AGENDA – DAY 1
Tuesday, November 6, 2018

8:00 – 8:55 AM  Registration and Networking Breakfast

8:55 – 9:00 AM  Welcome and Opening Remarks: Dr. Vincent A. Fischetti, Professor and Head Laboratory of Bacterial Pathogenesis and Immunology Rockefeller University

SESSION ONE: GRAM-POSITIVE LYSINS AS THERAPEUTICS

9:00 – 10:00 AM  Keynote Speaker: Dr. Martin J. Blaser, Professor of Microbiology, and Director of the Human Microbiome Program at the NYU School of Medicine: Perturbing the early life microbiota and its health consequences

10:00 – 10:25 AM  Raymond Schuch, Ph.D., Vice President of Research, ContraFect: Lysin CF-301 Activates Latent Host Factors in Human Blood to Potentiate Bacteriolysis

10:25 – 10:50 AM  Chad Euler, Ph.D., Assistant Professor, Hunter College: PlySs2 Lysin Kills Staphylococcus aureus in a murine model of bovine mastitis

10:50 – 11:10 AM  Break

11:10 – 11:35 AM  Frank Oechlin, Universite Laval, Canada: Post-lytic regulation of bacteriophage lysins explain complex multi-domain architecture and prevents lysis of neighboring bacterial cells

11:35 – 12:00 PM  Hang Yang, Ph.D., Professor, Wuhan Institute of Virology, CAS, Wuhan, China: Designing and engineering of chimeric lysins specific for Streptococcus pneumoniae

12:00 – 12:25 PM  Krystyna Dabrowska, Ph.D., Institute of Immunology and Experimental Therapy Polish Academy of Sciences: Safety Studies of Streptococcal Endolysins Cpl-1 and PAL

12:25 – 1:25 PM  Lunch Break
SESSION TWO: ENGINEERING LYSINS

1:25 – 2:25 PM  **Keynote Speaker:** Dr. Andres J. Garcia, *Executive Director, Parker H. Petit Institute for Bioengineering and Bioscience:* Engineering Biomaterials to Fight Infections

2:25 – 2:50 PM  Daniel Nelson, Ph.D., *Associate Professor,* University of Maryland: A novel design to exploit the synergy of the PlyCA catalytic domains

2:50 – 3:15 PM  Hans Gerstmans, Ph.D., Ghent University/KU Leuven: High-throughput modular shuffling of engineered endolysins against Klebsiella pneumoniae and Pseudomonas syringae pv. actinidiae

3:15 – 3:40 PM  Hugo Oliveria, University of Minho, Portugal: Endolysin is an orthologous gene of all staphylococcal phage genomes

3:40 – 4:00 PM  **Break**

4:00 – 4:25 PM  Ana Rodriguez, *Senior Scientist,* Instituto de Productos Lacteos de Asturias (IPLA-CSIC) Spain: Endolysins are hidden out there

4:25 – 4:55 PM  Natalia Sizochenko, *Postdoctoral Research Associate,* Dartmouth College: Major autolysin in *Staphylococcus aureus:* Quantum chemical studies of amidase-catalyzed peptidoglycan hydrolysis

5:00 – 7:00 PM  **POSTER SESSION:** Buffet Dinner & Cocktails
AGENDA – DAY 2
Wednesday, November 7, 2018

8:00 – 8:55 AM  
*Registration and Networking Breakfast*

8:55 – 9:00 AM  
*Welcome and Opening Remarks*
Raymond Schuch, *Vice President of Research*, ContraFect Corporation

**SESSION THREE: GRAM-NEGATIVE LYSINS**

9:00 – 10:00 AM  
**Keynote Speaker:** Dr. Yves Briers, *Assistant Professor, Centre of Synthetic Biology, Ghent University, Belgium*: From Discovery to high-throughput engineering of endolysins targeting Gram-negative bacteria

10:00 – 10:25 AM  
Assaf Raz, Ph.D., *Laboratory of Bacterial Pathogenesis*, The Rockefeller University: PlyPa03 and PLYPa91 – phage lysins to kill *Pseudomonas aeruginosa* in infected lung mucosa

10:25 – 10:50 AM  
Ryan Heselpoth, Ph.D., *Laboratory of Bacterial Pathogenesis*, The Rockefeller University: Lysocins, Bioengineered Antimicrobials that Deliver Lysins Across the Outer Membrane of *Pseudomonas aeruginosa*

10:50 – 11:10 AM  
**Break**

11:10 – 11:35 AM  
Lone Brondsted, *Professor*, University of Copenhagen: Innolysins: A novel approach to engineer endolysins to kill Gram-negative bacteria

11:35 – 12:00 Noon  
Anatoliy Gyrych, Ph.D., Nomad Bioscience GmbH: Plant-made antimicrobial proteins for control of food borne *Escherichia coli* and *Salmonella* infections

12:00 – 1:00 PM  
**Lunch Break**
SESSION FOUR: DIAGNOSTICS

1:00 – 2:00 PM  Keynote Speaker: Dr. Joana Azeredo, Associate Professor, Department of Biological Engineering, University of Minho, Portugal: Bacteriophages lysins to detect pathogens: two case studies

2:00 – 2:25 PM  Yang Shen, Senior Research Scientist, Ph.D., ETZ Zurich: Atomic model of bacteriophage-derived cell wall binding module in complex with Listeria wall teichoic acids

2:25 – 2:50 PM  Jonathan Dordick, Professor, Rensselaer Polytechnic Institute: Exploiting Antimicrobial Enzymes for Broad Decontamination

2:50 – 3:10 PM  Break

SESSION FIVE: EXPLOITING LYSINS FOR OTHER APPLICATIONS

3:10 – 4:10 PM  Keynote Speaker: Dr. Mathias Schmelcher, Ph.D., Senior Research Associate, Institute of Food, Nutrition and Health, ETH Zurich: Engineered peptidoglycan hydrolases for treatment of Staphylococcus aureus infections

4:10 – 4:35 PM  Vincent A. Fischetti, Ph.D., Professor and Head Laboratory of Bacterial Pathogenesis and Immunology, The Rockefeller University: Lysibodies: Novel chimeric immunoglobulins to control infections by Staphylococcus aureus and other gram-positive pathogens

4:35 – 5:00 PM  Christian Rohrig, Ph.D., Institute of Food, Nutrition and Health, ETH Zurich: Improved targeting of intracellular and drug-resistant Staphylococcus aureus by fusion of peptidoglycan hydrolases to cell-penetrating peptides

5:00 – 5:25 PM  Yuncheng Wang, Ph.D., University of Sydney, Australia: In vitro study of nebulized endolysin Cpl-I against Streptococcus pneumonia

5:25 – 5:50 PM  Ausra Razanskiene, Scientific Manager, Nomads UAB: Plant-expressed bacteriophage lysins control pathogenic strains of Clostridium perfringens

Dinner on your own in Manhattan.
AGENDA – DAY 3
Thursday, November 8, 2018

8:00 – 8:55 AM  Registration and Networking Breakfast

8:58 – 9:00 AM  Welcome and Opening Remarks
Dr. Daniel Nelson, Associate Professor, University of Maryland

SESSION SIX: THE PATHWAY FROM BENCH TO BEDSIDE

9:00 – 9:45 AM  Keynote Speaker: Dr. Steven Projan, former Head of Infectious Diseases & Vaccines Innovative Medicines unit (iMED) at MedImmune: Challenges and opportunities in development a novel antimicrobial biologics

9:45 – 10:05 AM  Patricia A. Bradford, Ph.D., Antimicrobial Development Specialist, LLC: Clinical microbiologic considerations

10:05 – 10:25 AM  Dario Lehoux, Ph.D., Head of Pre-Clinical Development, ContraFect Corporation: In vivo pharmacology

10:25 – 10:45 AM  Cara M. Cassino, M.D., EVP of Research & Development and Chief Medical Officer ContraFect Corporation: Clinical Development – CF-301 (exebacase) – A Case Study

10:45 – 11:05 AM  Yuliya Yasinskaya, M.D., Lead Medical Officer, Division of Anti-Infective Products, FDA: Regulatory considerations for non-traditional antibacterials

11:05 – 11:25 AM  Break

11:25 – 11:55 AM  Panel Discussion: Dr. Cara Cassino, Dr. Steve Projan, Dr. Patricia Bradford, Dr. Dario Lehoux and Dr. Yuliya Yasinskaya

11:55 – 12:00 PM  Dr. Vince Fischetti: Closing Remarks and Thank You