Following on from last year’s successful event this event will discuss the roles of bacteriophages, ranging from fundamental biological research to their use in medical and industrial biotechnologies.

This event has CPD accreditation

www.phage2016.com
Table of Contents

AGENDA..............................................................................................................................................6

DAY 1: BIOCONTROL AND LYSIS .........................................................................................................6

Introduction by the Chair ..........................................................................................................................6

Artilysin, a novel class of enzyme-based antibacterials ........................................................................6

Pseudomonas aeruginosa Mu-like bacteriophages: genomic diversity and mechanism of replicative
transposition ..................................................................................................................................................6

Oral Presentations ..................................................................................................................................6

EXPLORATION OF PHAGE THERAPY FOR THE CONTROL OF PHYTOPATHOGENIC BACTERIA ..........6

BIOCHEMICAL CHARACTERIZATION OF THE GLOBULAR ENDOLYSINS FROM BACTERIOPHAGES INFECTING
BACTERIA OF THE GENUS THERMUS AND CLOSTRIDIUM ................................................................6

Research activities at the DSMZ - more than a collection .....................................................................6

Bacteriophages and their endolysins for the biocontrol of Staphylococcus aureus and Clostridium difficile6

Endolysin-based antimicrobials for control of bacterial pathogens ..........................................................6

Lunch Break with Exhibitions .................................................................................................................6

Oral Presentations ..................................................................................................................................6

DEVELOPING GALLERIA MODEL FOR ASSESSING PHAGE THERAPY IN PSEUDOMONAS AERUGINOSA
INFECTION .............................................................................................................................................6

LISTERIA MONOCYTOGENES’ PROPHAGE SERVES AS AN ACTIVE REGULATORY SWITCH TO PROMOTE
BACTERIAL VIRULENCE ............................................................................................................................6

Interaction of lysis protein E from bacteriophage φX174 with translocase MraY on the bacterial
peptidoglycan biosynthetic pathway ........................................................................................................6

Engineering Thermal Stability to Phage-encoded Bacteriolytic Enzymes ..............................................6

Phage-host interactions of lactococcal bacteriophages .........................................................................6

Selective pressure imposed on Pseudomonas aeruginosa by virulent bacteriophages: the importance of
pseudolysogeny ........................................................................................................................................6

AGENDA ..................................................................................................................................................6

DAY 2: STRUCTURES AND MECHANISMS OF ACTION ......................................................................7

Introduction by the Chair ..........................................................................................................................7

Structure of the SPP1 bacteriophage and its function ..............................................................................7

We’re all in this together: bacterial population defence against viral predators through suicidal abortive
infection systems ........................................................................................................................................7

Insights into protein-primed genome replication of temperate phage Bam35 ....................................7

The Ecoli phage shock protein (psp) response-what does it sense and do? .........................................7

Phagonaute: a tool to predict phage protein functions by distant homology searches ............................7

Through a viral membrane: genome delivery and packaging in the double-stranded DNA phage PRD1......7

Structural Insights into Functional Roles of Phage Coat Protein Accessory Domains ..........................7

Biography and genetics of telomere phages ............................................................................................7
Location of the unique integration site on an Escherichia coli chromosome by bacteriophage lambda DNA in vivo

Bacteriophages and antibiotic resistance genes in the environment

Phages limited dependence on host non-essential functions: the bacteriophage SPP1 case

Recombinant antibodies displayed on filamentous bacteriophage for single cell proteomics

Bacteriophage-host interaction at the cell surface of S aureus - an essential role for the baseplate protein Gp45 in phi11 adsorption

Phage-like chromosomal islands alter global transcription patterns in Streptococci

Question Time:

AGENDA

DAY 3: PHAGE THERAPY

Introduction by the Chair

The enemy insight: tectiviruses preying on the Bacillus cereus group

China, challenges and opportunities for the use of Bacteriophage and Derived Proteins

GMP production of bacteriophages

Oral Presentations

INDUCTION OF PROPHAGE Φ1207.3 IN STREPTOCOCCUS PNEUMONIAE

CHARACTERIZATION OF VB_YENM_TG1 AND VB_YENM_PHIR1-RT, TWO HIGHLY RELATED BROAD HOST RANGE BACTERIOPHAGES INFECTING YERSINIA ENTEROCOLITICA

Bacteriophages infecting the fish pathogen Flavobacterium columnare in aquaculture

Oral Presentation

PHAGEBIOTICS IN PREVENTION AND TREATMENT OF HEALTHCARE-ASSOCIATED

Question Time:

Oral Presentations

THE COMPLEXATION OF BACTERIOPHAGE DNA BY POLY (EPSILON-LYSINE) DENDRONS TOWARDS DEVELOPMENT OF SYNTHETIC BACTERIOPHAGES

HOW BACTERIA DO NOT FORGET THEIR ENEMIES

Filamentous phage - applications from nano to metagenomic scale

ABOUT THE SPEAKERS

Andrei Alexandrescu

Andrey Aleshkin

Rinat Arbel-Goren

Orode Aniejurengho

Laurent Bretaudue

Stan Brouns

Martin Buck

Timothy DH Bugg

Yves Briers
ABOUT THIS EVENT

FREQUENTLY ASKED QUESTIONS ABOUT OUR EVENTS
## DAY 1: BIOCONTROL AND LYSIS

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:00 – 09:45</td>
<td>Exhibitions open</td>
<td>Registration and Refreshments</td>
</tr>
<tr>
<td>09:45 – 10:25</td>
<td>Introduction by the Chair</td>
<td>Dr Yves Briers, Department Applied Biosciences, Ghent University – Campus Schoonmeersen, Gent, Belgium</td>
</tr>
<tr>
<td>10:25 – 10:50</td>
<td>Pseudomonas aeruginosa Mu-like bacteriophages: genomic diversity and mechanism of replicative transposition</td>
<td>Dr Christine Pourcel, GPMS, Institut de Biologie Intégrative de la Cellule I2BC, Université Paris-Saclay, France</td>
</tr>
<tr>
<td>10:50 – 11:20</td>
<td>Poster Review and Exhibitions</td>
<td>Refreshments provided</td>
</tr>
<tr>
<td>11:20 – 11:50</td>
<td>Oral Presentations</td>
<td>Duraissamy Nivas, Bharathidasan University, Department of Microbiology, Tiruchirappalli, Tamil Nadu, India</td>
</tr>
<tr>
<td>11:35 – 11:50</td>
<td>BIOCHEMICAL CHARACTERIZATION OF THE GLOBULAR ENDOLYSINS FROM BACTERIOPHAGES INFECTING BACTERIA OF THE GENUS THERMUS AND CLOSTRIIDIUM</td>
<td>Dr Magdalena Platka, Department of Microbiology, University of Gdansk, Gdansk, Poland</td>
</tr>
<tr>
<td>11:50 – 12:15</td>
<td>Research activities at the DSMZ - more than a collection</td>
<td>Dr Johannes Wittmann, Leibniz-Institut DSMZ - Deutsche Sammlung von Mikroorganismen and Zellkulturen GmbH, Germany</td>
</tr>
<tr>
<td>12:15 – 12:40</td>
<td>Bacteriophages and their endolysins for the biocontrol of Staphylococcus aureus and Clostridium difficile</td>
<td>Dr Aidan Coffey, Cork Institute of Technology, Ireland</td>
</tr>
<tr>
<td>12:40 – 13:05</td>
<td>Endolysin-based antimicrobials for control of bacterial pathogens</td>
<td>Dr Mathias Schmelcher, Institute of Food, Nutrition and Health ETH Zurich, Zurich, Switzerland</td>
</tr>
<tr>
<td>13:05 – 14:05</td>
<td>Lunch Break with Exhibitions</td>
<td>Poster viewing 2nd half of lunch break</td>
</tr>
<tr>
<td>14:05 – 14:15</td>
<td>Introduction by the chair</td>
<td>Dr Jennifer Mahony, School of Microbiology, University College Cork, Ireland</td>
</tr>
<tr>
<td>14:15 – 14:45</td>
<td>Oral Presentations</td>
<td>Dumanahandu Chutia, Dept. of Infection, Immunity and Inflammation, University of Leicester, Leicester, United Kingdom</td>
</tr>
<tr>
<td>14:30 – 14:45</td>
<td>LISTeria monocytoGenes’ proPhage serves as an active regulatory switch to promote bacterial virulence</td>
<td>Assistant Professor Anat A. Herskovits, Department of Molecular Microbiology and Biotechnology, Tel-Aviv University, Tel Aviv, Israel</td>
</tr>
<tr>
<td>15:10 – 15:35</td>
<td>Engineering Thermal Stability to Phage-encoded Bacteriolytic Enzymes</td>
<td>Professor Timothy DH Bugg, Department of Chemistry, University of Warwick, UK</td>
</tr>
<tr>
<td>15:35 – 16:05</td>
<td>Last Poster Review and Exhibitions</td>
<td>Refreshments provided</td>
</tr>
<tr>
<td>16:05 – 16:30</td>
<td>Phage-host interactions of lactococcal bacteriophages</td>
<td>Dr Jennifer Mahony, School of Microbiology, University College Cork, Ireland</td>
</tr>
<tr>
<td>16:30 – 16:55</td>
<td>Selective pressure imposed on Pseudomonas aeruginosa by virulent bacteriophages: the importance of pseudolysogeny</td>
<td>Libera Latino, Institut de Biologie Intégrative de la Cellule - CEA-CNRS-UPSud, Université Paris-Sud, Orsay cedex, France</td>
</tr>
<tr>
<td>16:55 - 17:00</td>
<td>Chairman’s Summing Up</td>
<td>Close of Session</td>
</tr>
</tbody>
</table>

PLEASE NOTE: TIMES ARE SUBJECT TO CHANGE
# AGENDA

## DAY 2: STRUCTURES AND MECHANISMS OF ACTION

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker and Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:00 – 09:45</td>
<td><strong>Exhibitions open</strong></td>
<td></td>
</tr>
<tr>
<td>09:45 – 10:20</td>
<td>Introduction by the Chair</td>
<td>Professor Elena Orlowa, Crystallography, Institute for Structural and Molecular Biology, Department of Biological Sciences, Birkbeck, University of London, London, UK</td>
</tr>
<tr>
<td></td>
<td>Structure of the SPP1 bacteriophage and its function</td>
<td></td>
</tr>
<tr>
<td>10:20 – 10:40</td>
<td><strong>We’re all in this together: bacterial population defence against viral predators through suicidal abortive infection systems</strong></td>
<td>Professor George Salmond, Department of Biochemistry, University of Cambridge, UK</td>
</tr>
<tr>
<td>10:40 – 11:00</td>
<td>Insights into protein-primed genome replication of temperate phage Bam35</td>
<td>Dr Modesto Redrejo-Rodríguez, Centro de Biología Molecular &quot;Severo Ochoa&quot; (CSIC-UAM), Spain</td>
</tr>
<tr>
<td>11:00 – 11:30</td>
<td><strong>Poster Review and Exhibitions</strong></td>
<td>Refreshments provided</td>
</tr>
<tr>
<td>11:30 – 11:50</td>
<td>The Ecoli phage shock protein (psp) response—what does it sense and do?</td>
<td>Professor Martin Buck, Dept Life Sciences, Imperial College London, UK</td>
</tr>
<tr>
<td>11:50 – 12:10</td>
<td>Phagonaute: a tool to predict phage protein functions by distant homology searches</td>
<td>Dr Marie-Agnès Petit, Research Director, INRA, France</td>
</tr>
<tr>
<td>12:10 – 12:30</td>
<td>Through a viral membrane: genome delivery and packaging in the double-stranded DNA phage PRD1</td>
<td>Dr Hanna M Oksanen, University of Helsinki, Institute of Biotechnology and Department of Biosciences, Helsinki, Finland</td>
</tr>
<tr>
<td>12:30 – 12:50</td>
<td>Structural Insights into Functional Roles of Phage Coat Protein Accessory Domains</td>
<td>Professor Andrei Alexandrescu, University of Connecticut, Storrs, CT, United States</td>
</tr>
<tr>
<td>12:50 – 13:50</td>
<td><strong>Lunch Break with Exhibitions</strong></td>
<td></td>
</tr>
<tr>
<td>13:50 – 14:10</td>
<td>Biology and genetics of telomere phages</td>
<td>Dr Stefan Hertwig, Diagnostik, Genetik und Erregercharakterisierung, Federal Institute for Risk Assessment, Germany</td>
</tr>
<tr>
<td>14:10 – 14:30</td>
<td>Location of the unique integration site on an Escherichia coli chromosome by bacteriophage lambda DNA in vivo</td>
<td>Dr Rinat Arbel Goren, Department of Physics of Complex Systems, Weizmann Institute of Science, Israel</td>
</tr>
<tr>
<td>14:30 – 14:50</td>
<td>Bacteriophages and antibiotic resistance genes in the environment</td>
<td>Dr Maite Muniesa, Department of Microbiology, Faculty of Biology, University of Barcelona, Spain</td>
</tr>
<tr>
<td>14:50 – 15:10</td>
<td>Phages limited dependence on host non-essential functions: the bacteriophage SPP1 case</td>
<td>Dr Paulo Tavares, I2BC, Department of Virology, Campus CNRS de Gif-sur-Yvette, Gif-sur-Yvette, France</td>
</tr>
<tr>
<td>15:10 – 15:30</td>
<td>Recombinant antibodies displayed on filamentous bacteriophage for single cell proteomics</td>
<td>Dr Peter Kristensen, Aarhus University, Department of Engineering, Denmark</td>
</tr>
<tr>
<td>15:30 – 16:00</td>
<td><strong>Last Poster Review and Exhibitions</strong></td>
<td>Refreshments provided</td>
</tr>
<tr>
<td>16:00 – 16:20</td>
<td>Bacteriophage-host interaction at the cell surface of S. aureus - an essential role for the baseplate protein Gp45 in phi11 adsorption</td>
<td>Dr Guoqing Xia, Institute of Inflammation &amp; Repair, Faculty of Medical and Human Sciences, The University of Manchester, Manchester, United Kingdom</td>
</tr>
<tr>
<td>16:20 – 16:40</td>
<td>Phage-like chromosomal islands alter global transcription patterns in Streptococci</td>
<td>Dr Michael McShan, HSC College of Pharmacy, University of Oklahoma, Oklahoma City, USA</td>
</tr>
<tr>
<td>16:40 – 17:00</td>
<td><strong>Question Time</strong></td>
<td></td>
</tr>
<tr>
<td>17:00</td>
<td><strong>Chairman’s Summing Up</strong></td>
<td>Close of Session</td>
</tr>
</tbody>
</table>

**PLEASE NOTE: TIMES ARE SUBJECT TO CHANGE**
# AGENDA

## DAY 3: PHAGE THERAPY

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:00 – 09:45</td>
<td>Exhibitions open Registration and Refreshments</td>
<td></td>
</tr>
<tr>
<td>09:45 – 10:30</td>
<td>Introduction by the Chair The enemy insight: tectiviruses preying on the Bacillus cereus group</td>
<td>Dr Annika Gillis, Université Catholique de Louvain-Earth and Life Institute, Laboratory of Food and Environmental Microbiology, Belgium</td>
</tr>
<tr>
<td>10:30 – 11:00</td>
<td>China, challenges and opportunities for the use of Bacteriophage and Derived Proteins</td>
<td>Dr David Trudil, International Phage Research Center, China</td>
</tr>
<tr>
<td>11:00 – 11:30</td>
<td>Poster Review and Exhibitions Refreshments provided</td>
<td></td>
</tr>
<tr>
<td>11:30 – 12:00</td>
<td>GMP production of bacteriophages</td>
<td>Dr. Laurent Bretaudeau, Clean Cells, Boufféré , France</td>
</tr>
<tr>
<td>12:00 – 12:30</td>
<td>Oral Presentations</td>
<td></td>
</tr>
<tr>
<td>12:00 – 12:15</td>
<td>INDUCTION OF PROPHAGE Φ1207.3 IN STREPTOCOCCUS PNEUMONIAE</td>
<td>Dr Francesco Santoro, University of Siena, LAMMB – Dept. of Medical Biotechnologies, Siena, Italy</td>
</tr>
<tr>
<td>12:15 – 12:30</td>
<td>CHARACTERIZATION OF VB_YENM_TG1 AND VB_YENM_PHIR1-RT, TWO HIGHLY RELATED BROAD HOST RANGE BACTERIOPHAGES INFECTING YERSINIA ENTEROCOLITICA</td>
<td>Dr Mikael Skurnik, Department of Bacteriology and Immunology, Haartman Institute, University of Helsinki, Helsinki, Finland</td>
</tr>
<tr>
<td>12:30 – 13:00</td>
<td>Lunch Break with Exhibitions Poster viewing 2\textsuperscript{nd} half of lunch break</td>
<td></td>
</tr>
<tr>
<td>13:30 – 14:00</td>
<td>Bacteriophages infecting the fish pathogen Flavobacterium columnare in aquaculture</td>
<td>Dr Lotta-Rilina Sundberg, Centre of Excellence in Biological Interactions, Department of Biological and Environmental Science and Nanoscience Center, University of Jyvaskyla, Finland</td>
</tr>
<tr>
<td>14:00 – 14:15</td>
<td>Oral Presentation PHAGEBIOTICS IN PREVENTION AND TREATMENT OF HEALTHCARE-ASSOCIATED</td>
<td>Dr Andrey Aleshkin, Gabyrchevsky Moscow Research Institute for Epidemiology and Microbiology, Moscow, Russia</td>
</tr>
<tr>
<td>14:15 – 15:15</td>
<td>Question Time: It is estimated that there are $10^{31}$ phages on Earth. Can we estimate genetic diversity of bacteriophages, i.e. how many “types” or “species” of bacteriophages are there and can we expect many more surprises in genes carried in bacteriophage genomes which might be discovered in near future? What do you think about intravenous applications of bacteriophages to treat bacterial infections?</td>
<td></td>
</tr>
<tr>
<td>15:15 – 15:45</td>
<td>Session break Refreshments provided</td>
<td></td>
</tr>
<tr>
<td>15:45 – 16:15</td>
<td>Oral Presentations</td>
<td></td>
</tr>
<tr>
<td>15:45 – 16:00</td>
<td>THE COMPLEXATION OF BACTERIOPHAGE DNA BY POLY (EPSILON-LYSINE) DENDRONS TOWARDS DEVELOPMENT OF SYNTHETIC BACTERIOPHAGES HOW BACTERIA DO NOT FORGET THEIR ENEMIES</td>
<td>Orode Aniejurengho, University of Brighton, School of Pharmacy and Biomolecular Science, Brighton, United Kingdom</td>
</tr>
<tr>
<td>16:00 – 16:15</td>
<td></td>
<td>Stan Brouns, Laboratory of Microbiology, Wageningen University, Wageningen, Netherlands</td>
</tr>
<tr>
<td>16:15 – 16:45</td>
<td>Filamentous phage - applications from nano to metagenomic scale</td>
<td>Dr Jasna Rakonjac, Institute of Fundamental Sciences, Massey University, Palmerston North, New Zealand</td>
</tr>
<tr>
<td>16:45 – 17:00</td>
<td>Chairman’s Summing Up Close of Session</td>
<td></td>
</tr>
</tbody>
</table>

**PLEASE NOTE:** TIMES ARE SUBJECT TO CHANGE
ABOUT THE SPEAKERS

Andrei Alexandrescu, University of Connecticut, Storrs, CT, United States
Andrei Alexandrescu is a graduate of Bronx High School of Science, City University of New York (BA, Chemistry) and University of Wisconsin-Madison (PhD, Biochemistry). Following postdocs at Oxford University and Johns Hopkins Medical School, Dr. Alexandrescu held a faculty position at the Biozentrum of the University of Basel before moving to University of Connecticut in 2000. His research expertise and interests include: protein structure determination by NMR, protein folding, and amyloidogenic proteins. Dr. Alexandrescu is a newcomer to the bacteriophage field as a result of a collaboration started in 2012 with Prof. Carolyn Teschke’s laboratory.

Andrey Aleshkin, Gabrychevsky Moscow Research Institute for Epidemiology and Microbiology, Moscow, Russia
Andrey Aleshkin, Sc.D.-biology, now is head of the Laboratory for Clinical Microbiology and Biotechnology of Bacteriophages of Gabrychevsky Moscow Research Institute of Epidemiology and Microbiology (MRIEM) and chief scientist in Bphage LLC. He received his Ph.D.-medicine in medical cybernetics at Pirogov Russian National Medical University, MBA in marketing at Lomonosov Moscow State University, Sc.D. in biotechnology and microbiology at Gabrychevsky MRIEM. Currently Dr. Andrey Aleshkin’s research focuses on the clinical safety and specific activity of bacteriophages as probiotics and decontaminating agents for food products. He has published more than 60 papers in peer-reviewed journals and 30 patents in Russia.

Rinat Arbel-Goren, Weizmann Institute of Science, Israel
2002-2005 PhD and Postdoc in Life Sciences at the Department of Molecular Biology of the Cell and at the Department of Immunology, Weizmann Institute of Science. Since 2006 a Staff Scientist in the Department of Physics of Complex Systems, Weizmann Institute of Science, Rehovot, Israel. Lab: Prof. J. Stavans.
Current research topics:
Target location on bacterial genomes during horizontal gene transfer processes.
Effects of post-transcriptional regulation by small RNAs on phenotypic variability in E. coli.
Effects of phenotypic variability on cellular decisions during development in cyanobacteria.

Orode Aniejurengho, University of Brighton, School of Pharmacy and Biomolecular Science, Brighton, United Kingdom
Orode Aniejurengho received her MRes degree in Bioscience and BSc (Hons) Biomedical Science from the University of Brighton where she graduated top of her class. Currently finishing a PhD degree at the same university, her research has focused on application of bioengineering strategies to combine the antimicrobial properties of dendrons and Proteus mirabilis bacteriophages in the search for novel antimicrobial strategies for treatment of biofilm-related infections.

Laurent Bretaudeau, Clean Cells, Boufféré, France
Dr Bretaudeau has 12 years’ experience in R&D projects management at Clean Cells, for internal developments, for customer projects and in collaborative networks. Supporting the development of a number of innovative products, Laurent has participated notably in terms of quality control design and validation for GLP and GMP-compliant testing. In the specific field of bacteriophages, Laurent has supervised the implementation of GMPs for the production of 2 cocktails targeting 2 bacterial species, used in an on-going clinical trial.

Stan Brouns, Laboratory of Microbiology, Wageningen University, Wageningen, Netherlands
Stan Brouns is a Molecular Microbiologist who studied Molecular Life Sciences and graduated from Wageningen University in the Netherlands in 2001. He received a PhD in Microbiology in 2007 at the same University after studying the sugar metabolism of hyperthermophilic archaea. From the beginning 2006 he has been interested in elucidating the mechanism of CRISPR-mediated defense in prokaryotes. In 2011 he started his own group studying microbe-virus relationships after obtaining National and European funding. Dr. Brouns is currently an Assistant Professor in Microbiology and has contributed to over 56 scientific publications.
Martin Buck, Dept Life Sciences, Imperial College London, UK
MB is Professor of Molecular Microbiology at ICL, and studies bacterial gene regulation mechanisms as linked to environment and stress sensing.

Timothy DH Bugg, Department of Chemistry, University of Warwick, UK
Tim Bugg is Professor of Biological Chemistry at the University of Warwick. His academic career started at the University of Southampton in 1991, where his group studied enzymes involved in the bacterial degradation of aromatic compounds and enzymes involved in bacterial peptidoglycan assembly. Since moving to Warwick in 1999, his group has more recently studied enzymes involved in bacterial degradation of lignin, and the application of biocatalysis to convert lignin into renewable aromatic chemicals.

Yves Briers, Department Applied Biosciences, Ghent University – Campus Schoonmeersen, Gent, Belgium
Yves Briers completed his Ph.D. in Bioscience Engineering at the University of Leuven (2008). As a protein engineer, he developed Artilysin®s, novel enzyme-based antibiotics. Artilysin®s are currently commercialized by Lysando AG. As a postdoctoral researcher he stayed at the Swiss Federal Institute of Technology (ETH Zurich - Switzerland) (2009-2011), for which he was granted a long-term fellowship from the European Molecular Biology Organization (EMBO). In 2012, he returned as a postdoc to the University of Leuven. Since May 1, 2015 he is appointed as assistant professor at Ghent University at the Department of Applied Biosciences

Aidan Coffey, Cork Institute of Technology, Ireland
Senior Lecturer at the Department of Biological Sciences, Cork Institute of Technology. Academic Career: B.Sc Microbiology (University College, Cork), Ph.D Microbiology, (UCC); Postdoctoral Scientist, Wageningen Agricultural University (The Netherlands); Senior Research Officer, Teagasc, Moorepark, Co. Cork; Senior Lecturer at CIT since 2002 (acting Head of Dept. of Biological Sciences during 2007). Research Interests: Biocontrol of pathogenic microorganisms, bacteriophages, Food Microbiology.

Mahananda Chutia, Dept. of Infection, Immunity and Inflammation, University of Leicester, Leicester, United Kingdom
M.Sc. in Microbiology, Ph.D. in Biotechnology from Gauhati University, Assam (India). Honorary Visiting Fellow, Dept. of Infection, Immunity and Inflammation, University of Leicester, UK. Scientist in Central Muga Eri Research & Training Institute, Govt. of India, Jorhat, Assam (Feb., 2014 to till date). CSIR - Senior Research Fellow in the Dept. of Biotechnology, Gauhati University, Guwahati (2008-09). Received awards DBT Overseas Associateship, DBT- Rapid Grant for Young Investigator (RGYI), CSIR-Senior Research Fellowship (SRF), National Merit Scholarship etc.

Duraisamy Nivas, Bharathidasan University, Department of Microbiology, Tiruchirappalli, Tamil Nadu, India
Duraisamy Nivas is the first graduated student in his family and moved on to doctoral study in Bharathidasan University. He has started his bacteriophages research in post-graduation with the help of student project from TNSCST (Tamil Nadu State Council for Science and Technology). With this initial interest he has pursuing his doctoral research in Bacteriophages at Department of Microbiology, Bharathidasan University, Tiruchirappalli, Tamil Nadu, India. He wants to explore his research findings at “Bacteriophages - 2016” event with the help of Euroscicon and make it as his first foreign visit.

Annika Gillis, Université catholique de Louvain-Earth and Life Institute, Laboratory of Food and Environmental Microbiology, Belgium
Annika Gillis studied Biological Sciences at the University Simón Bolívar (Venezuela), where she also specialized in Molecular Biology. She obtained her PhD from the Catholic University of Louvain (UCL) in Belgium. During her PhD, she focused her attention on a rare group of phages: the tectiviruses. Currently, she is a postdoctoral researcher at UCL. She studies the contribution of tectiviruses to the adaptation and evolution of their Bacillus hosts. She also investigates other phages infecting the Bacillus
cereus group of bacteria. In addition to phages, she is interested in the biology and ecology of the entomopathogenic bacterium Bacillus thuringiensis and some plant viruses, like the ones belonging to the Geminiviridae.

**Anat A. Herskovits**, Department of Molecular Microbiology and Biotechnology, Tel-Aviv University, Tel Aviv, Israel

Anat A. Herskovits is an assistant professor at the department of molecular microbiology and biotechnology at Tel Aviv University, Israel. She received her Ph.D. from the Weizmann Institute of science in Rehovot, Israel, in 2003, where she investigated the bacterial signal recognition particle pathway in E. coli. She carried out postdoctoral research at University of California Berkeley, USA, working on Listeria monocytogenes and its interaction with the mammalian innate immune system. She joined the Tel Aviv University at 2008, and research in her laboratory focuses on understanding the impact of host–pathogen and host-pathogen-phage interactions on the virulence and physiology of L. monocytogenes.

**Stefan Hertwig**, Diagnostik, Genetik und Erregercharakterisierung, Federal Institute for Risk Assessment, Bundesinstitut für Risikobewertung, Berlin, Germany

Stefan Hertwig studied biology in Göttingen and Kiel in Germany. After receiving his Ph.D. in 1990, he worked as a scientist at the Robert Koch Institute in Berlin, and since 2005 he has worked at the Federal Institute for Risk Assessment. His research focus is on the biology and genetics of bacteriophages and plasmids from food-borne bacterial pathogens.

**Peter Kristensen**, Aarhus University, Department of Engineering, Denmark

Dr. Kristensen received his PhD in Biostructural Chemistry from University of Aarhus in 1995. He performed his Post Doc in the laboratory of Sir Gregory Winter at the MRC-LMB Centre in Cambridge, UK, where he developed technologies allowing selection for structure, stability and enzymatic properties using filamentous bacteriophage. In 1998 he returned to Aarhus University where he today is heading a group focusing on application of recombinant antibodies and phage display.

**Libera Latino**, Institut de Biologie Intégrative de la Cellule - CEA-CNRS-UPSud, Université Paris-Sud, Orsay cedex, France

**Jennifer Mahony**, School of Microbiology, University College Cork, Ireland

Jennifer received her primary degree in Applied Biosciences in Cork institute of Technology in 2003. Following this, she performed her PhD studies at University College Cork based on lactococcal phage-resistance systems. Currently, she is a senior research scientist in the group of Prof. Douwe van Sinderen and her primary research interests include bacteriophage genomics and phage-host interactions.

**Maite Muniesa**, Department of Microbiology, Faculty of Biology, University of Barcelona, Spain

Dr. Muniesa expertise is focused on bacteriophages and their role as mobile genetic elements in the environment. Among these, her studies have been developed on Shiga toxin phages and phages encoding antibiotic resistance genes. She has also been involved in the relationship bacteriophages-bacterial hosts, and in the application of bacteriophages infecting enteric bacteria (E. coli and Bacteroides) as indicator microorganisms for the fecal pollution in water and as tracers of the origin of fecal pollution. Dr. Muniesa has more than 80 published manuscripts in international peer-reviewed journals and chapters in specialized books.

**Michael McShan**, HSC College of Pharmacy, University of Oklahoma, Oklahoma City, United States

Dr. McShan has 20 years experience in the genetics, genomics, and phages of group A and related streptococci. His laboratory discovered and characterized a family of novel prophage-like SpyPl in S. pyogenes that regulate DNA mismatch repair and other host repair genes via a dynamic process of excision and re-integration in response to the growth state of the cell. The NIH, State of Oklahoma, and private foundations have funded these efforts.
Daniel C. Nelson, Ph.D., Institute for Bioscience and Biotechnology Research and Department of Veterinary Medicine, University of Maryland, Rockville, MD, United State
Dr. Daniel Nelson received his PhD training at the University of Georgia, Athens, where he discovered and characterized several bacterial proteases. Moving to Dr. Vincent Fischetti’s laboratory at The Rockefeller University for postdoctoral studies, Dr. Nelson was part of the team that first demonstrated in vivo efficacy of a bacteriophage-encoded endolysin against a bacterial infection. He spent the next five years describing new endolysins as well as designing studies aimed at evaluation of host-range, resistance, toxicity, synergy, and pharmacokinetics for these enzymes. In 2007, Dr. Nelson moved to the University of Maryland where his laboratory began to focus on structure/function studies for several or the more active endolysins. Based on this knowledge, his group is now generating endolysins with more desirable attributes, such as higher activity or a more favorable thermostability profile, by employing rational methods (i.e. computational design or chimeragenesis) as well as random methods (i.e. directed evolution). It is anticipated these bioengineering approaches will result in development of the next generation endolysins with enhanced properties.

Elena Orlova, Crystallography, Institute for Structural and Molecular Biology, Department of Biological Sciences, Birkbeck, University of London, London, UK
Elena Orlova received her M.Sc. in Physics from Moscow Institute of Physics and Technology, and Ph.D. in Physics and Mathematics from the Institute of Crystallography (Moscow). Later she worked in the laboratories of Prof W. Chiu (Houston) and M. van Heel (Berlin and London). Presently, she is a professor macromolecular systems at Birkbeck College (London). Her research interests are in structural analysis of biomacromolecular complexes using cryo electron microscopy imaging. Her group has analyzed a range of different molecular complexes starting from huge viral assemblies and phages to very small regulatory proteins such as the tumour suppressor p53.

Hanna M Oksanen, University of Helsinki, Institute of Biotechnology and Department of Biosciences, Helsinki, Finland
PhD Hanna Oksanen is a molecular virologist and has worked over 15 years with viruses using bacteriophages and archaeal viruses as models. The main focus of her research is molecular details of virus functions and viral interactions with their host cells. During the last few years, she has significantly increased the number of known archaeal viruses by isolating new euryarchaeal viruses from high salinity environments. Currently, she is a Principle investigator at the University of Helsinki. Since 2011, she has been the Vice-Director of the Instruct Centre for Virus Production (ICVIR). ICVIR is specialized for virus purification and is part of the EU ESFRI research infrastructure Instruct (Integrated Structural Biology Infrastructure for Europe).

Christine Pourcel, GPMS, Institut de Biologie Intégrative de la Cellule I2BC, Université Paris-Saclay, France
Dr Pourcel obtained a PhD in the Pasteur Institute in Paris, France, working on the development of a recombinant vaccine against the hepatitis B virus (HBV). She then created transgenic mice expressing HBV genes, and studied the role of DNA methylation. Later she was involved in research on immune tolerance and autoimmunity, before moving to studies on bacterial pathogens and bacteriophages in Orsay. There she did pioneer work on the role of CRISPR-Cas as a prokaryote immune system. She is now dedicating her research to the investigation of Pseudomonas aeruginosa and its phages with a focus on coevolution dynamics.

Magdalena Plotka, Department of Microbiology, University of Gdansk, Gdansk, Poland
Magdalena Plotka has a PhD from Intercollegiate Faculty of Biotechnology, UG&MUG, Gdansk, Poland. She is an experienced molecular microbiologist. For three years, she was a postdoctoral research assistant at the University of Oxford, Great Britain. Dr Plotka is currently a Senior Research Associate at the Department of Microbiology, University of Gdansk. For the past four years she was involved in the project with main interest in biochemical characterization of small, globular endolysins from bacteriophages infecting bacteria that belong to the genus Thermus and Clostridium.
Marie-Agnès Petit, Research Director, INRA, France
Dr Marie-Agnès Petit leads a team at INRA, France, conducting researches on temperate phages. Our main goals are to understand phage genome evolution, using in silico, in vitro and in vivo approaches.

Jasna Rakonjac, Institute of Fundamental Sciences, Massey University, Palmerston North, New Zealand
Jasna Rakonjac has received a PhD from the Rockefeller University, NY, USA. She is an Associate Professor at the Institute of Fundamental Sciences, Massey University, New Zealand, and a mentor to numerous PhD students. She is a recipient of an ASM/Nestlé Award for the best phage article published in J. Bacteriology (2005). The main focus of her research programme is filamentous phage assembly/secretion and applications in phage display, nanotechnology, metagenomics and antibiotic development. Her ongoing and future projects include interdisciplinary research and applications involving the FF-derived nanorods, through national and international collaborations.

Modesto Redrejo-Rodríguez, Centro de Biología Molecular "Severo Ochoa" (CSIC-UAM), Spain
Dr. Redrejo-Rodríguez major research line is the maintenance and transmission of genetic information in viruses. He gained his PhD in the Molecular Biology Center (CSIC-UAM) in Madrid and, after a first postdoctoral period in France, he moves back to Spain, and focused on protein-primed DNA replication mechanism and biological roles of terminal proteins. He is also interested in Biotechnology applications of viral proteins, particularly DNA polymerases. Dr. Redrejo-Rodríguez is currently fellow of ComFururo Program for Young Researches (CSIC Foundation).

Francesco Santoro, University of Siena, LAMMB - Dept of Medical Biotechnologies, Siena, Italy
Francesco Santoro obtained his M. D. degree at the University of Siena, where he later specialized in clinical microbiology. He is currently enrolled in the third year of the PhD program in Medical Biotechnologies at the University of Siena. He studies the genetics of Streptococci with a focus on the biology of chromosomally integrated mobile genetic elements, such as prophages and conjugative transposons. He has been involved in the implementation of new molecular assays for the detection of Mycobacteria.

George Salmond, Department of Biochemistry, University of Cambridge, UK
George Salmond has been Professor of Molecular Microbiology in Cambridge since 1996. Prior to that he taught and conducted diverse research projects in bacterial genetics and molecular microbiology at the Universities of Warwick, Kent and Edinburgh. He has worked on bacteriophages since the 1970s. His current phage-based research covers characterization of new environmental phages infecting Gram-negative bacterial pathogens of plants and animals for functional genomic studies or phage therapy; work on the evolution of viral host range and bacterial receptors, and studies on bifunctional abortive infection systems with Type III toxin-antitoxin capacity.

Lotta-Riina Sundberg, Centre of Excellence in Biological Interactions, Department of Biological and Environmental Science and Nanoscience Center, University of Jyväskylä, Finland
Academy research fellow in Centre of Excellence in Biological interactions in University of Jyväskylä, Finland.

Mathias Schmelcher, Institute of Food, Nutrition and Health ETH Zurich, Zurich, Switzerland
Mathias Schmelcher studied Biology at TU Munich, Germany, and obtained his PhD from ETH Zurich, Switzerland in 2008, working on engineering of phage endolysins for detection and control of the foodborne pathogen Listeria monocytogenes (supervised by Martin Loessner). Between 2009 and 2012, he joined David Donovan’s lab at the USDA in Beltsville, MD, USA as a postdoctoral associate, where he focused on the development of endolysin-based therapeutics for treatment of bovine mastitis. After his return to ETH as a senior scientist, he has continued research on endolysins and their possible applications against bacterial pathogens in medicine, food safety, and agriculture.
Mikael Skurnik, Department of Bacteriology and Immunology, Haartman Institute, University of Helsinki, Helsinki, Finland
Dr. Mikael Skurnik, Professor of Bacteriology, Medical Faculty, University of Helsinki, Finland, obtained his PhD in biochemistry 1985 at University of Oulu, Finland. Postdoc 1985-7 with Hans Wolf-Watz at Umeå University, Sweden, then 1987-2002 different posts at University of Turku, Finland, and appointed as full Professor of Bacteriology at University of Helsinki in 2002. Since 1980 studied molecular biology and genetics of microbial pathogenesis using Yersinia-bacteria as model organisms, molecular biology of Yersinia—specific bacteriophages and phage therapy.

David Trudil, International Phage Research Center, China
David is a member of the International Phage Reserch Center (IPRC),president of NHDetect Corp. and a director of New Horizons Diagnostics. He has almost 40 years of experience with infectious diseases. He was the PM on ten Department of Energy/ISTC projects including phage and lytic enzymes. He has published and presented over 100 articles on detection, preventions and therapies; included in numerous patents; and participated on the team that developed the first rapid colloidal gold assay with use of lytic enzymes (1986) and patented the first application of lytic enzymes and detection with luminescence.

Paulo Tavares, I2BC, Department of Virology, Campus CNRS de Gif-sur-Yvette, Gif-sur-Yvette, France
Paulo Tavares obtained a PhD in Biochemistry from University of Coimbra (Portugal) in 1992. He then carried out post-docs with Tom Trautner at the Max-Planck Institut for Molecular Genetics (Berlin, Germany), where he supervised a research team working on bacteriophage SPP1 assembly and with Nancy Guilén and Philippe Sansonetti studying pathogenesis of Entamoeba histolytica at Institut Pasteur (Paris, France).
He is a CNRS group leader working on infection of the Gram-positive bacterium Bacillus subtilis by its phages since 2001 at Unité de Virologie Moléculaire et Structurale (Gif-sur-Yvette, France). In 2015 his team joined the Department of Virology of I2BC in Gif-sur-Yvette.

Guoqing Xia, Institute of Inflammation & Repair, Faculty of Medical and Human Sciences, The University of Manchester, Manchester, United Kingdom
Dr Xia is a Senior Lecturer at the Faculty of Medical and Human Sciences, University of Manchester. After receiving his Ph.D. Biochemistry in 1999, he undertook a number of postdoc projects on host-microbe interaction in research institutes in Hamburg, Lund, Borstel, Magdeburg and Tuebingen. Since 2011 his research has focused on the elucidation of novel antibiotic resistance mechanisms by nosocomial Gram positive pathogen and understanding phage mediated horizontal gene transfer across bacterial cell envelope.

Johannes Wittmann, Leibniz-Institut DSMZ - Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH, Germany
Dr Johannes Wittmann attained his PhD from the University of Bielefeld on the analysis of the endolysins of bacteriophages against the plant pathogen Clavibacter michiganensis. He is currently working at the Leibniz Institute DSMZ – German Collection of Microorganisms and Cell Cultures on several projects regarding phages against different human pathogens.
ABOUT THIS EVENT

Discussion Sessions

The discussion sessions are an opportunity for informal questions and answers. This is an ideal opportunity to get advice and opinion from experts in this area. This session is not for questions about specific talks, which can be asked after the speakers session, but for discussing either general topics or specific issues.

There are three ways you can ask questions:

1. Before the session you can submit your question to Euroscicon staff at the registration desk,
2. Before and during the session you can submit a question or comments, by email, which will be provided on the day of the event
3. During the session you can put your hand up and join in

Session breaks

All breaks and registrations will take place in the exhibition area where there will be lunch and refreshments.

Please try to visit all the exhibition stands during this event. Not only do our sponsors enable Euroscicon to keep the registration fees competitive, but they are also here specifically to talk to you.

Lunch

- We have a number of dishes that are gluten free
- We have a range of vegetarian dishes which are separated from the meat and fish dishes
- We have a number of dishes that are dairy free
- Please note that all food has been prepared in an environment where nuts may be present.

Missing Speakers

It is unfortunate that occasionally a speaker cannot attend, most usually due to not getting visas granted, unforeseen personal events or illness. Whilst we do everything possible to ensure that our speakers are present at the event we apologise in advance if you were at a session where a speaker could not attend. We always try to keep our agendas as up to date as possible, however if a speaker cancels the night before an event or on the day, there is little we can do to rectify this.
FREQUENTLY ASKED QUESTIONS ABOUT OUR EVENTS

Is the delegate list available?
Yes this is available to everyone who attends the event and our sponsors. It is available in real time. To access the list please just log into your registration details or use the QR code on right of the agenda card which is provided on the day of the event. You will not be included in this list if you have opted out and you can do this by logging into your registration details. This list will not be sold or ever give out to third parties.

Can I have the speakers slides?
We cannot give out the slides from our speaker’s presentations as they are deleted immediately after each event. If you require a particular set of slides please approach the speaker. We will however have a meeting report and you will be emailed when this report is published.

Can I have a notepad?
Notepads and pens are provided in the delegate bags and at the registration desk

How can I keep up to date with Euroscicon Events?
To keep updated on our events and other Life Science News, please sign up for our newsletter at www.eurosciconnews.com

I don’t want my photograph on any Euroscicon promotional material
Please let our tech person know

Is there WIFI?
Yes, please ask registration for log in details

Can I have a CPD/ CME certificate?
CPD certificates will be available in the exhibition hall after lunch.
Please remember that EuroSciCon is a small independent company with no subsidies from society memberships or academic rates for venues. We try to be as reasonably priced as possible and our delegate rates are substantially lower than comparable commercial meeting organisations

Personal belongings
Please take care of all your personal belonging as Euroscicon cannot be held responsible if an item goes missing from the lecture theatre or the exhibition hall.