CURRICULUM VITAE

Kerstin M. Galler

PERSONAL INFORMATION

Name Kerstin Martina Galler

Date and Place of Birth March 25, 1975, Mainz, Germany

Address Department of Conservative Dentistry and Periodontology
University Hospital Regensburg, Germany
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EMPLOYMENT

Present Full Professor (Endodontology)
Department of Conservative Dentistry and Periodontology,
University Hospital Regensburg, Germany
Section Leader "Endodontology and Dental Traumatology"

EDUCATION

2014 Specialization in Endodontology,
German Association of Endodontology and Dental Traumatology (DGET)

2011 Habilitation
Title: "Bioengineering of Dental Stem Cells in Functionalized Protein- and Peptide-Based Hydrogel Scaffolds"
Department of University of Restorative Dentistry and Periodontology
University of Regensburg, Germany

2006 - 2009 Ph.D. in Biomedical Engineering,
Title: "Self-Assembling Hydrogels Targeted for Dental Tissue Regeneration"
Department of Bioengineering
Rice University, Houston, Texas, USA

Post-Doctoral Fellow
Department of Biomedical Sciences
Baylor College of Dentistry, Texas A&M, Dallas, Texas, USA

April 2006 – Mai 2006	Post-doctoral Fellow, *Department of Chemistry* *Rice University, Houston, Texas*
2004 - 2006	Post-Doctoral Fellow Department of Orthodontics *University of Texas Health Science Center at Houston, Texas, USA*
2002	Doctoral Degree in Dentistry Title: "Accuracy of electronic apex locators in comparison to actual length" *Ludwig-Maximilians-Universitaet,* Munich, Germany
2000	D.D.S. (Doctor of Dental Surgery), State Board Examination in Dentistry *Ludwig-Maximilians-Universitaet,* Munich, Germany

AWARDS AND HONORS

2013	Award of the German Association of Endodontology (DGET) „Best International Publication in Endodontics"
2012	Award for "Best Habilitation" at the University of Regensburg for 2011
	Walkhoff-Award of the German Association of Restorative Dentistry (DGZ) „Best International Publication"
2011	ESE Annual Research Grant
	Young Investigator Award "Freier Verband deutscher Zahnärzte"
	Award for Best Oral Presentation, AfG (Association of Basic Science in Dentistry)
2010	Travel Award ICCBMT, "International Conference for the Chemistry and Biology of Mineralized Tissues" Scottsdale, Arizona, USA
	ReForM B Fellowship, University of Regensburg: 12-month exemption from clinical and teaching duties to focus on research activities
2009/2010	Norton Ross Fellowship, CED-IADR , IADR 2010, Barcelona, Spain
2009	Travel Award, Mineralized Tissue Group, IADR 2009, Miami, USA
2006	Travel Award, Pulp Biology Group, IADR 2006, Brisbane, Australia
2005/ 2006	Post Doctoral Scholarship German Academic Exchange Service (DAAD), Germany
2005	International Young Investigator Award Dentin Pulp Complex Meeting, Düsseldorf, Germany

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

Continental European Division of the International Association of Dental Research (CED-IADR)

Pulp Biology and Regeneration Group of IADR (PBRG)

German Association of Endodontology and Dental Traumatology (DGET)

German Association of Basic Research in Dentistry (Arbeitsgemeinschaft für Grundlagenforschung, AfG)

German Association of Restorative Dentistry (Deutsche Gesellschaft für Zahnerhaltung, DGZ)

Association of Regenerative Medicine (Transdisziplinärer Arbeitskreis für Regenerative Medizin, TAKRegMed)

RESEARCH INTEREST

Dental Pulp Regeneration and Dental Pulp Tissue Engineering

Functionalized Biomaterials for Dental Tissue Regeneration

Dental Stem Cells

Isolation and characterization of dental pulp stem cells

Evaluation of different hydrogel systems as matrices for dental stem cells

Customization of protein-based hydrogels for dental pulp tissue engineering by incorporation of bioactive motifs and growth factors

Cell culture and *in vivo* transplantation of dental pulp stem cells in protein-based hydrogels

SCIENTIFIC REVIEW ACTIVITIES

SCIENTIFIC JOURNALS

Cells Tissues Organs

Clinical Oral Investigations

Dental Traumatology

European Journal of Oral Sciences

Journal of Dental Research

Journal of Endodontics

Journal of Material Science

Journal of Biomaterials Science Polymer Edition

Journal of Periodontology

International Endodontic Journal

PLOS ONE

Regenerative Medicine

Tissue Engineering Part A

Reviewer for intramural funding

University of Münster, Germany

University of Düsseldorf, Germany

Reviewer for

ISF (Israel Science Foundation), Israel
French National Research Agency, France

FURTHER ACTIVITIES

2015	Head and member of the board for a position statement on Regenerative Endodontic Procedures for the European Society for Endodontololgy (ESE)
2014 – 2015	President of the Pulp Biology and Regeneration Group (PBRG) of IADR)
2014	Symposium Organisation "Dental Pulp Regeneration" at the General Session of the Society for Endodontololgy (ESE), Barcelona 2015
2013	Organisation of the Oral Session „Pulp Defense and Regeneration" at the IADR General Session in Seattle, USA
2013	Organisation des Pulp Biology and Regeneration Group (PBRG) Symposiums „Pulp Regeneration – Translational Opportunities" im März in San Francisco, USA
2012	Head and Board Member of the work group for a new dental curriculum (NKLZ) Topic: "Pulpal and periradicular disease"
Since 2012	Member of the work group „Pulp Biology"of the German Association of Restorative Dentistry (DGZ)
2011 – 2013	Secretary of the German Association of Basic Research in Dentistry (Arbeitsgemeinschaft für Grundlagenforschung, AfG) Arrangement of the annual meeting
2011	Lecturer for the Sino-German Postgraduate Summer School Xi'an, China, August 2011
2010	Co-Organizer of the Pulp Biology and Regeneration Group (PBRG) Symposium „Tissue Injury and Pulp Regeneration", Geneva, Switzerland

SUMMARY OF SPECIFIC SCIENTIFIC CONTRIBUTIONS

Dr. Kerstin Galler is a Full Professor, Deputy and Section Leader of Endodontology at the Department of Restorative Dentistry and Periodontology, University of Regensburg, Germany. Her time is divided between clinical work (endodontology, dental traumatology and restorative dentistry), teaching and research, which she runs in her own laboratory. Dr. Galler combines an expertise in dentistry, specifically in pulp biology, and tissue engineering, and has been working on tunable hydrogels in combination with pulp-derived stem cells for dental pulp tissue engineering for more than a decade. Her work contributed to the development of custom-made scaffolds specifically for pulp regeneration, and she has suggested criteria for scaffolding systems for this purpose in several review articles. Dr. Galler has furthermore envisioned a clinical protocol for pulp regeneration following a cell-homing approach. She works and publishes on smart biomaterials and on the release and incorporation of endogenous growth factors from root canal dentin into those biomaterials in order to optimize regenerative approaches. Her activities as president of the Pulp Biology and Regeneration Group (PBRG) of IADR, the organization of PBRG symposia, the arrangement of symposia and oral sessions in scientific and clinical meetings and her keynote talks and presentations have raised awareness for the field of dental pulp tissue engineering and regeneration, and have brought experts, both scientifically and clinically, together. Her efforts focus furthermore on advancing clinical procedures for regenerative endodontic procedures and advocating biology-based treatment approaches to maintain or restore pulp vitality clinically.

BIBLIOGRAPHY

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(2) Widbiller M, Lindner SR, Buchalla W, Eidt A, Hiller KA, Schmalz G, **Galler KM**. Three-dimensional culture of dental pulp stem cells in direct contact to tricalcium silicate cements. *Clin Oral Investig*. July 2015. [Epub ahead of print].

(3) **Galler KM**, Krastl G, Simon S, Van Gorp G, Meschi N, Vahedi B, Lambrechts P. European Society of Endodontology Position Statement: Revitalisation Procedures. Int Endod J. Mar 2016 [Epub ahead of print].

(4) **Galler KM**. Clinical procedure for revitalization: current knowledge and considerations. Int Endod J (2015). [Epub ahead of print

(5) Schmalz G, Widbiller M, Galler KM. Material tissue interaction-from toxicity to tissue regeneration. Oper Dent. (2015). [Epub ahead of print].

(6) **Galler KM**, Widbiller M, Buchalla W, Eidt A, Hiller KA, Hoffer PC, Schmalz G. EDTA conditioning of dentine promotes adhesion, migration and differentiation of dental pulp stem cells. *Int Endod J*. 2015 Jun 25. [Epub ahead of print].

(7) **Galler KM**, Buchalla W, Hiller KA, Federlin M, Eidt A, Schiefersteiner M, Schmalz G. Influence of root canal disinfectants on growth factor release from dentin. *J Endod*. 41:363-8 (2015).

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(9) **Galler KM**, Eidt A, Schmalz G. Cell-free approaches for dental pulp tissue engineering. *J Endod*. 40(4 Suppl):S41-5 (2014).

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(16) Li Y, Lu Y, Maciejewska I, **Galler K**, Cavender A, D'Souza RN. TWIST1 Promotes the Odontoblast-like Differentiation of Dental Stem cells. *Adv Dent Res*. 23:280-4.

(17) **Galler KM**, Cavender AC, Koeklue U, Suggs LJ, Schmalz G, D'Souza RN. Bioengineering of dental stem cells in a PEGylated fibrin gel. *Regen Med*. 6:191-200 (2011).

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BOOK CHAPTERS

Galler KM. Scaffolds for Pulp Repair and Regeneration. In: Goldberg M. (Editor). The Dental Pulp. Biology, Pathology and Regenerative Therapies. Springer, Heidelberg. 251-66 (2014).

D'Souza RN, Regan KR, **Galler KM**, Shi S. The Bioengineering of Dental Tissues. In: Fisher JP, Mikos AG, Bronzino JD, Peterson DR (Editores). Tissue Engineering. Principles and Practices. GRC Press. 33-1 (2013).