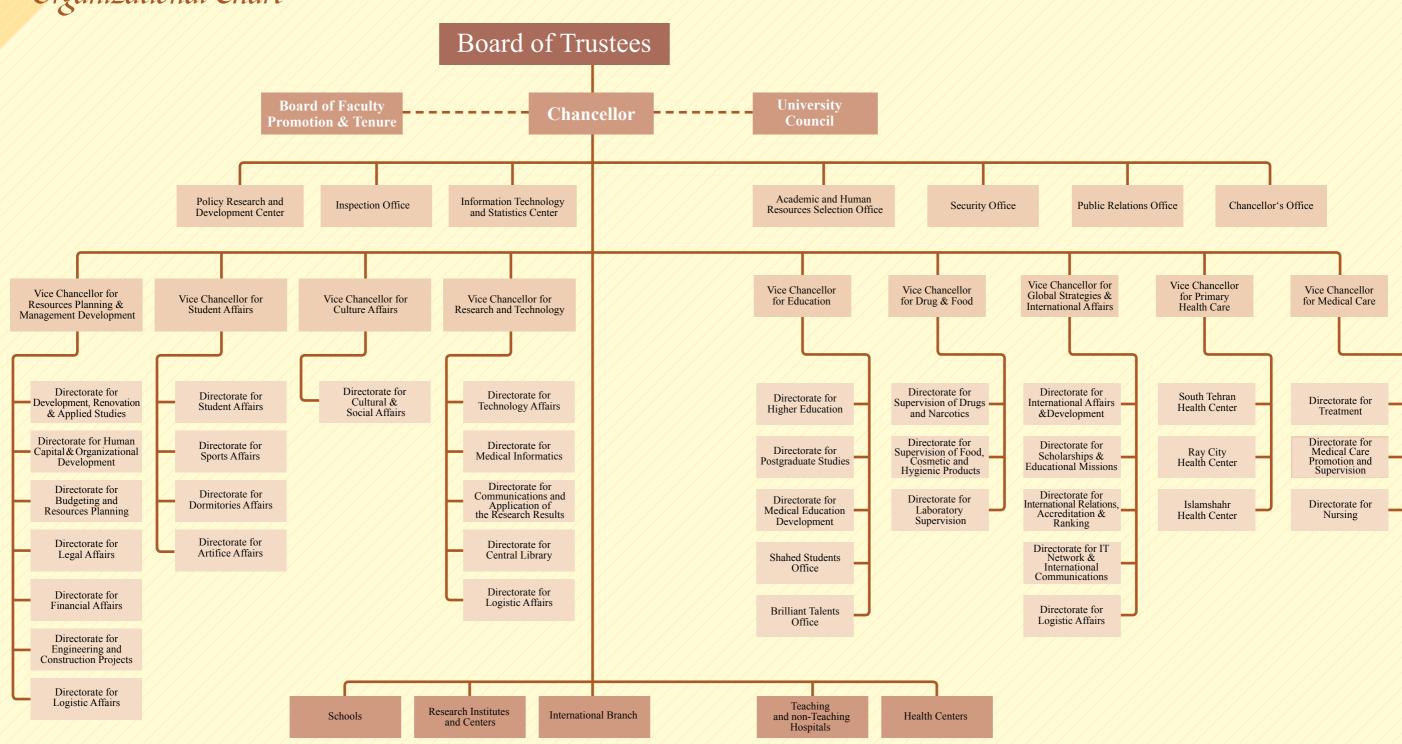


Milad Tower the North of Tehran



- Organizational Chart
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 - Vice Chancellor for Medical Care
 - Vice Chancellor for Cultural Affairs
- TUMS Alumni Office
- TUMS Innovation Initiative

Tehran University of Medical Sciences(TUMS) Organizational Chart





The Board of Trustees

The Board of Trustees is actually the legal entity of the University consisting of the Minister of Health and Medical Education, Chancellor of the University, four to six distinguished academic, cultural or social personalities of whom at least two should be faculty members and the Director of the Management and Planning Organization of the country or his representative.

- **1.** The Minister of Health and Medical Education chairs the Board of Trustees. The Chancellor acts as the Secretary of the Board.
- **2.** Members of the Board are appointed by the decree from the president of I.R.IRAN.

At the time being, besides a number of the faculty members, the speaker of the Islamic Consultative Assembly, the head of MOSTAZAFAN (the oppressed) Foundation and the head of the Supreme Council of Cultural Revolution are the members of the Board of Trustees.

▲ Responsibilities and Authorities:

- Ratifying the internal by-laws of the University,
- Ratifying the administrative organization,
- Ratifying the annual budget,
- Ratifying the University's detailed budget,
- Ratifying accounts and annual balance sheet,
- Ratifying the special revenues and their spending,
- Appointing the auditor and treasurer,
- Raising financial support from the private sector, and local revenues,
- Ratifying financial and transactional by-laws,
- Proposing the extra pay for faculty members and non-faculty instructors,
- Policy making for management of health care centers,
- Deciding the pay scales for research work, teaching, authorship, etc,

- Verifying the annual report of the University presented by the Chancellor,
- Ratifying employment regulations of faculty members.

The Executive Committee

The Executive Committee consists of the Chancellor of the University and nine Vice Chancellors for Education, Research, Management Promotion and Resources Planning, Student Affairs, Cultural Affairs, Primary Health Care, Medical Care, Global Strategies & International Affairs, as well as Food and Drug. At present, in addition to the above-mentioned members, the Directors of Public Relations, the Chancellor Office and the Executive Consultant are the members of this committee.

1. The candidate for the position of Chancellor is proposed to the Supreme Council of Cultural Revolution by the Minister of Health and Medical Education. Once approved by the Council, he will be appointed by a decree from the Minister for a four-year term.

1. The Vice-Chancellors are appointed by the Chancellor.

▲ Responsibilities and Authorities:

- Implementing ratifications of the Supreme Council of Cultural Revolution, and the directives issued by the Ministry of Health and Medical Education,
- Submitting to the Board of Trustees through the Chancellor the organizational flow-chart, and the administrative improvements for managing internal affairs of the University,
- Investigating implementation of the decisions made

by the Executive Committee, and supervising the departments' performances,

- Providing for public contributions, and helping the University and its associated departments achieve self-sufficiency,
- Coordinating activities of the Vice-Chancellors, Studying administrative, financial, and transactional regulations of the university to be discussed by the Board of Trustees, and preparing proposals and plans to be included on the agenda of the Board of Trustees,
- Proposing the annual budget to the Board of Trustees through the Chancellor,
- Proposing to the Ministry through the Chancellor sabbatical leaves, and short-term educational and research courses in and abroad for qualified faculty members.

The University Council

The council consists of members of the Executive Committee, Deans of Faculties, two faculty members, and two full or associate faculty member professors. It is chaired by the University Chancellor.

▲ Responsibilities and Authorities:

- Studying and ratifying new courses and fields of study to be proposed to the Ministry of Health, Treatment and Medical Education.
- Studying and ratifying proposed short-term educational and research plans,
- Studying ways to cooperate with other public and private institutions, Annual study of the University's scientific facilities,
- Determining shortages, classifying scientific needs, and taking actions to supply them,
- Planning for students admission regarding to the available facilities of the University capacities, -Studying the educational and research problems of the University, and proposing solutions,
- Evaluating of the University's general performance,
- Studying and ratifying plans proposed by specialized councils,
- Preparing and ratifying the internal by-laws of the Council, and its subcommittees.
- Coordinating administrative and planning affairs and to cooperate with the university council and the Executive Committee, every vice chancellor should form a council and chair it. These are called specialized educational and research councils. Studying issues placed on the agenda of the Council by the Chancellor.

The Board of Faculty Promotion & Tenure

This Board is comprised of the University Chancellor, the Vice-Chancellors for Education and Research and professors and associate professors selected as scientific representative from the associated schools and educational research institutions. The Chancellor chairs the board

▲ Responsibilities and Authorities:

- Ranking of associate studying academic and passing judgment on the scientific qualifications of applicants for professor, and assistant professor,
- Promoting faculty members to assistant professorship, associate professorship, and professorship.
- Evaluating the educational-research performance of faculty members, dealing with other matters referred to in the recruitment by-laws of faculty members.

TUMS Scholarship Council

The Scholarship Council of Tehran University of Medical Sciences is comprised of the following members:

- Chancellor
- Vice Chancellor for Research & Technology
- Vice Chancellor for Education
- Vice Chancellor for Student Affairs
- Vice Chancellor for Global Strategies and International Affairs
- Deans of Schools

The Chancellor chairs the Council.

▲ Responsibilities and Authorities:

- Studying, assessing and making decisions on the application for studying in short and long-term programs in foreign countries,
- Assessing the performance of students' studying abroad in scholarship for the purpose of making the decision of prolonging their course study, Passing instructions for education mission.

The Council acts based on the provisions of the articles, and passed instructions of Ministry of Health and Medical Education as well as the board of trustees of the University.



Vice Chancellor for Education

The Vice Chancellor for Education is responsible for academic policymaking, coordination of all educational activities, provision of support for academic activities, supervision over proper enforcement of the assigned responsibilities of the associated institutions, as well as planning to promote educational quality. The commissioned duties are enforced through the following subordinates Directorates:

- -Directorates for Educational Affairs, which renders educational / administrative services to students of post-graduate levels;
- -Educational Development Center, which masterminds planning the university's educational programs and tries to promote the quality of education through de-

velopmental projects, faculty development initiatives, as well as evaluation of the faculty and the delivered courses;

-Continuous Medical Education Office, which plans and coordinate CME activities and evaluates them.

The vice Chancellor Education is also in charge of many administrative and academic affairs pertinent to the faculty members. This includes but is not limited to faculty promotion, tenure, and hiring and allocating new academic staff. All the above-mentioned responsibilities are aligned with TUMS long-term plan and are accomplished in collaboration with associated departments, schools, and institutions.

Educational Development Center (EDC)

The Educational Development Center (EDC) of Tehran University of Medical Sciences not only aims at promoting the teaching quality in both theoretical and applied science, but also is concerned with specialized competencies and qualifications of the staff as well as the course contents.

Naturally, the advent and development of the teaching-learning processes are primarily geared with the educational needs of the target community rather than technological advancements or institutional policies. These

critical issues, however, cannot be completely neglected. This center has proved competent in updating health providers' education and has plays an important role in more appropriate and rational utilization of resources.

A wide range of activities concerning staff development is rendered by EDC whose details can be detected in its function.

Considering the university study strategies, EDC supports the faculty members and anyone playing a part in the academic society especially through workshops and specific meetings planned to this purpose.

Some such special courses are planned to meet the needs of the younger faculty members while others are more concerned with any participants whether a faculty member or ordinary graduates giving them more self-confidence to assert their competencies and to flourish their potentials.

Current courses aim at protecting those involved in research in education and encouraging educational research as a sound basis for educational policies.

Although research in education consists of several parts and projects, they all share the same principles. Equity is one of such objectives; providing equal opportunities for all those involved in the project.

EDC policies are to be adapted to the specific needs of all faculties and departments. This is a justification for the Educational Development Office (EDO) in every faculty and the educational committee in certain departments.

Objectives

As a specialized training center, the institutional objectives of TUMS EDC are as follows:

- 1) Supervising curriculum development,
- 2) Promoting quality in-service training meeting the community needs utilizing appropriate media,
- 3) Ensuring access to designing appropriate approaches to education and evaluation systems for all departments,
- 4) Organizing staff development trainings based on their own priorities,
- 5) Launching research and appropriate teaching methods to promote skills, competencies, and the efficient functioning of medical graduates,
- 6) Teaching, organizing, supporting, and supervising research in education projects,
- 7) Evaluating teaching-learning activities throughout TUMS
- 8) Promoting dynamic development of the faculty in medical education,
- 9) Developing and practicing modern educational ap-

proaches including electronic education throughout TUMS.

Roles and Activities

Aligned with TUMS strategic planning, EDC aims at promoting educational standards and quality teaching. Therefore, promoting the faculty members' teaching skills and students' learning capabilities are targeted, which requires the following functions for TUMS EDC.

- 1) Promoting Educational standards,
- 2) Promoting research in education,
- 3) Evaluating teaching-learning methods,
- 4) Promoting students' learning capabilities,
- 5) Promoting academic research,
- 6) Promoting students' consciousness by having access to current knowledge,
- 7) Attaining the necessary equipment and resources,
- 8) Promoting knowledge, attitude, and competencies of medical care providers under the university coverage through continuing education programs,
- 9) Developing electronic and distant education.

Vice Chancellor for Research & Technology

The Vice Chancellor for Research & Technology includes five subordinate Directorates in charge of Research, Medical Statistics and Information providing, the Central Library, and the Center for Documents, Publications, and Printing House. The Office is responsible for providing the grounds for research work, supplying scientific resources, providing for publication of scientific productions and expansion of scientific ties with other academic institutions. All these activities are designed with the cooperation of all departments, associated schools, and research centers, within the long-term research plan of the University. This Office is also responsible for:

- conducting different research-oriented educational courses and supervision over the cycle of proposed research plans through drawing up the related contracts,
- supplying, and distributing scientific resources- both printed and digital-
- helping with scientific conferences to be held and facilitating the participation of faculty members in them, and,
- establishing scientific relations with foreign centers, and expansion of the University's computer network.

Vice Chancellor for Student Affairs

The mission of this Vice Chancellor is to protect students' rights, and to provide for nurturing their creativity and dormant intellectual, social, and physical talents. This Office is also responsible for the university's fundamental tasks. They aim at preparing the students for their responsibilities in society, workplace, and undertaking a dynamic family life. In line with these goals, the Office is responsible for providing welfare services, and facilitating extracurricular athletic and artistic student activities, scientific and sightseeing tours, and student celebrations. The above-mentioned tasks have provided for the establishment of subordinate Directorates in charge of Student Affairs, Physical Education, Cultural Affairs and Extracurricular Activities, Health, and Counseling and Guidance extensively managed by the students. Welfare and student-related affairs are run under the supervision of the Student Council, while cultural activities of the Office are performed under the supervision of the Cultural Council consisting of the managers of the Office and students representatives.

Vice Chancellor for Primary Health Care

The Vice Chancellor for Health seeks to meet the healthcare needs of the society through education (training manpower, etc.) and research (identifying the needs to be dealt with). The Office is also responsible for discovering present and future health-care needs of the population undercover, supervising over the health care services rendered at the first and second levels, as well as referring patients to higher-level services, improving the quality of services, and solving health problems of the society. This Office is in charge of planning for expansion of health-care centers, providing easy access to these services, running studies to detect the endemic, epidemiologic and regional diseases, identifying and classifying health problems of the region undercover, developing and performing related applied research, supplying the needs of the affiliated health centers and supervising their functions, collecting, classifying and analyzing data needed for health programs, and systematic evaluation of such programs. The University services cover a great part of Tehran, the City of Ray and the City of Islamshahr.

Vice Chancellor for Drug and Food

The Vice Chancellor for Drug and Food was established in 2005. It consists of three Units (Boards of Directory) as the following:

- 1. Directory of management on drugs and narcotic substances,
- 2. Directory of management on food, hygienic and cosmetic products,
- 3. Directory of management on control laboratory for food and hygienic materials,

Major responsibilities include the followings:

- Supplying and providing needed drugs including narcotics and drugs for special diseases,
- Supervising methods of drug distribution at all related units of the TUMS,
- Issuing certification of establishment and technical liability and products for the described units,
- Supervising the activities of all private and governmental drugstores,
- Promoting proper use of drugs with attention to the activity of controlled unit,
- Issuing certification for importing drugs and preliminary materials for drugs formulation,
- Observing the safety and security of foods and cosmetic products, which have brands and health licenses from FDO (Food and Drug Organization),
- Controlling and supervising licenses procedures for food and cosmetic factories.
- Exchanging information with local and international scientific and legal agencies relating food and cosmetics,
- Conducting researches and applied studies to pinpoint health problems, their causes and identify their effects,
- Supervising and inspecting manufacturing factories, storage centers, and distribution centers for food and cosmetic products,
- Issuing certification for inauguration of imports and allowance of customs for preliminary materials and processed food and cosmetic products,
- Ensuring the safety of foods for humans and ensuring compliance with the standards.
- Ensuring that food labels are truthful and contain reliable information that consumers can use to choose healthy diet.
- Performing microbial and chemical evaluations on food, cosmetic and hygienic samples at level of marketability and demands to provide the best protection of consumers of these products.

- Supervising and inspecting accredit laboratories under supervision of Tehran University of Medical Sciences.
- Implementation research project in the fields of food and cosmetic products,
- Training services and upgrading sessions for technical staff of units under the supervision of the university

Vice Chancellor for Resources Planning and Management Development

The Vice Chancellor for Resources Planning and Management Development of TUMS is in charge of supplying and distributing university resources in line with the TUMS programs. It also supplies and distributes university resources according to different sections programs of university within the framework of knowledge system and enables mangers and evaluates them by new technologies and optimum information management and new management methods that have led to improving productivity in all action levels of sub sections to university to be able to do all its mission perfectly and get the predetermined targets.

Mission

Educating human resources and supplying researching and providing required knowledge offering health services

Vision

To achieve first place in educating and research among universities of region, cultural pattern and to offer fairest and most effective health services.

Strategies of Vice Chancellor for Resources Planning and Management Development Undersecretary:

- Production and capital creation
- Empowerment and productivity improvement
- Resources allocation
- Outsourcing
- IT development
- Management development
- Knowledge management development
- Supporting entrepreneurs
- University organizational system development

Vice Chancellor for Global Strategies and International Affairs

International cooperation has dramatically increased during the last decades due to the rapid developments in scientific communication. Universities produce knowledge and since knowledge is inherently universal, it transcends country boundaries. Therefore, the very fundamental function of university makes it international. To become more competitive and play a remarkable role globally, to enhance the production of knowledge and scientific excellence, and to develop policy for international cooperative structural programs, every university touches the importance of internationalization. Regarding this undeniable fact. Tehran University of Medical Sciences (TUMS) has recently established Office of Vice-Chancellor for Global Strategies and International Affairs (GSIA) towards the multifaceted and innovative concept of internationalization and to foster the international collaborations.

Since maintenance of the sustainable academic status of the University and promotion of its international role in educating knowledgeable medical professionals remain the top priority for TUMS, Vice- Chancellor for GSIA is committed to supporting all international activities of the University, including developing close relationships with outstanding people and organizations across the world, providing suitable and enforceable policy for the expansion of meaningful and effective activities in the scientific community internationally, recruiting talented and qualified international students and providing them with high standard education, internationalizing and accrediting the curriculum, pedagogy and extra-curricular activities of the University, integrating an international and global dimension into the activities of the University, developing agreements and MOUs with international institutions of higher learning.

In effect, GSIA was founded as a response to a new strategy, which places attracting international students and scholars at the top of its priorities; this strategy aims at promoting the image of the University to attract international applicants, and to create a recognized network for internationalization. The main mission of GSIA is to expand and strengthen ties with leading universities worldwide, establish exchange programs and joint degrees in strategic fields, develop research partnerships with international higher education institutions, and finally attract international students and scholars.

Vice Chancellor for Medical Care

TUMS has a leading role in promoting health services. Attempts and responsibilities in order to meet this include providing and facilitating accessible, timely, high-quality, cost effective, innovative, respectful services of medical, nursing and health-care for our clients by policy making, directing, supervising, accreditation, collecting, classifying and analyzing data needed for health programs and systematic evaluation of such programs, promoting hospital indicators, supplying the needs of all TUMS hospitals and health centers.

In that capacity, we support the mission and operations of 16 Academic Hospitals with more than 5000 educational beds by providing consultative assistance with policy formulation, strategic planning and implementation, business and capital initiatives undertaken by the University's hospitals and academic medical centers. In our role to provide oversight to the Board of Trustees, we have focused on hospital operations and patient satisfaction through implementation of 7 pillars of Clinical Governance, National commission on accreditation, and reporting on quality improvement programs.

Noteworthy among our accomplishments at TUMS is the development of HELP (Health Education, Life Promotion) which is a system for patient education.

Among other duties, our responsibility to reduce Maternal Mortality, hospital length of stay and nosocomial infections led to assuring better quality of care and patient satisfaction, further assisting ongoing coordination and implementation of excellence in academic health services. The Health Centers of this Vice Chancellor include: South Tehran Health Center, Rey Health Center and Islamshahr Health Center

South Tehran Health Center

The South Tehran Health Center is one of the Tehran University of Medical Sciences subsets which began its activities in 1991. This center covers the population of five areas in south of Tehran through establishment of 31 clinics and 55 health bases. It also has 3 health houses in some of rural areas in the vicinity of south of Tehran. The population covered by South Tehran Health Center, i.e., residents of five areas, who can receive free services provided by the center, was approximately 1,202,000 people in early 2013. The most important goal of the center is Health Promotion in the community. Counseling Centers of Behavioral Diseas-

es, Methadone Treatment Centers and Diabetes Centers are among other parts of South Tehran Health Center.

Activities

- Disease Control Services (notifiable diseases reporting, sexually transmitted diseases control, tuberculosis control)
- Childhood immunizations
- Medical services
- Dental services
- Pharmacy
- Family planning services
- Health education
- Mental health services
- · Healthy volunteers
- Environmental health
- Occupational health
- School health
- · Establishing new clinics when needed
- Nutrition improvement

International collaborations:

WHO representatives have had some visits to South Tehran Health Center clinics to see how its clinics work and what kind of services are provided.

WHO representatives also visited Marriage Counseling Centers, Neonatal Screening Diseases, tuberculosis program activities and family planning program.

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Ray City Health Center

This Health Center was founded in early 1990 under the supervision of the Tehran Province Regional Health Organization. Four years later and in 1994, after the merging of Regional Health Organizations with the Universities of Medical Sciences in Iran, Ray City Health Center came under the supervision of Tehran University of Medical Sciences.

The population of Ray city, based on the most recent census, is 810406 people, and its health system is responsible for execution of responsibilities of national health networks for Ray residents. This center currently consists of 76 health units in the city, which provide different health-care services to people.

Health Units covered by this network include:

• 23 Urban and Rural Health Centers

- 1 governmental Health Center
- 23 Collaborative Health Centers
- 1 behavioral disorders clinic
- 1 drug abuse clinic
- 1 borderline health supervision at Imam Khomeini International Airport.
- 26 Health Houses.

A health house is the first unit of health care system, which is active in rural areas. This health unit is run by one or two health workers. This unit provides services such as family health, vaccination, oral health, prevention, occupational health and hygiene, controlling drinking water, and schools' health supervision.

A health base is located in urban areas and health professionals with associate or bachelor's degree provide service in such health units.

Rural or urban health centers provide services at a higher level and supervise the health bases and health houses. There is a physician available at a health center treating patients. At times, a health center can have other units such as pharmacy, laboratory, and dental services units. One of the most important issues, which have been considered in the health systems, is the 'referral systems' based on which, people who refer to a health unit, will be referred to more equipped health providers. For example, a patient may be referred to an urban or rural health center from a rural health house, or from the rural health centers to urban ones.

http://rey.tums.ac.ir

Vice Chancellor for Cultural Affairs

Inspired by the contents of Islamic Republic of Iran's 1404 Vision, we need to achieve a dynamic and pioneering society in various arenas, a prerequisite to which would be having a sophisticated and pioneering university. A university, which alongside educational and research development, has reached its optimum cultural point. In addition, the students, faculty members, and staff of the university need to be benefited from the cultural solidarity and Iranian-Islamic identity. Based on this, the Vice Chancellor for Cultural Affairs attempts to contribute to the University's goals through planning for creating solidarity and unity in cultural programs, intervening in cultural planning, preventing redundancies and building concordance with the macro policies of the university based on Iranian-Islamic sublime values.

Goals:

- Developing and deepening religious culture and ideology in the academicians' lives.
- Recognizing culturally talented and gifted figures, developing and preparing the grounds for the facilitation of elites' noble thinking climate
- Improving the research-oriented spirit among academicians and their cultural needs
- Improving spiritual health, and culture of academicians
- Promoting cultural activities to revitalize and improve the academicians' Iranian-Islamic identity
- Determining the training and moral role of professors and appreciating their sublime position
- Familiarizing faculty members with 'soft war' and how to cope with it based on Islamic power principles.

Based on the 13-fold strategies of the University's Scientific Plan in cultural arenas, a number of plans are conducted in the cultural fields including:

- Developing and determining the most important and highly prioritized aspects in the cultural movement
- Running educational and promotional programs to keep and develop cultural space
- Running and hosting attractive cultural-religious plans and competitions to indirectly convey cultural and religious messages

"The Research Center of Watching, Monitoring, and Planning Cultural Issues in Health Arenas" has been established to plan and execute cultural activities for the target groups including faculty members, staff and students and the audience of health system. It also aims to guard the cultural goals of Islamic Republic of Iran based on the comprehensive cultural document, and the comprehensive scientific health plan. This research center intends to permanently watch and monitor the cultural status of medical universities in Iran, and assessing the degree of achievements in cultural aspects. It, in addition, strives to train human resources, research in cultural issues related to health, encouraging and recruiting cultural researchers in health issues, and finally collecting, compiling, regulating, and categorizing documents and articles in fields related to cultural issues.

The Secretariat for the Faculty Members' Promotion Regulations

This secretariat has been founded for the faculty members in order to receive special cultural privileges in the Vice Chancellor for Cultural Affairs. This secretariat is responsible for assessing and scoring the cultural activities of the faculty members of the University.

TUMS Alumni Office

TUMS's graduates play active parts in many educational and remedial centers in the country and throughout the world; thus, the university needed an office to maintain contact with graduates for scientific or remedial cooperation. In fact, many prominent universities have established efficient organizations to efficiently fulfill this requirement, and they have gained valuable experiences and achievement.

Tehran University of Medical Sciences Alumni Office began to work 8 years ago(from 29.01.2006), in fact to create an effective communication between university and alumni. Over its establishment process, many negotiations were conducted and plenty of different international and domestic models were studied. In the model that we have here, there is an organization under the name of "University Graduates Contact Office" which has different sections such as administrative and secretariat, communication facilities. After a while, the same

contact offices were established in other associate faculties that were under the TUMS supervision. Indeed, in the universities that have different faculties, each faculty could have its own association and the most active member can act as its representative.

Cooperation between associations and alumni offices is maintained through thinking rooms and the office mostly uses the most active members to know their share of interest, comments, plans and perspectives, so that it can be in close contact with groups and individuals. In addition, a data bank has been initiated for TUMS's graduates, which provides some registration forms to be filled by the graduates in which they include record their personal and social information. Also, after registration in alumni office, they can benefit from facilities such as recreational centers, hotels, sport complexes and etc. To this end, some contracts have been signed with them.

Goals:

This center facilitates the communication between old friends, classmates, and colleagues and also could have other benefits such as:

- Providing emotional motivations
- Providing sport activities
- Running cultural events
- Establishing economical collaborations
- Providing travelling plans
- -Providing welfare and social care facilities
- -Developing stronger links and ties between alumni members and other international scientific and academic centers
- -Forming of educational and scientific website
- -Organizing educational, cultural and scientific conferences

Activities:

The programs that has been implemented to achieve the aim of bilateral connection with university graduates:

- Planning different ceremonies with presence of head of office and other university officials, such as graduation ceremony
- Holding up the international congress of glorification of Prof. Dr. Yalda, in medical fields from 4years ago, with appreciation of distinguished senior and young researchers

- Registration of graduates in order to provide information for data-bank
- Facilitate connections by providing different communicational paths
- Cooperation in organization and planning alumni
- Planning some trips for alumni members
- Organizing scientific congresses and educational meetings (with re-training scores)
- Preparation of an E-Journal and sending to all members
- Attract financial and moral contributions of alumni Some of these measures have been implemented and the rest are in process of planning.

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TUMS Innovation Initiative

Tehran University of Medical Sciences (TUMS) has achieved the position of the pioneering university in the country to offer medical innovation. This is a special consideration in this arena. Also, preparation of innovation action plans of the university aiming to integrate equipments, technologies, processes and the related knowledge, differentiate mode of cooperation among scientific-executive groups inside and outside of the university and also develop infrastructures which enjoy enough capability in order to provide modern and unique services. Holding the first conference titled "Innovation's Day" in the country and publishing University Book of Innovations, provides the most appropriate grounds to develop competitive structure and introduce special and distinguished abilities; hence, thematic networks improvement of innovation as opinion bases of the plan involve researches, experts, professors, craftsmen and traders to notice science and technology subtleties and the relevant branches.

Alternatively, each network includes individuals and organizations in different activities such as final consumers, manufactures, producers, suppliers, universities and related research centers. Considering various tendencies of science and technology, these networks play a pivotal role in policy making. A thematic network brings together many organizations with common interest issues for understanding demand of medical science and related branches; therefore, applicable and appropriate innovation appears.

Fostering a culture of innovation in the country is the outcome of these factors. This plan was started in 2006 and producing the knowledge network was considered as the first step in comparative studies. With this respect, and with the aid of transformational leadership means, capacity to perform creative management, opportunities' determination, supervision, protection and coordination of methods using pure ideas, collection and organization all motivations result in innovation. Innovation Center located in Tehran University of Medical Sciences was constituted in 2008 with the following objectives:

- To make innovations network and to define of innovators relationships in the network
- To make stable innovation place in which it is possible to producing, transferring, using of knowledge, and also developing of clear scientific communications with non-university centers.

- To develop policies similar to non-university centers in the field of developing of science and technology and determine innovation scopes.
- To collect and gather various types of knowledge and entrepreneur with management style in University to increase the value of provided services and performing common plans with non-University centers.
- To evaluate a range of educational, research, healthcare services through identifying and assessing of innovation opportunities on time and register employee's opinions.
- To collect and organize all motivations result in innovation and application of modern technologies.
- To promote common investment of University and non-university centers in creativity related arenas.
- To compile evaluation and guarantee models for Return On Innovation (ROI) and present new procedures to calculate costs.
- To manage and organize the innovation skill workshops and establish workgroups in care faculties and other dependent institutions and a formation of a council concludes representatives of innovators, and also preparation and finalization of holding conference plan.

TUMS Innovation Hubs

TUMS is well positioned to develop its innovation capacity and leadership and help others develop theirs. TUMS Innovation Hubs have strong connections with other organization for Innovation initiative plans. It also plays a leading role in the Innovation Pilot Project, a public-private partnership between the TUMS Innovation Hubs leading education and economic development agencies and business and industry associations to promote innovation-centered education among all members.

TUMS proposed the creation of a Virtual Innovation Hub to be used by Innovation Hub partners, leveraging developing campus services for interdisciplinary collaboration and project stewardship. The concept is a comprehensive, scalable, and sustainable infrastructure, both identifying local needs and opportunities for innovation as well as global and groups to collaborate and implement prototypes that are generated in support of the Innovation Hub.

Components of this infrastructure would include:

- A video and audio conferencing infrastructure to enable virtual meetings,
- Electronic mail, discussion forums, wikis, and other collaboration services that disseminate and record the evolution of group-created ideas,
- A data repository that stores the intellectual products of the use of these collaboration services within a sustainable framework that enables best practices for stewardship and preservation of those information objects. Associated with this repository would be:
- Descriptive metadata and a suite of access methodologies to enable reuse and discovery of information objects
- Controls to prevent unauthorized access
- Bulk data ingest for information objects that are not generated by the collaboration tools
- Linkages to specialized repositories
- Discovery services to identify potential research partners
- Virtual organization administration tools to define and to organize the members of collaborative projects and those members' authorizations for services and information objects.
- Consultation services to assist researchers and innovators with the stewardship of their data and persistent linkages to other data repositories.

TUMS Innovation Hubs' List and Mottos

1. Globalization of Education Accreditation Innovation Hub

Motto: Innovative models in Academic Accreditation

- 2. Innovation and Resources Planning Innovation Hub Motto: Innovation model form promote motivation skills performances
- 3. Avicenna Innovation Hub

Motto: Innovation Curriculum for Medical Student

4. Pharma Science Innovation Hub

Motto: Innovation in the production of pharmaceutical raw material

5. Comprehensive Healthcare for People Innovation Hub

Motto: Create new cooperation model to the new role of nurses in the future

6. Telemedicine Innovation Hub

Motto: Create new space for treatment

- 7. Health and Environmental sciences innovation Hub Motto: Innovative models of healthy lifestyles
- 8. Tabesh Innovation Hub

Motto: Innovation rehabilitation of head and neck lesions

9. Visual sciences innovation Hub

Motto: Combining innovations in visual science

10. Treatment Innovation Hub

Motto: Innovation in organ & tissues transplant





TUMS Today

12 Schools

- 16 Hospitals
- 87 Resaerch Centers
- 9 Educational and Health Research Station in 9 provinces
- 1505 Academic Members
- (92 Instructors, 733 Assistant professors, 411 Associate professors, 269 Professors)
- 15072 Students (39% Male & 61% Female)
- 44 libraries
- 241 Postgraduate Programs Training more than 11394 students

(with considering MD students in this group)

- School of Medicine
- School of Dentistry
- School of Pharmacy
- School of Public Health
- School of Nursing and Midwifery
- School of Rehabilitation
- School of Allied Medicine
- School of Traditional Medicine
- School of Nutrition Sciences and Dietetics
- School of Advanced Technologies in Medicine
- School of Interdisciplinary Sciences
- Virtual School
- Department of Evening Courses



School of Medicine

Founded: In 1934

Students: 112 from 28 nations

Faculty Members: 929 full-time/ 6 part-time

Alumni: 70000 since 1940

Departments:

Basic sciences: Anatomy, Biochemistry, Medical Education, Immunology, Islamic Knowledge, Medical Ethics, Medical Genetics, Medical Physics & Biomedical Engineering, Microbiology, Parasitology, Virology, Physiology, Pharmacology, Community Medicine.

Clinical sciences: Anesthesiology, Cardiology, Dermatology, Emergency Medicine, ENT, Forensic Medicine, Geriatrics Medicine, Infectious Disease, Internal Medicine, Neurology, Neurosurgery, Nuclear Medicine,

Obstetrics and Gynecology, Occupational Medicine, Ophthalmology, Orthopedics Surgery, Pathology, Pediatrics, Plastic Surgery, Psychiatry, Radiotherapy, Radiology, Rehabilitation, Sports Medicine, Surgery, Urology.

Highlights:

- 1st nation modern medical school
- Most versatile and big faculty group of all nation universities

- 1st choice by high school participants in national university entrance

School's Journals:

- Acta Medica Iranica (English Full Text Journal)
- Tehran University Medical Journal (Farsi Full Text Journal + English Abstract)
- Asian Journal of Sports Medicine
- Iranian Journal of Pediatrics
- Iranian Journal of Psychiatry
- Iranian Journal of Neurology
- Journal of Family and Reproductive Health
- Iranian Journal of Medical Ethics and History of Medicine
- Iranian Journal of Nuclear Medicine

Global Projects:

The School has more than 40 Memorandum of Agreements and exchange programs with international and neighbor countries. There are active collaborations with WHO and UNESCO.

I. History of School of Medicine

In 1849, the first modern class of Medicine at Darol-Fonoon was founded and the pioneering graduates started practice of modern Medicine in 1856. In 1918, Dar-ol-Fonoon was renamed to College of Medicine. In 1934, it became School of Medicine of the University of Tehran.

II. Why School of Medicine!

1. Facts to know about School of Medicine:

Now, the School has 39 departments (covering basic and clinical sciences). It has an unrivaled number of 935 faculty members and 16 hospitals are affiliated to the School. The school trains around 8000 students in over 100 postgraduate and medical programs. Currently, the school has more than 100 international students. The School has comprehensive programs on clinical sciences covering MD, residency & fellowship programs. It offers versatile graduate (M.Sc., MPH & PhD) degrees in basic sciences too.

Faculty members are recognized as the leading clinicians and scientists of the country, not only in terms of didactic training but also in clinical skills transfer, role-modeling, and research mentoring.

2. Goals

The School is committed to:

- Innovation in Education
- Research Excellence
- Ethics and Integrity
- Comprehensive clinical services; specifically, most challenging clinical scenarios

International Branch

In line with long run and strategic targets, the school opened an international campus in 2008 continuing its activities in the field of absorbing Iranian and foreign applicants.

Goals:

- 1. Training the medical students (IRANIAN and FOR-EIGN) with international standard.
- 2. Exchange the medical student and faculty members with international universities.
- 3. Having the joint program with the other universities in abroad.

Educational Departments:

Department of Basic Sciences

AnatomyMedical GeneticsBiochemistryHistology

Immunology and BiologyMedical EducationMedical Physics and

Microbiology Biomedical Engineering
 Neurology • Molecular Medicine

PharmacologyReproductive BiologyPhysiology

Virology

Departments of Clinical Sciences

Community Medicine
 Forensic Medicine
 Occupational Medicine
 Dermatology
 General Surgery
 Neurology

•Obstetrics and Gynecology •Occupational Medicine

•Orthopedics •Pathology

•Psychiatry •Pulmonary Medicine

•Radiology •Urology

•Social Medicine •Tropical Medicine and

Infectious Diseases

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School of Medicine offers numerous programs at both undergraduate and postgraduate levels. However, for the coming academic year, it admits international students to M.D. and the following programs only:

Clinical Departments	Major	B.Sc.	M.Sc.	Specialty	Fellowship	Training Programs	Short-Term Courses
Dermatology	Dermatology	-	-	*	*	-	-
Manualagy	Neurology	-	-	*	-	-	-
Neurology	Multiple Sclerosis	-	-	-	*	-	-
Nuclear	Nuclear Cardiology for Physician	-	-	-	-	-	*
Medicine	Nuclear Cardiology for Technologists	-	-	-	-	-	*
	Diagnostic Hysteroscopy	-	-	-	-	-	*
Obstetrics	Operative Hysteroscopy	-	-	-	-	-	*
& Gynecology	Diagnostic & Operative Laparoscopy	-	-	-	-	-	*
	Observational IVF, ART	-	-	-	-	-	*
Stra	ROP & Pediatric Retina	-	-	-	*	-	*
	Strabismus	-	-	-	*	-	*
	Glaucoma	-	-	-	*	-	*
Ombibalmalaari	Cornea & External Diseases	-	-	-	*	-	*
Ophthalmology	Medical Retina	-	-	-	*	-	*
	Vitreo-Retinal Surgery	-	-	-	*	-	*
	Oculoplastics	-	-	-	*	-	*
	Cataract Surgery	-	-	-	*	-	*
Dadiatharany	Radiotherapy	-	-	*	-	*	*
Radiotherapy	Radiotherapy Physics	*	*	-	-	*	*
Rehabilitation	Rehabilitation	-	-	-	-	-	*
Sports Medicine	Team Physician	-	-	-	-	-	*

Basic Sciences Departments	Major	M.Sc.	Ph.D.	Specialty	Fellowship	Training Programs	Short-Term Courses
Biochemistry	Clinical Biochemistry	*	*	*	-	*	-
Genetics	Human Genetics	*	-	-	-	-	-
Geneucs	Medical Genetics	-	*	-	-	-	-
Immunology & Biology	Medical Immunology	*	*	-	-	-	-
Medical Ethics	Medical Ethics	-	*	-	-	-	-
Medical Physics & Biomedical Engineering	Medical Physics	*	*	-	-	*	*
	Biomedical Engineering	*	*	-	-	*	*
Missakishass	Microbiology	*	-	-	-	-	-
Microbiology	Medical Bacteriology	-	*	-	-	-	-
D.J. I	Anatomic & Clinical Pathology	-	-	*	-	-	-
Pathology	Dermatopathology	-	-	-	*	-	-

Location & Contact Information: Medical School official building, PourSina St, Tehran 1417613151, IRAN PO Box: 4155-6467

Tel: + (98-21) 88953001 Fax: + (98-21) 66404377 http://medicine.tums.ac.ir oir@tums.ac.ir





School of Dentistry

When Dar-ol-Fonoon was founded in 1894, dentistry was taught as a sub-branch of medicine at the same school. After establishing Tehran University in 1934, dentistry was separated as an independent school. TUMS School of Dentistry is the foremost dental center in Iran with an international reputation of scholarly activities in both clinical and biological sciences. According to the national ranking, TUMS school of Dentistry is the first school out of the 45 dental schools of country. Our school, as a professional educational institution, offers a full range of academic courses including a comprehensive undergraduate program and postgraduate program in collaboration with highly experienced faculty members through proper facilities and the most advanced methods.

Language: All Postgraduate courses are in English, but we offer our undergraduate courses in Persian. Also, the language of communication with patients is in Persian; therefore, it is strongly advised coming to Iran at least one semester prior to start of your program for participation in Persian Language Courses. You can also visit our website www.gsia.tums.ac.ir

The School of Dentistry, at Tehran University of Medical Sciences is the oldest in the Middle East (since 1920s). The old building was constructed by German engineers before the First World War. The new building, well-designed dental clinics and high-tech laboratories creates a supportive educational setting for faculties and students, considering the patients' comfort. The campus courtyard with a wonderful view of Tehran and Milad Tower is a good place for joyful moments. The School of Dentistry is home for 12 full-time departments, 120 faculty members, 300 staff and 600 students. The updated innovative and integrated dental curriculum encourages faculties for progressive teaching activities and students for a competing learning environment. The high number of patients making appointment for dental services brings about a full opportunity for students to experience a variety of cases and get skilled in providing the services.

Our school care about new findings in dental sciences, community oral health issues and translating information to clinical advances and better disease control.

The multi-approach and vibrant degrees and fellowships indicate a high – level graduate and post-graduate education the faculties are committed to.

Undergraduate programs:

- A 4-year program in dental Laboratory Technology, which offers a B.Sc.degree
- A 6-year program in dentistry, which is provided by following department

Postgraduate programs

There are various short and long-term postgraduate courses for national and international students. The most popular course is the 'Masters with specialty in Clinical Dentistry" in which the admitted applicants will be the residents of the corresponding department for 3-4 years becoming eligible for the National Board exam. In addition to the long term courses, there are some short term mastership courses in Microscopic Endodontics and Implantology. There are also various fellowships (Post Doc) such as "Cosmetic Oral and Maxillofacial Surgery" and "Oral and Maxillofacial Oncology (surg)" and "trauma" that only offer to specialist. (See the following list for details)

Postgraduate program in community oral health:

In 2000, the Department of Community Oral Health started its work as a postgraduate discipline in dentistry. The Department of community Oral Health offers two types of postgraduate programs.

The first program: this program will consist of two stages. Coursework in the first two years consists of 23 subjects. Research in the following two years will be completed with the preparation of an article-based thesis on original research. The graduate of the program have the opportunity to work as researchers in research centers, provincial community health and oral health and oral health centers, or to work as academics at university level.

Degree awarded: Ph.D. in Community Oral Health Duration: 4 years, full-time

The second program: The program contains 28 specific credits in the first year, two credits of field experience, and 4 credits devoted to the dissertation in the last semester.

Degree awarded: Masters of Dental Public Health (MDPH)

Duration: I.5 years, full-time

Main Areas of Research:

- Epidemiological studies of oral health problems (dental caries, periodontal disease, oral cancer, trauma, malocclusion) in different age groups
- Planning and evaluation of oral health promotion programs for populations
- Designing and evaluating dental care delivery systems
- Preparing evidence based oral health promotion guidelines
- Taking advantage of the modern technology to optimize the quality of preventive care
- Evaluating and designing oral health surveillance systems
- Evaluating the need for human resources in oral health care systems
- Evaluating and revising dental curriculums
- Planning and evaluating new educational methods in dental education
- Evidence-based dentistry
- Incorporation of ethical standards and professionalism in oral health activities and education
- Preventive and non-invasive management of caries

Post Graduate Program in Department of Dental Biomaterials Department

Dental Biomaterials Department was recognized as a postgraduate program in dentistry by the Council for



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Dental Education and Postgraduate Programs in 1999. In collaboration with the School of Advanced Medical Technologies, the department offers a Ph.D. course in Dental Biomaterial for home and international candidates since 2007

MS.C. in Dental Biomaterials

- Degree awarded: Master of Science in Dental Biomaterials
- Duration: 2 years

Program Description:

This program includes some obligatory and complementary courses based on the candidate's background. The majority of the course work is through the Department of Dental Biomaterials, School of Dentistry. Complementary courses will be assigned by the student's supervisor.

Ph.D. in Dental Biomaterials

- Degree awarded: Ph.D.
- Duration: 4 years full time

Training will be provided at school of Dentistry with the collaboration of Research Center and technology in Medicine. The program consists of coursework and research. All students are required to take the core courses during their first two years, consisting of 30 credit units. Coursework is planned to focus on the basic knowledge of materials sciences, biomaterials, biocompatibility and professional skills for material analysis, as well as concentrated study on dental biomaterials. Students are required to participate in certificatory university research skills workshops in order to pas the coursework stage. During this period, under the supervision of department staff, the candidates must get involved in research projects and publish their study in an ISI or Pubmed indexed journal. After the successful completion of coursework stage, the candidates will start research course, leading to an article-based thesis of their original research.

Main Area of Research

- Nano-science and Nano-Materials
- Dental and Oral Tissue Engineering
- Dental Polymers and Composites
- Dental Bioceramics
- Adhesion
- Dental alloyes
- Dental Biomaterial and Laser

Laboratories

Dental Biomaterials Department provides three laboratories for biomaterials studies. Moreover, the department collaborates with other laboratories in other research centers and schools inside and outside the main campus.

Laboratories of Dental Biomaterials Department

1. Laboratory of Biomechanical Characterization and Properties of Materials

Location: school of Advanced Medical Technologies, Imam Khomeini Complex

Facilities: ISOMET micro-saw, Universal Testing Machine, Vickers Microhardness, Shore-A Hardness, Acid Erosion Tester, Dip Coater, Thermocycling machine, High speed saw..

2. Laboratory of Chemical Synthesis

Location: Dental Biomaterials Research Center; TUMS Campus

Facilities: Laboratory equipment for organic and non-organic biomaterials synthesis

3. Laboratory of Biomaterial Analysis

Location: Dental Biomaterials Research Center; TUMS Campus

Facilities: XRD, FT-IR, STA

Dental Laboratory Technology

Dental laboratory technicians use impressions, or

molds, of a patient's teeth to create crowns, bridges, dentures, and other dental appliances. They work closely with dentists but have limited contact with patients. We offer a 4 year BSc. program and a PhD by research programs for under and post graduate students respectively.

Department of Endodontics

Department of Endodontics offers a basic and advanced education for under and post graduate students. Patients are also treated by students under the supervision of faculty scientific members.

TUMS School of Dentistry offers the Masters with specialty in Clinical Dentistry degree in Endodontics which is a three-year full-time course for general dentists wishing to develop their clinical skills and professional knowledge in this discipline in order to practice as a specialist.

Oral and Maxillofacial Medicine

Oral medicine is a branch of dentistry placed at the in-

terface between medicine and dentistry.

Oral medicine is concerned with clinical diagnosis and non-surgical management of non-dental pathologies affecting the oral and maxillofacial region. Moreover, it involves the diagnosis and follow-up of pre-malignant lesions of the oral cavity, chronic and acute pain. Another aspect of the field is managing the dental and oral condition of medically compromised patients.

Masters with specialty in Clinical Dentistry degree in Oral and Maxillofacial Medicine is a three-year full-time course for general dentists wishing to develop their clinical skills and professional knowledge in this discipline in order to practice as a specialist.

TUMS school of Dentistry offers a 3 year residency program which leads to a certificate in Oral and Maxillofacial Medicine.

Department of Oral and maxillofacial Pathology

TUMS Department of Oral and Maxillofacial Pathology as the first department of Oral and maxillofacial pathology in Iran offers its services in three parts:



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- 1. Education: We provide basic and advanced education for under and post graduate dentistry and other related students and training of the dental technicians.
- 2. Research: Department of Oral and Maxillofacial Pathology cooperates with credible scientific centers such as Iran Cancer Institute and Iran Dental research Center in research and Educational programs.

Our department owns the largest collection of Oral and Maxillofacial lesions in Iran (more than 14000 samples) including slides, Paraffin embedded blocks and clinical and Para-clinical documents.

3. Treatment: We accept and prepare specimens for pathologic evaluations in our laboratory and answer to the consultations from dentists and Surgeons.

Department of Oral and Maxillofacial Radiology

Oral and maxillofacial radiology is a branch of dentistry concerned with performance and interpretation of diagnostic imaging used for examining the craniofacial, dental and adjacent structures.

Post graduate training of Oral and maxillofacial radiology residency in TUMS started in 1983 by Dr G. Rahbari and Dr. G.M. Shourjeh.

Our post-graduate training program is a three-year full time course. Residents are expected to develop clinical and academic skills needed to function effectively in private practice, hospitals and educational institutions.

Department of Oral and Maxillofacial Surgery

Oral and maxillofacial surgery is a branch of dentistry to treat many diseases, injuries and defects in the head, neck, face, jaws and the hard and soft tissues of the oral and maxillofacial region. An oral and maxillofacial surgeon is a regional specialist surgeon treating the entire cranio-maxillofacial complex including anatomical area of the mouth, jaws, face, skull, as well as associated structures. TUMS School of Dentistry offers Masters with Specialty in Clinical Dentistry degree in Oral and Maxillofacial Surgery for general dentists wishing to develop their clinical skills and professional knowledge in this discipline in order to practice as a specialist.

Department of Orthodontics

Orthodontics is a branch of dentistry dealing with malocclusion (improper bites), which may be a result of tooth irregularity, disproportionate jaw relationships, or both. Orthodontic treatments focus on both dental displacement and modification of facial growth.

We offer Masters with Specialty in Clinical Dentistry degree in Orthodontics for general dentists wishing to develop their clinical skills and professional knowledge in order to practice as a specialist.

There are also various fellowships (Post Doc) such as "Cosmetic Oral and Maxillofacial surgery", "Oral and Maxillofacial Oncology (surg)", "trauma" and "Implant Dentistry (Surg) that only offer to specialist.

Department of Pediatric Dentistry

Pediatric dentistry is the branch of dentistry dealing with children from birth through adolescence. Pediatric dentists promote the dental health of children as well as serve as educational resources for parents.

TUMS three-year pediatric dentistry residency program, designed to produce strong academically-based pediatric dentists who may choose to pursue a career in teaching, private practice, or both, and who are knowledgeable about the disparities in the delivery of dental care.

Department of Periodontology

We provide basic and advanced education for under and post graduate dentistry students. The TUMS Periodontics Residency Program is a three-year, full-time specialty-training program. It is designed to provide an advanced level of education and clinical experiences in periodontology for highly qualified graduate dentists who are interested in a specialty career.

Department of Prosthodontics

Prosthodontics is a branch of dentistry pertaining to the rehabilitation and maintenance of the oral function, comfort, appearance and health of patients with clinical conditions associated with missing or deficient teeth and/or oral and maxillofacial tissues using biocompatible substitutes. The primary role of the Department of Prosthodontics is the training of pre-doctoral and graduate students to restore and replace damaged and missing teeth. Our department offers a comprehensive advanced education program in prosthodontics. Progressive clinical, laboratory, and didactic experience in fixed, removable, maxillofacial and implant prosthodontics, as well as interrelations with other medical and dental specialties are emphasized.

Department of Restorative Dentistry

Restorative dentistry is the study, diagnosis and integrated management of diseases of the teeth and their supporting structures and the rehabilitation of the dentition to functional and aesthetic requirements of the individual.

We offer Masters with Specialty in Clinical Dentistry degree in restorative and cosmetic Dentistry for general dentists wishing to develop their clinical skills and professional knowledge in order to practice as a specialist. TUMS Restorative Residency Program is a three-year, full-time specialty-training program. It is designed to provide an advanced level of education and clinical experiences.

Location & Contact Information: School of Dentistry, North Karegar St, Tehran14399-55991,IRAN POBOX:14395-433 Tel: + (98-21)88015801 http://jdt.tums.ac.ir



international Branch

The School of Dentistry in the International Branch of TUMS was founded in 2008. Since then, students from Iran and some other countries have been studyin dentistry related courses in this School. The School is home to 25 full-time and 15 part-time faculty members. The first group of dentistry students will graduate in February 2014. The students of the School of Dentistry of the International Branch of TUMS have actively participated in various international conferences by their oral and poster presentations.

Student research center has founded in 2012 and this center emphasize 20 on research Activity .

School of Dentistry has the Education Development center. This center has different program for development education.

Goals:

- 4. Training the dental students (IRANIAN and FORE-ING) with international standard.
- 5. Exchange the dental student and faculty members with international universities.
- 6. Having the joint program with the other universities in abroad.

Educational Departments:

- 1.Oral diagnostic Department (Oral diagnosis-oral radiology and oral pathology)
- 2.Prosthodontics and Dental Material Department
- 3. Operative Dentistry and Endodontic Department
- 4.Oral & Maxillofacial surgery and Periodontics Department
- 5. Pediatric dentistry and orthodontic department

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School of Pharmacy

When University of Tehran was established in 1934, Pharmacy program was managed with the college of medicine. At that time pharmacy education lasted 3 years and required high school diploma. Since 1939 the duration of education changed to 4 years and a Pharm.D. degree has been approved to be granted to the graduates. In 1956 Pharmacy program was separated from Medicine and a 5- year education was established in the faculty of pharmacy.

Before 1978, the pharmacy education was limited to undergraduate courses but science 1986 the Ph.D. courses in tendisciplinarians including Medicinal Chemistry, Pharmaceutics, Toxicology and Pharmacology, Pharmacognosy, Pharmaceutical Biotechnology, Food and drugs control ,Raidiopharmacy, Drug Economy and management, Clinical pharmacy, Pharmaceutical Nanotechnology and Pharamceutical Biomaterial have been established.

At the present time, the School of Pharmacy at Tehran University of Medical Sciences, with about 160 academic member and staff (full professor, associate professor, assistant professor, lecturer, technician), and 1200 students, is one of the most dynamic and well equipped instructional and research academic centers in Iran

Programs:

1- Pharm. D. Program

An academic year consists of a two-semester: autumn (fall) and spring semesters. The autumn semester starts from mid September till end of January. The spring semester runs from mid of February to the middle of July. The program is based on a system of "credits". One academic year with full time study provides 40 credits. The requirements for Pharm.D. Degree program is 200 credits. Grades are given according to the scale of 0

through 20.

A research thesis is required in which the doctoral student must describe both the organization and results of his/her research. All doctoral students have personal supervisor and a consulting faculty member. A student is placed on an academic probation if the grade point average is below 12 and is dismissed from faculty due to three successive or four intermittent probations.

2- Ph.D. Programs

School of Pharmacy also offers Ph.D programs in the pharmaceutical sciences as well as advanced professional practical training (residencies). These degrees are enhanced by an active faculty research program. The students who have finished the required undergraduate Pharm. D. or M.Pharm.Courses may apply for admission in the postgraduate program. Ph.D. programs are Medicinal Chemistry, Nuclear Pharmacy or Raidiopharmacy, Toxicology and Pharmacology, Food and Drugs Control, Pharmaceutics, Clinical Pharmacy, Pharmacognosy, Pharmacoeconomy, Nanotechnology, Biomaterial and Biotechnology

3- M.Sc. Programs

School of Pharmacy also offers M.Sc. programs in the Toxicology and Drug Control Regulations. Those M.Sc. programs are by course and dissertation, consisting 4 semesters.

Departments:

- 1- Biomaterial & Nanotechnology
- 2- Clinical Pharmacy
- 3- Food and Drug Analysis
- 4- Pharmacoeconomics and Pharmaceutical Management
- 5- Medicinal Chemistry
- 6- Pharmaceutical Biotechnology
- 7- Pharmaceutics
- 8- Pharmacognosy
- 9- Pharmacology & Toxiocology
- 10- Radiopharmacy

1. Department of Pharmacoeconomics and Pharmaceutical Management

In addition of importance of medicines in the patient's treatment because of its commodity nature, it has specific importance from the aspects of economic and management.

The process of new molecule discovery to its presentation to market is related with different fields of economic and management.

In developing countries, drug share in health costs is

significant (more than 20% of health costs) and is growing continuously because of new molecule discovery. So usage of management sciences is considered for increasing the efficiency of resources in discovery, production and presentation of drug molecule during recent 20 years. For example in these fields: innovation management, strategic management, supply chain management and etc.

Medicine has special position in management and micro & macroeconomic topics and has become to independent educational and research subject.

Pharmacy faculty of Tehran University of medical sciences is one of the first centers that has established department of Pharmacoeconomics and Pharmaceutical management for training the interested students. We hope, this move be efficient in optimum resource management in our country.

Department of Pharmacoeconomics and Pharmaceutical management has been established in 2008 to promote science of management, economy and policy making in different aspects of pharmacy based on research and academic education. Pharmacoeconomics and Pharmaceutical management department is devoted to do empirical research and methodological developments in the field of pharmacoeconomics and pharmaceutical management and health policy. Our research focus is on economic evaluation, health technology assessment, epidemiological research, pharmacy practice innovations in hospitals and health systems, disseminating clinical information, econometrics, management, and policy interventions. This department is located in faculty of Pharmacy and its goal is training of PhD candidates in Pharmacoeconomics and Pharmaceutical management that currently is the highest degree of this field.

2. Department of Clinical Pharmacy:

The Department of Clinical Pharmacy administers residency program for Pharm. D graduates that leads to a specialized degree in Clinical Pharmacy (Pharmacotherapy). The department also provides therapeutic courses for Pharm. D students.

Clinical Pharmacy division provides patient care in various practice settings, and promotes the effective use of medications in the pursuit of health. The residency program is designed to be completed by full-time rotations in 5 years.

The Department of Clinical Pharmacy was established in 1984 and is the leader of Clinical Pharmacy and pharmacy practice in Iran with over 15 full-time academic and professional staff.

The Department is involved in four principle areas: teaching in the undergraduate pharmacy curriculum, postgraduate residency of Clinical Pharmacy, clinical research and practice of Clinical Pharmacy.

Outline of courses:

For Clinical Pharmacy Residency:

Post Graduate Year 1 Residency: Advance Therapeutics, Clinical Pharmacokinetics, and Pathophysiology. Post Graduate Year 2-4: Specialized Residency in Critical Care, Infectious diseases, Nephrology, Cardiology, Pediatrics, Oncology, Endocrinology, Drug Information Center, Psychiatry, Surgery and Transplantation.

Post Graduate Year 5: Practice related Research (Residency Thesis)

For undergraduate Pharmacy students:

The department is involved in teaching therapeutics and pharmacy practice. The latter involves small group teaching and clinical case studies in clinical setting.

3. Department of Radiopharmacy

Radioisotopes in different physical and chemical form other than being used as radiation sources for therapy have tremendous applications as tracers for diagnosis in nuclear medicine as well as in drug discovery and drug development. Department of Radiopharmacy in cooperation with Nuclear Science and Technology Research Institute of Iran Atomic Energy Organization has established the Ph.D program in radiopharmacy to provide graduate education and research for development and the safe uses of radiopharmaceuticals. The graduates of this program have had great contribution to self-sufficiency of the country for most radiopharmaceuticals, fulfilled national universities and research institutions. demands to scholars and expertise in this field, and results of their investigations have been granted as patents and published in numerous highly cited article. The aim of the department is to enhance development of the graduate students as the next generation of scholar in this field through promotion of the quality of both education and research

With increasing expansion in the use of Radiopharmaceuticals in diagnosis, therapy and research and in order to fulfill national demands to expertise in this field starting in 1995 Department of Medicinal Chemistry of the Faculty of pharmacy of Tehran University of Medical Sciences with contributions of Iran Atomic Energy Organization established the PhD program in Radiopharmacy. The program was revised in 2002, and since 2009 is offered by an independent Department called Radiopharmacy. Most graduates of this program have been working in national universities and Nuclear Sci-

ence and Technology Research Institute of Iran Atomic Energy Organization and are well known nationally and internationally for development of radiopharmaceuticals and research achievements.

4. Department of Pharmacology & Toxicology

Welcome to the Department of Toxicology and Pharmacology at Faculty of Pharmacy, Tehran University of Medical Sciences (TUMS). Pharmacology and Toxicology are integrative and interdisciplinary sciences that investigate the actions of all chemical or non-chemical agents on the living systems and help to develop drugs for human diseases. Any endogenous molecules such as hormones or neurotransmitters, materials in the environment, as well as synthetic and naturally derived compounds are subject to test for pharmacological and toxicological effects. Specialists in the field of pharmacology and toxicology have an exceptionally broad perspective and background to investigate virtually every organ system from the molecular and cellular to tissue, organ, and whole animal levels especially in disease models. We in the department welcome young talented students to join us and study in various aspects of the science of Pharmacology and Toxicology.

The main mission of this department is research and education. The academic members of this department place a high priority on the teaching and research training of students at MSc, PharmD, PhD, and post-doc levels. Close working relationships between individual students and their academic mentor, providing research opportunities, and special educating programs based on the needs of the students are followed in the department. Doctoral and postdoctoral graduates of our program gain employment in research and teaching positions at universities, engage in research and development in the scientific pharmaceutical institutes or industries. Our graduates have also got good positions in regulatory organizations.

5. Department of Pharmacognosy

Our Graduate Program is dedicated to the training of outstanding scientists in the Natural product sciences and to largely contribute to the multidisciplinary drug research and development from natural products, using the rich flora of Iran. Currently, the Department has a complement of 8Faculty staff including 5Professors, 2 associate and 1 assistant professor and also 4 laboratories staff. The teaching and research facilities in the department include standard laboratories with relevant equipment supports in addition to other useful items of equipment accessible to the Department from other

university units. There is a Herbarium, housed in the Department, for medicinal plant authentication and conservation and a botanical garden that functions as an educational display of medicinal herbs. Our department has a great diversity of research areas, available to trainees including photochemistry, Bio-assay, Clinical study, Pharmacoeconomy, Taxonomy, etc.

Our devoted members try to make a sociable place for every interested person in natural products and we wish you have a productive and enjoyable experience with us. Pharmacognosy is the study of medicines derived from natural sources and is one of the most important fields of study in scientific area and its development can solve many medicinal problems in.

We are trying to train students that are proud of their knowledge. All interested in this field, can study in our department.

We are trying to create a perfect learning environment for students.

Department of Pharmacognosy in Faculty of Pharmacy, Tehran University of Medical Sciences was established in 1961. Its background refers to the traditional history of more than ten centuries and has produced more than 50 outstanding and talented PhD graduates in pharmacognosy. Pharmacognosy is the science of bioactive natural substances found in plants, animals, microbes and minerals. Researchers in this field investigate on natural compounds, new therapeutic agents and also on medicinal plants that include the subjects of botany, chemistry and pharmacology.

There are about 30 students annually who choose their undergraduate thesis according to supervise of our members. All the undergraduate students are required to pass 16 core and noncore units in department of pharmacognosy. Training PhD students in this field has been begun since 1986.PhDStudents are required to pass about 20 theory-practical core units and 16 noncore units and about 20 units of thesis. PhD students have active participation in research projects. Educational and research centers, industries and related organizations need to have experts in this field. According to this fact at least 10 experts are absorbed yearly. This department is established in the center of the campus of university and includes: classroom building, education research laboratories, herbarium and a herboratum. There are 4laboratories with great facilities and there is a herbarium with international code (TEH), to keep numerous medicinal species. The students can attend in various retraining courses and workshops during the semester. Also close cooperation among all students, staffs and members of the department obviously feels

in all parts of education.

6. Department of pharmaceutical biotechnology

The importance of biotechnology and biotechnology-based methods in medical therapies and diagnostics as well as in the discovery, development, and manufacture of pharmaceuticals is undeniable. Moreover, biotechnologically manufactured pharmaceuticals form a significant amount of the total pharmaceutical market at the moment. So, pharmacy faculty of Tehran University of medical sciences as the pioneer center in establishing department of Pharmaceutical Biotechnology welcomes to talented and self-motivated individuals who are interested in this field.

Department of pharmaceutical biotechnology was founded in 1998. It has got some research laboratories in which several kinds of projects are performed mainly in development of recombinant proteins, enzyme technology, gene cloning and nanobiotechnology. The Department has teaching and research programmes which encompass various basic and applied aspects of modern biotechnology. Currently, the department members are enrolled in teaching of five credits in pharm D program and about 20 credits of PhD courses. In the past fifteen years, more than 250 academic papers have been published in international journals and most of them have been used in national and international academic conferences. We have also assumed and completed more than 100 research projects, published 6 specialty books and won about 4 prizes from academic festivals of the Tehran University of Medical Sciences. The Department has also been successful in manufacturing of three pharmaceutical proteins and some laboratory test kits. Currently the department has 5 faculty members, about 10 undergraduate and 9 postgraduate students and 4 associated staff. The Department, located at the 3rd floor of faculty of pharmacy new building, has four laboratories: Enzyme technology, genetic engineering, recombinant protein and cell culture. Research interests of the department are nanobiotechnology, cancer research, enzyme technology, biocatalysts, biomarker research, genetic engineering and recombinant protein production.

7. Department of Pharmaceutics

Department of pharmaceutics, considered as the oldest and largest department in the faculty of pharmacy, was developed at the beginning of the foundation of the faculty of pharmacy as the title of "Department of Manufacturing and Application of the Medicines" and was renamed to "Department of industrial pharmacy" and further to "Department of Pharmaceutics" in recent

years. In addition to educational activities in the faculty, this department has been considered as the first pharmaceutical manufacturing factory in Iran as "The Pharmaceutical Incubator" located at North Kargar Avenue. Historically, the Pharmaceutical Incubator was pioneer in formulation, manufacturing and supplying of all required dosage forms in the hospitals of the Tehran University of Medical Sciences and this promotion was continued during the imposed war between Iran and Iraq for supplying the medicines.

Till now, several departments including department of clinical pharmacy, department of food and drug control, department of nanotechnology and biomaterials and also department of biopharmacy and pharmacometrics were derived from the department of Pharmaceutics.

8. Department of Drug & Food Analysis

Department of food chemistry and medical hydrology separated from department of toxicology since 2002 and began to work as an independent department as Department of Drug and Food Analysis since 2004 at faculty of pharmacy in Tehran University of Medical Sciences.

Now there are 6 special labs with appropriate facilities to do scientific-applied research in the context of microbiology, microbial control of pharmaceutical and food products, hydrology, physicochemical control of pharmaceutical products, analysis and control of foods, probiotic research and control of biologic products. Also there is an education lab to present the practical courses related to this field.

There are 9 full time faculty members at education and research fields. In recent years the activities of faculty members include: implementation of more than 60 research projects, publication of more than 200 research articles, in the internal and foreign journals, supervision of about 200 theses of master, PharmD, and PhD degrees and participation at too internal and foreign congresses.

9. Department of Medicinal Chemistry

The department of Medicinal Chemistry is one the oldest departments in the faculty of pharmacy that was established in 1963. Major mission of medicinal chemistry department is to create new knowledge for the discovery and development of new pharmaceutical drugs that is paralleled to the faculty general goals. Since twenty years ago, the mission was developed to conduct basic research in chemistry and biological chemistry as it related to drug discovery, to teach these principles in the professional and graduate programs, and to



provide service to the scientific community. The scope of this field is sufficiently broad to give students with many different science backgrounds a rewarding and challenging program of study. Areas of active interest include drug discovery, organic synthesis of medicinal agent, natural product chemistry, prodrugs, molecular modeling and pharmaceutical analysis. There is a broad research projects that introduce new analytical methods for determination of drugs in pharmaceutical dosage forms and biological fluids.

Current major department research programs are including:

- -Discovery and validation of new anti-cancer, anti-inflammatory, antibiotic, anti Alzheimer and anti-hypertension drugs.
- -Computational modeling and simulation of biomolecular structure, dynamics and interactions.
- -Isolation and identification of natural products.
- -Application of Mass, NMR and other spectrophotometry technique to the elucidation of natural products and small molecular structure.
- -Synthesis and evaluation of novel biopolymers for site-targeted drug delivery.
- -Synthesis of new chromogenic and fluorogenic markers for analysis of elements and drugs.
- -Development of new analytical methods for determination and identification of chemical compounds and

drug in different matrix. At the present time, the department includes 13 academic members, six full professor, five associate professor and two assistant professor, other staff include several organic and analytical chemist with master and B.S. degree who work in different laboratories of the department.

10. Department of pharmaceutical Nanothechnology

Due to importance of this field and In order to provide specialized educational and research issues in this category a new Ph.D course "Ph.D in Pharmaceutical Nanotechnology" has been established, for the first time, in 2011. The department consists of three discipline area that share common goals and the infrastructure that allows us to perform research in developing advanced delivery systems. Our shared goal is to generate knowledge that will allow novel and advanced delivery systems for a variety of applications to reach the clinic fast and effectively. From immunological studies to anticancer therapeutics and from gene delivery to fundamental colloid science and engineering of nanosystems, researchers in the group are involved in a truly multidisciplinary exercise.

Location & Contact Information: School of pharmacy, Tehran University of Medical Sciences, 16 Azar Ave., Enghelab Sq. P.O. Box. 14155-6451 Tehran, IRAN Tel: +(98-21) 64120

Tel: +(98-21) 64120 http://pharmacy.tums.ac.ir Pharmacy@tums.ac.ir

International Branch

The School of Pharmacy at the International Branch of the Tehran University of Medical Sciences is an outstanding academic centre. Students study pharmacy (basic sciences) for 2 years in Kish Island and then continue their studies in Tehran. Pharmacy education lasts approximately 6 years and requires a high school diploma. Successful students achieve a PharmD (Pharmacy Doctor) degree at the end of their studies. An academic year consists of two-semesters with a two-week break between the semesters.

The School of Pharmacy is equipped with educational and research laboratories in Pharmacognosy, Pharmaceutics, Instrumental analysis, Pharmacology, Toxicology, Pharmaceutical Biotechnology, Medicinal Chemistry, Microbial Control, Physico-chemical Analysis and Medicinal plants. The school also has its own library and IT site.

The school's curriculum provides students with the opportunity to develop their skills both in theory and practice. The curriculum provides graduates with the opportunity to work in industrial and pharmaceutical companies, quality control laboratories, poison control centres, cosmetic companies, cellular pharmacology, herbal medicine, biotechnology research, and academia.

Educational Departments:

The School of Pharmacy is equipped with educational and research laboratories in Pharmacognosy, Pharmaceutics, Instrumental Analysis, Pharmacology, Toxicology, Pharmaceutical Biotechnology, Medicinal Chemistry, Microbial Control, Physico-chemical Analysis and Medicinal plants. The school also has its own library and IT site.

The school of Pharmacy offers postgraduate trainings in specialty and Ph.D. levels to highly motivated individuals. Postgraduate trainings consists of a sequence of required core courses, elective courses, faculty-directed research experiences, and an original research project leading to a final thesis or dissertation. Students may select to specialize in clinic or basic research by choosing Medicinal Chemistry, Biotechnology, Pharmaceutics, Toxicology or Pharmacology as their area of study.

Departments				
Biomaterial & Nanotechnology	Clinical Pharmacy			
Food and Drug Control	Pharmacoeconomy & Management			
Medicinal Chemistry	Pharmaceutical Biotechnology			
Pharmaceutics	Pharmacognosy			
Pharmacology & Toxicology	Radiopharmacy			

Location & Contact Information: School of Pharmacy, International Branch Behesht Street, Vahdat Islami Avenue, Tehran 1114133314- IRAN

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http://gsia.tums.ac.ir/ic_pharmacy_school

54 SCHOOLS
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School of Public Health

The School of Public Health (SPH) at Tehran University of Medical Sciences was founded in 1966. It is the oldest and biggest school of public health in the region that serves local, national and international communities with its knowledge and expertise.

Current Global Public Health Issues

Today we face many public health threats. Non-communicable diseases, epidemics of serious communicable diseases, health disparities and environmental risks in the community all highlight the need for discovering and developing comprehensive solutions to such complex and multidimensional issues at national and international levels.

School Goals

Through our interdisciplinary educational programs, innovative research, policy analysis, communication, consultation services and a variety of other activities we try to protect and improve the health of public, prevent diseases and reduce health disparities across Iran and throughout the world.

Main objectives

- Provide the highest level of education in a wide range of interdisciplinary educational programs
- Foster innovative research, policy analysis, communication and consultation services
- Strengthen health capacities and services in the national and regional level
- Develop policies and programs to reduce health disparities
- Develop policies and programs to improve health and healthcare services
- Ensure people live in a safe and clean environment
- Ensure people have healthy eating and other lifestyle habits
- Try to protect and improve the health of public and prevent illness and injuries
- Try to have bilateral collaboration with international organizations
- Promote ethics in all school activities and programs

Departments and Management Structure

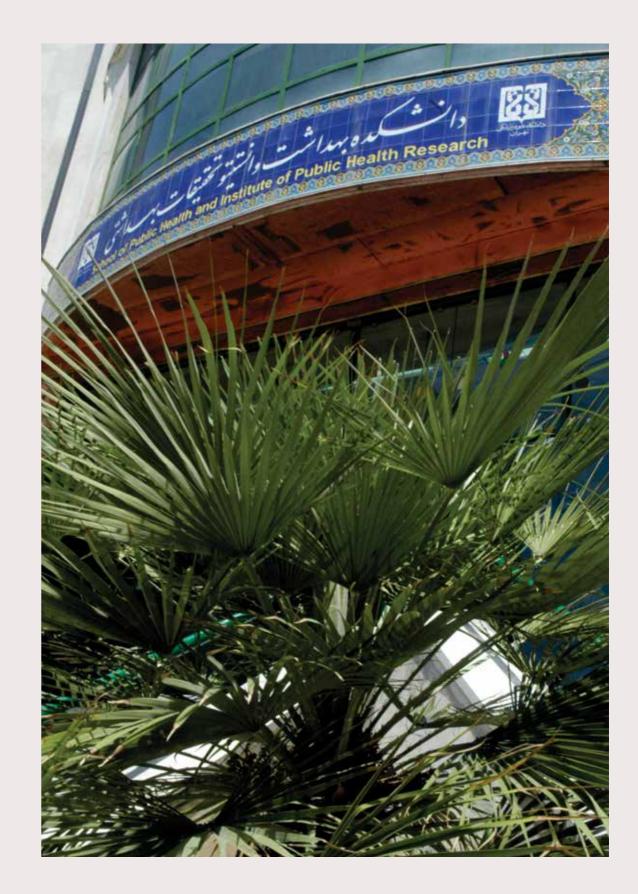
To achieve its objectives, School of Public Health has a well established management structure with over 120 academic members of staff, 14 educational departments, over 40 academic programs and more than 1500 MSc, MPH and PhD students in a variety of courses, although the school continues to expand according to the needs of the community.

Detailed information about the school departments is presented in its website, but a summary of the information is presented below.

Departments

- 1- Disaster and Emergency Health
- 2- Environmental Health Engineering
- 3- Epidemiology and Biostatistics
- 4- Global Health and Public Policy
- 5- Health Education and Promotion
- 6- Health Management and Economics
- 7- Health Sciences Educational Development
- 8-Human Ecology
- 9- Medical Entomology and Vector Control
- 10- Medical Parasitology and Mycology
- 11- Nutrition and Food Health
- 12- Occupational Health
- 13- Pathobiology
- 14- Virology

Current	B.Sc, M.Sc and PhD degrees	B.Sc	M.Sc	PhD
1	Environmental Health Engineering	√	√	√
2	Health Education and Promotion	√	√	√
3	Medical Entomology and Vector Control	√	√	
4	Occupational Health	√	√	
5	Biostatistics		√	√
6	Epidemiology		√	
7	Health Economics		√	√
8	Health Services Management		√	√
9	Immunology		√	√
10	Medical Parasitology		√	√
11	Microbiology		√	√
12	Mycology		√	√
13	Virology		√	√
14	Health in Disasters			$\sqrt{}$
15	Health Policy			√
16	Ergonomics		√	
17	Food Microbiology		√	
18	Food Safety		√	
19	Health Technology Assessment		√	



56 SCHOOLS
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Educat	Educational Programs Under Development			Dr.PH
1	Dr.PH in 3 domains			$\sqrt{}$
2	Research Management		√	
3	Urban Health		$\sqrt{}$	
4	Global Health			
5	Food Health and Safety		√	
6	International Health	√		
7	Health and Media - Medical Journalism	√		
8	Health in Disasters	√		
9	Radiation Protection	√		
10	Environmental Toxicology	√		
11	Management of water and Wastewater	V		

Current Master of Public Health (MPH) Programs

- 1- Addiction Control and Prevention
- 2- Disaster Health
- 3- Disease Control
- 4- Environmental Health
- 5- Field Epidemiology
- 6- Health Education and Promotion
- 7- Health of Elderly
- 8- Health Sector Reform
- 9- International MPH
- 10- MD-MPH
- 11- Mental Health
- 12- MPH General
- 13- Nutrition and Public Health

- 14- Occupational Health
- 15- Primary Healthcare Network
- 16- Reproductive Health
- 17- Social Determinants of Health (SDH)
- 18- Urban Health

Publications

The average paper cited in ISI and Pubmed per capita of 120 SPH academic staff is around 4.3 per year. The highest H-index among academic staff is 22 and around 20 academic staff has the H-index greater than 15.

School's Laboratories

Environmental Health Laboratories

- Air Pollution
- Water
- Wastewater
- Solid Waste
- Food Safety and Housing
- Radiation Protection
- Environmental Impact Assessment
- Environmental Epidemiology
- Industry and the built Environment
- Environmental Microbiology Lab.
- Environmental Chemistry Lab.
- Advanced Instruments Lab.

Occupational Health Laboratories

- Safety Engineering and Risk Assessment
- Ergonomics (EEG, EMG, EOG, Driving Simulator)
- Thermal Environment
- Asbestos, Silica, VOC s, Air Pollution Analytical Equipments
- Sound and Vibration, Ionizing and Non-Ionizing Radiation, Industrial Lighting
- Industrial Toxicology
- Industrial Ventilation

Medical Entomology & Vector Control Laboratories

- Leishmaniasis
- Medical Entomology
- Vector Control
- Medical Entomology & Zoology museum
- Molecular Entomology
- Biochemistry of Pesticides
- Phlebotominae insectary
- Culicidae insectary
- Cockroaches, ticks and flies insectary

Medical Parasitology & Mycology Laboratories

- Malaria Lab
- · Leishmaniasis Lab.
- Toxoplasmosis and Immunology & Serology of Protozoan Diseases Lab
- Intestinal & Sexual Protozoa Lab
- Helminths Immunopathology Lab
- Helminths Taxonomy Lab.
- Helminths Biology & Medical Malacology
- Research Mycology Lab.
- Immunological & Serological Mycology Lab

Microbiology and Immunology Laboratories

- Central PCR Lab
- Cell Culture Lab
- Flow Cytometry and Immunohistochemistry Lab
- Immunopathobiology Lab
- Tumor Immunology Lab
- Infection Immunology lab
- Intestinal Infection Diagnostic Lab
- Molecular Microbiology Lab
- MRSA and VRSA Lab
- Mycoplasma Lab
- Tready form Bacteria lab
- Chlamydia Infection Lab
- Digestive Tract Infections lab
- Anaerobic Lab
- Cell Culture lab
- Food Microbiology lab
- Probiotic Lab

Virology Laboratories

- National Influenza laboratory (lab)
- National Polio lab
- National Measles lab
- National Rubella Lab
- Viral Respiratory lab
- Hepatitis C lab
- Hepatitis B labHIV lab

School's Field Stations

- Kazeroun
- Meshkin Shar
- Bandar Abbas

Collaboration Centers and Institutes

- World Health Organization
- Institute of Environmental Research
- Center for Community Based Participatory Research
- Knowledge utilization Research center
- Center for Research of Endemic Parasites of Iran
- Center for Air Pollution Research
- Center for Water Quality Research
- Center for Solid Waste ResearchFood Microbiology Research Center

Location & Contact Information:

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School of Nursing and Midwifery

The School of Nursing and Midwifery, Tehran University of Medical Sciences with its rich history, is a distinguished nursing school among all nursing schools in Iran and in the region. It is situated in one of the oldest university campuses at the heart of Tehran, next to Imam Khomeini Hospital. Established in 1936, it is proud of its history of more than 70 years of nursing education and its pioneering position in nursing and midwifery research. The nursing education program in the school began as a two-year hospital based Diploma then expanded to a three-year Bachelor's degree program in nursing. Furthermore, it steadily developed over the years and included a wide range of undergraduate and graduate programs. the history of this gradual improvement is as follows: a four-year Bachelor of Science degree in nursing and midwifery (1963), a Master of Science degree in nursing (1975), a Master of Science degree in midwifery (1988), a Master of Science degree in anesthesia (1989), a PhD in Nursing (1999), a PhD in Reproductive Health (2006), and Continuing Education in Nursing and Midwifery (2007), a Master of Science degree in Critical Care Nursing (Adults) (2008), a Master of Science degree in NICU (2009) and a Master of Science degree in Geriatric Nursing (2011). Today, the School has more than 1471 undergraduate and graduate nursing and midwifery students and 87 academic faculty members. The influence of this school in virtually all national and regional nursing and midwifery events is undeniable.

Denartments

Department of Medical-Surgical Nursing
The Department of Medical-Surgical Nursing admits students at bachelor's, master's and doctoral levels.

Bachelor's program

At the bachelor's level, students take 30 theoretical credits, 10 internship credits and 8 field credits. The department's education includes the following courses:

Courses offered at the bachelor's level:

History and evolution of nursing, Medical-Surgical Nursing 1 to 4, Nursing in crises, Emergency nursing, Health assessment, Nursing mothers and infants 1 and 2, Patient Education.

Master's program

The aim of this program is to train expert and professional nurses who can work in the private and public sector of the healthcare system.

Courses offered at the master's level include:

Medical-Surgical Nursing 1 to 3, Research methods, Seminar and Project, Medical information systems, Teaching education, Seminar on nursing issues.

PhD Program

The aim of this program is to train research-oriented nurses who can contribute to the development of this profession through research.

Courses offered at the doctoral level include:

Concepts and theories in nursing, Educational Measurement and Evaluation, Research in Nursing, methodology and workshops, Quantitative and qualitative techniques of critical essays

Department of Community Health Nursing

The Department of Health includes Community, Maternal and Newborn Health. The clinical education field is done in urban and rural health centers related to Tehran University of Medical Sciences. Maternal and neonatal internship courses are done in women's specialized hospitals. The total number of credits includes 42 theoretical and 62 applied credits. It is noteworthy that health education in the society based on three levels of prevention is a main goal of this program.

A summary of courses offered at the department:

Research methods, Community health nursing 1, 2 and 3 (master's level), Community Health Nursing Master of 1, 2, 3, Seminar in nursing issues, Theory and its application in nursing, Advanced statistics, Epidemiology (bachelor's, master's and doctoral), Curriculum design and planning, Medical information systems, Methods and techniques of teaching, Assessment and Measurement, Teaching Practice, Challenges in nursing discipline, doctoral level, A new approach to education, doctoral level, Master's dissertation and PhD thesis

Department of Psychiatric Nursing

The Department of Psychiatric Nursing of the School of Nursing and Midwifery started its activities with four academic staff members in 1986. The department teaches students at bachelor's, master's and doctoral levels. Numerous students have graduated with degrees at these three levels.

Highly qualified academic staff together with the theoretical teaching of courses, access to hospitals and psychiatric wards has established a suitable atmosphere for the clinical education of students.

All academic staff members of the Department of Psychiatric Nursing are active in theoretical and clinical teaching and teach at the three levels. They transfer their valuable scientific experiences to the students.

The academic staff members of the Department of Psychiatric Nursing are also in charge of teaching international students.

A summary of courses offered at the Department of Psychiatric Nursing

Bachelor's Level:

Individual and Social Psychology, Psychology in Midwifery, Diseases and nursing in mental disorders 1, Diseases and nursing in mental disorders 2, Ethics in Nursing

Master's Level

Individual therapy, Family Therapy, Group therapy, Psychiatry and psychiatric nursing in children and adolescents, Curriculum design and planning, Teaching education, Nursing Seminar, Psychological problems of the elderly, Psychological problems in nursing

Doctoral Level

Challenges in Nursing, New teaching methods, Research methods at the doctoral level

Department of Pediatric Nursing

The Department of Pediatric Nursing of Tehran University of Medical Sciences offers students more chances of acquiring expertise than other Schools of Nursing all over the country.

The department is also intent on building a strong basis in the science of child care at bachelor's level. This program demonstrates strong clinical experience at pediatric hospitals all over the country. Each academic staff member attempts to fulfill the goals of the university and the country's health map with a strong presence in clinical fields consistent with educational and research programs. Also, the presence of academic staff members in the policy making of the Ministry of Health and Medical Education

is one of the strong points of the department.

The virtual presentation of some courses at different levels, the effective cooperation of PhD students in teaching master's and bachelor's students and holding specialized courses in research methods, online search and academic paper writing are worth mentioning.

We are proud to admit competent candidates to the master's program in pediatric nursing from all over the world.

The department's programs:

A the moment, in addition to offering courses at bachelor's and master's programs and participating in the PhD program, short-term programs for the empowerment of nurses in neonatal and pediatric intensive care and pediatric emergency and the new achievements in pediatric nursing are held with the cooperation of the Office of continual Nursing Education of the School of Nursing and Midwifery and the Society of Cardiovascular Nursing by the members of the department at the national level. In the near future, students will be admitted to the master's program of Pediatric Intensive Care and Emergency Nursing.

Department of Nursing Management

The Department of Management Education started its activities in 1985. The first master's program in the department was held in 1989 with 10 students in management education orientation. Since 1999, students have been admitted in this orientation.

Consistent with the establishment of new majors at master's level at the School of Nursing and Midwifery including NICU and geriatric nursing, the teaching of management courses for these majors is done at the Department of Nursing Education.

The operational programs of the department are aimed at empowering nursing students for performing management roles (at bachelor's level) and management and educational roles (at master's level). These programs are accomplished relying on programming, problem solving, decision making and creative thinking skills so that the students can be useful as qualified and competent instructors or managers in improving individual, family and social health.

This requires disambiguating and troubleshooting theoretical and internship curricula based on the results of polls, improving the knowledge of the academic staff members with the help of the most up-to-date scientific achievements, and informing them of the latest facilities and coordinating the programming of internship between the education and clinic.

A summary of courses offered at the Department of Nurs-

ing Management Education:

Principles of Nursing Services Management, 2 theoretical credits and 2 field internship credits (nursing bachelor's level), Principles of Nursing Management, 2 theoretical credits (master's level), Leadership practices, 2 theoretical credits and 1 applied credit (master's level), Principles of Nursing Management; 2 theoretical credits and 1 applied credit (master's level), Principles of Nursing Services Management, 2 theoretical credits and 1 applied credit (master's level).

Department of NICU

The Department of Neonatal Intensive Care Nursing started its activities in 2010. Apart from teaching theoretical courses, access to advanced hospitals and neonatal intensive care units has provided a very suitable atmosphere for the clinical education of students. The educational approach of the department is interdisciplinary so that the academic staff members of the School of Nursing and Midwifery together with the academic staff members of the Faculty of Medicine and with the presence of experienced nurses and trainers have been able to transfer their valuable experiences to students. The department is in charge of teaching international students too. All courses (theoretical, applied and internship) thought to international students are in English.

A summary of courses offered at the Department of Neonatal Intensive Care Nursing:

An introduction to neonatal intensive care nursing, Theories and advanced concepts of neonatal nursing, Management principles and theories of leadership, Principles of neonatal nursing care (levels 1 and 2), Principles of neonatal nursing advanced care (levels 1 and 2), Neonatal clinical pharmacology, Neonatal Pathophysiology, Neonatal anatomy and physiology, Statistics and research methods, Information technology

Department of Critical Care Nursing (Adult)

The Department of Intensive Care Nursing is in charge of teaching bachelor's level courses of nursing students and nurse training at master's level of intensive care nursing. Teaching students is theoretically done at the faculty and clinically at medical centers related to TUMS. The course credits offered to master's students amount to 32 and are as follows:

Total courses:

Basic courses, 9 credits, Specialized and internship courses, 19 credits, Dissertation, 4 credits

In addition to the above-mentioned courses, compensatory courses which students have to take are as follows:

Computer and medical information systems, 1 credit, Statistics and advanced research methods, 3 credits

The following is the list of basic, specialized and intern-

The following is the list of basic, specialized and interriship courses:

- An introduction to intensive care nursing
- Nursing care at ICUs
- Advanced nursing monitoring
- Pharmacology
- General issues in organ transplantation nursing
- Specialized intensive care nursing 1 (respiratory system)
- Specialized intensive care nursing 2 (cardiovascular System cardiovascular and thoracic surgery)
- Specialized intensive care nursing 3 (nervous system neurosurgery and psychological disorders)
- Specialized intensive care nursing 4 (Renal system and urinary tract the kidneys and urinary tract surgery)
- Specialized intensive care nursing 5 (Endocrine system
- Diseases of Obstetrics and Gynecology)
- Specialized intensive care nursing 6 (Gastrointestinal system Abdominal and Pelvic Surgery)
- Specialized intensive care nursing 7 (Oncology and blood the immune system and infectious diseases)
- Specialized intensive care nursing 8 (General principles in surgical patients the intensive care of traumatic injuries)
- Specialized intensive care nursing 9 (Vascular Surgery
- Orthopedic)

The process of evaluating and approving students' master's proposals is done in the research committee of the department. The Department of Intensive Care Nursing cooperates with other nursing faculties in Tehran and other cities in research and education.

Department of Geriatric Nursing

The Department of Geriatric Nursing started its activities in 2012 in the School of Nursing and Midwifery of Tehran University of Medical Sciences. The aims of this department that operates in care, education and research fields, based on a philosophical approach are as follows:

- Achieving maximum operational performance and individual merit of elderly patients and their families
- Ensuring the provision of elderly patients' and their families' special needs
- Improving the elderly patients' and their families' compatibility with life's changes (due to aging and probable disabilities)
- Maintaining the elderly patients' social function and participation in society

Thus far, two classes of master's students have been admitted numbering 14. In order to improve the quality of education, care and research, the department cooperates

with academic staff of the departments of basic sciences, psychiatric nursing, health and nursing management.

Also, in order to empower students of geriatric nursing in clinical courses, the department uses TUMS hospitals, Kahrizak Charity Foundation, Iran Alzheimer's Association, private nursing homes as well as neighborhood councils for teaching applied and internship courses and doing research.

Course credits for master's students of geriatric nursing amount to 32 and include:

- Basic and main courses, 7 credits including nursing ethics and professional relations, theories, nursing patterns and their application, clinical nursing management, teaching method and educational planning
- Specialized courses including epidemiology of geriatrics, study of the elderly health, geriatric pharmacology of complementary products, healthy and active agedness, geriatric nursing 1 (physical and functional disorders and diseases), geriatric nursing 2 (mental status and psychological disorders and diseases), geriatric nursing 3 (social problems and issues), elderly-specific care structures and systems
- Dissertation, 4 credits

Department of Midwifery

The department of midwifery started its activities in 1986 in the school of nursing & midwifery. Its educational activities include the establishment of counseling in midwifery, providing journal clubs, guiding and counseling students, holding seminars, workshops and congresses through continual national education, publication of scientific books and papers by the academic staff and the teaching of theoretical and clinical courses, as well as implementing innovation in education.

The research activities of the department include publication of books and papers, adoption and implementation of research projects, partnership in research projects and innovation and entrepreneurship in research.

Executive and service related activities include clinical services (providing midwifery services, developing a tool for clinical evaluation, providing Pantograph chart in the delivery room, increasing the facilities of clinical skills center and its further equipment, the compilation of the booklet of clinical skills for undergraduate students of midwifery), scientific services (holding workshops, seminars and festivals), educational counseling services (educational counseling and dissertation).

A summary of courses offered in midwifery master's program

- Research Methods (2 credits)
- Methods and techniques for teaching and training (2

credits'

- Planning and designing curriculum and evaluating educational systems (2 credits)
- Advice and guidance on midwifery and reproductive Health (2 credits)
- Research Seminar (2 credits)
- Pregnancy, childbirth and new phenomena in midwifery 1 (2 credits)
- Pregnancy and childbirth internship and new phenomena in midwifery (1 credit)
- Pregnancy, childbirth and new phenomena in midwifery 2 (4 credits)
- Women's diseases and infertility (3 credits)
- Dissertation (6 credits)

A summary of courses offered in midwifery bachelor's program

- Symptomatology and physical examination (2 credits)
- Psychiatric midwifery (1 credit)
- Pregnancy and childbirth internship, related care and delivery at home (8 credits)
- Women's diseases and emergencies internship (2 credits)
- Women's diseases and infertility (3 credits)
- Sexual dysfunction, related education and counseling (1 credit)
- Women's diseases internship (2 credits)
- Pregnancy, childbirth and related care 1, 2, 3, and 4 (10 Credits)
- Pregnancy and childbirth internship and related care 1, 2 and 3 (5 credits)
- Physiopathology
- Gynecology
- · Research methods
- Biostatistics

Department of Mother and Child Health

The Department of Maternal and Child Health started its activities in 1997 independently. The department has academic staff members holding master's degrees in midwifery. In addition to the teaching of theoretical courses, access to advanced hospitals, rural and civil health centers, health network and health houses has contributed to the formation of an appropriate atmosphere for the clinical training of students. Clinical training in the department is accomplished in health and medical fields with the academic staff members and in hospital and specialized fields of the experts.

In addition to the training of bachelor's students, the department trains master's students in maternal and child health and community health. The department is also in charge of training and educating international students in addition to Iranian students. All courses (theoretical, applied and internship) may be taught both in Persian and in English if needed.

A summary of courses offered in the department of Maternal and Child Health:

- Maternal and child health, family planning (theoretical and internship)
- Health principles and services
- Infants (theoretical and internship)
- Children (theoretical and internship)
- Exceptional Children (theoretical and internship)
- Community health 1, 2 and 3
- Reproductive Health 2

Department of Reproductive Health

The Department of Reproductive started its activities in 1986 and has since admitted students at bachelor's and master's levels in midwifery education and maternal and child health orientations. The department has admitted students for the doctoral level of reproductive health and since 2010 has added three new orientations (management, forensics and community-based midwifery) to master's level orientations.

In addition to theoretical education, students receive clinical education at hospitals related to Tehran University of Medical Sciences. Invited academic staff from the faculties of Medicine, Health and Social Sciences may also be used for teaching some courses at any level.

A summary of courses offered in the Department of Reproductive, Pregnancy and Childbirth Health:

- Physiopathology (1-3)
- · Research methods
- Research Seminar
- Teaching methods
- Principles of Educational Evaluation
- · Counseling and guidance
- Physiology and anatomy
- Basic and advanced statistics
- Women's pathology
- Management of midwifery services

A summary of courses offered in the PhD program of the Department of Reproductive, Pregnancy and Childbirth Health:

- Cultural, social and sociological dimensions in health (2 credits)
- Modern methods and the evaluation of family services (1 credit)
- Population dimensions of reproductive health (2 credits)
- Physical, psychological and social development (2 credits)
- Legal dimensions of reproductive health (2 credits)
- Nutrition and reproductive health (2 credits)
- Empowerment of women and their role in development



(2 credits)

- Epidemiology of family and society (2 credits)
- New diseases, sexually transmitted diseases, cancers, menopause and ageing (2 credits)
- Policy making: reforming and optimizing systems and health programs for mother, child and reproduction (2 credits)
- Advances techniques in fertility and infertility (1.5 credits)
- Political economy of health (2 credits)
- Independent studies in health issues seminar (2 credits)
 Apart from teaching theoretical and clinical courses, the academic staff members of the department are responsible for supervising and advising students for their dissertations and theses at master's and doctoral levels.

Location & Contact Information:
School of Nursing & Midwifery,
Tehran University of Medical Sciences,
Nosrat St., Tohid Sq.,
Tehran 1419733171, Iran
Tel: + (98-21) 66933600
Fax: + (98-21) 66941668
http://fnm.tums.ac.ir
fnm@tums.ac.ir

School of Rehabilitation

Founded: in 1965

Students: 1450 from 4 nations Faculty Member: 31 Full-time

This is a 47-years-old School established in 1965. The first group of the students officially started studying at the department of Physical Therapy in School of Medicine at Imam Khomeini Hospital in 1965. The department was approved by the World Health Organization, and in 1990 the school of Rehabilitation continued to function under the present name. At the beginning, the school started with Physical Therapy (in a 4-year full time program). Thereafter, it started teaching Occupational Therapy, Audiology and Speech Therapy. During the 8-year imposed war (1st Persian Gulf War). the school had a unique opportunity for working with various kinds of patients who needed rehabilitation services. In the present, school of Rehabilitation offers studying on the Bachelor, the Masters, and Ph.D. degrees in mentioned departments. Therefore, there is a unique position for training therapists in this school. Furthermore, many researches in different fields of rehabilitation could also be performed in this School. There are special rehabilitation clinics that perform prevention, assessment and treatment services to patients.

Goals:

The school is committed to:

- Perfect education in rehabilitation courses
- Update researches in basic and applied sciences relate to rehabilitation
- High level clinical rehabilitative services

Departments:

Department of Physical Therapy

The Physical Therapy department is the earliest department of the school of rehabilitation that has played an important role in the development of school and TUMS academic programs. Department of Physical Therapy currently offers the Bachelor, the Masters, and Ph.D. degrees in Physical Therapy Sciences. We have been involved in clinical services and professional education and training for students in different fields such as musculoskeletal disorders from birth to elderly, neurological disabilities, diabetes, cardiovascular diseases,

balance disorders and so on. There is a master degree of Sport Physical Therapy at this department. Sport Physical Therapy was founded to improve health quality and prevention of sport injuries in athletes by encouraging high standards of Physical Therapy research, education and practice.

Laboratories:

- Electro neurophysiology Lab.
- Biomechanics Research Lab.
- Gait & Motion Analysis Lab.
- Balance & Postural Research Lab.
- Cardio rehabilitation Research Lab.
- Motor Control Research Lab.
- Reaction time Research Lab.

Department of Audiology

The Audiology Department provides comprehensive services (diagnosis, prevention, and rehabilitative intervention) to patients, ranging from birth to elderly who suffer from hearing (peripheral, central) and balance disorders. At this department, we have been involved in clinical services and professional education and training for students. The department currently offers the Bachelor, the Masters, and Ph.D. degrees in Audiological Science and provides a dynamic and innovative environment for its students and staffs with many opportunities for discussions and research in the balance and hearing sciences. We prepare our students for careers in public and private health care to provide accurate testing, diagnosis, and management of hearing and balance disorders for both adults and children.

Department of Speech Therapy

The Speech Therapy department provides clinical services to patients suffering from speech and language disorders consist of evaluation, diagnosis and rehabilitative intervention. Department of Speech Therapy currently offers the Bachelor, the Masters, and Ph.D. degrees in Speech and language pathology and treatment that involved in clinical services as well as professional education and research for students.

Laboratories:

- Larynx Function Lab. (stroboscopy)
- Electrophysiology of Language and Cognition Lab.









(ERP Lab.)

- · Acoustic Voice Lab.
- Language Lab.

Department of Occupational Therapy

The Occupational Therapy department currently offers the Masters and Ph.D. degrees. This department has special clinics in different areas, such as pediatrics, psycho-social and, physical rehabilitation, hand clinic with modern equipments and devices and also laboratories for making splint, cognitive neuroscience and standardized outcome measurement tools in the field of occupational therapy.

Highlights:

Course	Department	B.Sc.	M.Sc.	Ph.D.
Audiology	Audiology	√	√	\checkmark
Occupational Therapy	Occupational Therapy		√	√
Physical Therapy	Physical Therapy	√	√	√
Sport Physical Therapy	Physical Therapy		√	
Speech Therapy	Speech Therapy	√	√	√

- The first school of Rehabilitation in Iran in the field of physical therapy
- The first choice by high school participants in national university entrance
- The more number of academic staffs with degree of associate professor and full professor

Location & Contact Information:
The School of Rehabilitation,
Tehran University of Medical Sciences,
Pich – Shemiran, Enghelab Ave,
Tehran 11489 – 65141, IRAN
Tel: +(98-21)77536586
Fax: +(98-21)77534133
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rehabilitation@tums.ac.ir

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School of Allied Medicine

Founded: In 1977 Number of Foreign Students: 18 from 5 nations Faculty Members: 33 Full-time Alumni: Approximately 5000 up to now

As a result of increasing interest and the national needs in health-related services, the School of Allied Medicine was established in 1977. Since then, it has been expanded as a graduate school with several departments. With its 59 faculty members (21Females & 38 Male), it is assigned to train experts in the following fields at PhD, MS, and BS levels.

Basic Sciences

Hematology and Blood Transfusion Department, Medical Biotechnology Department, Radiology and Radiotherapy Department, Heath Information Management Department, Health care Management Department, Operating Room Technology Department, Anesthesia Technology Department, Basic Sciences Department, Medical Laboratory Sciences Department, Librarianship & Medical Information.

PhD

- HematologyandBloodTransfusion
- HealthInformation Management
- Medical Library & Information Sciences
- MedicalInformatics

MSc

- HematologyandBloodTransfusion
- HealthInformationTechnology(HIT)
- Medical Library & Information Sciences
- MedicalInformatics
- Radiobiological Studies & Radiation Protection

BSC

- MedicalRecords
- HealthInformation Technology(HIT)
- RadiotherapyTechnology
- Medical Emergency Technology
- HealthcareManagement
- Radiology Technology
- Medical Laboratory Sciences
- Anesthesia Technology
- Operation Room Technology (Surgery Technology)
- Nuclear Medicine Technology

• Medical Library & Information Sciences

Research

There are Research institutions within the school such as zoonosis research center(ZRC) and Health Information Management Research Center (HIMRC) as well as central Research Laboratory (CRL) , to promote medical research and manage the deployment innovations for the public benefit.

Departments

- 1) Radiation and Radiology Sciences
- 2) Hematology and Blood Transfusion
- 3) Medical Library and Information Science
- 4) Health Information Management
- 5) Health Care Management
- 6) Medical Laboratory Sciences
- 7) Anesthesia Technology
- 8) Operating Room (Surgery) Technology
- 9) Medical Informatics

Highlights

There are Research institutions within the school such as zoonosis research center(ZRC) and Health Information Management Research Center(HIMRC) as well as central Research Laboratory (CRL) , to promote medical research and manage the deployment innovations for the public benefit. We offer PhD (by research) HIM within the (HIMRC)We also have multidisciplinary reputable Journal called PayavardSalamat.

Publications

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Global Projects

- Telemedicine
- Health Information System
- Electronic Health Records
- Organizational Behavior
- Human Resource Management
- Micro RNA in Hematological Diseases
- Genetic and epigenetic of Coagulation disorders
- Hematopoietic Stem Cells, Mesenchymal Stem Cells and embryonic Stem Cell
- Professional ethics
- Library Services Management
- Data base design Services
- Medical imaging
- Radiobiology
- Ortificial intelligence in medicine
- Isolation Radiation dosimetery

Location & Contact Information:

School of Allied Medicine,

Tehran University of Medical Sciences,

No. 17,Farredanesh Alley,

Enghelab AVE , Ghods AVE,

Tehran-IRAN

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School of Traditional Medicine

Students: 77

Faculty Members: 7 Full-time, 9 Part-time

Alumni: 25 since 2012

School of Traditional Medicine of Tehran University of Medical Sciences was established in 2007 as a result of increasing interest and the national need in traditional, alternative and complementary medicine services. This school as the oldest and most distinguished faculty of Traditional Medicine in Iran, with 16 faculty members, is the postgraduate academic center to educate talented students at PhD level in traditional medicine and pharmacy of traditional medicine. The total number of students is 77 until now and the first group awarded the degree of PhD in 2012.

The goal of The School of traditional medicine is the academic development of traditional Iranian medicine in the country and around the world. For this aim the school's curriculum provides the students with the opportunity to promote their skills both in theory and practice in different fields of clinical traditional medicine as well as nutrition, material medical and pharmacy. In teaching the specific objectives of this School is for the students to gain an understanding of how combine traditional medicine with current medicine and to become a specialist with broad minded and ethical individual. This school accepts students with MD or Pharm D. degree in the PhD level. The curriculum also hopes to fill the gap between university and industry in the field of herbal medicine and traditional medicine.

Basic Sciences:

Pharmacy in traditional medicine and History of medical sciences (or history of medicine)

Clinical sciences: Traditional medicine

Departments:

- -Traditional Medicine
- -Pharmacy in Traditional Medicine
- -History of medical sciences (or history of medicine)

Highlights:

- -Evidence based researches
- -Obtaining clinical PhD
- -Special facilities for foreign students.

Publications:

Journal of Iranian Traditional medicine and pharmacy

Global Projects:

- 1. Joint degree program with Beijing University of Traditional Medicine.
- 2. Diabetic research Center with Beijing University of Traditional Medicine.

Location & Contact Information:

School of Traditional Medicine

Tehran University of Medical Sciences,

17N ,Fardanesh All.,

Ghods.Street

Enghelab Ave.,

Tehran, IRAN Tel: +(98-21)88974535

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School of Nutritional Sciences and Dietetics

Faculty Members: 18 Full-time Alumni: 32 since 2013

The Department of Nutrition and Biochemistry and Department of Health Sciences and Nutrition of the School of Public Health were merged to form the Graduate School of Nutritional Sciences and Dietetics (SNSD) in 2010. The Graduate School of Nutritional Sciences and Dietetics encompass the following three departments: Community Nutrition, Clinical Nutrition, and Cellular and Molecular Nutrition. The Graduate School has 18 full-time faculty members. The faculty mission is to teach and educate students in various areas of nutrition and dietetics, to solve the most fundamental issues faced by society and to perform research on human health, sustainable food supply and to provide a forum for scientific collaboration with national and international scientists and with national and international governmental and non-governmental organizations.

Courses offered by the School

MSc levels: Advanced Nutrition 1 & 2; Advanced Nutritional Physiology; Clinical Nutrition; Community Nutrition; Community Nutrition Programs; Nutrition Education and Counseling; Nutritional Epidemiology; Current Topics in Nutrition; Research Methodology in Nutritional Sciences; Food Safety; Seminar; Medical Information Systems; Computer Application in Nutrition and Health Surveys; Experimental Nutrition; Food and Nutrition Planning; Advanced Specialized English for Nutrition; Molecular Biology.

PhD levels: Advanced Research Methodology in Nutrition; Advanced Biostatistics Methods; Regulation of Metabolism; Nutrition and Disease; Nutrition Planning and Program Management; Cellular and Molecular Nutrition; Seminar

Sciences	Departments	Divisions
Basic Nutrition	Cellular and Molecular Nutrition	Cellular Nutrition
Clinical Nutrition	Clinical Nutrition	Molecular Nutrition
Community Nutrition	Community Nutrition	Biochemical Nutrition
		Dietetics
		Hospital Nutrition
		Vulnerable Groups Nutrition
		Food and Nutrition Policy and Programming
		Nutritional Epidemiology
		At-Risk Groups Nutrition

Location & Contact Information:
School of Nutritional Science and Dietetics,
Tehran University of Medical Sciences
No.44, Hojatdoost Ave., Naderi st.,
Keshavarz Blvd., Tehran, Iran
http://snsd.tums.ac.ir
info snsd@tums.ac.ir

School of Advanced Technologies in Medicine

Founded: 2008

Students: (Iranian students: 242)
(International students: 8)
Faculty: 21 Full-time - 33 Part-time
Alumni: PhD Level 7, 2008 to 2013
MSc. Level 39, 2008 to 2013

The School of Advanced Technologies in Medicine was established in 2008. This school offers 8 novel fields of knowledge including Medical Nanotechnology, Medical Biotechnology, Molecular Medicine, Medical Informatics, Tissue Engineering, Neurosciences and Applied Cell Sciences at two levels of MSc. and PhD.

Goal: This school is designed for only post graduate studies. The fields educated here are aimed to fill the gap between university and industry in medical sciences. The school is also offering Postdoc trainings, Fellowships and short term courses for academic members and visiting scientists. In addition, this school is expected to take responsibilities for conducting basic and applied researches at the edges of advanced medical sciences.

International collaborations: The School of Advanced Technologies in Medicine also benefits from collaboration of academic members, educational and research facilities of all other schools, hospital and affiliated research center of TUMS. This school with its great potentials is looking forward to establish mutually interested collaborations with well-known academic and research center throughout the world.

Departments:

Department Medical Biotechnology, Applied Cell Sciences, Molecular Medicine

Tissue Engineering, Neurosciences and Addiction Studies, Medical Nanotechnology

Biotechnology

Breadth and diversity of biotechnology applications, makes its defining and describing a little difficult and different. Some consider it a synonym for Industrial Microbiology and the use of microorganisms, and some define it as the equivalent of genetic engineering. But in general the following definition can be offered for

biotechnology "Application of scientific and technical methods in the conversion of materials by assistance of some biological agents (microorganisms, plant and animal cells and enzymes, etc.) to produce goods and services in agriculture, food processing, pharmaceutical, medical and etc". Although, over time, scientists agreed on the common concepts of Biotechnology, they have proposed separate definitions for it. The reason should be found in the nature of biotechnology. Widespread applications of biotechnology have affected various aspects of human life such as economy, health, environment, education, agriculture, industry and nutrition. This is why scholars have called this century as Biotechnology century. Being armed with this knowledge, countries would have great potency in dealing with problems such as poverty and disease.

Neuroscience and Addiction studies

Neuroscience is the scientific study of the nervous system. Traditionally, neuroscience has been seen as a branch of biology. However, it is currently an interdisciplinary science that collaborates with other fields such as chemistry, computer science, engineering, linguistics, mathematics, medicine and allied disciplines, philosophy, physics, and psychology. The term neurobiology is usually used interchangeably with the term neuroscience, although the former refers specifically to the biology of the nervous system, whereas the latter refers to the entire science of the nervous system.

The scope of neuroscience has broadened to include different approaches used to study the molecular, cellular, developmental, structural, functional, evolutionary, computational, and medical aspects of the nervous system. The techniques used by neuroscientists have also expanded enormously, from molecular and cellular studies of individual nerve cells to imaging of sensory and motor tasks in the brain. Recent theoretical advances in neuroscience have also been aided by the study of neural networks. Addiction is the continued use of a mood altering substance or behavior despite adverse dependency consequence or a neurological impairment leading to such behaviors.

Addictions can include, but are not limited to, alcohol abuse, drug abuse, exercise abuse, pornography and



gambling. Classic hallmarks of addiction include: impaired control over substances/behavior, preoccupation with substance/behavior, continued use despite consequences, and denial. Habits and patterns associated with addiction are typically characterized by immediate gratification (short-term reward), coupled with delayed deleterious effects (long-term costs). Physiological dependence occurs when the body has to adjust to the substance by incorporating the substance into its 'normal' functioning. This state creates the conditions of tolerance and withdrawal. Tolerance is the process by which the body continually adapts to the substance and requires increasingly larger amounts to achieve the original effects. Withdrawal refers to physical and psychological symptoms experienced when reducing or discontinuing a substance that the body has become dependent on. Symptoms of withdrawal generally include but are not limited to anxiety, irritability, and intense cravings for the substance, nausea, hallucinations, headaches, cold sweats, and tremors.

Tissue Engineering

Tissue engineering is an emerging field that aims at regeneration of natural tissues and the creation of new tissues using biological cells, biomaterials, biotechnology, and clinical medicine. A commonly applied defini-

tion of tissue engineering is "an interdisciplinary field that applies the principles of engineering and life sciences toward the development of biological substitutes that restore, maintain, or improve tissue function or a whole organ". Tissue engineering involves the use of living cells to develop biological substitutes for tissue replacements with the ultimate goal of regeneration and repairing the damaged organs.

The School of Advanced Technologies in Medicine was established in 2009 as a part of Tehran University of Medical Sciences. The education and research activities of this school are taking place in seven departments. In Tissue Engineering Department, multi disciplinary investigations are conducted in a broad range of the different scientific fields as follow: Design, synthesis and characterization of tissue engineering scaffold made from various biomaterials such as calcium phosphates, bioactive glasses, natural and synthetic polymers Stem cell based tissue engineering Investigation of tissue repair/ regeneration (Bone, Cartilage, Tooth, Cardiac patch, Nerve, Skin, Pancreas...) using biomaterials.

Nanotechnology

Nanotechnology has revolutionized many areas of science and technology in the last decade. Medicine and medical technologies have also been affected by this

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revolution.

In the next decade, considerable number of medicines and other medical products will be based on nanotechnology. Keeping in mind that new, fast and at the same time, efficient and cost-effective methods of detection and treatment of diseases are being introduced and also considering that human's health is a key to sustainable development, it becomes essential to know more and more and at the same time apply more of "nano" abilities. It is thus important to have professionals at different levels in various fields, which are capable of applying their knowledge and skills in medical industries as managers, technicians or advisors.

Considering the needs of medical and research centers, educational and degree programs can help in establishing research teams, which carry out research on discovery of new medicines and detection techniques based on nanotechnology, leading to establishment of laboratories and centers dedicated to nano medicine and medical nanotechnology.

Having mentioned these and considering the country's national nanotechnology roadmap, it proves essential to develop degree programs at postgraduate level in medical nanotechnology.

The permission for the establishment of M.Sc. program in medical nanotechnology was first issued in 2006, following which, the Ph.D. program started in 2007

Applied Cell Sciences

Applied Cell Sciences Group (ACSG) seeks a leadership role in applied cell sciences as stem cell therapy (SCT) and regenerative medicine (RM) through developing innovative, multidisciplinary collaborative approaches. We will train future leaders for education, research and clinical studies using cells specially stem cells. We will recruit and retain outstanding basic and clinical scientists to advance the field of interest through support from university funds, government, commercial sources and philanthropy. Our vision is to accelerate the promise of regenerative medicine by exploring the body's natural ability to heal itself.

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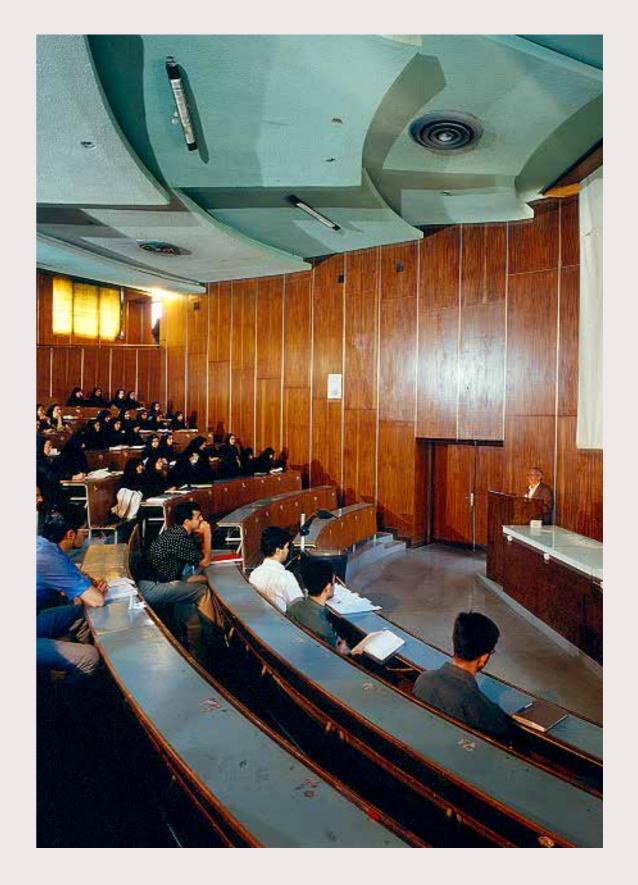
School of Interdisciplinary Sciences

In recent years, interdisciplinary approaches and activities have earned the interest of policy making, scientific research and education as well as the public. Beyond a shadow of a doubt, one of the most important reasons for this tendency towards approaches and activities is the emergence of the complicated phenomena and complex social problems that societies encounter today. Analyzing such incidents and finding a reasonable solution for such cases, especially in the social fields, seem to be very unlikely without educational and scientific connections between various approaches and disciplines.

The concept of interdisciplinary is used to describe and explain a broad range of scientific, educational and research activities in which experts of different disciplines collaborate with one another in relation to gaining a profound understanding, as well as analyzing, and fulfilling various needs. The important point is that interdisciplinary concept does not merely mean artificial and fabricated fusion of two or more disciplines, but it rather aims to build purposeful, and clear connection between the concepts and skills in various disciplines in order to fulfill the existing needs.

The aims of establishing of the School of Interdisciplinary Sciences, as a new established school, at Tehran University of Medical Sciences (TUMS) include the followings:

- 1 Paying attention to the importance and the need to strengthen links between different areas of science and expanding collaboration between disciplines in order to expand the frontiers of knowledge.
- 2 Systematic monitoring and integrating activities in the areas of interdisciplinary science at the University.
- 3 Open communication, education and research with universities and other educational institutions in line with preparing the grounds for launching interdisciplinary courses based on the University's rules and regulations.
- 4 Conducting research projects and studies in the field of interdisciplinary sciencebased assessment. It is noteworthy to mention that the permission to admit PhD students has been earned from the Ministry of Health and Medical Education. Hence, this school, having earned this permission, is planning to admit students and eventually build interdisciplinary connections between different fields, approaches and disciplines of medical sciences.



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Virtual School

Established in 2010, TUMS Virtual School is called as the scientific pivot of e-Learning in Medical Sciences in Iran. It is also called as the Center of Excellence for e-Learning in Medical education in 2011 and is going to be the Center of Excellence in e-Learning in the Middle East in near future.

Awards and nominations:

The awards and nominations received by Virtual School of Tehran University of Medical Sciences in 2012-2013, are national educational scholarship award by the university virtual clinical rounds site (SARMAD) and getting the first national rank in electronic health Festival by CME.

Faculty members of this school have received more than 9 National Educational Awards (Motahari National Educational Scholarship Festival) in the field of E-learning in Medical Education.

A positive, responsive, and respectful online school culture does not happen in isolation but arises as all teaching and administrative staff focus on achieving the three goals set by Virtual School in a thoughtful and meaningful manner. As a school, we have identified three goals:

- Reaching out to National and International Students
- To Be Responsive to the Educational and Administrative Needs of Our Students

- To support our students to boost their medical knowledge The main activities of Virtual School of TUMS are:
- 1- Providing e-majors in master and PhD degrees
- 2- Developing and providing e-CME and e-CPD for users all over the country
- 3- Designing and presenting degrees, certificates and diplomas in different blended short courses
- 4- Designing, developing and providing e-learning educational aid for face to face courses
- 5- Designing and holding a wide range of faculty members' development programs and workshops

Department of Education:

Our aim is to admit the best candidates and give them experience and necessary training to make a difference in different fields of medical sciences. We hope our students will gain the empathy that will make them the health professionals our world need.

Goals: To promote public health and expand the science boundaries, virtual and electronic education is playing an increasing role in medical education and training. Expanding and promoting the science of e-learning, actualizing the use of e-learning in medical education and making scientific ties with other research centers and local/international organizations are major points to achieve in department of Education.

Departments	Major	M.S.c	Speciality & PhD
Department of E-Learning in Medical Education	E-learning in Medical Education	$\sqrt{}$	PhD degree of this major would be run in near future
Department of Virtualization of Face to Face Program	Virtual Pharmaceutical Regulatory Affairs	$\sqrt{}$	
	Medical Education	$\sqrt{}$	
	Medical Library	$\sqrt{}$	
Department of Electronic Health	Five e-Health Majors have been developed and would be run in near future	V	

Location & Contact Information:
Virtual School, Tehran University of
Medical Sciences
Dolatshahi Alley, Nader St., Keshavarz Blvd.,
PO box:1416614741
Tehran-IRAN
Tel: +(98-21) 88978088
Fax: +(98-21) 88969594
http://etums.tums.ac.ir
etums@tums@tums.ac.ir

Department of Evening Courses

TUMS started the Department for Evening courses in 1991through the authorization issued by the Ministry of Health and Medical Education, and in order to make use of the educational facilities in the afternoon and evening hours.

The goals of the department include upgrading the academic level of the staff of the Ministry of Health, Treatment, and Medical Education, to take proper action in treating and medical education, and to train specialists based on the needs of the national health-care hierarchy.

Educational Departments		
Basic sciences Clinical sciences		
Radiology	Nursing	
Medical Records	Medical laboratory sciences	
Occupational Health	Anaesthesia	
Environmental Health		
Public Health		
Health care Management		
Library		
Operating room		

Location & Contact Information:
Department of Evening Courses

No.18, Behnam Alley, Quds st., Enghelab Ave.

Tel: +(98-21) 88968717 Fax: +(98-21) 889656647 http://shabaneh.tums.ac.ir Shabanehtums@yahoo.com



76 SCHOOLS



TUMS Today

12 Schools

16 Hospitals

87 Resaerch Centers

9 Educational and Health Research Station in 9 provinces

1505 Academic Members

(92 Instructors, 733 Assistant professors, 411 Associate professors, 269 Professors)

15072 Students (39% Male & 61% Female)

44 libraries

241 Postgraduate Programs Training more than 11394 students

(with considering MD students in this group)

Amir-Alam Hospital

Arash Women's Hospital

Baharloo Hospital

Bahrami Children's Hospital

Children Medical Center School

Farabi Hospital

Imam Khomeini Hospital Complex

Imam Khomeini Hospital

Cancer Institute

Vali-e-Asr Hospital

Razi Hospital

Roozbeh Hospital

Shariati Hospital

Sina Hospital

Tehran Heart Center

Tehran Woman's General Hospital

Ziaeian Hospital

Amir Alam Hospital

Amir-Alam Hospital is the second oldest hospital in Tehran after Sina Hospital. It consists of internal ward, neurology, gastroenterology, rheumatology, nephrology, infectious diseases, endocrinology, general & plastic surgery, hematology, pathology, radiology, sonography, CT scan, chemotherapy, pharmacy, cochlear implant, dentistry, odliometry, dialysis, CCU, ICU, & laboratory in addition to otorhinolaryngology ward which is considered as the most important ward of the hospital. It also has two operating room complexes for otorhinolaryngology and surgery operations.

Amir-Alam Hospital is the most famous otorhinolaryngology center in Iran with related clinics such as snoring clinic, olphactory clinic, sinus endoscopy, etc. This hospital has also served as the most important research center in the above-mentioned fields is Iran.

Faculty members of this hospital in surgery internal medicine, otorhinolaryngology and radiology wards are also supervising several residents in their related fields. Faculty members of otorhinolaryngology ward also offer two fellowship courses in rhino logy and head and neck surgery.

licensed Beds

Patients per year

Staff

Staff

Postal Address:

Inpatient Departments	Surgery, ENT, Internal disease, ICU & CCU
Departments	<u> </u>
	ENT Clinic , Endocrinology Clinic,
	Gosteroentric Clinic, Hematology &
	Oncology Clinic, Infection Clinic,
0 4	Nephrology Clinic, Rheumatology
Outpatient	Clinic, Plastic Surgery & Surgery
departments	Clinic, Surgery Clinic, Anesthesi-
	ology Clinic, Pain Clinic, Snoring
	Clinic, Acometry, Operating Theaters
	& Speech therapy

EEG, Stereoscopy & Spirometry

Paraclinics

N	Number of Staff	
Title	Female	Male
Faculty member	5	40
Nursing staff	225	4
Expert staff	7	2

221

226

504

13021

Radiology, CT Scan, Sono,
laboratory, Pathology, Hemodializ,
Pharmacy, Audiometry, Endoscopy,

North Saadi Ave., Enghelab Ave., across from Tejarat Bank, Tehran-IRAN Tel: +(98-21) 66706106-9, 66708103-5 Fax: +(98-21) 6670480

اميساعلم	88		
AMIRALAM		HOSPA	200 F-3-2
	70.2		

Arash Women's Hospital

In 1975 the hospital building, which was a two-floor building, was donated to the health system by Mr. Hormoz Arash, carrying the name of his demised son, Roointan Arash. Since then, it has constantly been developing and improving, starting from a polyclinic and ending in the new five-floor hospital.

The primary goal was to manage gynecologic diseases; however, at present, Arash hospital is becoming a general hospital for women, managed by women.



Inpatient Departments Gynecology-Obstetrics- Surgery-ICU-NICU-PostNicu-VI Nursery-IVF - Internal disease	
Outpatient departments	Laparoscopy – Gynecology – Obstetrics – Infertility - General Surgery - Breast surgery - Urology - Ear, Nose and Throat-Cardiology - Gastroenterology – Endocrinology-Infectious Diseases - Pediatrics - Vaccination - Physical Medicine & Rehabilitation – Acupuncture - Nutrition Consult - Breastfeeding Consult
Paraclinics	Pathology-Sonography and Color Doppler Sonography -Radiology- Mammography - Endoscopy - Colonoscopy- EMG-NCV- NST-Echocardiography-Stress testNeonatal Audiometry

Beds	105
Patients per year	11790

Number of Staff			
Title	Female	Male	
Faculty member	12	4	
Nursing staff	113	0	
Expert staff	16 (Adjuvant)		
1(GP)	7 (Adjuvant) + 1 manager		
Staff	263	57	

Postal Address:

No. 98, Baghdarnia (North Rashid) St., After Shahid Bagheri Highway, Ressalat Ave., Tehran, IRAN

Tel: + (98- 21) 77883288 Fax: + (98- 21) 77883196

80 HOSPITALS

Baharloo Hospital

This general hospital was founded upon the request and with the cooperation of The Railroad Company employees in 1940. The hospital is located in the south of Tehran and is one of the oldest hospitals in the district.

Highlights

International Campus of Tehran University of Medical Sciences, Sleep Clinic (Sleep lab), Occupational Medicine Clinic - ICU for toxicology - toxicology ward, emergency of toxicology, toxicology lab, health-care worker office, CCU, Post CCU, OSRC (Occupational Sleep Research Center)

Departments

Inpatient Departments	Paediatrics, Obstetrics and Gynecology, Surgery, Cardiology, CCU A & B, Post CCU A & B, Neonatal, Emergency Medicine, Hemodialysis, Thalassemia, Neurology, Orthopaedics, ENT Ward, ESWL(extra corporeal shock wave lithotripsy), Emergency of Toxicology, Internal Medicine, General ICU, ICU for Toxicology, Toxicology Ward, Sleep lab, Operation Room, Recovery, General Emergency Ward, ICUC
Outpatient departments	General Surgery, Urology, Paediatrics, Ophthalmology, Dermatology, Obstetrics and Gynecology, Internal Medicine, Orthopaedics, Neurology, Vaccination, Dentistry, Nephrology, Psychiatric Clinic, Infectious Disease Clinic, ENT Clinic, Diabetes Clinic, Asthma Clinic, Cardiology, Family Planning & Mother and Child Health, Sleep Clinic, Nutrition clinic, Physiological delivery, health care worker office, Skin clinic
Para clinics	Radiology, BMD, EMG, Spiral CT Scan, OAE, TCD, Echocardiography, Transesophageal Echocardiography, Exercise Test, Sonography, mammography, General Laboratory, Toxicology Lab, Sleep tests (Polysomonography), Endoscopy, Colonoscopy, Pathology, Eudiometry, Physiotherapy Ward, Pulmonary Function Lab, EEG, EKG, NST, Optometry, Actigraphy
Education	International campus of Tehran university of medical sciences, Sleep disorders, Toxicology and Occupational medicine, Paediatrics, Obstetrics and Gynecology, Surgery, Cardiology, CCU A & B, Post CCU A & B, Neonatal, Emergency Medicine, Hemodialysis, Thalassemia, Neurology, Orthopaedics, ENT Ward, ESWL(extra corporeal shock wave lithotripsy), Emergency of Toxicology, Internal Medicine, General ICU, ICU for Toxicology, Toxicology Ward, Sleep lab, Operation Room, Recovery, General Emergency Ward, ICUC



Nursing staff	227	17
Expert staff	31	65
Staff	221	157
Area	18000 m^2	
licensed Beds	330	
Staff	718	
Patients per year	13854	
Inpatient per year	r year 26000	

490586

Postal Address: Baharloo Hospital, Behdari Street, Rah Ahan Square, Tehran, IRAN Tel: + (98-21)55658500-11, 55683640-8

Fax: + (98-21)55648189 http://medicine.tums.ac.ir Hosp_baharloo@tums.ac.ir

Outpatient per year

Faculty member

Bahrami Children's Hospital

This specialized pediatrics hospital was founded in 1955 up on the will of late Mr. Mahmoud Monshibashi Bahrami and under the supervision of Mr. Yoosef Bahrami. In 1958, the hospital was turned over to the University of Tehran as a teaching hospital. In 1988, and during the imposed war, it was hit by an Iraqi missile and six people were martyred. The construction of the new building of the hospital lasted for 6 years (1991- 1997).

Inpatient Departments	Neonatal / PICU / NICU / surgery (Neonatal- pediatric) / Infectious disease / Pediatric ward(1)[Hematology- Nephrology- Cardiology] / Pediatric ward(2)[Immuonology-Metabolic- Neurology-Gastroenterology]
Outpatient departments	Emergency room / Hemodialysis / Thalassemi / Operating room
Paraclinics	Lab, Pathology / Radiology, Sonography / EEG, Spirometry / EKG, Vaccination / Echocardiography / Endoscopy, Nutrition / Physiotherapy

Area	9700 m ²
licensed Beds	180
Staff	118
Patients per year	8237

Number of Staff		
Female	Male	
13	30	
181	14	
54	91	
	Female 13 181	

Postal Address:

Shaheed Kiaee St., Damavand Ave.,

Tehran-IRAN

Tel: +(98-21) 73013000 Fax: +(98-21)77551584



82 HOSPITALS TUMS FACT BOOK 2014 83

Children's Medical Center Hospital

This specialized pediatric hospital was founded in 1968 thanks to Dr. Hasan Ahari, and Dr. Mohammad Qarib's efforts, and has also been called Dr. Ahari Hospital. As the first specialized pediatric educational hospital, it is the most developed and the best-equipped referral center in Iran.

The Children's Medical Center Hospital was founded in 1968 by late Dr. Hassan Ahari. Our center consists of more than 20 specialty and sub-specialty wards, including infectious diseases, blood, gastrointestinal, kidney & endocrinology, neonates, PICU, Immunology & Rhomatology, Surgery 1 & 2, Psychiatry, Heart & Lung, Open heart, EICU, Emergency, Endoscopy, Cat lab and general & urology operation theaters . Also, we have a long list of fully equipped paraclinic departments like CT Scan & MRI, Laboratory, Physiotherapy, Audiometry, Optometry, Dentistry, Round-the-Clock Pharmacy, Radiology and many others. The hospital offers a 400 registered bed capacity 70 of which are wellequipped emergency & special beds and 10% of our whole beds have the potential of getting VIP beds. We believe that our ability to deliver the best health care is made possible through our team of highly trained, dedicated and committed professionals within our medical, nursing and clinical services here in children's medical center hospital. Additionally, we provide sub-specialty care for more than 1500 patients monthly. This center was selected as the hub of excellence in pediatrics in 2008 by ministry of health and medical education. Our hospital services and facilities are open to all nationalities, irrespective of race, color and creed.

Vision:

- 1. Children's Medical Center Hospital as the Pediatric Center of excellence intends to be the significant center in the region by observing ethics through implementing progress in raising productivity in the field of offering therapeutic services with training skilled medical and paramedical staff.
- 2. To be the hospital of choice for patients and employees in Tehran, because of our prominent patient care and teaching programs.
- 3. To be well recognized as a technology leader in whole Iran.



- 4. To be academic center of choice for residents and healthcare professionals.
- 5. To be a prominent community member known for meeting the healthcare needs of entire community in pediatrics field through incomparable patient care and wellness programs.

Mission

- 1. Children's medical center hospital as one of the most experienced sub-specialized hospitals in the country is supposed to offer high quality and specialized therapeutic services to neonates, infants and children throughout country and region.
- 2. Children's medical center hospital is a medical institution to providing quality patient care with unrelenting attention to clinical excellence patients' safety and unparalleled passion and commitment to assure the very best healthcare for those we serve.

	Infectious Diseases, Neurology	
Inpatient Departments	Paediatric Surgery, Neonatal Surgery	
	Haematology, Endocrinology	
	Nephrology, Cardiology	
	Gastroenterology,NICU,PICU	
	Orthopaedics, Otorhinolaryngology	
	Urology,Rheumatology,Metabolism	
	Neonatal, Emergency Medici	
	Laboratory	
	Radiology	
Paraclinics	Physiotherapy	
	Speech therapy	
	Nuclear medicine	
	Rheumatology, Urology, Metabolism Genet-	
	ics, Immunology, Neurology	
	Neurosurgery, Dentistry	
	Dentistry of handicapped children	
	Ophthalmology, Otorhinolaryngology	
Outpatient Services	Neonatal, Dermatology	
	Haematology, Infectious Diseases	
	Nephrology, Surgery	
	Endocrinology, Gastroenterology	
	Cardiology, Internal Medicine	
	Orthopaedics	

38000 m ²
400
801
17313
100
300

Postal Address:

Children's Medical Center Hospital No.62, Mohammad Gharib Dr. Ave.,

Keshavarz Blvd., Tehran, Iran

Tel: + (98-21) 66920981-3 Fax: + (98-21) 66930024



84 HOSPITALS

Farabi Hospital

This specialized ophthalmology hospital was founded by professor Mohammad Qoli Shams in 1930. In 1971, it came to be called Farabi Teaching Hospital, and was turned over to TUMS in 1980. The hospital was once the nation's only ophthalmology hospital, and is still one of the biggest and highly equipped centers for treating eye diseases in the Middle East. Equipment such as phacoemulcification, YAG and Excimer lasers, Femtosecond laser are available at the center for performing surgical operations.

Inpatient Departments	Cornea Ward / Emergency Ward / Glaucoma Ward / Orbit and Lacrimal Ward / Retina Ward / Strabismus Ward	
Outpatient departments	Cardiology Clinic / Cornea Clinic / Orbit and Lacrimal Clinic / Emergency Clinic / Glaucoma Clinic / Retina Clinic / Strabismus Clinic / Headache Clinic / Ophthalmology Clinic / Orthoptic Clinic / Laser Therapy Department	
Paraclinics	Retinal Angiography Department / Topography Department / Pachymetry Department / Echography Department / Perimetry Department / Path biology Laboratory / Radiology Department / A&B Scan Department / Electrophysiology Department	

Number of Staff		
Title	Female	Male
Faculty member	5	41
Nursing staff	201	31
Expert staff	9	10
Staff	452	373

97.000 m ²
451
227
43837

Postal Address: Qazvin Sq, South Kargar Ave., Tehran133364-IRAN Tel: +(98-21) 55421001-6 Fax: +(98-21) 55421101



Imam Khomeini Hospital Complex

Imam-Khomeini Hospital Complex (formerly called Pahlavi Hospital), was founded almost 8 decades ago and is considered as one of the leading providers of patient care in Tehran. It is the biggest hospital in Iran and comprises of 3 medical centers, including Imam-Khomeini Hospital, Cancer Institute, and Vali-e-Asr Hospital.

The origin of Imam-Khomeini Hospital Complex dates back to 1938. With the increasing population and expansion of the higher education in medicine in Iran, and with general interest in building and expansion of modern hospitals rapidly growing in all parts of the country, a great effort was made in early 1931 to establish a hospital in Tehran in an area of 235'519 square meters. The Hospital's foundation was laid in 1938 and the building was completed in 1946.

Meeting the demands for establishing medical wards and initiating new clinical courses, the Hospital emerged as an academic medical center compatible with new plans in higher education.

The original part of the Hospital was built by a German construction company. During World War II, the Hospital had a stormy carrier for 5 years when allied forces settled in the building and used it as a military hospital. When the

armies withdrew and the war ended, the Hospital was finally opened for patients' care. The Hospital started its work in 1946 formally by initiating and launching several important clinical wards. The presence of outstanding physicians, professors, scientific and academic experts soon made this center similar to the other international counterparts at the time throughout the world. As the need of the Hospital's expansion was pressing, the Children's Medical Center (1969), Vali-e-Asr (formerly called Eghbal) Hospital (1975), and the Outpatient Clinics building (1975) were established consequently inside the Hospital's campus.

After the Islamic Revolution in Iran (1978), many more units were added to the Hospital Complex, including the Research Center for Science and Technology in Medicine, the Central Bank for Organ Transplantation (1994), Imaging Center (1995), Cancer Research Center (1996), Infertility Research Center (1997), Neurology Research Center (2004), AIDS Research Center (2005), Brain and Spinal Injury Repair Research Center (2006), and also specialty and subspecialty wards such as the new Radiation Oncology building with two linear accelerators, high-dose rate brachytherapy and CT-simulator bunkers and an operation room for intra-operative radiotherapy.



Imam Khomeini Hospital

The main building of the Hospital, including the current Imam-Khomeini Hospital, Infectious Diseases ward and Cancer Institute's building was constructed (1938-1941). The main goal of the Hospital has been medical research as a fundamental issue along with education and treatment. As a result, the Hospital Complex has been competent to grasp one of the highest ranking positions in medical education, research and health affairs throughout the country by a comprehensive planning to train talented students, residents and clinicians in specialty and subspecialty courses along with creating a situation to perform basic and clinical research, submitting papers to peer-reviewed national and international journals.

One of the greatest honors of this Hospital is the treatment of almost 10`000 war wounded soldiers during the eight-year defence against Iraqi invasion (1979-1987). Today, this Hospital has 282 faculty members, 185 Interns & 215 Stajer per mount, 4000 staff personnel and 1300 inpatient beds and is considered as one of the leading centers in medical education, research and patient care in Iran.

The Medical Imaging Center Which is launched in 1996. is located in the north part of Imam Khomeini Hospital and is about 1684 mm2. MIC is the largest and the most equipped academic, diagnostic and therapeutic center in the radiology field in Iran. This center has three floors. In the first floor, there are angiography (conventional & flat panel), MRI (1.5 and 3 tesla) CT Scan (Spiral and multidetector 64 slice) and Ultrasonography (Doppler, and 3D). The official part of the center is located in the second floor. Advanced diagnostic and interventional radiology research center (ADIR), office of Iranian Journal of Radiology (AJR) and library are located on the third floor.

Area	
licensed Beds	852
Patients per year	18116

Postal Address:

Keshavarz Blvd., Tehran -IRAN P.O.Box 13145-158

Tel: +(98-21) 61190 & 8 Fax: +(98-21) 66938886

Cancer Institute

Founded in 1949, Cancer Institute (CI) has given hope and life to thousands of patients for over 63 years. CI is the biggest referral center to decline cancer with essential role in assigning standards and protocols of therapy and caring for cancerous patients in Iran. The mission of CI is to promote the intense multidisciplinary approaches that inspire much of the outstanding cancer management achievement of the university and make CI a hub for cancer treatment nationwide. It is designed as a comprehensive cancer center and acts as a national focus for divers programs related to cancer. As a pioneering cancer hospital, CI is committed to providing the administrative infrastructure to support the pursuit of excellence in education, patient care, innovation, and research. CI consists of 14 departments such as surgical oncology, medical oncology, radiotherapy, cancer research, radiology, pathology, genetic counseling, specialized laboratory, rehabilitation, and palliative care. Some of mentioned departments are unique all over in country and act as leading centers. CI has had incessant attempts in taking steps in three fields of education, research, and treatment. Its main goal is to optimize management of cancer patients according to standard of care.

All university residents in surgery, radiotherapy, hematology, oncology, pathology, radiology, who were trained in Tehran University of medical sciences (TUMS), are passing some specialized course in CI in order to familiarize with sophisticated and unique cases. Moreover, thanks to the widespread capacities of CI, it hosts a lot of students and researchers from different universities from all over the country. CI training programs provide an exceptional environment for next generation of cancer fellowship in surgical oncology, hematology and palliative care. CI is committed to annually holding seminars and congresses in cancer-related arenas.

Research

The Research center of CI with its 50 faculty members in the scientific board, is an active participant in many research projects of cancer and has been an integral part of country cancer research system for cancer management strategies and policies. Because of referral center for complicated cases, the great bulk of patients and thanks to having a tumor bank, CI has common proj-

ects with national and international cancer centers. To fulfill this broad range of great responsibilities, different departments of CI cardinally collaborate to promote the overall health status of the society. Recently, CI was ranked top one among Iranian medical research institute for excellence in research.

Treatment

Complicated cancer patients from all over the country are referred to our multidisciplinary clinic in order to design management plans individually. At present, CI holds breast, gastrointestinal, sarcoma, head & neck and general cancer tumor weekly board meetings. At CI, compassionate physicians, nurses, clinicians, therapists, and staff members play a part of patient care team. CI is a unique historical center, equipped with highly advanced facilities and modern equipments in order to better serve difficult cancerous patients. In 2011, 8000 patients were admitted to CI and 120/000 outpatient visits were performed. CI cordially welcomes inter-Institutional collaborations in order to improve cancer patients' health all over the world.

Number	r of Staff	
Title	Female	Male
Faculty member	33	9
Nursing staff	151	46
Expert staff	3	
Staff	315	188
Area		

249

7966

Postal Address: Keshavarz Blvd.. Tehran1419733141-RAN P.O.Box 13145-158

licensed Beds

Patients per year

Tel: +(98-21) 66581571, 66581624, 66935062

Fax: +(98-21) 66581526

Vali-e-Asr Hospital

In 1975, this general hospital was founded by the National Oil Company. It was built in the campus of Imam Khomeini Hospital complex. Since it was established, hospital chiefs have included Dr. Etebar, Dr. Fahim, Dr. Nasrzadeh, Dr. Nematypour, Dr Mirkhani, Dr. Behjati, Dr. Emami Razavi, Dr. Rostamiyan, Dr. Naveri, Dr. Toogeh and Dr. Sazgar. Now the Vali -e- Asr Hospital has various specialty and subspecialty wards and some research centers.

	ICU/NICU/Endocrinologic Disease
	ward/ ENT ward/ General surgery
	ward / Hematological disease ward
Inpatient	/ Obstetrics and Gynecology ward/
Departments	Oncology ward/ Pediatric ward / Pe-
	renatalogy ward / Reproduction and
	Infertilities ward / Rheumatologic
	Disease ward/ Thorax surgery ward/

Outpatient

departments

CLINICS: pediatric clinic / oncology clinic/ rheumatologic disease clinic / hematology clinic / perenatology clinic/ENT clinic / general surgery clinic / thorax surgery clinic / gynecolsogy clinic / neonatology clinic / reproduction and infertility clinic/speech therapy and audiology assessment clinic/anesthesia consultation clinic/counseling clinic heart

Nuclear Medicine ward / Radiology Para clinics ward / Labs ward

Area	2800 m
	Nuclear.Med:5240m
licensed Beds	379
Staff	333
Patients per year	17473

Number of Staff			
Title	Female	Male	
Faculty member	43	50	
Nursing staff	342	34	
Expert staff	216	114	
Staff	20	105	

Postal Address:

Vali-e-Asr hospital, Imam Khomeini Complex,

Bagherkhan Street,

Tehran 1419733141, IRAN Tel: +(98-21)61198

Fax: +(98- 21) 66581529

90 HOSPITALS TUMS FACT BOOK 2014 91

Razi Hospital

This specialized dermatology hospital is one of the oldest teaching hospitals in Iran which is affiliated to TUMS. The Center was founded in one of the old districts of southern Tehran in 1934, and named after the great Moslem physician, Razi. In 1940, Razi Hospital was turned over to the faculty of Medicine of Tehran University of Medical Sciences.

Inpatient Departments	Dermatology, Plastic Surgery
	Dermatology, Plas- tic Surgery, General Surgery
	Auto Immune Bullouse,
	UV Therapy, Laser
	therapy, Otorhinolaryn-
Outpatient departments	cology
	Infectious Diseases,
	Nutrition
	Internal Medicine, Skin
	Tumor
	Genetics, Dentistry, Skin
	emergency, Cosmetic
Paraclinics	Radiology

Area	18300 m ²
licensed Beds	122
Staffed	95
Patients per year	2464

N	umber of Staff	
Title	Female	Male
Faculty member	20	10
Nursing staff	57	6
Expert staff	15	8
Staff	5	2

Postal Address: Razi Hospital,Vahdate- Eslami Sq, Tehran, IRAN

Tel: +(98-21)55633949 *Fax:* +(98-21)-55620300



Roozbeh Hospital

Roozbeh hospital is the oldest teaching psychiatry hospital in Iran. It was founded about seventy years ago. During its long service provision time, hundreds of psychiatrists have been graduated from this center and thousands of psychiatric patients have used the services delivered in this hospital. Training child and adolescent psychiatry, as a subspecialty in psychiatry, has been provided in Roozbeh Hospital since 1999.

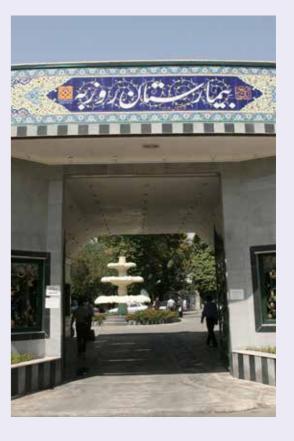
In 2007, the psychiatric emergency unit was developed so as to manage urgent psychiatric patients. Moreover, several scientific projects have been carried out in this center leading to published works in various international journals.

Inpatient Departments	Adult Psychiatry Child & Adolescent Psychiatry
Outpatient departments	General Psychiatry Emergency Psychiatry Child & Adolescent Psychiatry Clinical Psychology Speech Therapy Psychotherapy Neurology Memory Clinic Sexual Disorders Clinic Occupational Therapy Psychological Assessment Day Center Psychoeducation ECT (Electroconvulsive Therapy) Genetic counseling Neurocognitive laboratory
Paraclinics	Electroencephalography Laboratory
Training	 General Psychiatry Subspecialty in child and adolescent psychiatry MSc in Clinical psychology

ber of Staff	
Female	Male
9	18
33	18
91	67
20	20
53	10
23	84
	Female 9 33 91 20 53

licensed Beds	294
Staff	328
Patients per year	1888

Postal Address: Roozbeh Hospital; South Kargar Avenue, Tehran 13337/15914,IRAN Tel: +(98-21) 55412222 Fax: +(98-21) 55419113



92 HOSPITALS TUMS FACT BOOK 2014 93

Shariati Hospital

The Hospital was originally known in 1965 as "Center of Nuclear Medicine" and started its official activity in 1968 with the presidency of Dr. Nezam Mafi. Two years later, the first and main building was built beside the Center of Nuclear Medicine. The original building, called the Dariush-e-Kabir Hospital, opened in 1973 as a general hospital affiliated with Tehran University of Medical Sciences, with Professor Ameli and his assistant Dr. Davachi serving as the presidents of the hospital. After Islamic Revolution, the hospital was renamed Shariati Hospital in honor of Dr. Ali Shariati, an Iranian revolutionary and sociologist.

Today, Shariati Hospital, with a 38-year history, is a 534-bed; nonprofit facility that ranks among the premier medical centers in the country and is one of the major referral centers. Shariati Hospital has been recognized for becoming highly specialized since it was established. The Internal ward has been divided into some sub-special wards including Cardiology, Pulmonary, Renal, Gastroenterology, Rheumatology, Endocrinology Neurology and Hematology. In addition to its sophisticated Internal Medicine programs, surgical wards also divided into sub-special wards. There are some other programs such General Anesthesia, Regional Anesthesia and Pain Medicine and Intensive Care in the Shariati Hospital. Moreover, there are four Intensive Care Units, and a Coronary Care Unit. Furthermore, supportive departments such as library, laboratory, personnel, and administrative, financial, and audiovisual units started their activity upon the Hospital's management determination.

From its very beginning, Shariati Hospital has gained a reputation as a center of innovation and medical advancement thanks to attendance of professional physicians. The hospital was also a center through the years for medical research and today, the hospital has accommodated two research institutes and 14 research centers.

Numb	er of Staff	
Title	Female	Male
Faculty member	33	100
Nursing staff	461	59
Expert staff	250	92
Staff	223	358

Area	57767 m ²
licensed Beds	834
Staff	1300
Patients per year	26,000 outpatients and
	2,400 emergency patients are treated per
	month,
	21,000 patients are hospitalized,
	about 11,000 undergo surgeries annually.

Postal Address:

Shariati Hospital, North Kargar Ave.,

Tehran 1411713135, IRAN Tel: + (98-21)84901 Fax: +(98-21) 88633039



	wards	beds		wards	beds
1	General Surgery	40	19	Obstetric s and Gynecology	45
2	Rheumatology	17	20	Bone Marrow Transplantation1	9
3	Neurology	17	21	Bone Marrow Transplantation2	9
4	Urology	15	22	Bone Marrow Transplantation3 - Pediatrics Ward	10
5	Nephrology	16	23	Bone Marrow Transplantation4	7
6	Dialysis	11	24	Hematology (A)	12
7	Kidney Transplantation	7	25	Oncology(B)	12
8	Pulmonary	29	26	Neurosurgery	24
9	Endocrinology	16	27	Orthopedics	36
10	Gastroenterology & hepatitis	20	28	CCU	10
11	Newborn ward	7	29	Cardiology	22
12	NICU	6	30	Post cat	16
13	ICU general	10	31	Nuclear medicine	11
14	ICU internal	7	32	Maxillofacial Surgery	19
15	ICU Neurosurgery	8	33	Internal Medicine	16
16	ICU open heart	12	34	labor	5
17	ICU Post open Heart	7	35	Endoscopy	8
18	IVF	4	36	Hematology Emergency	17



94 HOSPITALS

Sina Hospital

Sina University Hospital is the first Iranian hospital established in 1837. In 1939, Professor Adl, the father of surgery in Iran, started to work as the Head of Surgery Department at Sina Hospital, affiliated to Tehran University of Medical Sciences and founded modern surgery in Iran. Since then, Sina Hospital has been one of the main trauma surgery referral centers of the capital.

- Surgery
 Colorectal Surgery Section
- b. Laparascopy Surgery Section c. Oncosurgery Section
- d. Emergency & Trauma Surgery
- e. Other General Surgeries
- f. Hand Surgery
- 2. Orthopedics
- a. Arthroscopy Unit
- b. Knee Surgery & Joint Replacement c. Spine Surgery & Scoliosis Correction
- 3 Internal Medicine
- a. Nephrology
- b. Rheumatology
- c. Infectious Diseases
- d. Cardiology e. Gastroenterology
- f. Endocrinology
- g. Respiratory Diseases
- 4. Vascular Surgery a. Peripheral Vascular Angiography
- b. Endovascular Surgeries
- 5. Neurosurgery
- a. Neurosurgery ICU b. Neuroendocrine Clinic
- c. Hypophysis Clinic
- 6. Urology
- a. Transplant Ward
- b. Kidney Transplantation Clinic
- c. ESWL (Extracorporeal Shockwave Lithotripsy)
- d. Urodynamic Unit (USD)
- e. TRUS & Prostate Biopsy Unit
- f. Endourology g. Female Urology
- h. Male Infertility Treatment Clinic
- 7. Radiology
- a. Interventional Radiology
- b. Digital Subtract Angiography (DSA) c. CT Spiral Unit
- d. MRI (1.5 Tesla) Unit
- e. Ultrasonography Unit
- f. Mamography Unit
- 8. Neurology
- a. Electromyography & NCV Unit
- b. TCD (Trans Cranial Doppler) Unit
- a. General ICU
- b. Emergency ICU c. Anesthesia Clinic
- d. Postoperative Acute Pain Service
- 10. 10. Special stations
- a. General ICU
- b. Neurosurgery ICU
- c. Transplant Ward
- d. Dialysis Department
- 11. Emergency Medicine

- 1. Orthopedics
- 2. Surgery
- 1. Vascular Surgery 2. Plastic Surgery of Hand
- 3. Nephrology 4. Neurology
- a. MS Clinic
- b Headache Services
- c. Encephalography
- d. EEG Monitoring Section
- e. Epilepsy Center
- f. MS Physiotherapy Unit
- 5. Gastroenterology
- 6. Neurosurgery 7. Rheumatology
- 8. Infectious diseases
- 9. Urology
- 10. Cardiology 11. Endocrinology
- a. Obesity clinic
- b. Diabetic foot
- 12. Oncology 13. Maxillofacial surgery
- 14. sEmergency medicine 15. Sport & exercise medicine

Postal Address:

Imam Khomeini St., Hassan Abad Sq., Sina Hospital,

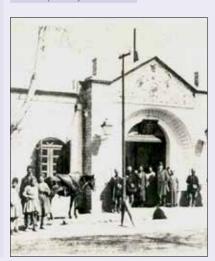
Tehran113746911, IRAN Tel: + (98-21) 6634 8500-9

Fax: + (98-21) 6634 8555

- a. Interventional Radiology
- b. Digital Subtract Angiography (DSA)
- c CT Spiral Unit
- d MRI (1.5 Tesla) Unit
- e. Sonography Unit
- f. Mamography Unit g. Laboratory & Pathology
- h. Nuclear Medicine Department
- i. Physiotherapy

Area		29000m ²
Licensed Beds		373
Staff		339
	Hospitalized	20181
D : /W	Specialized Clinics	71828
Patients / Year	Emergency Clinic	36395
	Paraclinical Outnatient	175835

	Number of Staff	
Title	Female	Male
Faculty members	17	66
Nursing staff	271	80
Expert staff	46	52
Staff	124	300





Tehran Heart Center

Tehran Heart Center, affiliated to Tehran University of Medical Sciences, was inaugurated with a 500-bed capacity in 2001. This educational, treatment, and research center, boasting 10 operating rooms, 6 angiography units, and one hybrid operating room, is dedicated to all specialized and sub-specialized diagnostic and treatment procedures in the field of cardiovascular diseases. Annually, approximately 3500 open heart surgical operations for coronary artery anastomosis, cardiac valve repair and replacement, and correction of congenital heart diseases are performed in the operating rooms in conjunction with nearly 15000 specialized procedures in the domains of interventional cardiology (angiography & angioplasty) and electrophysiology (EPS, Pacemaker implantation, ICD, etc.) in the Angiography Department. Additionally, procedures concomitant with surgery and intervention, which require state-of-the-art equipment and highly skilled teams, are carried out in the Hybrid Operating Room.

Number of Staff	
95	
750	
17000 m ²	
17000 m ² 500	
	95

Postal Address: Tehran Heart Center North Kargar St., Tehran1411713138 - IRAN Tel: +(98-21) 88029256 Fax: +(98-21) 88029256 http://rthc.tums.ac.ir

thcresearch@tums.ac.ir



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Tehran Women's General Hospital

This hospital is the first specialized Obstetrics and Gynecologic teaching hospital of Iran. It was founded in 1918 and was named Women's (Jahan Shah Saleh) Hospital in Pich- e- Shemiran area. In 1983, this hospital was moved to its present location and came to be called Mirza Koochak Khan Hospital. In 2011, it was renamed once more and became Tehran Women's General Hospital (Jame -e-Zanan). Currently, this hospital carries out its activities in therapeutic educational and research aspects of women's health.

In patient Departments	IVF & infertility unit , Pre-natalogy, Obstetrics Gynecology, Oncology, Internal medicine, General surgery, High risk neonates, NICU Operating Theaters, Emergency unit, ICU, VIP
Outpatient Departments	Gynecology, Prenatology, Infertility, Oncology Pediatrics, Metabolism & Nutrition Clinic Endocrinology, Cardiology Internal Medicine, General surgery Anesthetic clinic, Gastroenterology Menopause clinic, Andrology Prenatal diagnostic clinic (CVS, amniocentesis) Prenatal Care Clinic, Vaccination, Breast Milk consultation Physiotherapy, Emergency service Family planning, Infectious Deceases, Physiotherapy
Paraclinics	Laboratory Clinical, Pathology, Radiology Sonography, Mammography, Echo- cardiography Exercise test, Colposcopy, CVS, Amniocentesis, ECG.Pharmacy. NST

Area	11800 m ²
licensed Beds	350
Staff	135
Patients per year	8485

Endoscopy-Colonoscopy

Number of Staff		
Title	Female	Male
Faculty Member	23	3
Nursing staff	171	
Expert staff	24	
Staff	354	49

Postal Address:

Tehran Women, s General Hospital (Jame – e – Zanan) North Ostad Nejatollahi Ave., Karim Khan St.,

Tehran,IRAN

Tel:+(98-21)88897761 Fax:+(98-21)88915959



Ziaeian Hospital

Ziaeian Hospital was established in 1989, with the dedication of 7500 square-meter land of its first founder, Dr. Ziaeian. The mission laid out by Dr. Ziaeian remains the university's mission today, which is summed up in a simple yet powerful title of International branch of Tehran University of Medical Sciences and Health Services. What Dr. Ziaeian dedicated was a simple land for building a hospital to provide advance medical and health care. The realization of Dr. Ziaeian's vision, has led to the Educational-system Hospital as it exists today.

After more than 30 years, Ziaeian Hospital remains a leader in both teaching and treatment with eminent professors, top students in medical sciences, international studies, education and the health professions.

Highlights:

- Subspecialty Clinic of Pediatric Urology
- Subspecialty Clinic of Child & Adolescent psychiatry
- Educational Field of International Branch of TUMS
- Educational Field of Community Based Medicine
- Educational Field of family Medicine
- Educational Field of Maxillofacial Surgery of International Branch of TUMS
- Educational field of Community Based Participatory Researches

Inpatient Departments	Internal medicine, ICU General, CCU & Post-CCU, Pediatrics, Hemodialysis, Obstetrics & Gynecology General Surgery, Ophthalmology, Orthopedics, Operating room & Recovery, General Emergency ward, Dentistry, Ear, Nose, Throat
Outpatient Departments	Mother & Child health Care, Obstetrics, Gynecology, Cardiology, General Urology, Pediatrics Urology, Nephrology, Internal medicine, Gastroenterology, Infectious diseases, Ophthalmology, ENT (Ear, Nose & Throat), General Surgery, General Psychiatry, Child & Adolescent psychiatry
Paraclinics	Radiology, CT scan, MRI, Bone density test SCAN, Laparoscopy, Endoscopy, Laboratory & Pathology, Physiotherapy & Rehabilitation, Audio metrics, Speech therapy, Nutrition, EMG, NCV, Echocardiography, Exercise test, Pharmacy,

Area	7500 m ²
licensed Beds	155
Staff	113
Patients per year	7807

Number of Staff		
Title	Female	Male
Faculty members	6	20
Nursing staff	106	18
Expert staff	19	23
Staff	61	88

Postal Address: Abuzar Avenue, Tehran 1366736511,IRAN Tel: + (98-21)55176810 Fax: +(98-21)55751333

www.ziaeian.ir Ziaeian @tums.ac.ir



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TUMS FACT BOOK 2014 99



TUMS Today

12 Schools

16 Hospitals

87 Resaerch Centers

9 Educational and Health Research Station in 9 provinces

1505 Academic Members

(92 Instructors, 733 Assistant professors, 411 Associate professors, 269 Professors)

15072 Students (39% Male & 61% Female)

44 libraries

241 Postgraduate Programs Training more than 11394 students

(with considering MD students in this group)

- •• Endocrinology and Metabolism Research Institute (EMRI)
- Endocrinology and Metabolism Clinical Sciences Research Institute(EMCSRI)
 - Osteoporosis Research Centre (ORC)
- Endocrinology and Metabolism Research Centre (EMRC)
- Endocrinology and Metabolism Molecular- Cellular Sciences Research Institute(EMMCSRI)
 - Biosensor Research Centre (BRC)
 - Metabolic Disorders Research Centre (MDRC)
 - -Obesity and Eating Habit Research Centre (OEHRC)
- Endocrinology and Metabolism Population Sciences Research Institute(EMPSRI)
 - -Chronic Disease Research Centre (CDRC)
 - -Elderly Health Research Centre (EHRC)
 - -Non-communicable Diseases Research Centre (NCDRC)
- Institute for Environmental Research(IER)
 - Center for Water Quality Research (CWQR)
 - Center for Air Pollution Research (CAPR)
 - Center for Solid Waste Research (CSWR).

Endocrinology and Metabolism Research Institute (EMRI)

EMRI is a pioneering institute with a mission to combine clinical care, research and education in diabetes, endocrine and metabolic diseases. By encouraging and supporting innovative research, the Institute aims to enhance understanding of these diseases and to accelerate the search for new treatment options and cure possibilities. Endocrinology and Metabolism Research Institute is affiliated to Tehran University of Medical Sciences and is comprised of three affiliated research institutes each of them, themselves, comprised of several research centres. Three research institutes of the EMRI are: Endocrinology and Metabolism Clinical Sciences Research Institute (inclusive of Diabetes Research Centre, Osteoporosis Research Centre ,and Endocrinology and Metabolism Research Centre), Endocrinology and Metabolism Molecular- Cellular Sciences Research Institute (inclusive of Biosensor Research Centre, Metabolic Disorders Research Centre, Obesity and Eating Habit Research Centre), and Endocrinology and Metabolism Population Sciences Research Institute (inclusive of Chronic Disease Research Centre, Elderly Health Research Centre, and Non-communicable Diseases Research Centre).

In pursuit of its goals, the Institute:

- Provides well-equipped integrated laboratories and facilities for clinical and basic research.
- Defines teaching and research in the context of clinical service delivery and fosters the translation of research findings into clinical practice.
- Provides high-level training and job opportunities for scientists, doctors, nurses and other professionals.
- Forges links and promotes collaboration between research and clinical expertise of groups investigating a wide range of related diseases at Tehran University of Medical Sciences.
- Creates opportunities for cross-fertilisation of ideas and synergy, thereby encouraging national health initiatives.

History

The Endocrinology and Metabolism Research Institute comprises diverse groups of scientists, clinicians and allied health care providers in relevant fields of expertise, inclusive of clinical and basic sciences.

Since its foundation in 1993 as the Diabetes Research Centre of Tehran University of Medical Sciences, EMRI scientists have been progressing towards a more collaborative approach on research and clinical projects.

Collaboration with the WHO

EMRI is a WHO Collaborating Centre for Research and Education on Management of Osteoporosis and Diabetes since 2006. Having fulfilled its planned objectives, the EMRI has retained its status as a WHO Collaborating Centre since formation of the collaboration.

Research Institutes and Research Centres

Currently, EMRI is comprised of three research institutes and nine research centres as follows:

Endocrinology and Metabolism Clinical Sciences Research Institute (EMCSRI)

The Endocrinology and metabolism Clinical Sciences Research Institute of the EMRI is consisted of the following research centres:

<u>Diabetes</u> <u>Research Centre (DRC)</u>

At the beginning of the third millennium, non-communicable diseases are considered as the leading cause of mortality all across the world. It is reported that chronic diseases impose a substantial financial burden which constitute approximately 70% of the health care costs in different countries. Amongst all non-communicable disease, the prevalence of diabetes is rampantly increasing and although it is forecast that it will reach to 285 million (6.4% of total world population) in 2030, some projections predict even higher rates.

There is evidence indicating that 7.7% of the Iranian population aged above 25 is affected by diabetes, and currently 2 million diabetic patients are living in the country. Latest reports demonstrate that diabetes constitutes 8.69% of all the whole health care budget of the Islamic Republic of Iran. In addition, there is evidence that diabetes significantly affects the quality of life of Iranians living with diabetes all across the country.

Diabetes Research Center is one of the nine research

centers of the Endocrinology and Metabolism Research Institute of the Tehran University of Medical Sciences. The center commenced its activities in 1993 as the Diabetes Research Group of Tehran University of Medical Sciences. In 2010, the research group was officially promoted to the Diabetes Research Center of the Endocrinology and Metabolism Research Institute. The main objectives of the center are expansion of research on diabetes and production of knowledge in the related fields with the ultimate goal of the promotion of the health of the Iranian public. The activities of the center can be broadly categorized into four different categories: research, education, treatment and translation of science. In the field of research, the diabetes research center has conducted numerous research projects and published the result of the research in the most prestigious journals. Moreover, the center has most proactively contributed to the National Diabetes Research Network which plays a key role in synchronization of research conducted on different aspects of diabetes all across the country.

In addition, there have been several innovative attainments in different fields of treatment of diabetes. Examples of such innovative accomplishments are: application of stem-cell therapy, pancreas transplantation, and invention of biosensors for the measurement of glucose in the saliva. Amongst all innovations, invention of Angipars, an herbal formulation for treatment of diabetic foot ulcer, can be considered as a ground-breaking feat of research for the centre.

Establishment of the National Diabetes Guideline for prevention, monitoring, and treatment of diabetes was another remarkable achievement of the center. The National Diabetes Guideline is established based on the latest findings in the management of diabetes as well as regional needs and national resources. This guideline has played a key role in delivering a homogenous diabetes care service to the nation.

Diabetes research center of the EMRI works in close collaboration with the National Diabetes Research Network and has played a key role in its establishment. Defining national research priorities and leading research to meet the demands are the primary goals of the National Diabetes Research Network. The network has most effectively facilitated targeted research which in turn has resulted in remarkable achievements in different fields of diabetes care.

Professional and public education is another important mission of the center. Holding national and international seminars on different aspects of diabetes for health care professionals is one of the most important activities of the Diabetes Research Center. The center also publishes different educational materials such as brochures, pamphlets, and multimedia on a regular basis to raise public awareness of the diseases. In addition, the Diabetes Virtual Clinic, established by the Centre, plays a great role in provision of information about different aspects of diabetes for the public. Moreover, radio and television programs which are broadcasted all across the country, especially on the occasion of the World Diabetes Day, are considered as most influential and informative nationally.

In the field of treatment, two Diabetes Clinics of the Diabetes Research Center have been formed as a response to the need for a multidisciplinary approach to treatment of diabetes. These clinics aim to achieve this goal via utilizing modern technology and innovative approaches to diabetes care. Expert clinicians working in different related fields work in close collaboration to ensure the perfect quality of care provided by Diabetes Clinics of the Diabetes Research Center.

$\frac{Osteoporosis}{Research\ Centre\ (ORC)}$

Osteoporosis Research Center was first established in 1999 as a research group of the Endocrinology and Metabolism Research Center of Tehran University of Medical Sciences.

During the past decade, a plethora of research has been carried out on different aspects of osteoporosis by the osteoporosis research team of the EMRI. Considering such prominent achievements, the group was promoted to an affiliated Research Center as soon as the Endocrinology and Metabolism Research Institute was formed in April 2010. Currently, the center is an active member of the International Osteoporosis Foundation (IOF) and plays a leading role in design and implementation of strategies for prevention and management of osteoporosis in the region.

The Osteoporosis Research Center is also the secretariat of the Iranian Osteoporosis Research Network (IORN) which commenced its activities in five provinces of Iran, soon to spread all across the country. The main objective of the IORN is to lead and synchronize multicentre studies and support researchers working in different osteoporosis-related fields all over the country. The center also contributes to development of a national osteoporosis and fracture registry. This network is forecast to assist policymakers to adapt effective strategies for prevention and treatment of osteoporosis, thereby

reducing the burden of the disease and its complications. Professional and Public Education is another important aspect of activity of the Osteoporosis Research Center. Various scientific events, congresses and seminars designed for healthcare professionals as well as several public awareness raising campaigns for the general public are organized and held by the Center every year. Particularly, every year on the occasion of the World Osteoporosis Day which is celebrated in Iran for a whole week, a wide range of activities aiming at heightening public awareness are designed and carried out by the Center. During this week, several educational brochures and booklets are published and distributed all across the country. It is worth noting that the Osteoporosis Research Center works in close collaboration with the Iranian Osteoporosis Society to ensure a most effective, widespread, and synchronized approach to raising public awareness of this silent disease.

In addition, two well-equipped osteoporosis clinics of the Osteoporosis Research Center play a key role in clinical service delivery to the patients affected by the disease. The osteoporosis clinics of the Center boast of being equipped with the most advanced bone densitometry units; and, specialist consultants of the clinic working in different osteoporosis-related fields provide the best possible clinical services for the patients. It is noteworthy that having fulfilled the required ethical requirements of the Institute, the obtained data can also be used for research purposes.

The ORC has conducted several comprehensive largescale projects on bone health. What follows is a summary of some of the most important national projects conducted by the Center during the recent years.

1. Iranian Multicentric Osteoporosis Study: This population-based project, also known as IMOS, was conducted in collaboration with the Ministry of Health and Medical Education, Iranian Osteoporosis Research Network, and several medical schools from different provinces of Iran. The IMOS project was designed to assess the prevalence of osteoporosis and vitamin D deficiency as well as their risk factors in a large and nationally representative cohort of healthy Iranians. It needs to be mentioned that as the next step, the Center is planning to assess the prevalence of osteoporosis and vitamin D deficiency in rural areas of Iran.

2. Milk Fortification Project: Considering the high prevalence of vitamin D deficiency among Iranians from all genders, ages, and ethnicity backgrounds, fortification of dairy products with vitamin D has become increasingly popular in the recent years. In this regard, Osteoporosis Research Center has designed several national

projects to assess the quality of the fortified products. The main objective of this study was to assess the effectiveness of the fortification project in terms of increasing the serum vitamin D levels in school children of Tehran.

Endocrinology and Metabolism Research Center (EMRC)

Endocrinology and Metabolism Research Center it one of the nine Research Centers of EMRI which was established in 2010 following the official formation of the Institute. The main objectives of the Center are to foster and create the opportunity for research on various aspects of endocrinology with the exception of diabetes and osteoporosis. The center is consisted of several different research groups, each of them covering a specific field of endocrinology, and thereby filling the gaps between different disciplines.

The main areas of interest of this research center include: pituitary and thyroid diseases, puberty, learning and developmental disorders, reproductive system and adrenal gland endocrinology, nutrition and endocrinology, and psychiatric aspects of endocrinology.

A number of researchers as well as PhD students currently work in close collaboration with the center under direct supervision of nationally renowned supervisors (professors, associated professors and assistant professors of the Tehran University of Medical Sciences). It is worth noting that a great proportion of the research projects of the center are carried out by student and specialist clinicians as their doctoral theses.

The results of the research conducted by the center are published in prestigious journals and presented in different conferences and seminars. Conducting joint research projects in collaboration with other research centers as well as clinical or diagnostic departments of Shariati Hospital has always been an inextricable part of the research carried out at the EMRC.

One of the remarkable achievements of the EMRC can be asserted to be the implementation of the clinical information registration system of endocrine diseases. In addition, as Iran is a region endemic for Thalassemia, EMRC has founded the Thalassemia Clinic of the EMRI in 2012. The information of the patients referred to this clinic is consistently synchronized with the electronic registration system of endocrine diseases in order to facilitate research carried out in the field and improve treatment services to the patients.

Endocrinology and Metabolism Molecular-Cellular Sciences Research Institute (EMMCSRI)

Endocrinology and Metabolism Molecular-Cellular Sciences Research Institute is consisted of the following research centres:

Biosensor Research Centre (BRC)

Biosensors have recently emerged and are increasingly utilized as reliable instruments in different aspects of health care provision, particularly for diagnosis and monitoring the progress of different diseases. The regular assessment of analytes in biological specimens is required to demonstrate the metabolic states of patients, particularly in those who are admitted to intensive care units of hospitals.

Due to the diversity of electrochemically detectable analytes and signal transducers, biosensor technology encompasses a wide range of disciplines. Typical analytes which are detectable by biosensors include antibodies, enzymes, affinity ligands (e.g., lectin), receptors, peptides, oligonucleotides, organelles, organisms, and tissue slice enzymes. The methods of signal transduction used range can be electrical, optical, electrochemical, thermometric, piezoelectric or magnetic.

Biosensor Research group was first established in 2008 as a research group of Endocrinology and Metabolism Research Institute of Tehran University of Medical Sciences. Since its establishment, this group has carried out several research projects and published numerous articles in the most prestigious and universally renowned scientific journals. Considering these remarkable achievements, the group was promoted to an affiliated Research Center as soon as Endocrinology and Metabolism Research Institute was upgraded in December 2012.

The main focus of the research carried out by the Research Center is on both experimental and clinical aspects of design and utilization of biosensors in the field of endocrinology and metabolism. The center also aims

to obtain, classify, and present the fruits of research in the field. Biosensor Research Center pursues a unique, specific and effective method in the development, expansion, and clinical implementation of the knowledge on biosensors. The Center has also a strategy for national implementation of the science and to develop novel methods of detection and measurement of analytes with use of biological materials.

The research activity at the Biosensors Research Center includes a wide range of projects including:

- 1. Development of biosensors for non-invasive glucose measurement,
- 2. Development of immunosensor and facilitation of their clinical and pharmacological application,
- 3. Development of DNA-biosensors and promotion of their application in clinical and pharmacological fields,
- 4. Development of enzyme-biosensors and their application in the clinic as well as toxicology and pharmacology,
- 5. Evaluation and optimization of different immobilization procedures for proteins such as antibodies, enzymes, and mediators for the development of enzymatic and non-enzymatic screen printed electrode based biosensors.
- 6. Development of the optical and electrochemical biosensors using nanotechnology.

Furthermore, development of more sensitive devices, particularly PoC and LoC test systems with greater abilities in high-throughput screening and multiple coincidental analyte analysis, is expected in the near future.

Metabolic Diseases Research Centre (MDRC)

Metabolic disorders occur when abnormal chemical reactions in the body adversely affect health and cause illness. "Inherited metabolic disorders" is a phrase used to describe different types of medical conditions caused by genetic defects that interfere with the body's metabolism. Metabolic disorders research center was founded in November 2012 as an affiliated research center of the EMRI. The aims of this research center are as follows:

- Establishing a central laboratory for the diagnosis of inborn errors of metabolism which will focus on measuring organic acid profile, analysis of specific metabolites, enzyme assay, and genetic analysis of the relevant mutations causing the disorder,
- Provision of nutrition consultation services for patients with inborn errors of metabolism,

- Establishing a patient registry (database) for inborn errors of metabolism,
- Carrying out epidemiological studies on metabolic disorders.
- Conducting biochemical and molecular research on metabolic reactions in the cell,
- Holding scientific events and workshops to promote knowledge about metabolism, metabolic disorders and their clinical management.

Obesity and Eating Habit Research Centre (OEHRC)

Changing lifestyle and increasing urbanization in recent decades has made obesity a critical health issue worldwide and Iran is no exception. Evidence from recent studies demonstrates that the prevalence of obesity is alarmingly increasing. This trend is observed in both developing and developed countries and imposes a substantial burden on health care systems. According to the World Health Organization, currently, 1.4 billion adults in the world are categorized as overweight or obese.

In response to the increasing prevalence of obesity in Iran during the recent decade due to changes in lifestyle and eating habits of the nation, and with the view of provision of specialized health services in this field, the Obesity and Eating Habits Research Center of the Endocrinology and Metabolism Research Institute was established in 1391. The main objective of the Center is to design and develop effective strategies for prevention and treatment of obesity. In addition, the Center aims to provide a rich and vibrant research environment for basic and clinical investigators, thereby developing novel therapeutic strategies to combat the disease.

The main goals of the Center are:

- 1. Establishment of effective national guidelines for diagnosis and treatment of obesity,
- 2. Development of a patient registry system and a national obesity database,
- 3. Conducting epidemiologic studies on different aspects of obesity,
- 4. Foundation of National Obesity Research Network,
- 5. Training and provision of educational courses and scientific events for healthcare professionals.

The Obesity Research Center consists of several different research groups including: endocrinology, nutrition, surgery, sports medicine, cardiology, epidemiology and psychiatry.

In addition, in order to provide professional clinical health care services such as patient registry system (database) and diet therapy, an Obesity Specialty Clinic was established by the Center in 1391.

Endocrinology and Metabolism Population Sciences Research Institute (EMPSRI)

Endocrinology and Metabolism Population Sciences Research Institute is consisted of the following research centres:

Chronic Diseases Research Centre (CDRC)

Chronic and incurable diseases are comprised of a group of contagious and non-contagious diseases which are the leading causes of mortality in both developed and developing countries. Such diseases impose a great burden on the public health systems in different regions of the world. Evidence of numerous studies demonstrates that the prevalence of the abovementioned diseases has increased significantly worldwide in the recent years, and so has the threat they pose to the health of the society. Considering the abovementioned situation, and with the view of promoting research and the quality of clinical care, the Chronic Diseases Research Center of the Endocrinology and Metabolism Research Institute emerged as an affiliated research center of the Endocrinology and Population Sciences Institute in 2011. The Chronic Diseases Research Institute covers a broad spectrum of both communicable (AIDS, hepatitis, tuberculosis...) and non-communicable (cardiovascular disease, metabolic disorders, malignancies...) diseases. The main objectives of the Chronic Diseases Research

- 1. Expansion and application of the knowledge on prevention and management of chronic diseases,
- 2. Conducting experimental and clinical research with the objective of enhancement of technical capacity and capabilities of the Nation in order to meet the increasing demands.

- 3. Collection, compiling, and systematically classification of national data and evidence in regards with chronic and non-curable diseases,
- 4. Establishment of the National Chronic Diseases Research Network in order to nationally synchronize the research carried out in the field and provide homogenous health care services to the public,
- 5. Training researchers and clinicians interested in different disciplines related to chronic diseases,
- 6. Enhancement of research capacity and facilitation of employment for interested researchers.
- 7. Forging collaboration with Iranian research centers and government funded institutes as well as non-governmental organization,
- 8. Initiation and expansion of mutual collaboration with international research centers and academic institutes.

 Presently, the CDRC is pursuing research on several

aspects of application of stem-cell technology in the treatment of different chronic diseases. In addition, cell-therapy clinic of the Center can be considered as a prominent achievement which plays a key role in the formation of a central cell-bank which can be exploited by different research and clinical projects.

In addition, considering the importance of training and education, the CDRC has launched a website containing updated and cutting-edge information designed for researchers and clinicians working in the field. Holding different scientific and educational events for interested experts can be considered as another important facet of activity of the center.

Elderly Health Research Centre (EHRC)

Since its establishment, the Elderly Health Research Center of the EMRI has been proactively involved in different aspects of research and education on different aspects of elderly health. The center is now considered as a nationally renowned leading organization in the field. This research center was founded by the EMRI in November 2012 and works in close collaboration with Kahrizak Charity Foundation.

Mission

The centre's mission is to:

- Conduct basic and clinical research in the fields of aging, geriatric, and gerontology as well as genetic, biological, clinical, behavioral, and social aspects of aging,
- Support and conduct genetic, biological, clinical, behavioral, social, and economic research on aging,
- Produce information about aging and sharing the

fruits of the research carried out with health care professionals and the public.

Programs

The Elderly Health Research Centers' programs for the future include:

- Education and support of the Iranian elderly population in health and other relevant issues,
- Initiation and forging joint projects with international and domestic research centers working on common fields of interest,
- Development of data banks and statistics for authorities and policy makers to assist them in passing legislations in support for the Iranian elderly,
- Provision of training for researchers working in elderly-health related subjects.

The most important ongoing research projects of the Elderly Health Research Center are as follows:

- Validation and psychometric studies on the Geriatric Assessment Tools and instruments (designed to identify cognitive disorders, nutritional state, pain, abuse, ADLs, sleep disorders and physical activity impairment)
- Kahrizak Longitudinal Aged Study (KLAS): (a dynamic cohort study inclusive of all prospective elderly residents of Kahrizak Charity Foundation Nursing Home in the next 10 years)
- Validation study of Minimum Data Sate (MDS)-3 in Iran: (a comprehensive evaluation of the quality of aged care services in community nursing homes)

The most remarkable future research project of the Elderly Health Research Center is:

•Acting the National Elderly Health Survey: is designed for the assessment of health status and requirements of the Iranian elderly. This survey is designed to systematically assess socioeconomic, mood, cognitive, functional, medical, medication, lifestyles, nutritional status, and other aspects of the Iranian elderly living in rural and urban areas of the country. The results of this study can most effectively assist Iranian authorities and policymakers to pass legislations with the aim of promotion of health and wellbeing of Iranian elderly population.

Educational Activities

With the view of the fulfillment of professional educational objectives, the Elderly Health Research Center has several plans in place for the future, including:

- Facilitation of employment of PhD by research students whose fields of interest are gerontology and aged care sciences.
- Running short term courses in the fields of geriatrics and gerontology for general practitioners.
- Holding workshops for the staff and employees of Kahrizak Charity Foundation

Non-communicable Diseases Research Centre (NCDRC)

According to the World Health Organization, non-communicable diseases are the main cause of mortality in the world. The four major non-communicable diseases include cardiovascular disease, cancer, chronic lung diseases and diabetes, and they are known to kill three in five people worldwide. Fortunately however, premature deaths from NCDs can be prevented by implementation of effective health-promotion policies and active engagement in implementation of preventive measures. The non-communicable Diseases Research Center of the EMRI was established in 1391. The Center currently employs 5 staff members, and more than 70 researches work in close collaboration with it. Among the projects that the center is working on, the following are worth noting:

- Burden of Disease in Iran from 1990 to 2010
- Assessment of Rural Family Physician Program
- Health Workers' Cohort

This center also plays a crucial role in provision of accurate and evidence-based information for Iranian policy makers so that they can implement policies and legislations to promote public health of the Nation in accordance with the strategic plan of the Ministry of Health and Medical Education of the Islamic Republic of Iran. Having employed young researchers and PhD students (by both coursework and research), the non-communicable Research Center has been successful in promotion of research in four main categories, namely: burden of diseases, assessment of the health system performance, health assessment, and social factors affecting health. In order to meet high academic standards, the Center carries out some of its research projects in is in close collaboration with several world-class universities and academic institutions such as: Harvard University, Imperial London College and the World Health Organization.

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Institute for Environmental Research (IER)

Due to the global effects of environmental pollution such as acid rain, climate change, water scarcity and decrease in access to safe drinking water, the establishment of "Institute for Environmental Research (IER)" was considered crucial in Tehran University of Medical Sciences and ratified in 2010, as the first research center in national level which focuses on health aspects of environmental pollution.

Based on the needs assessment, 3 specific centers including Center for Water Quality Research (CWQR), Center for Air Pollution Research (CAPR) and Center for Solid Waste Research (CSWR) have been established within IER.

39 faculty members are pursuing the following goals: attempting to play the role of flagship among other national research institutes, being the knowledge hub for WHO Regional Office; establishing 5 scientific national and regional networks and membership in at least 10 international networks up to 2025; conducting 70 comprehensive researches up to 2025; presenting 14 patents in the field of environmental science & technology; training 100 researchers; publishing 4 research-based articles per capita in the Institute.

Among the research projects of the Institute are:

- Environmental pollution and diseases patterns and loads in Iran.
- Inventory patterns and maps of pollutants in drinking water, air and soil.
- 3 Impacts of climate change on health in Iran.
- Construction and management of environmental health information systems in the areas of water, air, etc.
- Preparation of complimentary package for National Act on drinking water quality.

The institute is in active collaboration with international bodies such as WHO representative in Iran, EMRO, UNEP, and UNDP.

The Research Centers of this Institute are: Water Quality, Air Pollution, and Solid Waste

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Center for Water Quality Research (CWQR)

Population increase and industrial development have led to water pollution challenges in many regions of the world. On the other hand, synthesis of new organic compounds and their application in different industries have resulted in high concentration of these pollutants in raw and even treated waters. Based on the epidemiological studies, the rate of water-borne diseases has globally increased during the recent decades. This problem may become more intensive based on the impacts of climate change on water resources in regions such as Iran. Hence, the establishment of a research center focusing on the field of water quality has been considered significant and it was finalized in 2010.

The goals of CWQR are to determinate and update information of the present of status of water quality in surface and groundwater resources in different parts of Iran; to provide an appropriate center for forecasting water quality variations resulting from different natural or man-made phenomena based on research activities; to disseminate information and to network in the field of water quality challenges within scientific institutes and individuals; to produce applied-scale information in the field of regional and national water quality improvements; and to hold conferences and workshops for scientific exchange between researchers, scientists and engineers. The Center is home to 12 faculty members who are actively involved in tracing, forecasting and evaluation of water-borne diseases and health risks resulting from climate change in Iran; evaluation and estimation of behavioral model for environmental toxicities related to emerging contaminants and agricultural pesticides; preparation of the "Action Plan" for achieving the goals of the "National Act on Drinking Water Quality"; and provision of the "Drinking Water Quality System" for tracing and monitoring water pollutants. Center of Water Quality Research collaborates with WHO representatives in Iran including EMRO, UNEP, and UNDP.

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Center for Air Pollution Research (CAPR)

There is ample evidence that air pollution is a health hazard both in developed and developing countries. Exposure to air pollution can cause both acute and chronic health effects. The goals of CAPR are to monitor indoor and outdoor air quality, to assess health effects of air pollution, to evaluate human health effects of climate change, and hold conferences and workshops for scientific exchange between researchers, scientists, and engineers. With eight faculty members heavily involved in research, the Center is where several research projects such as studies on Air Pollution and Health. Air Pollution Modeling and Predication, Air Pollution Planning and Control, and Air and Radiation have been conducted. The Center collaborates with World Health Organization (WHO), Regional Office for the Eastern Mediterranean (EMRO), United Nations Environment Programme (UNEP), and United Nations Development Programme (UNDP).

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Center for Solid Waste Research (CSWR)

Change in lifestyle and development and growth in all types of urban, industrial and agricultural activities have multiplied the amount of produced solid wastes and have changed it. Some of these solid wastes are very dangerous to human and to environment. For example, infectious solid wastes produced in hospitals or in health care centers are related to many diseases which can be transmitted to human. In addition, many hazardous chemicals in the leachate from landfill sites of or in industrial solid wastes can enter into the surface or ground water resources and may severely pollute the soil. In this regard, establishment of a technical and specialized research center to study and focus on this

subject has been considered very necessary. The goals of the Center are set to be conducting survey on the characteristics of different sources of solid wastes and the effects of dumping and landfill sites on soil and water sources; presenting the map of solid waste management in the categories of urban, industrial, infectious, and agricultural; giving consultancy to the related organizations in the subject of 4R; monitoring the fate of solid waste produced in each field; and establishing a technical and specialized network and site for knowledge exchange.

In congruence with the needs of the society, a number of research projects have been conducted by 18 researchers in the Center such as:

- •Impacts of non-sanitary solid waste deposition on health
- •Provision of the maps of urban, agricultural, industrial, and infectious solid waste management in Iran
- •Environmental impacts and control of solid waste leachates
- •Management of infectious and hazardous solid wastes Center for Solid Waste Research actively collaborates with WHO representative in Iran, EMRO, UNEP, and UNDP.

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Reducing High-risk Behaviors Research Institute (RHRBRI)

The Research Centers of this Institute are: HIV, Iranian National Research Center for Addiction Studies and Community-Based Participatory Research Center:

HIV Research Center (HIVRC)

Iran Research Center for HIV AIDS is a pioneering institute in fundamental and social based research in fields of HIV/AIDS in Iran. This research center is af-

filiated to Tehran University of Medical Sciences and is located in Imam Khomeini Medical Complex. The research center started its formal activity in 2005 in an interdisciplinary activities targeting at training, researching, and promoting preventive plans, and treatment in HIV/AIDS fields. A great portion of activities in this center include

- 1. Conducting research activities in epidemiology, prevention, laboratory methods, treatment and care, mental health, addiction and other high risk behaviors,
- 2. Developing and expanding upon the obtained knowledge, and building capacity for health care providers and organizations in national and regional levels,
- 3. Providing clinical and mental services for HIV afflicted people, and their family members,
- 4. Establishing and running the "Yaran-e-Mosbat" (Positive Fellows) for HIV afflicted people in order to provide recreational, life skills, and welfare services for its members.

The center is staffed by 40 full time and part time physicians and researchers. In addition, the center holds vast international and national cooperation with other research centers.

Goals

IRCHA plays a pivotal role in the region in raising awareness in fields of HIV/AIDS. To successfully accomplish this role, the center, in conjunction with other research centers, is pursuing plans in research, training and promoting exemplar activities in increasing longevity, preventing HIV transmission, as well as improving the quality of life of those afflicted with HIV/AIDS.

Iranian National Center for Addiction Studies (INCAS)

Iranian National Center for Addiction Studies (INCAS) was established in 2000. In 2004, Ministry of Health, Treatment, and Medical Education approved INCAS as the first research center in the country in the field of addiction research. Iranian Drug Control Headquarters has been one of the main supporters of INCAS since its establishment. INCAS won the Best Research Center Award in 14th Razi Research Festival in 2008. At the beginning, INCAS was located in Roozbeh Psychiatric Hospital, which was later relocated to Farabi Hospital. INCAS has been the pioneer in drug addiction research and education in the country. The first clinical research of Methadone

Maintenance Treatment (MMT) in Iran was carried out at INCAS. Since then, more than 75 MMT training courses for physicians have been held at INCAS. The leading role of INCAS has had a great impact on the expansion of drug addiction treatment centers throughout the country. Apart from its national significance, INCAS has been a well-established Regional Knowledge Hub in expansion of harm reduction programs for Injecting Drug Users (IDUs) in neighborhood countries since 2007.

The major goals of INCAS are to develop human knowledge in the field of addiction science; to perform basic and applied research including epidemiological and clinical studies to improve the national health care system in response to the problem of drug addiction; to study and monitor the status of drug use in Iran; to collect, arrange, classify and publish documents and papers; to train specialists and researchers in the field of addiction; to encourage, promote and employ researcher; to promote inter-sectoral action in response to drug addiction problem within the country; to scientifically collaborate with research and training centers of other countries and international organizations in compliance with laws and regulations of the Islamic Republic of Iran; and to provide appropriate solutions for drug abuse management.

With 23 faculty members, numerous research projects are conducted based on the following research priorities:

- Experimental studies on molecular and cellular mechanisms of drug addiction,
- Neuro-cognitive studies on drug addiction,
- Clinical studies of drug addiction including randomized controlled trials of new treatment modalities,
- Development of questionnaires and other assessment tools for drug addiction research, especially in Persian language,
- Development of national registries for promoting national drug information system,
- Designing and conducting household and school surveys at national and provincial levels.

The Center is recognized as the knowledge hub for harm reduction among Injecting Drug Users (IDUs) by WHO and Global Fund.

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Community-Based Participatory Research Center (CBPRC)

In Iran, Population Research Centers were established in fall of 2001 to provide the necessary requirements to do health research "with the community" not "on the community", and to make the research topics more compatible with the real needs of the society. After a period of time in 2007, Community-based Participatory Research Center (CBPRC), was established in Tehran University of Medical Sciences.

CBPRC has conducted several research projects in the field of community based participatory research with the collaboration of community, academicians and other sectors. Its achievements include:

- Capacity building: Implementing more than 200 workshops on participatory research and related concepts such as facilitation, trust building, participation, priority settings, participatory intervention, and social capital for delegates of organizations, representatives of community and academicians.
- Research projects: All the projects done in CBPRC are useful to increase people's health and changing the policies affecting the health. Through 9 international projects, more than 60 small grants of research projects, approximately \$250,000 has been raised.
- Collaborative capacity: Increasing the capacity of Tehran University of Medical Sciences (TUMS) to communicate with various organizations and the community.
- Knowledge production: Writing books on participatory tools and methods, guidelines on different health topics like prevention of drug abuse, smoking and so on, and several articles.

Improvement of collective decision making of different stakeholders in the research process; coming up with indigenous methods of community empowerment in order to increase the required capacity for identification, prioritization, developing and implementing participatory interventions for health issues among the people, academicians and institutions; creating favorable conditions for undertaking community based participatory research; improving equity in health research, people's participation and inter-sector collaboration to tackle social determinants of health, all and all are among the main goals of the CBPRC.

More than 60 projects have been conducted in CBPRC. Some of them are as follow:

- Mitigating the impact of drug use and high risky behaviors in the informal settlements of the cities of Bandar Abbas, Kermanshah and Zahedan
- Methods of community involvement in health sector reform
- Assessing the effectiveness of participatory intervention package on earthquake preparedness and mitigation in zone 17 of Tehran
- Assessing the effect of life skills education on risk and protective factors against drug abuse in adolescents and their families
- Developing an evidence-based guideline for prevention of drug abuse developing participatory guideline to reduce smoking among students
- Planning a participatory intervention based on PRE-CEDE-PROCEED model in narcotic anonymous families
- Assessing the Knowledge and attitudes of people and physicians about the implementation of family physician program in Tehran
- Developing public health guidelines for improving the youth physical activity considering communication strategy concept
- Assessing of Knowledge, attitude and ownership of LLIN among people of Malaria endemic target areas of IR Iran
- Implementation of Malaria program review in IR. Iran
- Facilitating of economical development process in the rural areas through local participation

The Center, with 14 faculty members, is in tight International Collaborations with World Health Organization, World Bank, UNISEF and IRI Iranian Ministry of Roads and Urban Development.

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Dentistry Sciences Research Institute (DSRI)

The Research Centers of this Institute are Dental Research Center, Laser Research Center of Dentistry, Craniomxillofacial Research Center and Dental Implant Research Center:

Dental Research Center (DRC)

The Dental Research Center (DRC) of Tehran University of Medical Sciences was established in 2004 to develop and promote research in specialized fields and arenas of dentistry and dental materials. This center assists in the recruitment of talented research-oriented faculty; works in conjunction with other institutional offices to locate funding sources for research; facilitates the development and integration of research programs; and provides support for all aspects of investigation on diseases of the orofacial complex. DRC has a broad range of interactive collaborations with other centers and has published a journal titled "Journal of Dentistry of Tehran University of Medical Sciences (JDT)" which is one of the first Iranian dental journals in English to be indexed in PubMed and visible in ISI Web of Knowledge, Thomson Reuters.

The overall goals of DRC are as follow:

- To develop and promote information and communication technology;
- To cooperate with national and international dentistry-affiliated centers;
- To seek funding sources for research;
- To improve the research capabilities of the members;
- To expand, develop, and facilitate the current laboratories associated with DRC and enhance their scientific capabilities;
- To establish new laboratories for research in molecular and cell biology;
- To achieve an impact factor of more than 2 for JDT;
- To improve human resource management; and
- To conduct studies on different aspects of caries control and oral diseases to promote public health and prevention strategies.

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Laser Research Center of Dentistry(LRCD)

In the era of information and prodigious technology, a few could be found that directly or indirectly are not familiar with the modern phenomena, especially laser. The medical science is indebted to the services of those who didn't shy away from voicing their opinions and using new techniques and attempted to pave the path to peak of success and open the doors of knowledge and end ignorance. New technologies such as laser have the ability to play an important role in the scenario of this thought. Although, by those who have the knowledge and the required skills of this field and not only benefit from that for the purpose of treatment of human suffering, but also can advance these sciences with new research and take however a short step.

In this regard, the center of Laser Research in Dentistry was founded in 27 June 2009 as the first research center in this field in Iran. Amongst the aims of this center we could mention utilization and development of human knowledge in the field of laser and carrying out fundamental, clinical and epidemiological research in order to improve the national health care system to respond to the needs of Islamic society. Since the establishment of this center, authorities have attempted to attract experts in order to carry out research projects and train researchers in the field of laser. All the authorities including the President and Vice President and Research Assistant, Research Council and the experts at the center are attempting to expand this field by providing the suitable environment and conditions and cooperation with other research centers. Hence we would like to use this opportunity as a platform to invite all interested parties and experts to cooperate with the center.

Craniomaxillofacial Research Center (CMFRC)

The Craniomaxillofacial Research Center was established in 2009. Since 2012, Craniomaxillofacial Research Center has been an active member of AOME board. According to the strategic planning of CMFRC, the aims of the center are as follow:

- To Develop researches in craniomaxillofacial fields;
- To improve the level of epidemiologic and technology knowledge;
- To develop interactions with international research centers; and
- To organize a Ph.D. course by research and a Master's Degree.

The research priorities of the Center can be defined as the implementation of software for patient's data in order to use this information in research projects; the implementation of software of 3-D Computer model to predict the orthognathic surgery results; implementation of research projects in craniofacial surgery and related fields (Eye, ENT); and designing and building a robot surgeon.

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$\frac{Dental\ Implant}{Research\ Center\ (DIRC)}$

Dental Implant Research Center approved at khordad 1389. **Aims**

- Development of information and communication technology
- Research prioritization in dental implant dentistry,
- Locating funding sources for research,
- Improving the research capabilities of the members,
- Improvement of human resource management.

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Institute for Advanced Medical Technologies (IAMT)

The Institute for Advanced Medical Technologies emerged from a former research center, called Research Center for Science and Technology in Medicine (RCS-TIM) affiliated to Tehran University of Medical Sciences, and located at Imam Khomeini Hospital.

This institute consists of three research centers, namely: Research Center for Science and Technology in Medicine (RCSTM), Research Center for Biomedical Technology and Robotics (RCBTR), and Research Center for Molecular and Cellular Imaging (RCMCI). IAMT's mission, vision, and values at each of the mentioned research centers put forth ideas of improving people's lives, shape the future of medical technologies, and personalize healthcare. Our confidence to set and achieve these goals underlie in our resourceful background in developing advanced medical technologies, while our research continues to reveal the potentials that can lead to fulfilling our aims.

Research Center for Science and Technology in Medicine (RCSTM)

Research Center for Science and Technology in Medicine is in fact the birthplace of Institute of Advanced Medical Technologies (IAMT). This center was founded in 1994 as the first center in Iran for exploiting science and technology in medicine, and commenced its work in Imam Khomeini Hospital, which is one of the largest and most paramount hospital sect ions affiliated to Tehran University of Medical Sciences, Tehran, Iran. This center was principally established to endeavor in accomplishing industrial independence of our country

in designing and developing medical technologies with regard to national demands and considerations. One of the key aims in establishing this center, was to bring together scientists in different fields, including basic science, engineering, medicine, and industry in a joint collaborative research environment. This collaboration is on one hand indicative of research policy of the center and on the other hand leads in quality improvement, fulfillment of local demands and required standards for development of medical technologies.

Since the beginning, the primary activities of RCSTM has been focused on research, education and quality control of medical technologies. In this regard, the research and education deputies have been responsible for advanced and specialized activities of RCSTM. The biomedical instrumentation subdivision has managed to perform quality control and maintenance of biomedical instruments in over 33 hospitals and medical care centers affiliated to Tehran University of Medical Sciences

Since 2000, with regard to the third development policy and the strategies ratified by ministry committee, RSCTM has strived to orient its activities on improving the technical knowledge of biomedical instrumentation industry, development of advanced medical and healthcare technologies, achieving independency in developing medical technologies and init iat ion of joint research sect ions among university and industry. The most recent efforts of this center involved executing industrialized projects, and fortunately this collaborations has resulted in format ion of several research laboratories, prototype manufactories in the RCSTM.

Research Center for Molecular and Cellular Imaging (RCMCI)

Research Groups: Medical Imaging Systems Group (MISG), Quant itative MR Imaging and Spectroscopy Group (QMISG), Biomedical Optics Research Group (BORG), Biomarker Imaging and Analysis Group (BIAG), Neuro-Imaging and Analysis Group (NIAG) Molecular and cellular imaging is a newly defined area of biomedical research, intended to provide visualization, characterization, and measurement of biological processes at the molecular and cellular levels in living systems. The main goal of this area of research is to en-

hance the effectiveness of current approaches of disease prevent ion, diagnosis and therapy, especially in cancer and neurodegenerative diseases.

Molecular imaging offers unique insights into the human body that enable physicians to personalize patient care. In terms of diagnosis, molecular imaging is able to provide information which cannot be attained with other imaging technologies or that would require more invasive procedures such as biopsy or surgery, identify disease in its earliest stages and determine the exact location of a tumor, often before symptoms occur or abnormalities can be detected with other diagnostic tests. As a tool for evaluating and managing the patient care, molecular imaging studies help physicians to determine the extent or severity of the disease, including whether it has spread elsewhere in the body, select the most effective therapy based on the unique biologic characteristics of the patient and the molecular properties of a tumor or other disease, determine a patient 's response to specific drugs, accurately assess the effectiveness of a treatment regimen, adapt treatment plans quickly in response to changes in cellular activity, assess disease progression, and identify recurrence of disease and help manage ongoing care.

Molecular imaging procedures, which are noninvasive, safe and painless, are used to diagnose and manage the treatment of cancer, heart disease, brain disorders, such as Alzheimer's disease, gastrointestinal disorders, lung disorders, bone disorders, kidney and thyroid disorders. The main technologies which are used today for molecular imaging include Magnet ic Resonance Imaging and Spectroscopy (MRI/S), Positron Emission Tomography (PET) (usually in combination with CT imaging), Single-Photon Emission Computed Tomography (SPECT), Optical Imaging (OI), and Molecular Ultrasound Imaging (MUI).

The research Center for Molecular and Cellular Imaging (RCMCI) aims to gather scientists, t rained technologists and specialized researchers to allow in vivo imaging of disease processes and development of new molecular therapeutics and diagnostics methods as well as design and development of new instruments that can used in the field of molecular imaging. Our mission is to translate advances in cellular and molecular biology, chemistry, physics, computer sciences, engineering,

instrumentation and animal models into improvements in care for patients, provide further advances in understanding of the molecular basis of disease and train investigators and technical staff in the use of modern molecular imaging techniques.

In this context, the main specific objectives of RCM-

CI are: To identify by advanced imaging techniques the physiopathological/ biochemical markers and endpoints of in vivo progression and response to therapy in several diseases; To test and develop, in appropriate models of pathologies at the pre-clinical level, imaging methods for non-invasively monitoring molecular and functional imaging parameters of disease progression, response to treatment and relapse To identify and detect , by advanced imaging techniques, molecular components and/ or react ion steps involved in cell signaling in cells of immunological and pathological interest, in response to cell receptor stimulation or to intercellular contacts with sensitive target tumor cells; To evaluate clinical protocols based upon the use of specific molecular probes and contrast agents, for imaging and monitoring in vivo progression and response to therapy of cancer and brain diseases.

To develop new instruments and imaging systems and introducing methods and algorithms for correct ion of artifacts in molecular imaging as well as developing packages for quantitative analysis of molecular imaging data Our group started its activities since 2003, and now at RCMCI we have five main groups, including: Medical Imaging Systems Group (MISG), Quantitative MR Imaging and Spectroscopy Group (QMISG), Biomedical Optics Research Group (BORG), Biomarker Imaging and Analysis Group (BIAG), and Neuro-Imaging and Analysis Group (NIAG).

At MISG, we focus on improving image correction techniques, developing modeling/ simulation tools, perform accurate quantitative analysis for medical imaging systems, explore new possible designs and modification of imaging system geometry, and develop sophisticated Monte Carlo, new radiation detect ion, and new imaging and measurement techniques.

At QMISG, we concentrate on quantification aspects as well as development of imaging protocols and software for various MRS/ MRI applications including: cortical bone quantification and segmentation, quantification and processing of MRS signals in clinics, analysis, quantification and method development for MR perfusion studies (DSC- and DCE-MRI) in clinics, and analysis and quantification of whole-body DWI-MR images for treatment response follow-up.

At BORG, we focus on design and implementation of biomedical optical system, design and implementation of simulation of photon propagation in biological tissues, and holding educational workshops on principles and application of lasers in medicine.

At BIAG, we aim to develop contrast agents(e.g.; super paramagnetic Iron Oxide nano-particles and Manga-

nese) for sensitive disease/ tumor detect ion methods and lymphography, design biomarkers and prepare for targeted delivery of contrast agents to cancerous tissues in early stage of the disease, and design nano-particles for stem cells tracking using MRI.

At NIAG, we focus on development of imaging protocols and software for brain mapping in different normal/abnormal brain state, functional and structure brain evaluation for various healthy/diseased/cognitive-states of the brain, and using multi-modality imaging systems (MRI) and quantification analysis methods such as DCE/ DSC/ DWI/ DTI/ QSM/ MRS for brain mapping in different normal/ abnormal brain states.

Research Centre of Biomedical Technology and Robotics (RCBTR)

Research Groups:

Image-Guided Surgery Group (IGSG), Medical Robotics Group (MRG), Medical Informatics Group (MIG) and Bio-Medical Systems & Equipments Group (BMSEG) Computer assisted and robotic Medical interventions are becoming common clinical practices in recent years as a result of the rising trend towards more precise medical procedures especially in surgery and rehabilitation. They are proved to provide better clinical results and lower the overall costs through shorter hospital stays, shorter recovery times, reduced need for repeated surgeries and availability of home based therapy. The domain of applications has now been extended to the full spectrum of the medical treatment, from diagnosis to preoperative planning, surgery execution, and postoperative rehabilitation. The products are thus rather diverse, ranging from modeling and visualization software tools to surgical simulator units, navigation systems, surgical robots, and robotic rehabilitation apparatuses. The discipline inherently involves the integration of many different computer-related technologies.

Modern medical imaging systems, such as CT, MR, PET, together with advanced techniques of image processing and modeling, 3D anatomy visualization, real-time tracking and sensing, haptics and robotics are considered to be the key underlying technologies.

Considering the wide range of technologies, products and applications, a number of different names have been attributed to the discipline, e.g., image-guided surgery, computer-assisted surgery, medical robotics, medical virtual reality, computer integrated

surgery. We prefer the term "Biomedical Technology and Robotics" as it emphasizes on the underlying technologies more comprehensively and includes all the tools developed for a range of applications as wide as the medical science. The science spans a wide spectrum of fields and techniques such as image processing, 3D object modeling, computer aided design, coordinate measurement and navigation, motion planning, man-machine-interfacing, control and finally design and analysis of mechanisms. Each of the above branches of this science has found exciting applications in the medical sciences and referred to as Biomedical Technology and Robotics. Our group started its activities since 2003 and now at RCBTR we have Medical Robotics Lab., Image-guided Surgery Lab., Fake operating room, R&D rooms, Rapid prototyping workshop, Electronic workshop and light and heavy Mechanical workshops.

At IGSG, we specially focus on medical procedures that use computer-based systems to provide virtual image overlays to help the physician precisely visualize and target the surgical site. The main goal of this group is to develop and to apply methods to integrate image analysis methods and software with a commercial image guided surgery navigation system.

At MRG, we have worked on a variety of research projects in different fields of medical robotics, in partnership with several clinics and medical centers. A wide range of clinical problems were identified and appropriate technologies were pursued, mainly in three key areas of virtual reality in medicine, surgical robots, and robotic rehabilitation systems.

At MIG, we concentrate on both software and algorithms for preparing, processing, maintaining and distribution of data as well as retrieving information to support the process of knowledge extraction and decision making. We try to develop systems for delivering extracted knowledge and/or processed data whenever and wherever needed during the process of providing healthcare and medical services, e.g. applications of data aggregation in diagnosis and decision making using heuristic methods.

At BMSEG, our mission is to design of new medical devices considering new technologies, to develop new methods of signal processing that extract useful information from physiological signals, and to extend our knowledge of pathophysiology through the investigation of behavior manifest in physiological signals. The main research fields of this group are: neuro-engineering, neuro-muscular control, biological signal pro-

cessing, assistive listening devices, hearing screening device development, rehabilitation engineering and biological system modeling.

Family Health Research Institute (FHRI)

The Research Centers of this Institute are Vali-e-Asr Reproductive Health Research Center, Breastfeeding Research Center and Maternal, Fetal and Neonatal Research Center.

Vali-e-Asr Reproductive Health Research Center (VARHRC)

Regarding the importance of reproductive health in the world and research in this particular field the center was decided to be established by gathering all possibilities and capabilities in one organization. After many years of preparation, this center was established as a research sub-division in Tehran University of Medical Sciences in June 1997. It considers its goals via three principle bases of research, treatment and education.

An IT department supports the center by data gathering and contacts to other colleagues in all over the world. The center has suitable services in research, education, counseling, medical diagnosis and treatment. The Study of common causative agents of sexually transmitted infections in women aged 15-45 by using routine laboratory techniques and multiplex-PCR: the evaluation of success rate metotraxate with CPK measurement in ectopic pregnancy patients in women and Vali-e-Asr Hospital, determination of the G-CSF effect on thin endometrium and ART outcome; the impact of luteal Phase support on pregnancy rates in intrauterine insemination cycle: A doble blind clinical trial; determination of the effect of psychological interventions in Depression-Anxiety Treatment and pregnancy outcomes in PCOs patients and comparative with Naltrexone and Clodinine; Determination of the effect of pioglitazone in comparison of OCP in regression of endometriosis in a double blind clinical trial; Comparison of serum level of vitamin D metabolite (cholecalciferol [25(OH) D3]) in patients with breast mass with normal patients; Evaluation of the effect of vitamin D on mammographic breast density are among the major research projects done in this Center.

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Breastfeeding Research Center (BFRC)

Breastfeeding Research Center of Tehran University of Medical Sciences, located in Vali-e-Asr Hospital, was established in 2010 by the Ministery of Health, Treatment, and Medical Education.BFRC provides a central support structure for collaboration among investigators working in areas of breastfeeding & child health. BFRC will be a focal point for child and neonatal feeding research area. BFRC has held several national seminars and workshops for pediatricians, and neonatologiss, nurses and other groups in Iran.BFRC's goals are to play an active in the fields of breastfeeding, neonatal nutrition and development, child feeding; to train medical students, residents, fellows, nurses, midwives, post doc clients and experts. They are educated in order to be able to conduct the applicable research and optimized treating methods and procedures in child feeding and perinatal medicine like Ph.D by research in neonatal nutrition.

BFRC is active in carrying out research projects such as:

- Comparison of stool calprotectin between breast-fed and non breast-fed infants.
- Evaluation of breast feeding refusal causes
- Frequency and effective factors of exclusive breast feeding.
- Effectiveness of integration of breast feeding educational programs in PHC.
- H.pylori incidence in Breast-fed & Nonbreast-fed infants
- Effectiveness of two different breast feeding workshops on KAP.
- Comparison the effect of drugs & education on breast feeding.

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Maternal, Fetal and Neonatal Research Center (MFNRC)

Maternal, Fetal and Neonatal Research Center (MFN-RC) of Tehran University of Medical Sciences, located in the Vali-e-Asr hospital, was established in 2009 by the Iranian Ministry of Health, Treatment, and Medical Education. MFNRC provides a central support structure for collaboration among investigators working in areas of Feto-Maternal and neonatal health. MFNRC will be a focal point for Feto-Maternal and neonatal research area. MFNRC has held several national seminars and workshops of perinatalogy and neonatalogy in Iran. The center aims to be active in the fields of neonatalogy, neonatal development, fetal medicine, perinatalogy and obstetrics; and to educate medical students, residents, fellows, post doc clients and experts in order to be able to conduct the applicable research and optimized treating methods and procedures in NICU and perinatal medicine like amniocentesis, intra uterine transfusion, PhD by research in perinatalogy and neonatalogy. The main research projects done in the Center are the evaluation of different models of feeding on saliva IgA; the effectiveness of Glycerin on neonatal feeding; the relation between maternal & cord blood uric acid; the comparison of Two different types of neonatal ventilation; the relation of ABR Response & Jaundice; the effectiveness of community-based interventional programs on neonatal health status; the promotion of pregnancy period & delivery process; the effectiveness of neonatal massage on weight gain; the relation of high risk pregnancy incidence on obstetrics history; and developping prenatal & neonatal registration plan.

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Digestive Diseases Research Institute (DDRI)

The "Digestive Disease Research Institute, DDRI" roots in the digestive disease section founded in 1976 in Shariati hospital, then called "Dariush-e-Kabir" hospital. Since the hospital was meant to become an independent medical school, it recruited fresh, well-trained staff in different disciplines including gastroenterology and hepatology.

Alongside with establishment of an in-patient ward training medical students, interns, and residents, scientific activities including weekly conferences and patient management sessions were held regularly and was welcome by physicians from inside and outside the hospital.

Besides the teaching activities, staff of the new GI/hepatology section started doing research in various fields of GI and liver diseases including inflammatory bowel disease which was a rarity at the time.

The gastroenterology unit of Shariati hospital started training fellows in late 1980s with addition of new staff. Thereafter it soon became the focal point of GI/hepatology scientific activities. The growing number of people involved actively in the field and their sense of changing picture of epidemiology and the need for having local data, mandated expansion of the research facilities and infrastructure. This was translated into establishment of the "Digestive Disease Research Center, DDRC" in 1992.

The three research centers affiliated to Digestive Diseases Research Institute (DDRI) are: Digestive Diseases Research Center (DDRC), Autoimmune and Motility Diseases of the Gastrointestinal Tract Research Center (AMDGTRC) and Liver, Pancreatic, and Biliray Diseases Research Center (LPBRC)

<u>Digestive Diseases</u> <u>Research Center (DDRC)</u>

The DDRC, first an office with one research fellow and one secretary, soon flourished to become a major research center in the country benefiting from a wide range of scientists from within the country and across the globe as members, affiliated persons, and collaborators. Starting with small studies using the yet primitive hospital and affiliated clinics databases, the DDRC managed to generate useful epidemiologic information on various GI and liver diseases in the country.

Soon, with gaining experience and recruiting more people with various expertise, the DDRC grew to become a major research center in the country and later on in the region. Thanks to the efforts of its faculty and administrative body, the DDRC was recognized as the first research center in the field of gastroenterology and hepatology by the Iranian ministry of health and medical services.

During this period, the DDRC had established a framework for research and was open to newer, larger scale, an more sophisticated protocols. Meanwhile, it expanded its relations beyond the local borders. Alongside major research projects in clinical and epidemiological fields, the DDRC started collaboration with well-known research institutes to tackle an important problem in northern Iran, the issue of esophageal and gastric cancers

The international agency for research on cancer, IARC, which had done investigations on esophageal cancer in Iran a couple of decades ago, and the national cancer institute (NCI) of the national institutes of health (NIH) of the United States were among the first organizations expressing interest for collaboration on the subject. This led to establishment of two major research fields, one in the north east of Iran for esophageal cancer research and the other in north-west of Iran mainly dedicated to gastric cancer research.

The north-east field expanded soon to include a cohort of over 50,000 people who were recruited actively and followed effectively. Considering the potentials of this cohort, the Golestan cohort, study (GCS)soon the objectives extended far beyond esophageal cancer and included cardiovascular, metabolic, renal and pulmonary problems involving various groups of investigators. As the GCS provided a rich pool of well-gathered, structured data and an effective infrastructure for research, other major European, North American, and Eastern

centers got involved in various aspects of this study.

These and other endeavors led to expansion of the

These and other endeavors led to expansion of the DDRC to become a research institute, the Digestive Disease Research Institute (DDRI) in 2011, recognized by the Iranian ministry of health as a independent institute affiliated to Tehran University of Medical Sciences with its own budget.

The DDRI is dedicated to development of the science of gastroenterology and hepatology in the country, region, and at the global level. This is aimed through various lines including active, sustained work in the field, benefiting from qualified and motivated faculty, researchers, and undergraduates, expanding international relations and collaborations, attending the local needs and sensing the winds of change well ahead of time, organizing local and international meetings, collaborating with other research centers in the country, supporting developing centers in the country and region, and contributing technically and scientifically to the Iranian association of gastroenterology and hepatology (IAGH). All these are effectively undertaken and the backbone is the dedication, sense of ownership, and contribution of all who work at the DDRI at different positions and levels.

The DDRI is currently involved in research on cancer, inflammatory bowel disease, gastro-esophageal reflux disease, various liver conditions including non-alcoholic steatohepatitis, viral hepatitis, and autoimmune hepatitis, stem cell transplantation, esophageal motility disorders, hepatobiliary diseases, and various epidemiological aspects of health and disease in the country. We believe that the key to our progress has been dedication, tireless efforts, openness to ideas and people and a constant flow of young, astute people who have joined us over the years.

We welcome people who are interested to work in a lively, expanding, and scientific environment to join us at the DDRI and explore new horizons.

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Autoimmune and Motility Diseases of the Gastrointestinal Tract Research Center (AMDGTRC)

The Autoimmune and Motility Diseases of the Gastrointestinal Tract Research Center (AMDGTRC) is one of the three research centers affiliated to Digestive Diseases Research Institute (DDRI). This center hosts research groups working on Celiac Disease, Inflammatory Bowel Diseases (IBD), Helicobacter Pylori, Achalasia, and Gastro-Esophageal Reflux Disease (GERD). The aim of establising this research center is to investigate the etiology, the pathogenesis, and the genetics of autoimmune gastrointestinal diseases. It is hoped that research in these fields would open up new methodolies for facilitating treatment of these diseases.

Since this center is a referral clinic for patients suffering from autoimmune gastrointestinal diseases, research projects based on very large number of these patients' records can lead to invaluable achievements.

Liver, Pancreatic, and Biliray Diseases Research Center (LPBRC)

The Liver, Pancreatic, and Biliray Diseases Research Center (LPBRC) is one of the three research centers affiliated to Digestive Diseases Research Institute. This center host research groups working on Nan-Alcoholic Fatty Liver Diseases (NAFLD), Autoimmune Hepatitis (AIH), diseases of pancreas and biliary tracts, hepatitis B, hepatitis C, chronic liver diseases, regenerative Therapy and stem cells. The aims of this research center are summarized as follows:

- 1) Facilitating the treatment and reducing the side-effects of diagnostic and therapeutic procedures on pancreas and biliary tracts;
- 2) Establishing a research center working on background causes of biliary tracts diseases and possibly reducing the side-effects and mortality due to pacreatic and biliary diseases:
- 3) Preparing the grounds for future research on cells,

prevention of cancers, and benign stenoses of biliary tracts:

4) Teaching correct methods of Endoscopic Retrogarde Cholangio-Pancreatography (ERCP) and Endosonography to gastroentrology fellows.

Pharmaceutical Sciences Research Institute (PSRI)

The three research centers affiliated to Pharmaceutical Sciences Research Institute (PSRI) are: Pharmaceutical Sciences Research Center (PSRC), Drug Design & Development Research Center (DDDRC) and Pharmaceutics Research Center.

Pharmaceutical Sciences Research Center (PSRC)

The PSRC of the Tehran University of Medical Sciences (TUMS) was established in 2003. The PSRC tries to spread interest in research among students, to recruit and support scientists and researchers at all academic levels in order to conduct both fundamental and applied (practical) researches in different fields of pharmaceutical sciences, and to promote research methods and training.

Some of PSRC goals are: to carry out and direct basic and applied research in various branches of pharmaceutical sciences; to provide facilities and a suitable environment to attract young and talented researchers to basic and applied research projects; to direct and promote research activities in terms of quantity and quality; To participate in education of research staff in the field of pharmaceutical sciences; to encourage the partnership of the benficiaries of pharmaceutical sciences, including the industry and the private sector; and to establish a center for academic exchanges between pharmaceutical science researchers at national and international levels, through congresses and scientific publications. 75 scientist and researchers at the PSRC have carried out more than 170 research projects on the basis of below research priorities:

- Synthesis and biological effects of new compounds.
- Analysis of pharmaceutical, toxic substances, and natural compounds.
- Exploring mechanism of action and toxicity of novel drugs.
- Clinical studies to approach new medicines.
- Evaluating efficacy of biological and natural products.
- Novel ideas and techniques in pharmaceutical sciences. PSRC as an extensive collaboration with Department of Plant Science of University of Pretoria, (South Africa); Drug for Neglected Diseases Initiative (Switzerland); and Faculty of Pharmaceutical Sciences Research Center, Chulalongkorn University (Thailand).

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Drug Design & Development Research Center (DDDRC)

Drug Design & Development Research Center (DDDRC) started working as an established component of the research and teaching infrastructure within Tehran University of Medical Sciences (TUMS) in late 2008. DDDRC focuses on bridging the gap between academic discoveries and production/analysis of new pharmaceutical substances. This center provides drug-development expertise and facilities to enable researchers to develop promising drug candidates with the perspective of scientific and technical revitalization of our society.

Apart from research and development of drug molecules and proposing the right methods for their identification and quantification, scientists at this DDDRC train highly qualified personnel for related institutions by organizing workshops and seminars.

The principle goals of DDDRC include:

• To produce science in design, development, synthesis, identification and measurement of drug substances and to help researchers of pharmaceutical sciences to im-

prove in both scientific and technical ways.

- To translate academic discoveries into new medicines and to seek and candidate possible drug molecules and their analysis methods.
- To form and maintain a research/teaching bond with other research institutes and faculties by performing multiparty researches.
- To create partnership between experimenters in academia, industry and government throughout the country and also globally.

Some of the main research projects carried out in DDDRC are as follow:

- A New Pre-Column Derivatization Method For Determination Of Nitrite And Nitrate In Human Plasma By Hplc
- A Simple Hplc Method For Determination Of Trazodone And Its Main Metabolite M-Cpp In Human Plasma
- Synthesis Of Novel (Cyclopentyloxy) Methoxyphenyl Cyclopentanes As Potential 4-Phosphodiesterase Inhibitors

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Pharmaceutical Quality Assurance Research Center (PQARC)

The Pharmaceutical Quality Assurance Research Center (PQARC) was established in 2010 at Drug and Food Control branch of TUMS Pharmacy School. This center provides research support for investigators on drug quality assurance and quality control. Since its foundation, this center has conducted over 15 studies in most areas of pharmaceutical quality assurance. It is worthy to mention that this center can catalyze interaction between industrial and academic scientists and to facilitate the application of a basic science approach and improve formulation of drug products.

A number of the center's main goals include discovering the best method for Q.A and Q.C of drugs, as well

as helping to treat diseases and improving the lives of patients. The Center's research priorities are to conduct studies in the areas of pharmaceutical quality assurance; biopharmaceutical quality control; active pharmaceutical ingredients control; process development of recombinant pharmaceutical; probiotics quality control; multivariate process quality control (MPQC); Chemo metrics; Quality by design (QbD); and process analytical technology (PAT).

This research center is in close contact and collaboration with many domestic and international research centers. The PQARC extends a warm hand to all other research centers and individuals with similar research interests and hopes for mutually fruitful and constructive collaborations.

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Neurological Rehabilitation Research Institute (NRRI)

The Research Centers of this Institute are Iranian Center of Neurological Research, Brain And Spinal Injury Research Center and Sports Medicine Research Center:

Iranian Center of Neurological Research (ICNR)

The Iranian Center of Neurological Research (ICNR) is located on the premises of Imam Khomeini Hospital Complex in Tehran, Iran. Being affiliated to Tehran University of Medical Sciences, it is the first estab-

lished neurological research center in Iran, seeking to provide an optimal setting for research in neurological disorders. The ICNR is trying to produce and distribute sources of information, which serve the interests of the academic societies, patients and general population as a whole. The crucial goal of this program is to promote the development of health status of the society in every aspect.

The ICNR's aim is to develop knowledge and technology for decreasing the incidence of neurological disorders, the prevalence of neurological disorders, the disability of neurological disorders, the financial burden of neurological disorders, the morbidity and mortality of neurological disorders; the improvement the quality of life patients suffering from neurological disorders; providing and identifying the epidemic of neurological disorders in Iran.

The Center with about 63 faculty members is carrying out research projects such as:

- Multiple Sclerosis & Demyeliniting Disease
- Cerebral Vascular Disease (Stroke, Cerebral Venous Sinus Thrombosis) & Vascular Neuro Intervention
- Epilepsy and Video EEG Monitoring
- Abnormal Movement Disorders
- Neuromuscular Disorders
- Headache
- Neurogentetic
- Neuroimmunology

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Brain And Spinal Injury Research Center (BASIR)

The first project in cell therapy for spinal cord injuries by injection of Schwan cells was conducted experimentally in 2001, as an interdisciplinary collaboration. Thereafter the research council of Tehran University of Medical Sciences, approved the funding an institute called Brain and Spinal Cord Injury Research Center (BASIR). Since then multiple study groups have been developed and research teams on the fields of basic neuroscience, spinal cord medicine and social determinants of health are collaborating. This institute has research laboratory, outpatient department, operation room, and rehabilitation gymnasium. There is a team approach prevailing in the center, comprising of neurosurgeons, anesthetists, urologists, plastic surgeons, colorectal surgeons, psychiatrists, community medicine specialists, biostatisticians, basic scientists, nutritionist, PhD fellows and research assistants. The center is based on joint activities of the team members. The center accepts funding from charities and NGOs, as well as annual governmental budget.

Research Fields:

SCI epidemiology, Stem cell Research and clinical applications, Basic Neuroscience and translational medicine, Spinal cord Medicine and surgery, Psychosocial aspects of SCI

International collaborations:

1- Agreement between Tehran University of Medical Sciences and International Neuroscience Institute Hannover. The purpose of this Agreement is to establish a mutual framework governing the joint education of Clinical Fellowship/PhD-Program "Clinical Neurosciences" between the Tehran University of Medical Sciences (TUMS) represented by its Chancellor Prof. Dr. Bagher Larijani and the International Neuroscience Institute Hannover (INI) represented by its President Prof. Dr. h.c. mult. Madjid Samii.

2- Collaboration with International Association of Neurorestoratology, Professor Hungyan Huang and Professor Geoffrey Raisman.

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Sports Medicine Research Center (SMRC)

The Sports Medicine Research Center is the first academic sports medicine center of its kind in Iran, which commenced its activities in 1998 as an office for studying and teaching issues of sports medicine under the directorate of physical education in the university. In year 2000, the postgraduate program on the field was approved by the Universities Council. The results of the activities of the two years was the compilation of topics heading in sports medicine for the graduate, specialist doctorate and PhD which was presented to the Ministry of Health and Medical Education in 2002, the Research Council of the TUMS, agreed to establish a Sports Medicine Research Center to promote research activities. In 2005, Sports Medicine Research Center was approved by Ministry of Health, Treatment and Medical education.

At the beginning, the Center had research and studies collaborations with the Office of Student Culture of the Ministry of Health and Medical Education, the Research Academy of Physical Education of the Ministry of Science, Research and Technology and also established collaboration in the course of its activities with the Federation of Sports Medicine. In addition, this center has research collaboration with other research centers such as Blood Transfusion Research Center and with some sports federations such as Iranian Football, Volleyball, Karate, Wrestling and Fitness and Aerobic Federations. The center, with the prediction of five research groups and 7 sub-committees has its research in related issues underway.

The principle goals of the center are to develop scientific research in different fields of sports medicine qualitatively and quantitatively; to perform basic and applicable research in the field of medical supervision and proper protection of sport teams; to perform basic and applicable research about exercise effect on health improvement, disease prevention and treatment; to train the researchers according to the latest outcomes of sports medicine studies; to provide achievements of sports medicine studies in Iran and other countries; and to produce scientific resources for researchers in the field of sports medicine.

Research Programs of the Center consists of:

•Risk factors and therapeutic interventions for spinal pain in athletes as well as general population.

•Physical and cognitive development in subpopulations such as athletes as well as special individuals.

- •Nutrition and weight management in athletes as well as general population.
- •Elite female athletes' common injuries and medical conditions; risk factors, preventive and therapeutic strategies.
- •Risk factors, preventive and therapeutic strategies for musculoskeletal injuries.

Having 36 faculty members and researchers, the Center is actively involved in scientific collaboration with the international organizations such as: Asian Football Federation, Medical Committee, International Society of Sports Psychology (ISSP), Asian South Pacific Association of Sport Psychology (ASPASP), Queen Mary University of London, UK, William Harvey Research Institute, UK.

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Rheumatology Research Center (RRC)

The first Rheumatology subspecialty department in Iran was established in Shariati Hospital affiliated with Tehran University. The department consisted of an inpatient ward, two rheumatology outpatient clinics and a small rheumatology research lab. The first two outpatient clinics were dedicated to connective tissue diseases and Behcet's disease, established in 1974 and 1977, respectively. The unit gradually grew up to become the Rheumatology Research Center (RRC) in 1981. It was the first research center from Tehran University of Medical Sciences (TUMS) recognized officially by the Ministry of Health, Treatment, and Medical Education in 1994. RRC was assigned as the center of excellence for Rheumatology in Iran in 2001.

Now RRC has the following Research Units: Ankylosing Spondylitis, Behcet's Disease, Epidemiology, Immunogenetics, Osteoporosis, Polymyositis-Dermatomyositis, Scleroderma, and Systemic Lupus Erythematosus. Each of them has its own electronic based

registry

RRC earned 3rd TUMS Avicenna Festival award for published books, in 1999. RRC received the title of "Medical Book of the Year" for three consecutive years in 1997, 1998 and 1999 from Tehran University "Book of the Year Festival". It received national Razi award for the project entitled "the effects of multidisciplinary educational program on quality of life and disability of patients with chronic low back pain" in 2010. RRC has also achieved Farabi Festival Award for the life-long studies on the ocular involvement of Behcet's disease, in 2011, Avicenna Festival award for the Premier researcher in 2012, Hadavi Award from Academy of Medical Sciences for COPCORD article in 2012, and NEDAI Award for Clinical Research in Auto-Immunity, Portugal in 2012.

RRC is the active member of Iranian Rheumatology Association in APLAR (Asia and Pacific League of Associations for Rheumatology). Behcet's unit of RRC has the APLAR chairmanship of the Special Interest Group (SIG) on Behcet's Disease. In addition, RRC is the co-chairman of SIGs for Osteoporosis, Scleroderma and Systemic Lupus Erythematosus. RRC is one of the founding members of the International Society for Behcet's Disease (ISBD) created in 2000.

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Immunology, Asthma and Allergy Research Center (IAARC)

The great advances made in basic and clinical immunology in the recent decades and the rise in the number of patients with asthma and allergies necessitated the establishment of a research center in Iran to encourage clinical and basic researches in the above-mentioned fields. "Immunology, Asthma & Allergy Research Center" officially began its scientific activities in Tehran University of Medical Science in January 2001. UNE-SCO Chair in Health Education was also established in this center on 2004 with the aim of broadening national

and international collaborations.

Activities of IAARC based on its strategic plan consist of conducting research projects, presenting papers and abstracts, collaborating with other scientific institutes, organizing workshops, educational and research courses for students, researchers, specialists, patients and their families, performing diagnostic tests for immune-deficient and allergic patients, establishing data, serum and DNA banks for primary immunodeficiency diseases, asthma and allergies, collaborating in publication of an international scientific-research journal in allergy, asthma and immunology and a newsletter.

With 14 faculty members, IAARC is trying to fulfill its major goals such as decreasing the burden of immune system diseases, improving the quality of life of patients, improving the diagnostic methods, the treatment methods, preventive measures, rehabilitation methods and identifying research priorities in Iran in the field of immune system diseases, asthma and allergies.

Researchers at the IAARC have been carrying out research projects on the basis of the following research priorities:

- Epidemiological evaluation of asthma, allergy and immunodeficiency diseases
- Study of environmental and genetic factors in the emergence of asthma, allergy and immunodeficiency
- Evaluation of geographical distribution of plants and allergenic pollens in Iran
- Purification of pollen and allergenic food extracts and collaboration for preparation of standardized extracts
- Evaluation of educational and research methods in diverse social, hygienic and preventive levels especially in asthma, allergy and immunodeficiency diseases in specialized levels and also for patients and their families
- Evaluation of quality of life in patients with asthma, allergy or immunodeficiency and in their families and providing solutions for its improvement
- Establishing new laboratory tests in diagnosis and treatment of asthma, allergy, immunodeficiency and prenatal diagnosis.

IAARC welcomes international scientific collaborations and has established collaborations in the recent 5 years with:

- The Department of Rheumatology and Clinical Immunology, Albert-Ludwigs-University Feriburg/ Germany
- Research Institute of Interventional Allergology and Immunology, Bonn/Cologne/Germany
- Institute of Pathophysiology Semmelweis University—Faculty of Medical and Seroscience (LTD), Budapest /

Hungray.

- National Heart and Lung Institute, Imperial College, London / UK.
- The division of Clinical Immunology at the Department of Laboratory Medicine, Karolinnska Huddinges,
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- Dermopathology Institute of Immacolata Rome/Italy

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Sina Trauma and Surgery Research Center (STSRC)

History

Sina Trauma & Surgery Research Center (STSRC) is a multidisciplinary research center with 12 faculty member focusing on the Primary, Secondary and Tertiary prevention of Trauma in Iran.

STSRC was founded in 1994 and it rapidly became the leader in Traumatology and Injury Prevention in the country.

Goals:

- Providing scientific and local evidence on Injury prevention for policy development
- Contribution in planning of effective service providing to Trauma patients
- To detect the risk factors of different Injuries in different groups in the community
- To promote the nationwide Injury Surveillance System
- To promote research in the field of Injury prevention and Traumatology in Iran
- To train researchers capable of conducting applied researches through the country Facilities:
- Crash Lab: STSRC has established a Crash Lab focusing on the Pedestrian safety, in collaboration with the school of Mechanic in Sharif Industrial University. Providing the highest safety to Pedestrians is the main

focus of this lab.

- Bio-bank: A bank of biological specimens is established to study the biologic aspects of Trauma. Specimens of traumatic patients are preserved in -86° temperature for future studies on biomarkers and metabolites that could improve diagnosis and treatment of different injuries.
- Psychological assessment lab: To promote researches on traffic safety such as the effect of different medications on the driving performance, a Driving-related psychological assessment facility is prepared in the STS-RC. This lab could provide objective evidence to set up traffic rules such as the maximum allowed driving time for long distance drivers, before a decline in the driving performance occur. The following tests are available in this lab: Adaptive Matrices Test, Adaptive Tachistoscopic Traffic Perception Test, Cognitrone, Determination Test, Reaction Test, and Peripheral Perception.
- Databank: AllIranian dissertations and published articles on Trauma are indexed and available to researchers. The address for this databank is: http://stsrc.tums.ac.ir/en/form1/DBSelection.asp

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Psychiatry and Psychology Research Center (PPRC)

Psychiatry and Psychiatry Research Center (PPRC) was established in 2003, and is located in Roozbeh Hospital. PPRC consists of 12 departments including Consultation-Liaison Psychiatry, Clinical Psychology, Memory and Behavioral Neurology, Mental Health, Spiritual Psychiatry, Child & Adolescent Psychiatry, Social Psychiatry, Cultural Psychiatry and Psychology, Psychopharmacology, Education Psychiatry, Genetic Psychiatry and Psycho-Sexual Health.

PPRC was appointed as one of the outstanding biomedical research centers in 10th, 12th, 14th, 15th, 17thand 19th at Razi Festival, in the years 2004, 2006, 2008,

2009, 2011 and 2013 respectively.

The main goals of PPRC are to perform the clinical researches for society health improvement; to perform fundamental researches with aim of expanding knowledge; to train scholars; to present guidelines according to the research results; to achieve the novel methods and advanced diagnostic-therapeutic technology; and finally to develop the scientific communications with credible research centers in the region and throughout the world. Activities Performed in Support of Research:

- Number of articles published in international journals: 315
- Number of articles published in national journals: 270
- Number of citations in 2012: 340
- Number of books: 50 research project: 150
- Supporting 118 theses in psychiatry specialty, sub specialty, psychology, medicine and pharmacology.
- Publication of Iranian Journal of Psychiatry: The first peer reviewed scientific journal of psychiatry, neuroscience and psychology in Iran that publishes articles in English. "Iranian Journal of Psychiatry" has been indexed in Scopus, EBSCO, IMEMR, PUBMED and PUBMED central databases.
- Running PhD programs through research courses.
- Conducting national and international congresses and seminars.

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Medical Ethics and History of Medicine Research Center (MEHR)

Founded in 2004, the TUMS Medical Ethics and History of Medicine Research Center (MEHR) is the largest and the most pioneering center in both fields of Medical Ethics and History of Medicine in Iran.

The major goals of MEHR are to manage and advance medical ethics education; to build capacity and run training courses in the undergraduate and postgraduate

levels; to continue education and training through holding national and international seminars, and congresses; to advance research in medical ethics field; to compile guidelines, declarations and regulations in medical ethics; to propose institutional amendments targeting at developing practical ethics in our country; to make policies for applying patients right charter in all relevant hospitals; to create a large network of academic and technical information exchange among qualified individuals in different countries; to compile and distribute numerous educational books and publications on the basis of research; to organize and advance history of medical education; to collect, categorize, and introduce valuable historical documents in the purpose of presenting Iranian history of medical sciences; to publish books, journals, brochures, software and compile data bank of medical manuscripts; and to recognize and introduce researchers, and research centers in the field of history of medicine and provide a proper base for related research projects.

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Nursing and
Midwifery Care
Research
Center (NMCRC)

In November 2009, the Nursing & Midwifery Care Research Center (NMCRC) was established. With about 10 full-time faculty members and several researches in process, the goals of this center are to provide a physical and intellectual environment and administrative structure, to encourage and support nursing and midwifery research and to facilitate producing and disseminating research-based evidence for better nursing and midwifery care. Some of NMCRC's activities include funding scientific research projects, offering PhD by research degree, publishing the journal of Nursing Practice Today and cooperating with Iranian Cancer

Research and Iranian Spinal Cord Injuries Research Networks. In addition, about 70 proposals have been approved by NMCRC from 2010 up to now.

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Research Center for Nuclear Medicine (RCNM)

Research Center for Nuclear Medicine (RCNM) was founded in 1967 as the first nuclear medicine center in the country focusing on educational, research, diagnostic and therapeutic goals in the field of nuclear medicine. In 1981 and after the establishment of the first nuclear medicine education department in the country, the residency program started in 1983 and more than 90% of the nuclear physicians, who are now working in 124 nuclear medicine centers throughout the country, have completed their nuclear medicine residency program in this center. RCNM has also contributed in the education and training of thousands of students with different educational levels in different medical fields (including microbiology, immunology, diagnostic radiology, radiation oncology, biochemistry, radiopharmacy, etc.). Publication of many original articles in well-known international journals, chairing many national and international nuclear medicine congresses, achieving valuable international awards as well as obtaining high ranks in the international Razi and Avicenna Festivals are among other achievements of this institute. Iranian Journal of Nuclear Medicine as the only Iranian journal in the field of nuclear medicine is published in this institute.

The provided nuclear medicine procedures in this center can be divided into three main categories including diagnostic imaging procedures, in vitro and laboratory studies and the therapeutic interventions which are performed in the treatment ward.

The treatment ward of this center as the largest center for radio-iodine treatment of patients with differentiated thyroid carcinoma in the country performs more than 90% of such treatments in the country and is one of the busiest centers in the world in this regard.

The Research Institute for Nuclear Medicine was selected by the Center of Medical Education Studies and Development, Deputy Ministry for Education, Ministry of Health and Medical Education as a "Center of Excellence" in nuclear medicine field in 2008 in the country. Iranian Journal of Nuclear Medicine is a peer-reviewed biannually journal of the Research Center for Nuclear Medicine, covering basic and clinical nuclear medicine sciences and relevant applications such as molecular imaging, functional and metabolic investigation of disease, radiobiology, dosimetry, radiopharmacy, radiochemistry, instrumentation and computer sciences, etc. The "Iranian Journal of Nuclear Medicine" is indexed and abstracted in the world-known bibliographical databases including SCOPUS, EMBASE, EBSCO, Index Copernicus, IMEMR, SID, IranMedex, DOAJ, ISC and Magiran.

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<u>Urology Research</u> Center (URC)

In 1995, the idea of establishing the Urology Research Center of Tehran University of Medical Sciences was put forth and approved in the University Board of Trustees at the presence of the then Minister of Health. This establishment was confirmed during the 162nd meeting of TUMS Medical Universities Development Council on May 01, 2004. In view of the scientific activities of the Urology Research Center and the ascending trend of evaluations in 2005 and 2006, the center managed to obtain definitive approval from the Ministry of Health on October 07, 2006. One of the paramount achievements of the Urology Research Center was establishing Transplantation Organ Provision Unit, founded in 2007 and officially launched on June 28, 2009. Detecting creditable urology research centers of the world to increase scientific interaction and exchange of ideas, bringing modern technology on urology for further scientific activities of Iranian researchers, training urology researchers, finding new methods of diagnosing and treating urologic diseases, especially urogenital cancers using nanomedicine technology, applying stem-cell in treating urologic diseases, cooperating with relevant national research and executive centers for conducting research in the field of urology and promoting the awareness level of people on urologic diseases for prevention, early diagnosis, timely treatment and decreasing complications, morbidity and mortality are among the major missions of the center.

Multiple Sclerosis Research Center building is located next to the Urology Research Center and following the foundation of the former, the need for an equipped laboratory performing the specialized tests of both centers was unquestionable. Hence, the abandoned space between the two centers was optimized and converted to form a bimolecular specialized laboratory (conducting DNA, Pulse Field Gel Electrophoresis, Real time PCR to name a few) with the purpose of promoting research objectives of the two centers.

Incidence of cancer in post transplant patients, evaluation of nuclear DNA damage in Spermatozoa before and after varicocelectomy, evaluation of intra-operative single high close of anti-thymocyte Globulin-Fresenius (ATG- F) administration as therapy in kidney transplantation for prevention of acute rejection, evaluation of Mitral Regurgitation (MR) change before and after renal transplantation in ESRD patients, serum level of early prostate cancer antigen 2-(EPCA-2) in patients with prostate cancer and benign prostate disease, determination of the association between serum uric acid level and erectile dysfunction in men referred to Sina Hospital Urology Clinic in 2011 are the topics of some of the research projects conducted in URC. URC is in active constant collaboration with American Urological Association, European Urological Association, and the Middle East Society for Organ Transplantation.

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Knowledge Utilization Research Center (KURC)

History

The Knowledge Utilization Research Center began its work in 2006 under the title of the "KTE Study Group" in the "Center of Academic and Health Policy" of Tehran University of Medical Sciences. In less than 2 years, KURC has published more than 20 research papers in national and international journals besides running several research projects in the field of knowledge translation. KURC was eventually, in 2008, was approved as a research center by the Ministry of Health and Medical Education (MOHME).

Mission

The Knowledge Utilization Research Center aims to produce and localize knowledge, and promote policies, methods and activities leading to the better utilization of health knowledge in the country. The goal of this center is to trigger change in health decision makers' (people, health service providers, managers and policy makers) behavior, i.e. to make decisions on the basis of scientific and research evidence on one hand, and to strengthen researchers' efforts in transferring research results on the other, as well as improving their communicating environment.

Vision 2014

- 1. To have examined local tools for all target audiences
- 2. To be recognized as the professional center for knowledge translation in Eastern Mediterranean Region Values
- 1. Safeguarding of resources
- 2. Highlighting quality of research
- 3. Observing copyright and intellectual property rights
- 4. Highlighting creativity and innovation

Strategies

- 1. Designing and holding educational workshops for news producers' methods of investigation and production of quality news for public dissemination
- 2. Developing critical appraisal tools for content of health news disseminated in public media
- 3. Developing a guide for selection and production of appropriate news for journalists
- 4. Policy makers and managers
- 5. Development of tools such as public health guidance and policy brief for national programs of priority
- 6. Development of tools for utilization of evidence by

managers and policy makers

- 7. Holding informed-decision making workshops for management and policy makers
- 8. Launching web-based educational programs for managers and policy makers in the field of knowledge translation
- 9. Development of a tool for assessing activities and interventions performed
- 10. Health service providers
- 11. Examination of ways of promoting physicians continuing medical education
- 12. Identification and design of a notification system for health service providers during health crises
- 13. Identification of interventions necessary for changing health service providers' behavior to evidence based practice

Research

- 1. Launching the PhD by Research course in the field of Knowledge Translation
- 2. Development of a standard tool for assessing knowledge translation activities at personal and organizational level
- 3. Designing and implementation of an interventional package for strengthening knowledge translation at national academic level
- 4. Launching web-based educational programs for researchers in the field of knowledge translation
- 5. Development and strengthening of collaboration networks between researchers and research users in the eastern Mediterranean region
- 6. Establishing executives offices for knowledge translation at university level nationwide

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<u>Uro Oncology</u> <u>Research Center (UORC)</u>

Uro Oncology Research Center was established in 2010 at Imam Khomeini Hospital.

UORC aims at spreading researches about urogenital

malignancies and providing solutions in hygienic affairs and treatments.

In spite of short time experience and having just eight faculty members, UORC has conducted more than 30 research projects, among which we can point to publishing documented papers in the field of urogenital cancers to motivate and encourage researchers; evaluating and approving research proposals in the goal of reaching to useful results in order to prevent and cure urogenital cancers; and coordinating research activities by congregation scientific committees with expert researches. In addition, UORC leads teaching projects to motivate students to be involved in projects and provide the chances for them to become familiar with research methods. UORC works in the field of relationship between urogenital cancers and the factors such as genetic expressions or mutations, radiologic findings, inflammation and the serum PSA. It compares efficacies of the different treatment methods such as chemotherapy, radiotherapy, and medical therapies in controlling the cancer and preventing the complications at the same time. It also conducts Epidemiological and clinical researches based on community health demands.

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Research Center for Immunodeficiencies (RCID)

Primary immunodeficiency diseases (PIDs) are a group of disorders caused by inherited defects in the development and function of the immune system. Patients with PIDs are predisposed to a variety of complications such as infection, lymphoproliferative disease, autoimmunity and malignancy. Severely and atypically recurrent complications of these diseases can reduce patient's quality of life and lifespan by causing end organ damages.

Since the first report of X-linked agammaglobulinemia in 1952, More than 220 different phenotypes of PIDs

have been described. These disorders were originally felt to be rare but it has become clear that they are much more common than originally estimated. The overall frequency of PIDs has been estimated to be about 1:10,000 individuals.

High rate of consanguineous marriages in the Middle East (ME) region makes autosomal recessive forms of PIDs more prevalent than those in the Western countries. Indeed, many defective genes that underlie PIDs are first described in the patients originated from this region. Lack of awareness among medical community as well as under-developed infrastructural diagnostic and therapeutic facilities are the main problems encountered in the management of PIDs in the ME. However, timely diagnosis is not the whole story. PIDs need continues care and sophisticated therapies which are not generally available in the ME.

In 1997, a group of clinical immunologist and medical students started to investigate the frequency of primary immunodeficiency diseases (PID) in Iran. Subsequently in 1999, the Iranian Primary Immunodeficiency Registry (IPIDR) was established. The number of interested people has substantially risen and this expansion has been commensurate with a growth in the complexity of the group, necessitating a clearer definition of our purpose and activities. Meantime an informal research group with specific interest in the field of PID had the chance to design several national and international research projects with outstanding scientific output in this field. The establishment of Research Center for Immunodeficiencies (RCID) in 2010 could promote scientific activities in this field, not only in respect to research, but also in education and care of affected patients.

Establishing national networks to determine disease outcomes through the country; collecting and storing cell and tissue samples from patients with PID; initiating more professional research collaboration with integration between basic scientists and clinical researchers and more collaboration with international PID research centers; integrating basic and applied immunology training with particular emphasis on PID; designing education programs targeting the general public and healthcare workers; developing appropriate screening tests for identification of PID; developing genetic laboratories as part of prenatal, newborn and carrier screening programs; designing specific programs for those who are planning to do relative marriages; developing national guidelines to provide equal access to treatment; providing appropriate supply of treatment for patients with PID; developing center(s) for bone marrow transplantation for PID; and identifying ways of improving existing therapies and discovery of new therapies.

A number of research projects have been conducted on the subjects of Molecular studies on different types of primary immunodeficiency diseases; Diagnosis of new PIDs cases; Integrated basic and clinical immunology studies: From bench to bedside; Collaborating with other national and international research centers and organization; Multidisciplinary projects; Providing the upto date guidelines for diagnosis and treatment of PIDs; and Considering the results of research in field of PID in management of patients with PID.

With only 5 faculty members, the Center is actively engaged in scientific collaborations with international organizations and universities such as:

- Karolinska Institute at the Karolinska University Hospital Huddinge, Stockholm, Sweden;
- Freiburg University Hospital, Freiburg, Germany;
- Royal Free Hospital & University College Medical School, London, UK;
- Hannover Medical School, Hannover, Germany;
- University of Brescia, Brescia, Italy;
- Toyama Medical and Pharmaceutical University, Toyama, Japan;
- Hospital Vall d'Hebron, School of Medicine, Barcelona, Spain;
- University of Washington, Seattle, USA;
- University Hospital Duesseldorf, Heinrich-Heine-University, Duesseldorf, Germany;
- National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, USA;
- La Jolla Institute for Allergy and Immunology, La Jolla, CA, USA;
- The Rockefeller University, New York, NY, USA;
- Children's Hospital Boston, Harvard Medical School, Boston, MA, USA:
- Children's Hospital of Philadelphia, School of Medicine, University of Pennsylvania, Philadelphia, PA, USA;
- Seattle Children's Research Institute, University of Washington, Seattle, WA, USA;
- The CeMM Research Center for Molecular Medicine of the Austrian Academy of Sciences, Vienna, Austria

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Molecular Immunology Research Center (MIRC)

The Molecular Immunology Research Center (MIRC) was established in 1998 at Immunogenetic laboratory in medical school and then transfer to childern medical center Hospital to provide research support for investigators pursuing research on immunogenetic and transplantatiom immunology with a special focus on HLA, cytokine gene, Toll like receptors, Killer Ig like receptor(KIR) and diseases association and also the role of these genes in anthopological studies in different Iranian ethnic groups. The MRIC also interested to carry out molecular research on transplantation Immunology, in solid organ and Hematopoietic Stem cell Transplantation (HST).

MIRC provides a central support structure to foster collaborations among investigators working in the areas of different fields of Immunogenetics and Transplantation immunology. In addition, it supports their activities by providing shared core research and by funding for feasibility studies and a common intellectual environment. MIRC has attamped to create an environment and to serve as a vehicle for interdisciplinary collaborative research as both a focal point and an umbrella for Immunogenetics and transplantation research in a greater area. The MIRC is comprised of more than 10 different Research Divisions. A range of well equipped laboratories is provided such as Molecular immunogenetics, Cell culture facilities.

MIRC attempts to be pioneer in expanding boundaries of science; to maintain and enhance the standing of the Molecular Immunology Research center as a research center of national, regional, and international standing both in research and providing clinical service; to enhance research and knowledge production; to expand professional and graduate education and capacity building in training; and to promote translational medicine by enhancing communication between clinic and laboratory.

More than 13 faculty members are actively participating in the board. The Center has an active collaboration and memorandum with various national and internationally institutes and research centers on transplantation and immunogenetics studies.

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Research Center of Quran, Hadith and Medicine (RCQHM)

Research Center of Quran, Hadith and Medicine affiliated to Tehran University of Medical Sciences - was established in 2008 with the following goals:

- To conduct medical researches based on the education of Quran and valid texts of Hadith for responding to the needs of Islamic societies.
- To collect, arrange and classify the related documents, articles, records and literatures.
- To release the results of relevant researches in different ways such as books, articles, meetings and congresses.
- To train the eligible researchers in the field of Quran and Hadith for programming and implementation of the related medical topics.
- Organizing by research MSc. and Ph.D courses in the field of relevant topics.
- Collaboration with international training and research centers.
- To try for compiling the Islamic medical encyclopedia. **Activities:**

At the present time, some academic members get involved in compilation of the Islamic medical references and literature. Moreover, the members are taking some efforts in the field of medicinal-like objects those mentioned in Quran and reference books of Hadith.

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Research Center of Quran, Hadith and Medicine

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Medicinal Plants Research Center (MPRC)

Medicinal Plants Research Center (MPRC) was founded in 2005 in order to encourage basic and applied researches on medicinal plants (herbal drugs), natural and traditional medicines. This center has been the first grade research center among one to three-year-old centers of medical sciences in Iran. Fourteen members of faculty of Pharmacy actively are involved in researches of MPRC as well.

The principal activities of MPRC could be specially mentioned as follows:

- Isolation and identification of secondary metabolites in medicinal plants particularly Iranian medicinal plants
- Experimental design of biological and pharmacological properties of natural products and preparations,
- Extensive guidance for scientists and pharmaceutical herbal companies
- Finding novel natural bioactive compounds from plants for disease prevention and health promotion
- Phylogenic and chemotaxonomic comparison of medicinal plants to improve classification of plants based on genetic information
- Molecular pharmacognosy and DNA extraction as well as PCR for evaluation of biodiversity of medicinal **plants**

This center has been collaborated with Japanese scientists on the study of traditional and folk medicines of Turkish people, and with Kyoto University on phytochemical content of medicinal plants from north part of Iran and their trypanocidal properties.

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Toxicology and Poisoning Research Centre (TPRC)

Toxicology and Poisoning Research Centre (TPRC) is one of the research centers of Tehran University of Medical Sciences which was founded in 2011. The main purpose of TPRC is to take advantage of the advancements in biomedical sciences towards toxicology studying and management of poisoning.

The Centre is located at the Faculty of Pharmacy and started its activity with 5 full-time and 6 part-time faculty members.

Short & long-term goals of the Centre include:

- 1. Conducting Basic and clinical researches in the area of Toxicology and Food Safety;
- 2. Training skilled and specialized human resources;
- 3. Providing laboratory services in Toxicology field;
- 4. Conducting joint research on analytical, mechanistic, cellular/molecular, toxicovigilance and clinical projects with Research Centres Universities, and Industries.

The TPRC extends a warm hand to all parties and individuals for fruitful joint collaboration.

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$\frac{Nanotechnology}{Research\ Center\ (NRC)}$

Nanotechnology Research Center (NRC) was established in 2005 with the aim of developing the fundamental research in the field of medical nanotechnology. Our leading goals are employing nanotechnology for cancer diagnosis and treatment, developing targeted drug delivery systems, using nanostructures as nano-sensors intended for analyte detection. Additionally our center financially supports and cooperates with the fundamental research aligned with the NRC priorities

as well as providing education and training opportunities. The Center plans to hire expert staff as well as provide facilities and equipment for research via establishing laboratory network.

Our center has conducted significant research projects, both via national and international cooperation which results in more than 200 ISI articles and 4 US patents. Our research is mainly focused on preparation of novel drug delivery systems, application of nanotechnology in cancer diagnoses and treatments, and nanoparticle safety evaluations.

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Center for Academic and Health Policy (CAHP)

This center has been founded targeting at promoting evidence-based decision making and policy making processes as well as improving and mitigating its internal processes in TUMS. It is responsible for providing logistic scientific support and enabling different executive fields of the university to run the decision making processes under an evidence-based framework. Besides, organizing the practical investigations (Health Service Researches) and responding to the University by developing evidence-based strategies and policies are among other the responsibilities held by the center. To fulfill its range of responsibilities, different measures have been taken including:

- Change in admission of medical students; having investigated the process of admission of medical students, these processes have undergone some changes based on scientific evidence.
- Stating "quality improvement" among the ancillary values of the University and entering "clinical governance" and "clinical audit" to the strategic plans of hospitals, educating and training as well as creating the necessary capacities for quality improvement and cre-

ating trends for guidance and planning are among other activities conducted in this center. After piloting these in two of the affiliated hospitals, at the time being, these practices are being conducted in all affiliated hospitals.

- Developing the long term science and technology plan or scientific map of Tehran University of Medical Sciences, with cooperation and contribution of several stakeholders and thinkers and in line with the scientific map of the country.
- Developing investigative and research macro priorities of the university which could provide the research activities with main guidelines.
- Contribution to the processes of applying the results of the investigations and knowledge translation in TUMS. Using the scientific evidence and analyzing the current conditions of the country as well as university, the fields for improving these processes have been recognized and some interventions have been proposed which are operational in the university.
- Developing and providing previous year performance report and the action plan of the next year for different units of Tehran University of Medical Sciences including departments, deputies, research centers and hospitals. This has provided a great help for the decision making processes in the university and provides a clear picture of the changes occurred.
- Contribution to implementation of family physician program in TUMS specially in developing clinical practice guidelines for common diseases to be used by family physicians. This has been done in participation with other research centers in TUMS.
- Contribution to developing health system long-term plan by Ministry of Health and Medical Education.

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Pediatric Urology Research center (PURC)

The Pediatric Urology Research Center (PURC) was established nearly a decade ago. Initially, the PURC was identified as the under section committee of adult urology. Finally due to the extent of research projects and increasing number of published papers in international journals and with approval of university research council entered new phase of its condition and recognized as a unique research center in this field. Following briefly considering the activities of research, PURC received final approval from the ministry of health and the medical education.

Mission

- Our translational research program combines investigation into the basic science rationale (i.e. genetics, molecular and cellular biology) behind disease processes with an understanding of the clinical issues faced by patients.
- Bladder function research, artificial bladder and bladder tissue engineering, new aspects of urinary and fecal incontinence in children, renal scar repair by renal stem cells, new biomarkers in fetus and neonates for renal diseases.
- PURC conducts both clinical and basic (laboratory) research mainly in development of new minimally invasive surgeries, basic sciences, and prevention of chronic renal failure by antenatal diagnosis of urinary tracts anomalies and early post-natal management, tissue engineering, stem cell therapy and regenerative medicine, stem cells to germ cells differentiation and cancer stem cells research (Wilms tumor). Our goal is to integrate clinical and basic science to improve the treatment methods for children with a variety of urological dysfunction.

Methods

• Research on experimental animals and developing new restoration and reconstruction methods for urological problems, then human clinical trials.

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Advanced Diagnostic and Interventional Radiology Research Center (ADIRRC)

Advanced Diagnostic and Interventional Radiology Research Center was founded in Medical Imaging Center of Tehran University of Medical Sciences in summer 2009.

The determination to establish the "Advanced Diagnostic and Interventional Radiology Research Center (ADIRRC)" stemmed from a spectrum of various reasons. These reasons include the indispensable attention to the position of Medical Imaging Center, located in one of the largest referral academic centers in Iran and affiliated to TUMS; the availability of advanced facilities such as multi-detector 64 slice CT scan, MRI 3tesla, flat panel angiography, advanced ultrasonography devices and others; and the presence of highly skilled, experienced and qualified specialists. This research center is pioneer in the field of radiology in Iran.

Among major goals of the center are to develop and apply human knowledge on radiology; to perform basic, clinical and epidemiologic researches for improving the health system; to collect, regulate, and classify documents and articles, and publication of them; to training researchers in the field of radiological sciences; to motivate, persuade, and employ researchers; to draw the attention and use the help of related research centers in the country; and to scientifically cooperate with research and training centers in other countries and international organizations.

Some of the important research projects of ADIR can be listed as: Uterine Artery Embolization, Primary and Metastatic Liver Tumor Therapy (Embolization and Radiofrequency Ablation), Embolization in the Treatment of Brain Aneurysms, Embolization in the Treatment of Brain AVMs, Carotid and Aorta Stenting, Portal Vein Embolization, Transjugular Liver Biopsy, Liver Stem Cell, Bronchial Artery Embolization, Infra Pupliteal Angioplasty, Endovascular Laser in Lower Limb Varices, Vertebroplasty, Pararoot Therapy (PRT), Percutaneous Laser Disc Decompensation (PLDD).

The Center has also some Joint research projects with the University of San Diego. Postal Address

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Center for Educational Research in Medical Sciences (CERMS)

As a result of the growing demand for development and educational research in medical sciences The Center for Educational Research in Medical Sciences (CERMS) was established in 2009. From its foundation the Center set these goals as its driving force:

- To support, encourage and train medical education researchers
- To translate research into practical improvements in medical education
- To create a national and international profile and reputation for high quality research and scholarship in medical science education
- To attract PhD students and post-doctoral positions to undertake research and scholarship medical sciences education

15 faculty members and researchers in this Center have carried out numerous research projects such as the comparison of two methods of standard setting: the performance of the three-level Angoff method, the development of a cross-cultural adaptation of Persian version of dealing with uncertainty questionnaire in student interns and hospital residents of Tehran University of Medical sciences and the assessment of teaching of evidence-based medicine for medical undergraduates students as an effective educational intervention to change their knowledge, attitudes and practice.

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Center for Research and Training in Skin Diseases and Leprosy (CRTSDL)

The need for harmonization in research on skin diseases and avoidance of repetition of such activities in universities of medical sciences in Iran encouraged the Ministry for Health to establish a center devoted to research on skin diseases in 1992. In 1993 CRTSDL was separated from Ministry of Health, Treatment & Medical Education and joined to Tehran University of Medical Sciences.

Harmonizing all training and research activities regarding skin diseases and leprosy is the main responsibility of CRTSDL. Several research projects were conducted by 14 faculty members in this Center. Researches were mainly on quality of life in dermatology; Good Clinical Practice (GCP): standard for the design, conduct, performance, monitoring, auditing, recording, analyses, and reporting of clinical trials; New technologies (Mohs micrographic surgery, evaluation of skin biophysical characteristics by noninvasive in vivo techniques, liposomal and nanotechnology for topical drug delivery); Dermatitis (atopic dermatitis, allergic contact dermatitis); and Leishmaniasis.

The Center is deeply involved in international scientific collaborations. Partners include The World Health Organization (WHO), National Institute of Health (NIH), University of Franche-Comte (France), Karolinska University (Sweden), School of Tropical Medicine (UK), Johns Hopkins University (USA), IDRI (USA), Cochrane Skin Group, Frei University (Germany), Gratz University (Austria), Khartoum University (Sudan), and Isayev Research Institute (Uzbekistan).

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Eye Research Center (ERC)

The Center was established in 2002 in order to build capacities for original researches in clinical and epidemiologic studies. The faculties of the Department of Ophthalmology (40+) are actively involved and support clinical studies. Being situated in Farabi as the largest and highly equipped ophthalmic hospital in the Middle East and Central Asia, the Center has unrivaled opportunities for clinical researches and that is why it constantly has achieved top ranks in annual national evaluation of the research centers and received grants from Razi Research Festival on Medical Sciences.

The Center provides research and methodology services to the faculty, fellows, residents, and medical students at Farabi Eye Hospital to facilitate their theses conduct. It also hosts a PhD by Research program on Ophthalmic Epidemiology. It accepts post-Docs on selected braches.

Farabi in recent years has focused on Visual Optics as well. Additionally it established chemistry and genetics labs, clean room, and animal house to support Molecular and Regenerative Ophthalmology researches and translational studies.

Networking on visual sciences and innovation system development are the active strategies. We are having a dynamic pool of young scientists, clinician scientists, and basic sciences collaborators.

Postal Address:
Eye Research Center
Farabi Eye Hospital, Qazvin Square
Tehran1336616351, IRAN
Tel: (+98-21) 55 42 10 01-6
Fax: (+98-21) 55 42 10 02
http://farabihospital.com
eye@tums.ac.ir

Hematology, Oncology and Stem Cell Transplantation Research Center (HORCSCT)

The Hematology, Oncology and Hematopoietic Stem Cell Transplantation Research Center was established in 1990. From the late of 2011, the research center has been identified as Hematology, Oncology and Stem Cell Transplantation Institute.

The first HLA registry in Iran, East Mediterranean and Middle East region has been launched in the center.

The major goals of HORCSCT are to upgrade the knowledge and research potentials of the faculty, specialists, researchers and students on hematology, oncology and hematopoietic stem cell transplantation; and to improve the standards of health care in society and those of patients' lives.

With more than 40 faculty members, the following research projects were conducted at HORCSCT:

- Hematology subjects based on clinical and basic science topics
- Oncology subjects based on clinical and basic science topics
- Stem cell transplantation subjects based on clinical and basic science topics

HORCSCT is in active collaboration with International Bone Marrow Transplant Registry (IBMTR), European Group for Blood and Marrow Transplantation (EBMT), International Union against Cancer (UICC), European School of Oncology (ESO), Asia and Pacific Federation of Organizations Cancer research and Control (APFOCC), Asia and Pacific Bone Marrow Transplantation (APB-MT), Eastern Mediterranean Blood and Marrow Transplantation Group (EMBMT), American Society of Hematology (ASH), American Society of Clinical Oncology (ASCO), Bone Marrow Donors Worldwide (BMDW), World Marrow Donor Association (WMDA) and Netcord.

Postal Address:

Hematology, Oncology and Stem cell Transplantation Research Center

Shariati Hospital, Kargar Ave., Tehran 1411713131, IRAN

Tel.: + (98-21) 88 02 93 97 Fax: + (98-21) 88 00 41 40 http://horsct.tums.ac.ir horcbmt@sina.tums.ac.ir Iranian
Tissue Bank (ITB)
Research &
Preparation Center

ITB is the first and unique multi-facility tissue bank in Iran. The state-of-the-art technology and highly trained staff enable us to provide the widest range of tissue grafts including heart valves, different musculoskeletal tissues & amniotic membrane available. Also, ITB is the first established organ procurement organization in Tehran with a 14 million population. It acts for identification and consent acceptance from brain dead and non-heart beating donors. ITB procures different organs such as: Heart, Lung, Kidney and pancreas for supplying to transplant centers.

The main research priorities of the ITB are:

- Knowledge & attitude about transplantation and brain death
- Related survey of transplantation industry
- Tissue Repairment
- Legal and ethical considerations of tissue and organ transplantation
- Epidemiological considerations of tissue and organ transplantation
- Follow up of tissue and organ transplantation
- Cellular and molecular survey of transplantation
- Laboratory and Para clinical survey of transplantation
- Psychiatrics survey of transplantation
- Other effective factors in transplantation
- Advancement of knowledge and attitude toward organ donation and transplantation
- Establish an innovative technology for organ transplantation and tissue repair process

Postal Address:

Iranian Tissue Bank - Research & Preparation Center Keshavarz Blvd., Imam Khomeini Hospital,

Tehran, Iran

Tel: + (98-21) 66581520-22 Fax: + (98-21) 021-66931818

http://itb.tums.ac.ir itb-info@sina.tums.ac.ir

Otorhinolaryngology Research Center (ORC)

Due to the fact that Otorhinolaryngology field is one of the most basic needs of our society, and considering that a majority of people who seek for medical advice in general practitioner's clinics followed after internists are those involved in Otorhinolaryngologist, in recent years, there has been a significant progress in this field and it led into expansion of related branches such as otology, neurology, head and neck surgery, rhinology, sinus endoscopy, maxillofacial, laryngology, as well as pediatric otorhinolaryngology.

In order to expand research and present solutions in health affairs and medical treatments and due to the framework presented in the constitution of the Otorhinolaryngology and Head and Neck center, it was first named "Auditory Research Center" and was established in 1994. The center followed by the expansion of the educational and research activities, the center succeeded in receiving the letter agreement from the Ministry Of Health & Medical Education in 2004 and the name was changed to "Otorhinolaryngology Research Center".

The principle goals of ORC are to develop and utilize human sciences in the field of otolaryngology Head & Neck surgery; to perform basic, epidemiologic and clinical research in order to reform health services and to fulfill the needs of society: to train human resources, to encourage researchers to do research and improve research methodology in the field of otolaryngology Head & Neck surgery; to embark on cooperation with other research centers and related executive centers inside and outside the country; to initiate scientific cooperation with foreign educational and research centers under the laws and constitutions of the Islamic Republic of Iran: to establish research centers for doing all new methods in surgery of ENT field; and to extend our cochlear implant center to cover more patients for receiving better treatments modalities and preparation materials for our researches.

The research topics are mainly related to cochlear implantation, the role of genetic in hearing, and head and neck cancers and rhinosinus and laryngology field.

Postal Address:

Otorhinolaryngology Research Center AmirAlam Hospital, North Saadi Ave., Tehran, Iran Tel: +(98-21) 66 76 02 69

Fax: +(98-21) 66 76 02 69 http://entrc.tums.ac.ir entrc@sina.tums.ac.ir

Skin and Stem Cell Research Center (SSCRC)

Skin and Stem Cell Research Center was established in March, 2011 as a clinical-based research center that is to work on new ways of therapeutic curing for hair and skin diseases and ulcers, especially chronic, diabetic wounds and burnings.

The goals of the Center are to receive the first place in the Middle East Region in the field of stem cell and disease based on the international index and definition of indicators for other research centers during the first 5 year period; to get the first place in the field of professional education in the mentioned field capacity building in the country based on national index and developing inter-disciplinary gamut, extending oriented research education; and to concentrate on scientific application in research, clinical approaches, technology localization, editing and presentation of science evaluation.

Skin and Stem Cell Research Center has had international scientific ties with The International Society of hair Restoration Surgery (ISHRS).

Also Skin and Stem Cell Research Center has three sections: 1) cell culture lab and clean room, 2) Dermal lab, 3) Dermatologic clinic including: (IPL, Erbium YAG, Q-Swich ND YAG lasers and fractional RF, ...).

Postal Address:

Skin and Stem Cell Research Center No. 4, Maryam alley, Kamranie, Tehran, IRAN. Tel: (+98-21) 22215558-22201710

Fax: (+98-21) 22 23 93 87 http://sscrc.tums.ac.ir resdeputy@tums.ac.ir

Cancer Research Center, Cancer Institute of IR.Iran (CRC)

Cancer Research Center is one of the many research centers affiliated to Tehran University of Medical Sciences (TUMS) and an affiliate of Cancer Institute of Iran. This Center was selected as the Secretariat for the National Cancer Research Network for two years in 2011.

Fighting cancer to the point of its eradication is the goal of any research center active in cancer research. There-

fore, Cancer Research Center intends to find new ways for the earlier diagnosis, more effective treatment with fewer side-effects and prevent cancer by the help of researchers and interdisciplinary cooperation. In doing so, the Center would also welcome solutions offered for the goals worldwide to address the domestic issues.

Vision

TUMS Cancer Research Center intends to lead research on cancer in the country by turning into a national and international reference body for cancer research in Iran. It also intends to attain the aforesaid goals by building appropriate health information infrastructure, training skilled manpower and developing inter- and intra-sectoral relations based on national needs.

Mission

Cancer Research Center is composed of different research groups which together or inter-disciplinary try to promote all components of cancer control system, including prevention, diagnosis, treatment, and palliative and rehabilitative care and respond to questions raised in all areas of knowledge related to cancer as one of its main duties.

Main research interests

Cancer Research Center has been involved in all kinds of research, including basic and applied research. Laboratory research, clinical trials, epidemiological and demographical research are currently in progress in the Center's basic and applied research groups.

The research interests of this Center include: Health system research (HSR), especially cancer research system at national levels or on a specific population in the country, policy-making and execution of research projects. In this research to reality approach, the Center has paid special attention to scientific needs of the state and has prioritized finding solutions to the problems prevalent in the country. The center is ready to carry out mission-oriented research and involve in research on demand.

For a long time, educational and research activities have been followed parallel to each other in this center and the center finds it crucially important to have an effective role in training and developing talent, building capabilities and motivating students. The center has successfully cooperated with student research centers, especially TUMS Exceptional Talent Development Center (ETDC).

"Basic & Clinical Cancer Research" is an official journal of the cancer research center and is published quarterly."Basic & Clinical Cancer Research" aims to publish the highest quality material, both basic and clinical, on all aspects Cancer. It includes articles related to research findings, technical evaluations, and reviews. In

addition, it provides a forum for the exchange of information on all aspects of Cancer, including educational issues. Papers submitted to this journal which do not adhere to the Instructions for Authors will be returned for appropriate revision to be in line with the Instructions for Authors. They may then be resubmitted. Submission of an article implies that the work described has not been published previously (except in the form of an abstract or as part of a published lecture or academic thesis), that it is not under consideration for publication elsewhere, that its publication is approved by all Authors and tacitly or explicitly by the responsible authorities where the work was carried out, and that, if accepted, it will not be published elsewhere in the same form, in English or in any other language, without the written consent of the publisher.

Postal Address:

Cancer Research Center, Cancer Institute of IR.Iran, 3rd Fl. Of Radiotherapy Bldg, Cancer Institute, Imam Khomeini Hospital,

POBox: 13145-158, Tehran, IRAN Tel:+(98-21)66581542

Fax:+(98-21)66581638 http://crc.tums.ac.ir crc@tums.ac.ir

Research Center for Rational Use of Drugs (RCRUD)

Research Center for Rational Use of Drugs (RCRUD) is a research institute affiliated to Tehran University of Medical Sciences which was established in January 2011.

Goals:

The mission of RCRUD is to provide high-quality and reliable scientific evidence on rational use of drugs at various stakeholders levels including consumers, healthcare providers, policy makers and pharmaceutical manufacturers. The RCRUD has established its own strategic research plan to ensure conducting research projects based on clinicians' and policy makers' real world issues. This approach will facilitate the transfer of rational drug use knowledge into practice.

The RCRUD staff, including clinical pharmacists, epidemiologists and pharmacists with public health ex-

pertise are well positioned to develop and formulate researchers' and policy makers' ideas along with providing logistic and financial support for conducting research projects on rational use of medicines.

Postal Address:

4th Floor, No. 92, Corner of South Kheradmand St., KarimKhane Zand Avenue, Hafte-Tir Sq.,

Tehran, IRAN

Tel: + (98-21)88814157 Fax: +(98-21)88814157

Occupational Sleep Research Center (OSRC)

The Occupational Sleep Research Center was established in 2013 to help to promote the knowledge of target groups and provide professionals with the opportunity to research sleep disorders. With the cooperation of the Baharloo Hospital Sleep Clinic, this center conducts research studies using state of the art diagnostic, treatment technology such as:

- 1- Four sleep labs for conducting standard Polysomnography tests with Full Montage EEG capabilities
- 2- CPAP for CPAP Titration
- 3- Equipment to conduct Maintenance of Wakefulness Test (MWT)
- 4- Equipment to conduct Multiple Sleep latency Test (MSLT)
- 5- Wrist Actigraphy Devices
- 6- Portable polysomnography pack
- 7- Screening tools for sleep breathing disorders such as Apnealink

The high prevalence of sleep disorders and their harmful impact on overall physical and psychological health has turned this issue into a matter of great interest for medical circles. The affects of these disorders on occupational accidents and errors has cast Occupational Sleep Medicine into the spotlight. Incidents such as the Chernobyl nuclear disaster, the Bhopal disaster in India, the Space Shuttle Challenger disaster and The Three Mile Island nuclear accident as well as thousands of other train, plane and sea tragedies resulting from lack of sleep highlight the importance of research into this matter.

Different studies have found that sleep disorders and drowsiness are not only one of the main causes of occupational and fatal road accidents but they also reduce work productivity. Increased human error, learning and concentration difficulties, moodiness and behavioral problems, more missed work days, loss of motivation and lack job satisfaction are among the many problems those suffering from sleep disorders face.

To this end the center closely works with specialist from different fields such as: Occupational Medicine, Ear, Nose, and Throat (ENT), physiology, pulmonology, biochemistry, neurology, psychiatry, genetics, and immunology. The data gathered in this center is extremely valuable in conducting research studies.

The growing database of this center has so far stored over 3,000 polysomnography results and standard questionnaires. The center also has over 20 research projects underway and a considerable number of masters, doctoral dissertations that are being written by students as well as several other titles which are currently under review.

This center annually accepts two PhD by research students as well as sleep medicine fellows.

This center welcomes all innovative research proposals and ideas and is ready to assist researchers in the process of finding research topics, developing their work and publishing results.

Postal Address:

Occupational Sleep Research Center Baharloo Hospital, Behdari St., Rah-e Ahan Sq, Tehran, Iran Tel: (+98-21) 55460184 Fax: (+98-21)55648189

http://osrc.tums.ac.ir



The Avicenna Festival

To acknowledge and encourage the efforts made to promote education and research, the Avicenna Festival is held every year at Avicenna Hall of the School of Medicine on February 4, which coincides with the establishment of the School on February 4, 1934. Winning candidates receive the Avicenna Festival Medal.

General Goals

- -Encouraging researchers, faculty members, and students on research, educational and applied studies,
- -Giving research work at TUMS independent identity,
- -Developing publications, and encouraging faculty and students to write and translate scientific books,
- -Establishing constant contacts with the University alumni,
- -Encouraging participation of people and various departments of the University at the Festival.
- •Winners are announced among the following individual fields:
- -Select researcher from the faculty,
- -Select student,
- -Select book,
- -Select article,
- -Select office (in research, and education),
- -Select active alumni,
- -Select research project,
- -Select research thesis.



The TUMS Scientific Plan

The TUMS Scientific Plan is a harmonized collection of goals, policies, strategiesand actions which visualizes the route to reach the perspective purposes of theuniversity. This plan indicates the macro plan of the university and plays the role of a comprehensive umbrella for all the units and departments of the university. This plan is the product of a collective thinking by a wide range of stakeholders in TUMS who have taken great efforts on each and every article of the Plan to come up with the best and most efficient strategies considering the country and region's conditions and status. When one looks at the general scheme of the plan, it is understandable that the general and broad plan of the university is extracted from this scientific plan.

The TUMS is expected to reach these goals by 1404 Persian calendar (2024-2025).

It is taken for granted that this plan needs constant updating and monitoring to be able to achieve its ultimate goals in line with the goals followed in the Islamic Republic of Iran.

To operationalize the TUMS Scientific Plan, the most significant action which has a vital importance for it, is integrating and connecting the budget allocation in a compatible manner with the activities predicted to be conducted in the annual operational planning. In fact, since 1389 (2010-2011) and due to the developed plan, all departments and units of the university were required to present their annual operational plan.

These plans are analyzed and in case they are considered compatible with the pertinent Vice-Chancellor, they will act as the basis for budget allocation. In the year 1390 (2011-2012), the required software for monitoring the performance of each of the units and departments was developed based on the indexes of operational planning.

It is expected that from 1391 (2011-2012) onward, the software will be considered to be the assessment basis for the performance of the TUMS units and departments.



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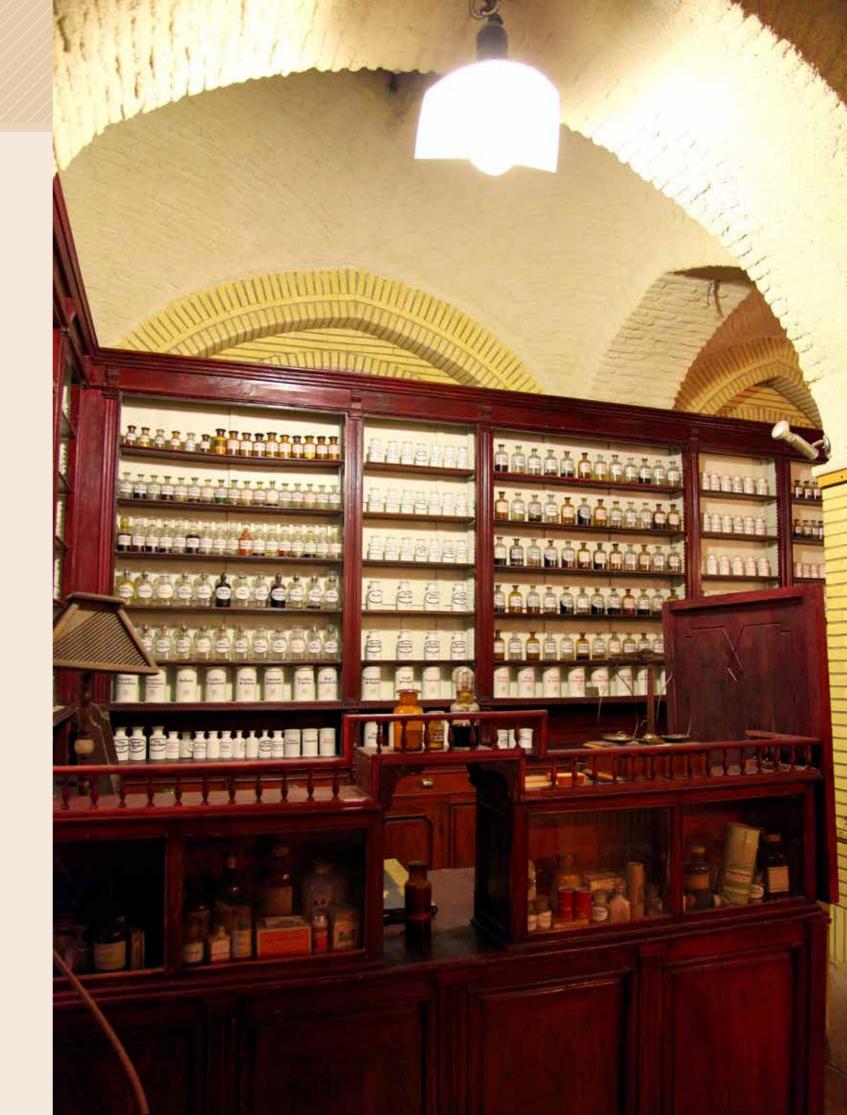
Pharmacies affiliated with TUMS

The main missions of the collection of pharmacies affiliated with TUMS are the fulfillment of needs in educational, and research fields and providing pharmaceutical services to patients.

Considering the existing potentials, the collection of pharmacies affiliated with TUMS intends to promote the provided pharmaceutical services through presenting a proper pattern at educational, research, and pharmaceutical services.

The School of Pharmacology's Pharmacies		
Name of the Pharmacy	Establishment Date	
Sizdah-e-Aban Pharmacy	1359	
BuAli's Round-the-Clock Pharmacy	1360	
Shahid Abedini Pharmacy	1360	
Nemoone Taleghani Pharmacy	1360	
Isar Round-the-Clock Pharmacy	1361	
Dr. Amini's Pharmacy	1365	
Sizdahe Aban Specialized Pharmacy	1374	

Hospital Pharmacies		
Name of the Pharmacy	Establishment Date	
Razi Hospital Outpatient and Inpatient Pharmacy	1385	
Imam Khomeini Hospital Outpatient Pharmacy	1385	
Shariati Hospital Outpatient Pharmacy	1386	
Sina Hospital Outpatient Pharmacy	1387	
Shariati Hospital Inpatient Pharmacy	1387	
Children's Hospital Inpatient Pharmacy	1388	
Arash Women's Hospital Outpatient	1389	
and Inpatient Pharmacy	1390	
Shafayahyaian Hospital Outpatient	1390	
and Inpatient Pharmacy	1391	
Tehran's Psychiatry Hospital Outpatient	1391	
and Inpatient Pharmacy	1391	
Rasool-e-Akram's Hospital Outpatient	1391	
and Inpatient Pharmacy	1391	
Ziayian Hospital 's Outpatient	1391	



Welfare Facilities

Housing

Since a great number of TUMS students come from the provinces, the University undertakes the responsibility of providing them with proper accommodation through the office of Vice-Chancellor for Student and Cultural Affairs. Most student dormitories are located at Kooy-e-Daneshgah, which is a residential complex to house students of different fields of study and levels. There are such recreational and welfare facilities as reading chambers, book storage, a mosque, and auditorium, a gym, a movie hall, etc. student dormitories occupy and area of about 90000 square meters.

Currently, 19 dormitories for boys, 20 dormitories for girls, and one dormitory for married couples house all applicants who make up a bout 40% of the student population. The total capacity of the girls dormitories is a bout 3400 students, and those of the boys a bout 2700 students, The married couples' dormitory houses 128 families. Dormitory bus transportation to the central campus, the schools, and different associated hospitals facilitates students' transportation.

Food Service

Meals are prepared under the supervision of the University's health and nutrition experts. Self – Service restaurants at the faculties, and dormitories supply the students with different meals at low prices. The schools' cafeterias also serve the students during the day.

Financial Aid

Most students might need a kind of financial assistance. The Student welfare – Fund provides the following: student loans, health insurance, housing deposit loans, emergency loans, student part-time jobs, grants for books.

Physical and Mental Health Student Health Care Center

To provide the students with a healthy environment which is quite essential for proper education, the Stu-





dent Health Care Center uses services of treatment at general, dental, and vaccination clinics, In case of any need for more medical care and treatment, students will be sent to the affiliated hospitals. Upon admission to the University, a medical record file indicating health status and problems is made for every student.

Using the same files and health cards, students can refer to the University's associated health Care Centers.

General Proactitioners and nurses in the emergency clinic of kooy-e-Daneshgah.

Emergency Clinic of Kooy-e-Daneshgah: Provides students with emergency medical care. by using an ambulance.

The student Counselling Center The psychologists' councellers, psychiatrists and social

The psychologists' councellers, psychiatrists and social workers are employed in this center to provide various services. The most important activities of them are: Counseling in different areas, for example marriage, education decline: decision making, family and relationship problems.

Psychotherapy (cognitive and analytic) for diverse disorders (Depression, anxiety, OCD,...)

Holding workshops, seminars and speeches in mental health subjects, Training courses on learning and study skills, life skills and..., Handling financial and educational issues, Telephone and electronic counselling, Psychometric services for diagnosing disorders and Researching about student mental health.

Physical Education

Department of university physical education and sport science was following three main goals:

- popularizing physical activities at university. Among (students, staff and Faculty members) and their families
 giving a scientific dimension to physical activities, sportsmanship ethic Distribution.
- Organizing physical education courses for freshmen is the most important activity of this department.

Among other activities of the division for physical education are organizing employee and student's tournaments at university and national levels . winning many students and employees competitions by universities athletes at the national level indicates how active the authorities staff and students have been.

Measures are taken by the physical Education Department of the office of Vice-Chancellor for Student Affairs to improve the quality of sports of the staff, students, faculty members, and their families.

Some of the University's sports facilities are as follows:

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Shahid Tavakoli

Swimming Complex
Our Swimming Complex has three indoor pools, a 25 meter pool, a children pool and one Jacuzzi Pool.

The longer swimming lanes is suitable for competitive swimming. The smaller pool is shallow enough to be safe for toddlers and small children, and people with physical disabilities. it also has a steam room, Sauna and fitness gym.

Physical Education Facilities

Sahid Fathi sport complex

This complex is composed of a gymnasium for basketball, volleyball, badminton, footsall, fitness gym.

Shahid chamran sport complex

This complex is including a gymnasium for basketball, volleyball, footsall, tennis court, fitness gym, swimming pool, Jacuzzi pool, soccer fields, skate track and shooting hall.

Cultural Activities

The Directorate for Cultural and social Affairs to discover and help foster hidden talents of the students in order to develop their culture and thoughts, These extracurricular activities aim at helping students become self directed, efficient, and responsible citizens in the society.

Other activities of the Office:

- Managing sight-seeing, pilgrimage, and scientific tours,
- Setting up art exhibitions of students' talents,
- Conducting cultural-art competitions,
- Supporting student associations.
- Supporting of student journalizion activity.
- Holding and participating at different cultural exhi-
- Student cultural socities office at university and dormitories.
- Quran activities.

Mashhad

Pilgrim House
With respect to the Iranians' strong religious beliefs, the ones who like to visit holy places such as the Holy shrine of Imam Reza (PBUH), One pilgrim houses in Mashad are available to faculty, students and staff.



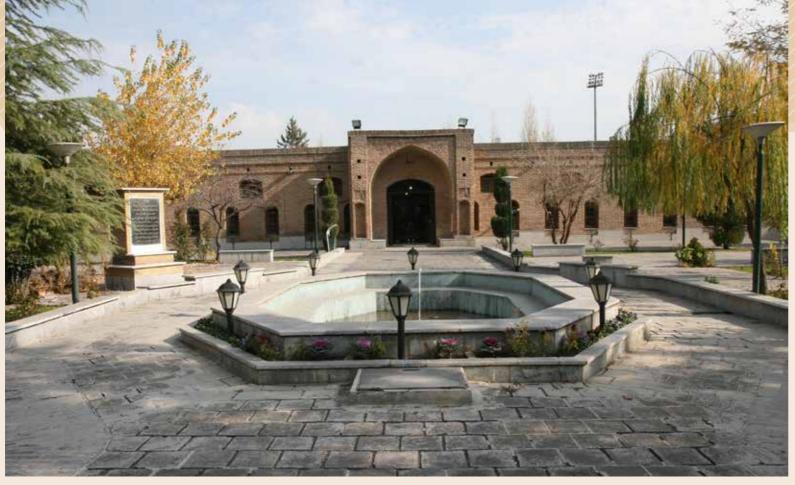








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In the Iranian civilization, which is one of the oldest and richest ones, medicine has always enjoyed a sub-lime status. To safeguard the values, culture and rich civilization of the past, and to demonstrate the ceaseless and indefatigable efforts of physicians and other associated disciplines in Iran in different eras, a joint project with the Iran Cultural Heritage Organization to establish the National Museum of Medical Sciences History was planned by TUMS in 1998, and the Museum was inaugurated in 2001. A building of about 2000 square meters, which was built in Tehran in the Qajar Era, houses the Museum.

The National Museum of Medical Sciences History has the following sections:

- Tools used in medicine,
- Manuscripts and medical documents,
- Iran's famous physicians,
- History of nursing and midwifery,
- History of veterinary medicine,
- History of dentistry,
- Herbal medicine,
- Traditional medicine,
- Embryology.

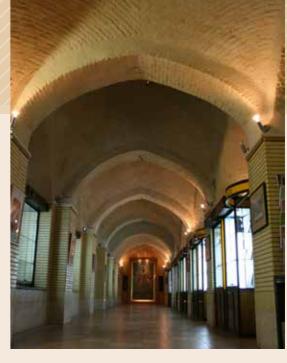
Goals of the Museum:

- Developing and organizing research activities to introduce the valuable heritage of the great masters of medicine to the present and future generations, and to promote the public culture, and furnish a clear picture of the glorious past of medicine in Iran.
- Discovering, studying, collecting, repairing, and maintaining works, tools, devices, and documents related to medicine from the ancient times to the present day, and their presentation to encourage research, and study.

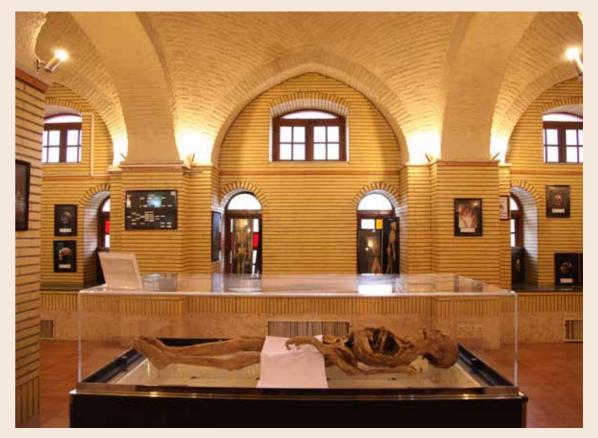








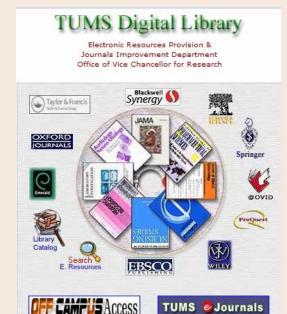




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TUMS Digital Library Electronic

The history of most of the libraries of TUMS goes back to 75 years ago. Currently, a chain of 36 libraries including the Central Library of TUMS, and libraries of the faculties, the hospitals, and the research centers are inter-connected through a Semi-Centralized Library System, and provide written, visual, audio, and electronic resources. The libraries are run according to their own by-laws for rendering Inter- Library Loan Ser-



TUMS OJournals

lournals

http://Journals.tums.ac.ir

Tehran University of Medical Sciences (TUMS) publishes scientific journals in various areas of science. Most of these journals are abstracted and indexed in famous international databases. Some of the Journals are published in English.

Acta Medica Iranica



ACTA MEDICA IRANICA is the official journal of the Faculty of Medicine, Tehran University of Medical Sciences. The journal is the oldest scientific medical journal of the country, which has been published from 1960 onward in English language. Although since 2004 it

had been published bimonthly, the journal has been published monthly from first issue of 2011. Acta Medica Iranica is an international journal with multidisciplinary scope which publishes original research papers, review articles, case reports, and letters to the editor from all over the world. The journal has a wide scope and allows scientists, clinicians, and academic members to publish their original works in this field. The editorial board of the journal hopes that the journal would be welcomed by researchers and academics in universities and related centers in Asia and in the world at large.

Basic & Clinical Cancer Research



"Basic & Clinical Cancer Research" aims to publish the highest quality material, both basic and clinical, on all aspects Cancer. It includes articles related to research findings, technical evaluations, and reviews. In addition, it provides a forum for the exchange of information on all

aspects of Cancer, including educational issues. "Basic & Clinical Cancer Research" is an official journal of

the cancer research center and is published quarterly. Papers submitted to this journal which do not adhere to the Instructions for Authors will be returned for appropriate revision to be in line with the Instructions for Authors. They may then be resubmitted. Submission of an article implies that the work described has not been published previously (except in the form of an abstract or as part of a published lecture or academic thesis), that it is not under consideration for publication elsewhere, that its publication is approved by all Authors and tacitly or explicitly by the responsible authorities where the work was carried out, and that, if accepted, it will not be published elsewhere in the same form, in English or in any other language, without the written consent of the publisher.

Asian Journal of Sports Medicine



The Asian Journal of Sports Medicine (AsJSM) is an international peer review medical journal; presenting the worldwide new research on Sports Medicine, with special interest in Asian countries.

Basic and Clinical Neuroscience



BCN is an international multidisciplinary journal that publishes editorials, original full-length research articles, short communications, reviews, methodological papers, commentaries, perspectives and "news and reports" in the broad fields of developmental, molecular, cellular,

system, computational, behavioral, cognitive, and clinical neuroscience. No area in the neural related sciences is excluded from consideration, although priority is given to studies that provide applied insights into the functioning of the nervous system. BCN aims to advance our understanding of organization and function of the nervous system in health and disease, thereby improving the diagnosis and treatment of neural-related disorders. Manuscripts submitted to BCN should describe novel results generated by experiments that were guided by clearly defined aims or hypotheses. BCN aims to provide serious ties in interdisciplinary communication, accessibility to a broad readership inside Iran and the region and also in all other international academic sites, effective peer review process, and independence from all possible non scientific interests. BCN also tries

to empower national, regional and international collaborative networks in the field of neuroscience in Iran, Middle East, Central Asia and North Africa and to be the voice of the Iranian and regional neuroscience community in the world of neuroscientists. In this way, the journal encourages submission of editorials, review papers, commentaries, methodological notes and perspectives that address this scope.

DARU Journal of Pharmaceutical Sciences



DARU Journal of Pharmaceutical Sciences is an open access, peer-reviewed journal, published on behalf of Tehran University of Medical Sciences that encompasses all fields of the science related to pharmacy and drugs. The word DARU is derived from the Persian name for drug and

the journal aims to act as a platform for all areas of drug conception, design, manufacture, classification and assessment. As an international journal, DARU Journal of Pharmaceutical Sciences considers outstanding studies from basic research to clinical investigations as original articles, systematic reviews, meta-analyses, general reviews, mini-reviews, short communications, and editorials from the global scientific community. Therefore, the journal welcomes submissions from all over the

International Journal of Hematology-Oncology and Stem Cell Research



International Journal of Hematology-Oncology and Stem Cell R International Journal of Hematology-Oncology and Stem Cell Research has been published since 2004, in hematology and oncology domains especially as the only journal in all stem cell transplantation

domains with wide distribution. The journal is publishing in English language. The covering topics that the journal would welcome are: Hematology, Oncology, Stem cell transplantation. In all basic and clinical fields. We would be very delighted to receive your original article, review article, commentaries, case report and letter to editor on the above mentioned research fields.

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International Journal of Hospital Research



International Journal of Hospital Research is a healthcare journal that publishes high-impact studies related to key aspects of hospital research. As the first Iranian journal extensively devoted to hospital issues, IJHR provides a forum for healthcare and hospital specialists to

debate on contemporary challenges of hospital management and healthcare services delivery and to seek for ideas and solutions to achieve higher performance and effectiveness in healthcare settings.

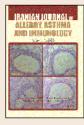
International Journal of Occupational Hygiene



International Journal of Occupational Hygiene (IJOH) is a biannually Journal published by Iranian Occupational Health Association (IOHA). This Journal covers multidisciplinary researches concerning factors influencing quality of life in any environment and workplaces. IJOH

publishes original research, field and case reports, review articles, short communications and letters to the Editor NOT previously published or submitted for publication elsewhere including national and international Journals.

Iranian Journal of Allergy, Asthma and Immunology



Journal of Environmental Health Science and Engineering

Journal of Environmental Health Science and Engineering (JEHSE) is an open access, peer-reviewed journal of the Iranian Association of Environmental Health (IAEH), published on behalf of Tehran Uni-

versity of Medical Sciences. JEHSE publishes refereed, original research papers and high quality review papers on all aspects of environmental health science, engineering and management.

Iranian Journal of Microbiology



The "Iranian Journal of Microbiology" (IJM) "is the offi-cial scientific quarterly publication of the Iranian Society of Microbiology. The areas that are covered by IJM are medical, veterinary, food and water, applied and environmental microbiology. It ac-cepts Original Papers. Review

Articles, Short Communications and Let¬ters to the Editor in the fields of Microbiology.

Iranian Journal of Neurology



The Iranian Journal of Neurology aims to publish manuscripts of a high scientific quality representing original clinical, diagnostic or experimental works or observations in clinical and basic neurological sciences (Neurology, Neurosurgery, Psychiatry).

Iranian Journal of Nuclear Medicine



Iranian Journal of Nuclear Medicine is a peer-reviewed biannually journal of the Research Institute for Nuclear Medicine, Tehran University of Medical Sciences, covering basic and clinical nuclear medicine sciences and relevant application. The journal has been published in Per-

sian (Farsi) from 1993 to 1994, in English and Persian with English abstract from 1994 to 2008 and only in English language form the early of 2008 two times a year. The journal has an international editorial board and accepts manuscripts from scholars working in different countries.

Iranian Journal of Parasitology



The main aims of the Journal are: contribution to the field of Parasitology, including all aspects of parasites and parasitic diseases (medical and veterinary) and related fields such as Entomology which may be submitted by scientists from Iran and all over the world.

Iranian Journal of Pediatrics



Iranian Journal of Pediatrics (Iran J Pediatr) is a peer-reviewed medical publication that is published bimonthly by the Tehran University of Medical Sciences, Department of Pediatrics and Growth & Development Research Center in English. The purpose of the Iran J Pediatr is

to increase knowledge, to stimulate research in all fields of Pediatrics and to promote better management of pediatric patients.

To achieve this goal, the journal publishes basic, biomedical and clinical investigations on prevalent diseases relevant to pediatrics. Following categories are the main areas of the interest: Clinical management on subspecialties of pediatric fields, nutrition, epidemiology, child health and genetics.

The acceptance criteria for all papers are the quality and originality of the research and its significance to our readership.

Iranian Journal of Psychiatry



The aim of the Journal is to publish articles in English of high scientific quality related to those domains which are presently of interest to psychiatry including: Psychopathology, biological psychiatry, cross-cultural psychiatry, psychopharmacology, social & community psychiatry,

epidemiology, child & adolescent psychiatry, psychotherapy, neuropsychiatry, psychology, spiritual therapy, as well as animal studies in psychiatry and psychology.

Iranian Journal of Public Health



The main topics that the Journal would welcome are: Bioethics, Disaster and Health, Entomology, Epidemiology, Health and Environment, Health Economics, Health Services, Immunology, Medical Genetics, Mental Health, Microbiology, Nutrition and Food Safety, Occu-

pational Health, Oral Health

Iranian Journal of Radiology



The Iranian Journal of Radiology (IJR) is published quarterly by the Tehran University of Medical Sciences and Iranian Society of Radiology.IJR is a scientific forum dedicated primarily to the topics relevant to radiology and allied sciences of the developing countries, which have

been neglected or have received little attention in the Western medical literature. Manuscripts would be particularly welcome which deal with radiology and imaging from geographic regions wherein problems regarding economical, social, ethnic and cultural parameters affecting prevalence and course of the illness are taken into consideration.

Journal of Arthropod-Borne Diseases (Formerly: Iranian Journal of Arthropod-Borne Diseases)



The scope of papers comprises all aspects of arthropod borne diseases including: Systematics, Vector ecology, Epidemiology, Immunology, Parasitology, Molecular biology, Genetics, Population dynamics, Toxicology, Vector control, Diagnosis and treatment and other related subjects.

Journal of Dentistry of Tehran University of Medical Sciences



The main scope of JDT is to publish original basic and clinical studies in the field of dental science. General dentists, dental specialists, clinicians, students and postgraduate students of dentistry, as well as researchers and academic members who do research in the field of den-

tistry could be audience of this journal. Editorial board of this journal is specialists in different fields of dentistry and medical sciences selected on the basis of their research background from national and international experts. This journal is regularly listed in bibliographic Services of PubMed, PubMed Central, Chemical Abstract, SID, JMEMR, Index Copernicus, and Iran Medex.

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Journal of Diabetes & Metabolic Disorders (Formerly: Iranian Journal of Diabetes and Lipid Disorders)



The journal publishes original clinical and translational articles and reviews in the field of endocrinology and topics of interest include, but are not limited to: Diabetes, Lipid disorders, Metabolic disorders, Osteoporosis, Interdisciplinary practices in endocrinology, Cardiovascular and

metabolic risk, Aging research, Obesity, Traditional medicine, Psychosomatic research, Behavioral medicine, Ethics, Evidence based practices

Journal of Family and Reproductive Health



The Journal of Family and Reproductive Health (JFRH) is the quarterly official journal of Vali-e-Asr Reproductive Health Research Center. This journal features full-length, peer-reviewed papers reporting original research, clinical case histories, review articles, as well as opinions

and debates on topical issues. Papers published cover the scientific and medical aspects of reproductive physiology and pathology including endocrinology, andrology, embryology, feto-maternal medicine, gynecologic urology, genetics, oncology, infectious disease, public health, nutrition, surgery, family planning, menopause, infertility, psychiatry- psychology, demographic modeling, ethics and social issues, perinatalogy-neonatolgy and pharmacotherapy. A high scientific and editorial standard is maintained throughout the journal along with a regular rate of publication.

Journal of Medical Bacteriology



The Journal of Medical Bacteriology is published by Tehran University of Medical Science(TUMS). This journal is the official publication of Iranian Society for Medical Bacteriology and will be published in summer 2012. The journal will be published quarterly. This journal is

peer-reviewed scientific journal and its gole is to provide the high-quality studies regarding Bacteriology. Papers will be published in the following areas:Pathogenicity and virulence,Host response,Diagnostic,Anti-

microbial Agents and chemotherapy, Epidemiology and related clinical studies. We will mostly focus on editorials, original research, breif reports and reviews. This journal will work to get certified from EMBASE, Medline, Scopus, Science Citation,...

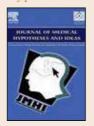
Journal of Medical Ethics and History of Medicine



The Journal of Medical Ethics and History of Medicine is the official scientific publication of the Medical Ethics and History of Medicine of Tehran University of Medical Sciences. Physicians and health practitioners always deal with ethical issues in treatment and management

of diseases. The advent of new biomedical technologies further complicated the moral and societal issues of medical research and practice. Religious and cultural differences more emphasize the need for nationalizing this knowledge. The Journal of Medical Ethics and History of Medicine (J Med Ethics Hist Med) is an opportunity for healthcare professionals as well as theologians, philosophers, and sociologists to present and discuss their ideas from several aspects in relation to medical ethics and bioethics. In addition this Journal traces its roots to several aspects of History of Medicine which further emphasizes on Iranian and Islamic era.

Journal of Medical Hypotheses & Ideas (Formerly: Iranian Journal of Medical Hypotheses and Ideas)



Journal of Medical Hypotheses and Ideas is an opportunity to express new ideas and hypotheses in the realm of medical sciences. It is impossible to register an idea or hypotheses as an intellectual property, before it has been practically tested and published or patented. This pit-

fall may render many from expressing their ideas and halt the future resulting ideas and innovations. It is also believed that the pool of ideas is present at the whole society level as "meme pool" and the horizontal level of thinking that is present at the editing processes may prevent the expression of these new ideas.

The main purpose of Journal of Medical Hypotheses and Ideas is to remove these obstacles and provide an appropriate environment to share the huge mass of ideas of the whole medical society.

Journal of Pharmaceutical Care



Journal of Pharmaceutical Care (JPC) is an open access journal that focused on experimental and clinical pharmaceutical practices to present researches, hot topics, requirements and regulations of the pharmaceutical practice area. Manuscript in Clinical Pharmaceutical Practice,

Pharmaceutical Care Regulations, Pharmaceutical Care in hospital and community pharmacy, pharmacotherapy, pharmacoepidemiology, Pharmacogenomics, Pharmacokinetics, Pharmacoeconomics, clinicalpharmacokinetics, drug utilization evaluation review, medication safety, Drug and Poison Information Services and health services research are welcome.

Medical Journal of The Islamic Republic of Iran



The Medical Journal of The Islamic Republic of Iran (MJIRI), is a quarterly and an editorially independent publication owned by Iran University of Medical Sciences and aims to be a publication of international repute for reporting current regional and international adventures in all

aspects of the medicine. MJIRI welcomes contributions in this field in the form of original research articles, review articles, brief communications, debate articles, and study protocols.

Journal of Tehran University Heart Center

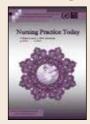


"The Journal of Tehran University Heart Center" aims to publish the highest quality material, both clinical and scientific, on all aspects of Cardiovascular Medicine. It includes articles related to research findings, technical evaluations, and reviews. In addition, it provides a

forum for the exchange of information on all aspects of Cardiovascular Medicine, including educational issues. "The journal of Tehran University Heart Center" is an international, English language, peer reviewed journal concerned with Cardiovascular Medicine. It is an official journal of the Cardiovascular Research Center of the Tehran University of Medical Sciences (in collaboration with the Iranian Society of Cardiac Surgeons) and is published quarterly. Papers submitted to this

journal which do not adhere to the Instructions for Authors will be returned for appropriate revision to be in line with the Instructions for Authors. They may then be resubmitted. Submission of an article implies that the work described has not been published previously (except in the form of an abstract or as part of a published lecture or academic thesis), that it is not under consideration for publication elsewhere, that its publication is approved by all Authors and tacitly or explicitly by the responsible authorities where the work was carried out, and that, if accepted, it will not be published elsewhere in the same form, in English or in any other language, without the written consent of the publisher.

Journal of Nursing Practice Today



NPT is an international peer-reviewed journal in English that aims to keep nurses and midwives up-to-date with advances in these fields. The journal's prime audience is practicing nurses, midwifes and researchers worldwide.

The journal attempts to handle the

review process and publication as expeditiously as possible. The time from submission to first decision is about 8 weeks.

This journal provides immediate open access to its content on the principle that making research freely available to the public supports a greater global exchange of knowledge.

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International Branch

started in 2007 Students 919

Offered Majors	No. of Students
BSc	2
MSc	23
MPH	13
MD	790
Specialty	3
Fellowship	1
PhD	86
PhD by Research	1

nal TUMS International Students

Afghanistan, Bangladesh, Cameron, Djibouti, Ethiopia, India, Iraq, Kenya, Nigeria, Pakistan, Palestine, Sudan, Tajikestan, Tanzania, Turkey, Uganda, United Arab Emirates, ...

Educational Programs	No. of International Students
Bachelor's	27
Master's	23
MPH	13
PhD	17
PhD by Research	2
Clinical Specialty	12
Clinical Subspecialty	1
MD	91
Total	186



International Relations

Scientific Cooperation With:



Mr.Tokorami, Nigeria Ambassador in Iran (Dec. 9, 2013)



Mr.Victor Millet, Vice President for International Relations of University of Santiago de Compostela (Sep.8, 2013)



Prof. Alferd Forchel, President of University of Würzburg (Feb.23, 2014)



Mr.Mario Barquero, Nicaragoa Ambassador in Iran (Feb.6, 2014)



Mr.Yohong Yang, China Ambassador in Tran (Feb. 16, 2014)

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TUMS Affiliated Professors



Prof. Majid Samii Founder and President of the International Neuroscience Institute (INI)



Prof. Peter Agre 2003 Noble Laureate



Dr. Mahathir Mohammad Malaysian Prime Minister



Prof. Hossein Gharib Professor of Medicine, Mayo Clinic, Rochester, MN