## 19th International Conference on Bacillus and related Gram-positive bacteria

### Sunday  June 11, 2017

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>14:00 - 15:00</td>
<td>Registration</td>
</tr>
<tr>
<td>14:45 - 15:00</td>
<td>Welcome remarks</td>
</tr>
</tbody>
</table>

### Session 1  Sporulation  Chair: Sigal Ben-Yehuda

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>15:00 - 15:25</td>
<td>Richard Losick</td>
<td>Stochasticity and cell-fate determination during sporulation in <em>B. subtilis</em></td>
</tr>
<tr>
<td>15:30 - 15:40</td>
<td>Alper Mutlu</td>
<td>Phenotypic memory links entry and exit from dormancy by a spore quantity-</td>
</tr>
<tr>
<td>15:45 - 15:55</td>
<td>Patrick Eichenberger</td>
<td>Inferring the Bacillus subtilis global gene regulation network</td>
</tr>
<tr>
<td>16:00 - 16:10</td>
<td>Anthony Wilkinson</td>
<td>Structures of SpoIIIE Reveal a Regulatory Switch Shared across the PPC2</td>
</tr>
<tr>
<td>16:15 - 16:25</td>
<td>David Roberts</td>
<td>Polar segregation of the chromosome origins during sporulation in Bacillus subtilis</td>
</tr>
<tr>
<td>16:30 - 16:40</td>
<td>Anna Grela</td>
<td>Functional analysis of GerAA subunit of Bacillus subtilis GerA germination receptor</td>
</tr>
<tr>
<td>16:45 - 16:55</td>
<td>Eammon Riley</td>
<td>Defining the Metabolic Landscape of the Bacillus subtilis</td>
</tr>
<tr>
<td>17:00</td>
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<td>Welcome reception</td>
</tr>
</tbody>
</table>

### Monday  June 12, 2017

### Session 2  Cell biology I  Chair: Dirk-Jan Scheffers

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:30 - 08:55</td>
<td>Jan Willem Veening</td>
<td>Identification of a unique cell cycle regulator in <em>Streptococcus pneumoniae</em> by en masse</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GFP localization and CRISPRi phenotyping</td>
</tr>
<tr>
<td>09:00 - 09:10</td>
<td>Kumaran Ramamurthi</td>
<td>An essential Staphylococcus aureus cell division protein regulates both FtsZ assembly and disassembly</td>
</tr>
<tr>
<td>09:15 - 09:25</td>
<td>Elhanan Tzipilevich</td>
<td>Acquisition of phage sensitivity by bacteria through exchange of phage receptors</td>
</tr>
<tr>
<td>09:30 - 09:40</td>
<td>Lauren Cowley</td>
<td>Evidence for different rates in the mechanisms of recombination in Pneumococcal</td>
</tr>
<tr>
<td>09:45 - 09:55</td>
<td>Nada Labajova</td>
<td>Clostridial Min system – possible mechanism of functioning during cell division</td>
</tr>
<tr>
<td>10:00 - 10:10</td>
<td>Kenneth Seistrup</td>
<td>Lysis induced by membrane depolarisation is caused by MreB-linked mis-</td>
</tr>
<tr>
<td>10:15 - 10:45</td>
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<td>Coffee break</td>
</tr>
<tr>
<td>Session 3</td>
<td>Biotechnology</td>
<td>Chair: Oscar</td>
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<tr>
<td>10:45 - 11:10</td>
<td>Daniel Lopez</td>
<td>Lipid rafts: From structural and functional characterization to biotechnological application</td>
</tr>
<tr>
<td>11:15 - 11:25</td>
<td>Marcus Price</td>
<td>CRISPR-Cas9 mediated engineering of industrially relevant Bacillus subtilis strains</td>
</tr>
<tr>
<td>11:30 - 11:40</td>
<td>Rocio Aguilar Suarez</td>
<td>Less is more: towards development of a genome-reduced Bacillus as cell factory for vaccine production</td>
</tr>
<tr>
<td>11:45 - 11:55</td>
<td>Marta Irla</td>
<td>Methanol-based production γ-aminobutyric acid in B. methanolicus MGA3</td>
</tr>
<tr>
<td>12:00 - 12:10</td>
<td>Rita Cruz</td>
<td>A comparative study of native and heterologous enzyme production in Bacillus</td>
</tr>
<tr>
<td>12:30 - 14:00</td>
<td>Lunch</td>
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<table>
<thead>
<tr>
<th>Session 4</th>
<th>New techno., Syst. &amp; Synth.</th>
<th>Chair: Fabian Commichau</th>
</tr>
</thead>
<tbody>
<tr>
<td>14:00 - 14:25</td>
<td>Carol Gross</td>
<td>High throughput phenotyping in <em>Bacillus subtilis</em></td>
</tr>
<tr>
<td>14:30 - 14:40</td>
<td>Christopher Zschiedrich</td>
<td>Large scale identification of evolutionary mechanism that facilitate protein-protein interactions</td>
</tr>
<tr>
<td>14:45 - 14:55</td>
<td>Leendert Hamoen</td>
<td>Construction of a minimal divisome reveals robustness of cell division</td>
</tr>
<tr>
<td>15:00 - 15:10</td>
<td>Etienne Dervyn</td>
<td>Tailoring Bacillus subtilis-derived chassis for biotechnology applications</td>
</tr>
<tr>
<td>15:15 - 15:25</td>
<td>Jan Martinussen</td>
<td>Abrupt glucose depletion in Lactococcus lactis is resulting in an immediate</td>
</tr>
<tr>
<td>15:30 - 15:40</td>
<td>Eugen Peifer</td>
<td>Adaptive laboratory evolution of Corynebacterium glutamicum towards higher</td>
</tr>
<tr>
<td>15:45 - 16:15</td>
<td>Coffee break</td>
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<table>
<thead>
<tr>
<th>Session 5</th>
<th>Cell biology II</th>
<th>Chair: Stephane Aymerich</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:15 - 16:25</td>
<td>Sven Halbedel</td>
<td>Peptidoglycan N-deacetylation is jointly controlled by PgdA, PBP A1 and GpsB in Listeria monocytogenes</td>
</tr>
<tr>
<td>16:30 - 16:40</td>
<td>Rick Lewis</td>
<td>Exploring the relationship between penicillin binding proteins and the cell cycle regulator, GpsB</td>
</tr>
<tr>
<td>16:45 - 16:55</td>
<td>Peter Graumann</td>
<td>B. subtilis chromosomes are segregated in in a directed diffusion-like manner, and are condensed by several SMC condensation centres per cell half</td>
</tr>
<tr>
<td>17:00 - 17:10</td>
<td>Koichi Yano</td>
<td>cis-acting rDNA act as a loading site for Smc-ScpAB during nucleoid separation in Bacillus subtilis</td>
</tr>
<tr>
<td>17:15 - 17:25</td>
<td>Marc Bramkamp</td>
<td>A dynamin-like protein involved in bacterial cell membrane surveillance under environmental stress</td>
</tr>
<tr>
<td>Time</td>
<td>Speaker</td>
<td>Title</td>
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<tr>
<td>08:30 - 08:40</td>
<td>Alan Koh</td>
<td>Understanding the activation mechanism of the histidine kinase</td>
</tr>
<tr>
<td>08:45 - 08:55</td>
<td>Nathalie Declerck</td>
<td>Monitoring transcriptional adaptation in live Bacillus subtilis cells using two-photon fluorescence fluctuation microscopy</td>
</tr>
<tr>
<td>09:00 - 09:10</td>
<td>Jan Gundlach</td>
<td>Cyclic di-AMP controls potassium homeostasis in Bacillus subtilis</td>
</tr>
<tr>
<td>09:15 - 09:25</td>
<td>Sylvie Nessler</td>
<td>Structural Insights into Streptococcal Competence Regulation by the Cell-to-Cell Communication System ComRS</td>
</tr>
<tr>
<td>09:30 - 09:40</td>
<td>Johann Mignolet</td>
<td>Ubiquitous rewiring of transcriptional control in streptococci: lesson from competence and predation coupling in Streptococcus salivarius</td>
</tr>
<tr>
<td>09:45 - 09:55</td>
<td>Craig Ellermeier</td>
<td>RsIV is a bacterial receptor for lysozyme</td>
</tr>
<tr>
<td>10:00 - 10:10</td>
<td>Christopher Rao</td>
<td>DNA sensing in Bacillus subtilis</td>
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<tr>
<td>10:15 - 10:45</td>
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<td><strong>Coffee break</strong></td>
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</table>

**Session 6: Signal transduction**

**Chair:** Ivan Mijakovic

**Session 7: RNA biology**

**Chair:** Christiane Wolz

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>10:45 - 11:10</td>
<td>Pascale Romby</td>
<td><strong>Several regulatory RNAs in Staphylococcus aureus</strong> link stress responses, metabolism and virulence factor synthesis</td>
</tr>
<tr>
<td>11:15 - 11:25</td>
<td>Ruben Atilho</td>
<td>A widespread riboswitch class regulates guanidine metabolism in bacteria</td>
</tr>
<tr>
<td>11:30 - 11:40</td>
<td>Emma Denham</td>
<td>Towards the in vivo RNA interactome of the Gram positive model organism Bacillus subtilis</td>
</tr>
<tr>
<td>11:45 - 11:55</td>
<td>Libor Krasny</td>
<td>The Torpedo Effect in Bacillus subtilis: RNase J1 Resolves Stalled Transcription Complexes</td>
</tr>
<tr>
<td>12:00 - 12:10</td>
<td>Ciaran Condon</td>
<td>Rae1/YacP, a new endoribonuclease involved in ribosome-dependent mRNA decay in B. subtilis</td>
</tr>
<tr>
<td>12:30 - 14:00</td>
<td></td>
<td><strong>Lunch</strong></td>
</tr>
<tr>
<td>Session 8</td>
<td>Metabolism</td>
<td>Chair: Lars Hederstedt</td>
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<tr>
<td>14:00 - 14:10</td>
<td>Miriam Dormeyer</td>
<td>A devil in disguise: a metabolic enzyme converts a transcriptional activator into a repressor</td>
</tr>
<tr>
<td>14:15 - 14:25</td>
<td>Lianet Noda-Garcia</td>
<td>Mapping of chance and necessity in protein sequence evolution in complex bacterial</td>
</tr>
<tr>
<td>14:30 - 14:40</td>
<td>Georg Fritz</td>
<td>Making and breaking the wall – a systems approach to cell wall homeostasis in Bacillus subtilis</td>
</tr>
<tr>
<td>14:45 - 14:55</td>
<td>Christoph Mayer</td>
<td>Peptidoglycan recycling in Gram-positive bacteria is crucial for survival</td>
</tr>
<tr>
<td>15:00 - 15:10</td>
<td>Amy Bottomley</td>
<td>We Are What We Eat: Identifying a Regulatory Crosstalk between Central Carbon Metabolism</td>
</tr>
<tr>
<td>15:15 - 15:25</td>
<td>Ines Grilo</td>
<td>Glucosaminidase-DNA interaction affects the peptidoglycan hydrolytic activity of</td>
</tr>
<tr>
<td>15:30 - 15:40</td>
<td>Daisuke Seo</td>
<td>Purification and characterization of ferredoxin-NADPH oxidoreductase paralogue YcgT in gram-</td>
</tr>
<tr>
<td>15:45 - 16:15</td>
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<td>Coffee break</td>
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<table>
<thead>
<tr>
<th>Session 9</th>
<th>Lifestyles I - Stress</th>
<th>Chair: Susanne Gebhard</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:15 - 16:40</td>
<td>Jade Wang</td>
<td>Regulation of Stress Response and Homeostasis by (p)ppGpp in <em>Bacillus subtilis</em></td>
</tr>
<tr>
<td>16:45 - 16:55</td>
<td>Gerd Bange</td>
<td>Structural and functional insights into the (p)ppGpp response of B. subtilis</td>
</tr>
<tr>
<td>17:00 - 17:10</td>
<td>Jose A. Lemos</td>
<td>The association of metal homeostasis and (p)ppGpp regulation in the pathophysiology of</td>
</tr>
<tr>
<td>17:15 - 17:25</td>
<td>Alexander Reder</td>
<td>New insights into the general stress response of Bacillus subtilis - the SigB modulon</td>
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<table>
<thead>
<tr>
<th>Poster session</th>
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<tr>
<td>17:30 - 19:30</td>
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| Wednesday June 14, 2017 |

<table>
<thead>
<tr>
<th>Session 10</th>
<th>Lifestyles II - Biofilm</th>
<th>Chair: Ilka Bischofs</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:30 - 08:40</td>
<td>Polonca Stefanic</td>
<td>Kin discrimination foretells B. subtilis lifestyles</td>
</tr>
<tr>
<td>08:45 - 08:55</td>
<td>Nozomu Obana</td>
<td>Heterogeneity and biofilm morphology in Clostridium perfringens</td>
</tr>
<tr>
<td>09:00 - 09:10</td>
<td>Sofia Arnaouteli</td>
<td>Bifunctionality of a biofilm matrix protein controlled by redox state</td>
</tr>
<tr>
<td>09:15 - 09:25</td>
<td>Anna Dragos</td>
<td>Collapse of genetic division of labor and evolution of autonomy in pellicle biofilms</td>
</tr>
<tr>
<td>09:30 - 09:40</td>
<td>Tamara Hoffmann</td>
<td>Small but essential: the activator protein RemA links biofilm formation and osmostress</td>
</tr>
<tr>
<td>09:45 - 09:55</td>
<td>Harald Putzer</td>
<td>Swarmer cells lead, multiply and generate a trail of quiescent descendants</td>
</tr>
<tr>
<td>10:00 - 10:10</td>
<td>Pascale Beauregard</td>
<td>Biofilm and bacillibactin are essential to iron homeostasis in Bacillus subtilis</td>
</tr>
</tbody>
</table>
## Session 11

### DNA replication + recombination/
Interactions with other organisms

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:45 - 10:55</td>
<td>Mary Anderson</td>
<td>Suppression of DNA replication overinitiation through lowered levels of the replicative helicase,</td>
</tr>
<tr>
<td>11:00 - 11:10</td>
<td>Juan Alonso</td>
<td>Bacillus subtilis MutS Modulates non-polar recombination between Divergent DNA Sequences</td>
</tr>
<tr>
<td>11:15 - 11:25</td>
<td>Paul Straight</td>
<td>Antibiotic stimulation of a Bacillus subtilis motile response</td>
</tr>
<tr>
<td>11:30 - 11:40</td>
<td>Audrey Labarde</td>
<td>Remodelling of the Bacillus subtilis cytoplasm spatial organization for efficient bacteriophage</td>
</tr>
<tr>
<td>11:45 - 11:55</td>
<td>Elisabeth Grohmann</td>
<td>Molecular insights in conjugative resistance transfer among Gram-positive pathogens</td>
</tr>
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</table>

### Lunch

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Topic</th>
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<tbody>
<tr>
<td>12:00 - 12:10</td>
<td>Javier Pizarro-Cerda</td>
<td>A bacteriocin from epidemic Listeria strains alters the host intestinal microbiota to favor infection</td>
</tr>
</tbody>
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## Session 12a

### The cereus group

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>14:00 - 14:10</td>
<td>Leyla Slamti</td>
<td>Quorum sensing coordinates virulence, necrotrophism and sporulation of Bacillus thuringiensis</td>
</tr>
<tr>
<td>14:15 - 14:25</td>
<td>Anne-Brit Kolsto</td>
<td>The putative drug efflux systems of the Bacillus cereus group</td>
</tr>
<tr>
<td>14:30 - 14:40</td>
<td>Naomi Bier</td>
<td>The Influence of the PTS on Virulence Gene Expression in B.</td>
</tr>
<tr>
<td>14:45 - 14:55</td>
<td>Sandrine Poncet</td>
<td>Hanks-kinases dependent phosphorylation of Bacillus cereus global gene regulator CodY deeply impacts physiology and virulence</td>
</tr>
<tr>
<td>15:00 - 15:10</td>
<td>Monika Ehling-Schulz</td>
<td>Food Bacteria Interplay: Concerted action of extrinsic and extrinsic factors gearing toxin synthesis in emetic Bacillus cereus</td>
</tr>
<tr>
<td>15:15 - 15:25</td>
<td>Joaquin Caro-Astorga</td>
<td>The molecular machinery implicated in multicellularity in Bacillus cereus</td>
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## Session 12b

### SubtiWiki workshop

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
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<tbody>
<tr>
<td>14:00 - 15:40</td>
<td>Bingyao Zhu</td>
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<tr>
<td>Time</td>
<td>Speaker</td>
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<tr>
<td>15:30 - 15:40</td>
<td>David Sychantha</td>
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<tr>
<td>15:45 - 16:15</td>
<td>Coffee break</td>
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<tr>
<td>16:15 - 16:25</td>
<td>Tarek Msadek</td>
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<tr>
<td>16:30 - 16:40</td>
<td>Van Loi Vu</td>
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<tr>
<td>16:45 - 16:55</td>
<td>Laty Cahoon</td>
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<tr>
<td>16:30 - 16:40</td>
<td>Van Loi Vu</td>
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<tr>
<td>16:45 - 16:55</td>
<td>Laty Cahoon</td>
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<tr>
<td>17:00 - 17:10</td>
<td>Jörgen Johansson</td>
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<tr>
<td>17:15 - 17:25</td>
<td>Emanuel Hanski</td>
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<tr>
<td>19:00 - 23:00</td>
<td>Conference dinner</td>
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**Thursday June 15, 2017**

**Session 13a Pathogenicity/fighting infection**

**Chair: Nancy Freitag**

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Title</th>
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<tbody>
<tr>
<td>08:30 - 08:40</td>
<td>Sabine Brantl</td>
<td>Type I toxin-antitoxin systems from Bacillus subtilis</td>
</tr>
<tr>
<td>08:45 - 08:55</td>
<td>Michael Prunty</td>
<td>Distinct PhoPR-mediated responses in B. subtilis subspecies subtilis</td>
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<tr>
<td></td>
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<td>and spizizenii stem from</td>
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<tr>
<td>09:00 - 09:10</td>
<td>Kursad Turgay</td>
<td>Curbing protein synthesis is important for the concerted heat shock</td>
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<tr>
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<td>response of Bacillus subtilis</td>
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<tr>
<td>09:15 - 09:25</td>
<td>Thorsten Mascher</td>
<td>Three’s Company: Cannibalism Toxins and the Corresponding Envelope</td>
</tr>
<tr>
<td></td>
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<td>Stress Responses in</td>
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<tr>
<td>09:30 - 09:40</td>
<td>Daniel Rojas</td>
<td>Induction of the Spx regulon under cell wall stress requires both an</td>
</tr>
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<td>ECF sigma factor and an anti-Rho-controlled pervasive transcription</td>
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<tr>
<td>09:45 - 09:55</td>
<td>Elena Bidnenko</td>
<td>in regulation of Bacillus subtilis cells development</td>
</tr>
<tr>
<td>10:00 - 10:10</td>
<td>Ard Jan Grimbergen</td>
<td>Bet-hedging strategies in Bacillus subtilis</td>
</tr>
<tr>
<td>10:15 - 10:45</td>
<td>Coffee break</td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>Name</td>
<td>Title</td>
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<tr>
<td>10:45 - 11:10</td>
<td>Emanuelle Charpentier</td>
<td>CRISPR-Cas9: a bacterial immune system repurposed as a transformative genome engineering technology</td>
</tr>
<tr>
<td>11:15 - 11:25</td>
<td>Ken-Ichi Yoshida</td>
<td>Geobacillus kaustophilus Crh is independent of glucose catabolite repression but represses inositol catabolic genes</td>
</tr>
<tr>
<td>11:30 - 11:40</td>
<td>Patricia Dos Santos</td>
<td>Mutual specificity of cysteine desulfurases and sulfur acceptors in Bacillus subtilis</td>
</tr>
<tr>
<td>11:45 - 11:55</td>
<td>Richard Daniel</td>
<td>D-ala metabolism in Bacillus subtilis</td>
</tr>
<tr>
<td>12:00 - 12:10</td>
<td>Kambiz Morabbi Heravi</td>
<td>The phosphoryl transfer to EIIA-deficient specific transporters of the PTS in Bacillus subtilis</td>
</tr>
<tr>
<td>12:30 - 14:00</td>
<td>Lunch</td>
<td></td>
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