COLLABORATIVE RESEARCH AGREEMENT

BETWEEN

- Digestive Diseases Research Center (hereinafter called "DDRC") situated at Shariati Hospital, Kargar Ave. Tehran, Iran, Tehran University Medical Centre, Tehran, Iran, and
- University Medical Center, Groningen, the Netherlands (hereinafter called the "UMCG") specifically the Department of Epidemiology University Medical Center, (2)Groningen University, PO Box 30.001, 9700 RB Groningen, The Netherlands

Referred to individually as "Party", and collectively as "Parties"

WHEREAS

Prof.dr. R.P.Stolk staff member of UMCG's Department of Epidemioloy shall serve as the Conductor for and on behalf of UMCG hereinafter referred to as "the Principal Investigator"

- (A) DDRC is collaborating with the UMCG on epidemiological research on upper gastrointestinal cancer, inflammatory disorders, achalasia, viral hepatitis, diabetes, metabolic syndrome, overweight and related disorders.
- (B) The Parties now wish to agree Sponsor and other arrangements involving the cohort of participants involved in these research studies.

NOW IT IS HEREBY AGREED AS FOLLOWS

1. DEFINITIONS AND INTERPRETATION

"Agreement" shall mean this collaborative research agreement.

(b) "Projects" shall mean collaborative studies between the Parties. Currently ongoing studies are outlined in Table 1. Future Projects will be added to this Table after protocol and mutual responsibilities have been signed by both Parties.

"Personal Data" shall mean all written and electronic records, opinions, images, recordings and information obtained from samples arising from or used within the (c) Project which relate to an individual person either living or dead.

(d) "Confidential Information" shall mean information that is marked confidential and is disclosed by one Party (the "Disclosing Party") to the other Party ("Receiving

- "Intellectual Property" (hereinafter called "IP") shall mean all intellectual property including without limit to the foregoing generality, trade secrets, know-how including any rights in unpatented know-how, information, data, discoveries, improvements, inventions, specifications, diagrams, expertise, techniques, technology, patents, copyright, inventions, designs and design rights (both registered and unregistered), database rights, topography rights, research information, rights of confidence, methods of formulation, results of tests and field trials, specifications of material, composites of materials, formulae, trade marks and service marks whether recorded in any manner or otherwise, any application to register any of the aforementioned rights and any other intellectual or industrial property rights of any nature whatsoever in any part of the world and all rights
 - "Background IP" shall mean all and any IP excluding Project IP belonging to either Party as at the date of this agreement and any IP developed independently by either Party during the course of the Project which is not included in the definition
 - "Project IP" shall mean any and all IP created or developed directly as a result of undertaking the Projects.

- (h) "Principal Investigators" shall mean the lead scientists for each Party, being Professor Reza Malekzadeh for DDRC and Professor Ronald Stolk for UMCG.
- (i) "Results" shall mean the results of the Projects.
- (j) "Sponsor" shall mean the party with primary responsibility for ensuring that the design of any one Project meets appropriate standards, that arrangements are in place to ensure appropriate conduct and reporting and that the Project conforms to the Department of Health's Research Governance Framework for Health and Social Care.

2. COLLABORATION

- 2.1 The Parties hereby undertake and agree cooperate between them in fields relating to research collaboration. The Parties may add other fields, provided these are agreed upon through the diplomatic channels.
- 2.2 The Parties agree to keep written records and reports of progress for the Projects and agree to liaise regularly with each other as frequently as the Parties may reasonably request in order to discuss such progress.
- 2.3 Each Party agrees to use its reasonable endeavours to complete its respective part of the Projects and by such dates as may be mutually agreed.

3. FINANCE ARRANGEMENTS

- 3.1 Finances of the Projects are arranged in a way to minimize the need for money transfer between Parties. For individual projects separate financial arrangements can be made, but in general Parties agree:
 - 3.1.1 Each Party will each meet their own direct costs incurred as a result of participation in the Project.
 - 3.1.2 Each Party will fund accommodation for invited visiting staff from the other Party for data collection, data analysis or meetings. Each Party will pay travel expenses for these visits of their own staff.

4. INTELLECTUAL PROPERTY

- 4.1 All Project IP shall belong to the Party creating the Project IP and the creating Party shall be exclusively entitled to all title, rights and interest in such Project IP. Any Project IP created jointly by the Parties ("Joint Project IP") shall be jointly owned and the exact division of ownership will be dependent upon the final relative input, scientific and financial, that each Party makes to such Joint Project IP. Unless and until the terms of joint ownership are agreed, neither Party shall grant a third party any right or licence under the Joint Project IP without first obtaining the prior written agreement of the other Party.
- 4.2 All Background IP used in connection with the Project(s) shall remain the property of the Party introducing the same.
- 4.3 Each Party hereby grants to the other Party where it is free to do so the right to use its Background IP to the extent necessary to conduct the Projects. If one Party makes any of its Background available to another Party in the course of the Projects, the Party receiving such Background shall treat it as Confidential Information disclosed under Clause 6, and shall not disclose it to a third party nor use it for any purposes other than that for which it was made available to that Party.
- 4.4 Each Party shall grant the other Party royalty-free, non-exclusive licences to use its Projects IP in order to undertake the Research Projects but with no automatic right to grant sub-licences.

5. RESEARCH GOVERNANCE ARRANGEMENTS

- 5.1 Research governance and research management responsibilities for the Projects are detailed in Table 1 attached hereto.
- 5.2 The Parties will ensure that research in any way connected with the Projects is conducted in accordance with the guidelines of "Research Ethics Committees" or such other guidelines as may be issued from time to time by the UMCG and the DDRC. Where appropriate the Parties will ensure that Project Staff hold honorary

contracts. Both Parties are expected to conduct the Projects according to guidelines for Good Clinical Practice, and the UMCG Research Code.

5.3 Each named Sponsor (shown in Table 1) is responsible for obtaining relevant ethical permissions, obtaining informed consent from participants for all uses of any data and/or samples before use in the Projects, and maintaining records and data according to the latest legislative requirements. This is defined as a 'Sponsor's'

Both Parties shall be responsible for the collection of basic factual (or "raw") Personal Data. The Parties shall ensure that all basic factual Personal Data is anonymised when it is obtained and that the key to personal identities is kept in a separate and secure place. Personal Data shall only be made available to Project Staff and exclusively to the extent that said staff need access to such Personal Data for the performance of their duties as required by the Projects. Parties shall ensure that all Personal Data (including Personal Data in any electronic format) is stored securely. Both parties shall take appropriate measures to ensure the security of such Personal Data and guard against unauthorised access thereto or disclosure thereof or loss or destruction while

5.5 Both Parties shall comply with the provisions of the Data Protection Act 1998 and the Human Tissue Act 2004, as well as Dutch and Iranian applicable laws and regulations.

No information which would lead to the identification of an individual shall be included in any publications without the prior agreement in writing of the individual concerned.

Neither Party shall supply any third party with copies of any data obtained in 5.7 connection with the Projects without prior agreement.

6. CONFIDENTIALITY AND PUBLICATION

No information of whatsoever nature, including materials provided by one Party to the Recipient Party will be disclosed by the Recipient Party to a third party or used by the Recipient Party save as expressly allowed in this Agreement or with the prior written consent of the Disclosing Party but this will not apply to information which:

at the time of its disclosure hereunder is in the public domain; or after disclosure hereunder becomes part of the public domain by publication or otherwise through no fault of the Recipient Party (but only after it is so published or otherwise becomes part of the public domain); or the Recipient Party can show was, at the time of its receipt hereunder, already rightfully in its possession, free from restrictions on disclosure and use, and was not obtained directly or indirectly from the Disclosing Party

was received by the Recipient Party after the time of disclosure hereunder from any third party who had a lawful right to disclose it to the Recipient Party and who did not require the recipient to hold it in confidence; or was independently developed by the Recipient Party who had no access to the Confidential Information and where the independent development can

be proven by contemporaneous written documentation; or

the Recipient Party is specifically required to disclose by law or pursuant to an order of any Court of competent jurisdiction, but only after the disclosing Party is given prompt written notice and an opportunity to seek a protective order or to agree such disclosure and provided that, in the case of a disclosure under the Freedom of Information Act 2000 or the Wet openbaarheid van bestuur (1991), none of the exemptions in that Act applies to the information.

6.2 If either Party receives a request under the Freedom of Information Act 2000 or the Wet openbaarheid van bestuur (1991) to disclose any information of the other Party, it will notify and consult with the other Party. The other Party will respond within five (5) days after receiving notice if the notice requests assistance in determining whether or not an exemption in the Act applies.

6.3 Specific information will not be deemed to be within any of the foregoing exceptions merely because it is embraced by more general information which is

public knowledge or otherwise lawfully available to the Recipient Party.

- 6.4 The Parties hereby undertake and agree to keep any inventions and know-how relating to Project IP secret and confidential and not to disclose these inventions and know-how to any party.
- 6.5 The Parties recognise their common interest in obtaining valid IP protection. Therefore Parties agree that any publication or presentation based on the results of Projects will be submitted to the other Party for review and comment prior to publication. In order to ensure that the other Party will be able to make comments and suggestions where pertinent, material for public dissemination will be submitted to the other Party for review at least four (4) weeks prior to submission for publication, public dissemination, or review by a publication committee.

Parties agree that all reasonable comments made by the other Party in relation to a proposed publication will be incorporated into the publication as far as it does not thereby compromise its scientific integrity.

During the period for review of a proposed publication as mentioned above the other Party is entitled to make a reasoned request that publication be delayed for a period of up to thirteen (13) weeks from the date of first submission to the other Party in order to enable that Party to take steps to protect its proprietary information. Consent to such a request shall not unreasonably be withheld.

- 6.6 Any publication will be published jointly by the Parties with full recognition given to the relative contribution of each Party.
- 6.7 Parties agree to abide by the Vancouver guidelines for authorship.
- 6.8 Once a publication is produced and circulated in draft form, all co-authors will provide a written response outlining either their agreement or amendments. This response will be made within four weeks of the first draft and within two weeks of each subsequent draft.
- 6.9 The Party being last author will cover all costs of submission for publication.

7. INDEMNITY

- 7.1 Each Party shall during and after the period of this Agreement indemnify and hold harmless the other Party and their employees and agents against all liability, damage, costs or expenses which may result directly from any negligent act or omission, breach of contract or statutory duty on the part of the indemnifying Party, its employees or agents.
- 7.2 Parties liability to each other under this agreement is limited to € 50.000, (fifty thousand Euros) per project. Liability for consequential damages is excluded.

8. WARRANTIES AND RESTRICTIONS

- 8.1 Each Party warrants that:
 - 8.1.1 it has full power and authority to carry out the actions contemplated under this Agreement;
 - 8.1.2 it shall perform the Projects in a professional manner with reasonable skill and care, using suitably qualified personnel, and shall use all reasonable endeavours to achieve the objects of the Projects;
 - 8.1.3 all information, data and materials provided by it to the other hereunder will be, to the best of its knowledge, accurate and complete in all material respects, and it is entitled to provide the same to the other without recourse to any third party;

9. TERM AND TERMINATION

- 9.1 This collaboration will commence on the date of signing and will continue for the duration of the Projects or as otherwise determined by mutual agreement between the Parties
- 9.2 Any Party may terminate this Agreement forthwith by notice in writing to the others if one or more of the others commits a substantial breach of this Agreement which in the case of a breach capable of remedy shall not have been remedied within thirty (30) days of the receipt by the Party in default of the notice identifying the breach and requiring its remedy.
- 9.3 The expiration of this Agreement or the termination thereof for whatever reason shall not affect the accrued rights of the Parties arising in any way out of this

Agreement as at the date of expiration or termination and all provisions which are expressed to survive this Agreement shall remain in full force and effect.

10. ASSIGNMENT

10.1 This Agreement or any part of any benefit or interest, right or licence in or arising under it is not assignable except with the prior written consent of each of the Parties.

11. GENERAL PROVISIONS

11.1 GOVERNING LAW AND JURISDICTION

The validity, construction and performance of this Agreement will be governed by the law of the country in which the concerning activity under this agreement is performed.

11.2 SEVERABILITY OF PROVISIONS

If any provision of this agreement is declared void or unenforceable by any judicial or administrative authority this will not ipso facto nullify the remaining provisions of this Agreement and the provision of this Agreement so affected will be curtailed and limited only to the extent necessary to bring it within the legal requirements.

11.3 FORCE MAJEURE

No failure or omission by either Party to carry out or to observe any of the terms or conditions of this Agreement will, except in relation to obligations to make payments hereunder, give rise to any claim against the Party in question or be deemed a breach of this Agreement if such failure or omission arises from any cause beyond the reasonable control of that Party.

11.4 ENTIRE AGREEMENT

This Agreement embodies the entire agreement between the Parties hereto as to the subject matter hereof and merges all prior discussions and no provision of this Agreement may be changed except by the written mutual consent of the Parties hereto.

11.5 ARBITRATION

The Parties will attempt to settle by mutual agreement all disputes and differences arising under this Agreement, but in the event that an amicable settlement cannot be achieved then all such disputes and differences will be resolved according to the provisions of the International Rules of Arbitration. The International Arbitration Association shall designate a neutral Arbitrator.

11.6 RELATIONSHIP OF PARTIES

Nothing in this Agreement and no action taken by the Parties pursuant to this Agreement shall constitute or be deemed to constitute a partnership between the Parties, or shall constitute any Party as the agent, employee or representative of any other.

11.7 WAIVERS

Failure of any Party to enforce or exercise, at any time or for any period, any term of this Agreement, does not constitute, and shall not be construed as, a waiver of such term and shall not affect the right later to enforce such term or any other term herein contained.

11.8 FURTHER ASSURANCES

The Parties shall do and execute all such further acts and things as are reasonably required to give full effect to the rights given and the transactions contemplated by this Agreement.

11.9 RIGHTS OF THIRD PARTIES

Save as expressly provided in this Agreement, no term of this Agreement shall be enforceable by a third party (being any person other than the Parties and their permitted successors and assignees).

IN WITNESS whereof this Agreement has been executed by duly authorised officers of the Parties hereto the date first above written.

Planned:

Project Name	Sponsor	Senior researcher DDRC	Senior researcher UMCG	Junior researcher	Management lead*	Protocol development*	Data
Epidemiology Of UGI Cancers in Gonbad	DDRC	Reza Malekzadeh	Truusske GH deBock	Alireza Sadjadi	DDRC	DDRC	DDRC
Epidemiology of Cardiovascular conditions	UMCG	Reza Malekzadeh*	Harold Snieder	Behrooz Z Alizadeh	UMCG	UMCG DDRC	UMCG DDRC
Epidemiology of type 2 Diabetes and related conditions	UMCG	Reza Malekzadeh*	Ronald Stolk	Mireille Edens	UMCG DDRC	UMCG	UMCG DDRC
Epidemiology of inflammatory conditions	UMCG DDRC	Homayoon Vahedi	Behrooz Z Alizadeh	Harshal Desmuth	UMCG DDRC	UMCG DDRC	UMCG DDRC
Epidemiology of fatty liver	UMCG DDRC	Shahin Merat	Ronald Stolk	Mireille Edens	UMCG DDRC	DDRC UMCG	DDRC
Multi-morbidity	UMCG	Reza Malekzadeh	Ronald Stolk	Behrooz Z Alizadeh	UMCG	UMCG DDRC	UMCG
Epidemiology of viral hepatitis: Treatment and Prevention	DDRC	Shahin Merat	Eelko Hac	Hossein Poustchi	DDRC	DDRC; UMCG	DDRC UMCG
Epidemiology of Metabolic syndrome	UMCG	Reza Malekzadeh*	Ronald Stolk	Mireille Edens	UMCG	UMCG	UMCG DDRC
Achalasia	DDRC	Javad Mikaeli	Behrooz Z. Alizadeh	Elham Elahi	DDRC UMCG	UMCG DDRC	DDRC UMCG

^{*.}Senior Researcher might be assigned to a new PI due to the course of project.