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CALL FOR ABSTRACTS & PRELIMINARY PROGRAM

29 September–2 October 2015
GÖTTINGEN • GERMANY

www.prokagenomics.org



Venue
University of Göttingen
Central Lecture Hall (Zentrales Hörsaalgebäude)
Platz der Göttinger Sieben 5
37073 Göttingen/Germany

Date
29 September–2 October 2015

Conference Website
www.prokagenomics.org

Conference Chairs
Prof. Dr. Rolf Daniel
Institute of Microbiology und Genetics • Georg-August-University Göttingen

Prof. Dr. Michael Hecker
Institute for Microbiology • Ernst-Moritz-Arndt University Greifswald

Prof. Dr. Alfred Pühler
Center for Biotechnology (CeBiTec) • Bielefeld University

Scientific Committee
Axel Brakhage, Jena/DE
Gerhard Braus, Göttingen/DE
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Alfred Pühler, Bielefeld/DE
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Gabriele Gerlach, Würzburg/DE
Ida Retter, Braunschweig/DE

Conference Organization
Conventus Congressmanagement & Marketing GmbH
Claudia Tonn
Carl-Pulfrich-Straße 1 • 07745 Jena (DE)
Phone +49 3641 31 16-374 • Fax +49 3641 31 16-243
prokagenomics@conventus.de • www.conventus.de

Scientific Sponsors



Industrial Exhibition

The conference will be accompanied by a specialized industrial exhibition. Interested companies are invited to request information on the exhibition modalities from the conference organization Conventus.

We cordially invite you to submit your abstract (max. length 2,000 characters) online at www.prokagenomics.org for the following topics. **Abstracts must be submitted in English no later than 20 April, 2015.**

Topics

Microbial Genomics in Biotechnology & Industry
Microbial Communities & MetaOmics
Functional Genomics of Infectious Diseases
Functional Genomics of *C. difficile* Infections
Host Microbe Interplay
Global Gene Regulation & Proteome Dynamics
Systems Biology & Single Cell Genomics
Synthetic Biology

An international review panel will evaluate all abstracts according to scientific content and suitability for ProkaGENOMICS 2015. A limited number will be accepted for oral presentations.

All abstract authors will be informed automatically as soon as the procedure of publication has been determined.

Registration

Registration for the conference is required and available online at www.prokagenomics.org.

Registration Fees

	Early Bird Registration until 30 June, 2015	Late Registration from 1 July, 2015
Member NZMG Student*	90 EUR	110 EUR
Non-Member Student*	115 EUR	135 EUR
Member NZMG Professional	210 EUR	250 EUR
Non-Member Professional	280 EUR	320 EUR
Industry	385 EUR	415 EUR

* Please provide a confirmation of your student status to Conventus GmbH

Keyword: ProkaGENOMICS 2015 • Carl-Pulfrich-Straße 1 • 07745 Jena (Germany)
via fax to +49 3641 31 16-243 or Email to registration@conventus.de.

Social Program

Welcome Reception, conference participant	incl.
Welcome Reception, accompanying person	20 EUR
Social Evening	45 EUR

Dear colleagues,

On behalf of the scientific and organizing committees it is our great pleasure to invite you to the 6th European Conference on Prokaryotic and Fungal Genomics - ProkaGENOMICS 2015 which will be held in Göttingen on September 29 - October 2, 2015.

The ProkaGENOMICS conference series has been launched in 2003 by the GenoMik funding initiative of the BMBF and took place every two years, until 2011. In 2015 the North German Center of Microbial Genomics (www.nzmg.de) will revive this successful conference series devoted to all aspects of microbial genomics, one of the most rapidly evolving fields in molecular life sciences. The increasing power of high-throughput technologies now allows simultaneous examination of thousands of genes, transcripts, proteins, and metabolites. These so-called Omics technologies have become the new mantra in microbial genomics. They are powerful tools that allow monitoring of regulatory processes genome-wide under hundreds of different conditions, even single-cell analyses are becoming possible. The ProkaGENOMICS 2015 conference will address this challenging field of microbiology.

ProkaGENOMICS 2015 will be the perfect occasion for scientists from Germany and abroad to exchange and discuss new knowledge and technologies with the best international researchers in this exciting field of microbiology. To participate actively in the conference we cordially invite you to submit your abstracts for an oral or a poster presentation.

We are looking forward to welcoming you in Göttingen!

Prof. Dr. Rolf Daniel
Conference Chair

Prof. Dr. Michael Hecker
Conference Chair

Prof. Dr. Alfred Pühler
Conference Chair

WELCOME TO GÖTTINGEN

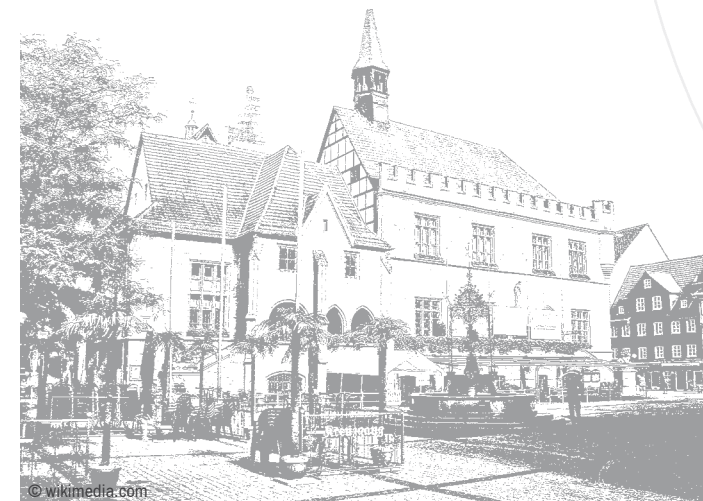
Göttingen is a university town in Lower Saxony, Germany. The origins of Göttingen lay in a village called Gutingi. This village was first mentioned in a document in 953. The city was founded between 1150 and 1200 to the northwest of this village and adopted its name. In medieval times the city was a member of the Hanseatic League and hence a wealthy town.

Today, Göttingen is famous for its old university (Georgia Augusta, or „Georg-August-Universität“), which was founded in 1737 and became the most visited university of Europe. Some of the most famous mathematicians in history, Carl Friedrich Gauss, Bernhard Riemann and David Hilbert, were professors in Göttingen.

The cultural heritage of the university town Göttingen has been influenced by scientists, scholars, Nobel-prize winners and creative artists who have left their visible marks in the town.

The historical city centre, enclosed by the remains of the medieval town wall, is home to magnificent churches and half-timbered houses dating from the 14th to the 18th century. Most of today's urban life takes place within the old town walls. Göttingen is known for its short distances between all places of interest. Göttingen's landmark is the „Gänselesel“ on the fountain at the market square in front of the Old Town Hall. This art nouveau statue figures a girl herding geese. It is a tradition that all new doctoral graduates from the University kiss the cheeks of the statue after passing their examination. This makes her „the most kissed girl in the world“.

The rich cultural life of Göttingen, with theatres, orchestras, museums and large events evokes interest well beyond the city boundaries. Visitors appreciate Göttingen's accessibility by road or train and the cosmopolitan atmosphere of this lively city, created by students and people from all over the world alike. For further information on Göttingen please visit www.goettingen.de.



SCIENTIFIC PROGRAM • TUESDAY, 29 SEPTEMBER 2015

16⁰⁰-21⁰⁰ **Registration**
 18⁰⁰-18³⁰ **Opening Remarks**
 18³⁰-19³⁰ **Opening Lecture: Synthetic Electromicrobiology**
 Derek Lovley, United States
 19³⁰ **Welcome Reception**

SCIENTIFIC PROGRAM • WEDNESDAY, 30 SEPTEMBER 2015

Microbial Genomics in Biotechnology & Industry

08³⁰ **Sequence-guided bioprospecting for pathway engineering**
 Kristala J. Prather, United States

08⁵⁵ *Oral presentation selected from abstracts*

09¹⁵ **Think big in small scale – struggling with rapid characterization of strains and processes**

Marco Oldiges, Germany

09⁴⁰ *Oral presentation selected from abstracts*

10⁰⁰ **Systems biology approaches to dissecting plant cell wall deconstruction by a filamentous fungus**

Louise N. Glass, United States

10²⁵-11⁰⁰ **Coffee Break**

Microbial Communities & MetaOmics I

11⁰⁰ **A holistic approach to understand adaptations of prokaryotes to the harsh conditions of the Red Sea**

Ulrich Stingl, Kingdom of Saudi Arabia

11²⁵ *Oral presentation selected from abstracts*

11⁴⁵ **Linking enzyme properties and environmental constraints**

Manolo Ferrer Martinez, Spain

12¹⁰ *Oral presentation selected from abstracts*

12³⁰ **Metagenomics at the next level – using long reads for accessing taxonomy and functions of microbial mat communities**

Rolf Daniel, Germany

12⁵⁵-13³⁰ **Lunch Break**

13³⁰-15⁰⁰ **Poster Session I**

Systems Biology & Single Cell Genomics

15⁰⁰ **The genomic landscape of compensatory evolution**

Csaba Pál, Hungary

15²⁵ *Oral presentation selected from abstracts*

15⁴⁵ **Illuminating microbial dark matter in Marburg forest soil**

Anne-Kristin Kaster, Germany

16¹⁰ *Oral presentation selected from abstracts*

16³⁰ **Tba**

Christian von Mering, Switzerland

16⁵⁵-17³⁰ **Coffee Break**

From Bacterial Metabolism to Genomics and beyond

17³⁰-19⁰⁰ **Gerhard G. Gottschalk Honorary Session**
 (in honor of his 80th birthday)

SCIENTIFIC PROGRAM • THURSDAY, 1 OCTOBER 2015

Microbial Communities & MetaOmics II

08³⁰ **Far-red light photoacclimation (FaRLiP) – a major new acclimative response of cyanobacteria that leads to extensive remodelling of the photosynthetic apparatus**

Donald Bryant, United States

08⁵⁵ *Oral presentation selected from abstracts*

09¹⁵ **Tba**

Bärbel Stecher, Germany

09⁴⁰ *Oral presentation selected from abstracts*

10⁰⁰ **Metaproteomics – novel insights into old questions in medical microbiology & microbial ecology**

Katharina Riedel, Germany

10²⁵-11⁰⁰ **Coffee Break**

Global Gene Regulation & Proteome Dynamics

11⁰⁰ **Complexity and functions of the non-coding transcriptome in bacteria**

Wolfgang R. Hess, Germany

11²⁵ *Oral presentation selected from abstracts*

11⁴⁵ **The busy life of nascent chains – how proteins find their way to the native state**

Bernd Bukau, Germany

12¹⁰ *Oral presentation selected from abstracts*

12³⁰ **Quantifying proteome dynamics in *Mycobacterium tuberculosis* with SWATH mass spectrometry**

Ben Collins, Switzerland

12⁵⁵-13³⁰ **Lunch Break**

13³⁰-15⁰⁰ **Poster Session II**

Functional Genomics of *C. difficile* Infections

15⁰⁰ ***Clostridium difficile* biology in the era of comparative genomics**

Maja Rupnik, Slovenia

15²⁵ *Oral presentation selected from abstracts*

15⁴⁵ **Up-take, structure and functions of *Clostridium difficile* toxins**

Klaus Aktories, Germany

16¹⁰ **Systems biology of *C. difficile* infections**

Dieter Jahn, Germany

16³⁵ *Oral presentation selected from abstracts*

16⁵⁵-17³⁰ **Coffee Break**

Functional Genomics of Infectious Diseases

17³⁰ **Pathogenicity and immune evasion of the human-pathogenic fungus *Aspergillus fumigatus***

Axel Brakhage, Germany

17⁵⁵ *Oral presentation selected from abstracts*

18¹⁵ **Mutations altering transcription and translation direct adaptive processes and life-style changes of *Pseudomonas aeruginosa* after colonization of cystic fibrosis airways**

Søren Molin, Denmark

SCIENTIFIC PROGRAM • THURSDAY, 1 OCTOBER 2015

18⁴⁰ *Oral presentation selected from abstracts*
 19⁰⁰ **Population genomics of *Streptococcus agalactiae* to understand host adaptation and the emergence of neonatal infections**
 Philippe Glaser, France
 20⁰⁰ **Social Evening**

SCIENTIFIC PROGRAM • FRIDAY, 2 OCTOBER 2015

Microbe Interplay

08³⁰ ***Legionella* host pathogen interactions and evolution of virulence**

Carmen Buchrieser, France

08⁵⁵ *Oral presentation selected from abstracts*

09¹⁵ **Evolution of genomes and pathogenicity within the fungal genus *Verticillium***

Bart Thomma, The Netherlands

09⁴⁰ *Oral presentation selected from abstracts*

10⁰⁰ **Structure and function of the bacterial phyllosphere microbiota**

Julia Vorholt, Switzerland

10²⁵-11⁰⁰ **Coffee Break**

Synthetic Biology

11⁰⁰-11²⁵ **Forward design of a biochemical system**

Sven Panke, Switzerland

11²⁵-11⁴⁵ *Oral presentation selected from abstracts*

11⁴⁵-12¹⁰ **Design and production of new-to-nature antimicrobials by synthetic biology**

Oscar Kuipers, The Netherlands

12¹⁰-12³⁰ *Oral presentation selected from abstracts*

12³⁰-12⁵⁵ **Minibacillus - elucidation of the components essentially required for a living cell**

Jörg Stülke, Germany

12⁵⁵-13³⁰ **Lunch Snack**

Global Gene Regulation & Proteome Dynamics

13³⁰-13⁵⁵ **Choreography of transcription in *Salmonella***

Jay Hinton, United Kingdom

13⁵⁵-14¹⁵ *Oral presentation selected from abstracts*

14¹⁵-14⁴⁰ **Regulatory networks governing *Candida albicans* colonization of the mammalian host**

Christian Perez, Germany

14⁴⁰-15⁰⁰ *Oral presentation selected from abstracts*

15⁰⁰-15¹⁰ **Closing Remarks**