The Clinical Research Unit 208 "Aetiology and Seguelae of Periodontal Diseases - Genetic, Cell Biological and Biomechanical Aspects" funded by the German Research Foundation and the Medical Faculty of the University of Bonn kindly invites you to the International Symposium in Bonn. The major goal of the Clinical Research Unit 208 is to improve the prevention, disease control and therapy of periodontitis through a better understanding of the causes and effects of periodontal diseases and the regenerative processes in the involved tissues. The scientists of the Clinical Research Unit, who are from the Dept. of Periodontology, Operative and Preventive Dentistry, the Dept. of Orthodontics, the Dept. of Oral and Maxillofacial Plastic Surgery, the Section of Experimental Dento-Maxillo-Facial Medicine, the Oral Technology, the Dept. of Dermatology and Allergy, and the Dept. of Internal Medicine II, Cardiology, Pneumology, and Angiology (all from University of Bonn), the Institute for Clinical Molecular Biology and the 1<sup>st</sup> Dept. of General Internal Medicine of the University Hospital Schleswig-Holstein (University of Kiel), and the Institute of Computational Science (University of Lugano), will present their most recent research findings. In addition, highly reputed researchers from the USA, Turkey, Greece, Brazil, Switzerland and The Netherlands will provide you with excellent overviews on the current knowledge in various fields of periodontology, orthodontics, biomechanics, genetics, immunology and systemic diseases.

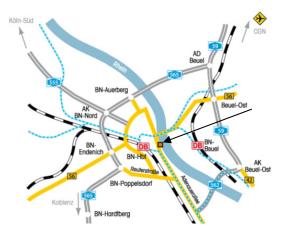
### Registration

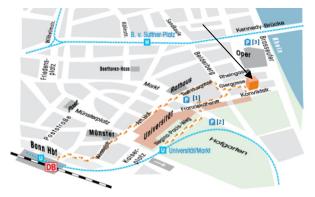
E-mail: james.deschner@uni-bonn.de Clinical Research Unit 208 University of Bonn Welschnonnenstrasse 17 53111 Bonn, Germany Tel: +49 228 287-22650

Fax: +49 228 287-22081

### Location

Universitätsclub Bonn e.V. Konviktstr. 9 53113 Bonn, Germany http://www.uniclub-bonn.de/kontakt\_03.htm













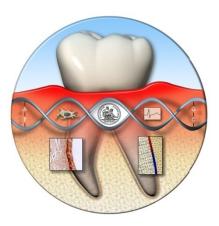


# International Symposium of the Clinical Research Unit 208

"Aetiology and Sequelae of Periodontal Diseases -Genetic, Cell Biological and Biomechanical Aspects"

July 4, 2014

University of Bonn Germany



### **Symposium Program**

8:45 - 9:00 a.m.

#### Welcome and Introduction

9:00 - 9:30 a.m.

## Developmental approaches used to identify attractive candidates for regenerating periodontal tissues

Martha Somerman\*

Director of the National Institute of Dental and Craniofacial Research & Chief of the Laboratory for Oral Connective Tissue Biology, National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institutes of Health, Bethesda, MD, USA

9:30 - 10:00 a.m.

### Stem cells in regenerative dentistry

Sema Hakki\*

Selcuk University, Department of Periodontology, Konya, Turkey

10:00 - 10:20 a.m.

### Effects of periodontal-pathogenic factors on oral neoplasia

Project #10: Jochen Winter<sup>1\*</sup>, Matthias Wenghoefer<sup>2</sup>
<sup>1</sup>Department of Periodontology, Operative and Preventive Dentistry, <sup>2</sup>Department of Oral and Maxillofacial Plastic Surgery, University of Bonn, Germany

10:20 - 10:40 a.m.

### Influence of PTH on the interplay of PDL cells and immune cells within periodontal remodeling

Project #8: Stefan Lossdörfer\*, Andreas Jäger Department of Orthodontics, University of Bonn, Germany

10:40 - 11:10 a.m.

#### Break

11:10 - 11:30 a.m.

### Regulation of oxidative stress in the periodontium

Project #7: Werner Götz\*, Birgit Rath-Deschner Department of Orthodontics, University of Bonn, Germany 11:30 - 11:50 a.m.

### Impact of periodontitis on vascular damage and regeneration

Project #6: Nikos Werner<sup>1</sup>, Moritz Kebschull<sup>2</sup>\*

<sup>1</sup>Department of Internal Medicine II, Cardiology,
Pneumology, and Angiology, <sup>2</sup>Department of
Periodontology, Operative and Preventive Dentistry,
University of Bonn, Germany

11:50 - 12:10 p.m.

## In-vivo and in-vitro studies of the biomechanical behavior of the periodontium following orthodontic treatment

Project #5: Christoph Bourauel<sup>1\*</sup>, Rolf Krause<sup>2</sup>

<sup>1</sup>Oral Technology, University of Bonn, Germany

<sup>2</sup>Institute of Computational Science, University of Lugano, Switzerland

12:10 - 12:40 p.m.

## Debunking the myths of compression and tension theory in orthodontic tooth movement biology: the new insight

Efthimia Basdra\*

Department of Biological Chemistry, Cellular and Molecular Biomechanics Unit, Medical School, University of Athens, Greece

12:40 - 14:00 p.m.

#### Lunch

14:00 - 14:30 p.m.

## Contribution of biomechanical forces to periodontal tissue destruction in periodontitis

Joni Cirelli\*

Department of Diagnosis and Surgery, São Paulo State University – UNESP, Araraquara - SP, Brazil

14:30 - 14:50 p.m.

## Effects of adipokines and obesity on periodontal destruction and regeneration

Project #4: James Deschner\*
Section of Experimental Dento-Maxillo-Facial Medicine,
University of Bonn, Germany

14:50 - 15:20 p.m.

## TGF-β is what Emdogain and autologous bone grafts have in common

Reinhard Gruber\*

Laboratory of Oral Cell Biology, University of Bern, Switzerland

15:20 - 15:40 p.m.

## Functional characterisation of the large noncoding RNA ANRIL and implications for the pathophysiology of periodontitis

Project #3: Arne Schäfer<sup>1\*</sup>, Stefan Schreiber<sup>1</sup>, Søren Jepsen<sup>2</sup>

Institute of Clinical Molecular Biology and 1<sup>st</sup> Department of Internal Medicine, University Hospital Schleswig-Holstein, University of Kiel

Department of Periodontology, Operative and Preventive Dentistry, University of Bonn, Germany

15:40 - 16:10 p.m.

#### Break

16:10 - 16:30 p.m.

## Antimicrobial peptides - innate immune response of gingival epithelial cells

Project #2: Henrik Dommisch\*, Søren Jepsen Department of Periodontology, Operative and Preventive Dentistry, University of Bonn, Germany

16:30 - 16:50 p.m.

## Role of macrophages/dendritic cells and NKT cell interaction in Th17 polarized chronic periodontitis

Project #1: Jean-Pierre Allam\*, Natalija Novak
Department of Dermatology and Allergy, University of Bonn,
Germany

16:50 - 17:20 p.m.

### Periodontitis and other oral infections as risk factors for cardiovascular disease and diabetes

Bruno Loos\*

University of Amsterdam and VU University Amsterdam, The Netherlands

17:20 - 17:30 p.m.

### **Concluding remarks**

\* speaker