

Microbes & RNA 2022

#MicrobialRNAs
@MeetingRNA

6th Meeting on Regulating with RNA in Bacteria and Archaea
January 3-6, 2022 Hilton Bayfront St. Petersburg, FL

ONLINE: January 3-7, 2022
Eastern Standard Time (EST)

Monday, January 3, 2022

09:00 - 09:05

Opening Remarks: Gisela Storz

09:05 - 09:40

The EMBO Keynote Lecture: Jörg Vogel

K-01 The promise and challenges of species-specific programmable RNA antibiotics

Jörg Vogel

Helmholtz Institute for RNA-based Infection Research and University of Würzburg, Würzburg, Germany. University of Würzburg, Würzburg, Germany

09:40 - 09:50

short break

09:50 - 11:30

RNAs in Pathogenesis

Session Chair: Kai Papenfort

09:50 - 10:15

T-01 Small RNAs and length-variable repeats in pathogenic Epsilonproteobacteria

Cynthia Sharma

Institute of Molecular Infection Biology, University of Würzburg, Würzburg, Germany

10:15 - 10:30

T-02 Characterization of *B. burgdorferi* termination and RNA-regulation by 3' end mapping

Emily Petroni, Caroline Esnault, Ryan Dale, Gisela Storz, Philip Adams

National Institutes of Health, Bethesda, MD, USA

10:30 - 10:45

T-03 **A *Vibrio cholerae* phage satellite employs a regulatory RNA to defend against phage infection**

Drew Dunham¹, Kimberley Seed^{1,2}

¹University of California, Berkeley, Berkeley, CA, USA. ²Chan Zuckerberg Biohub, San Francisco, CA, USA

10:45 - 11:00

T-04 ***Listeria monocytogenes* modulates RIG-I signaling by secreting an RNA-binding protein**

Alessandro Pagliuso^{1,2}, To Nam Tham³, Eric Allemand³, Anastassia V. Komarova³, Pascale Cossart³

¹Micalis Institute, Jouy-en-Josas, France. ²Paris-Saclay University, Saclay, France. ³Pasteur Institute, Paris, France

11:00 - 11:15

T-05 **RNA-RNA interactome studies reveal a major regulatory sRNA in *Pseudomonas aeruginosa*.**

Michael Gebhardt^{1,2}, Keven Macareno^{1,2}, Sahar Melamed³, Simon Dove^{1,2}

¹Boston Children's Hospital, Boston, MA, USA. ²Harvard Medical School, Boston, MA, USA. ³The Hebrew University of Jerusalem, Jerusalem, Israel

11:15 - 11:30

T-06 **Non-coding RNA Discovery by Gradient Sedimentation Profiles in *Pseudomonas***

Milan Gerovac¹, Laura Wicke^{1,2}, Kotaro Chihara³, Cornelius Schneider^{4,5}, Rob Lavigne², Jörg Vogel^{1,3}

¹Institute for Molecular Infection Biology, University of Würzburg, Würzburg, Germany. ²Laboratory of Gene Technology, KU Leuven, Leuven, Belgium. ³Helmholtz Institute for RNA-based Infection Research, Helmholtz Centre for Infection Research, Würzburg, Germany. ⁴Institute for Molecular Infection Biology, Würzburg, Germany. ⁵Department of Biochemistry and Cancer Therapy Research Center, Theodor Boveri-Institute, University of Würzburg, Würzburg, Germany

11:30 - 11:35

short break

11:35 - 11:50

Poster Flash Talks

P2-56 **Exploring the *de novo* origins of RNA regulatory networks: *In vivo* selection of a novel multi-target noncoding RNA from random sequence**

Arianne Babina, Dan Andersson

Uppsala University, Uppsala, Sweden

P2-48 **A ProQ-dependent base-pairing small RNA promotes flagellar gene expression in *Salmonella***

Alisa Rizvanovic, Erik Holmqvist

Department of Cell and Molecular Biology, Biomedical Centre, Uppsala University, Uppsala, Sweden

P1-13 **RNA-DRaCALA, a method for analyzing RNA aptamer-ligand binding: unexpected specificity for ppGpp or pppGpp**

Jonathan Jagodnik^{1,2}, Brian Tjaden³, Wilma Ross¹, Richard Gourse¹

¹Department of Bacteriology, University of Wisconsin-Madison, Madison, WI, USA. ²UMR8261, CNRS, Institut de Biologie Physico-Chimique, Paris, France. ³Department of Computer Science, Wellesley College, Wellesley, MA, USA

P3-64 Regulation of small regulatory RNAs in the phytopathogen *Agrobacterium tumefaciens*

Janka J. Schmidt, Alexander Kraus, Jessica Eisfeld, Vivian B. Brandenburg, Franz Narberhaus
Ruhr-University Bochum, Bochum, Germany

11:50 - 12:50

Poster Session 1

P1-01 Detection of Queuosine biosynthesis proteins encoded in Archaea using the ortholog detection tool SORTolog.

Geoffrey Hutinet¹, Rémi Denise¹, Emily St. John², Anna-Louise Reysenbach², Dirk Iwata-Reuyl², Valérie de Crécy-Lagard¹
¹University of Florida, Gainesville, Florida, USA. ²Portland State University, Portland, Oregon, USA

P1-02 Rfam, the home of non-coding RNA families

Nancy Ontiveros-Palacios¹, Emma Cooke¹, Eric P. Nawrocki², Sam Griffiths-Jones³, Daniel Gautheret⁴, Alex Bateman¹, Anton I. Petrov¹, Blake Sweeney¹
¹EMBL-EBI, Cambridge, United Kingdom. ²NCBI, Bethesda, USA. ³The University of Manchester, Manchester, United Kingdom. ⁴Université Paris-Saclay, Gif-sur-Yvette, France

P1-03 Genome-wide CRISPRa screening characterized master lncRNA regulators for tumor immune response

Yifei Wang¹, Yueshan Zhao¹, Yadav Ghanshyam², Chetana Bhaskarla³, Udai Kammula³, Min Zhang¹, Da Yang¹
¹School of Pharmacy, University of Pittsburgh, Pittsburgh, PA, USA. ²UPMC Hillman Cancer Center, Pittsburgh, Pittsburgh, PA, USA. ³UPMC Hillman Cancer Center, Pittsburgh, PA, USA

P1-04 Using ribosome profiling in *Haloferax volcanii* to determine sRNA targets for translational regulation in response to oxidative stress

Emma Dallon, Jocelyne DiRuggiero
Johns Hopkins University, Baltimore, Maryland, USA

P1-05 Characterization of an sRNA involved in oxygen stress response in *C. difficile*

Manuela Fuchs, Vanessa Lamm-Schmidt, Franziska Faber
Institute for Molecular Infection Biology, Würzburg, Bavaria, Germany

P1-06 Molecular and functional characterization of a noncoding RNA *raiA* in *Clostridioides difficile*

Tina Lence*, Johannes Sulzer*, Vanessa Lamm*, Manuela Fuchs*, Franziska Faber
Institute for Molecular Infection Biology, Faculty of Medicine, University of Würzburg, Würzburg, Germany

P1-07 sRNA-controlled iron sparing response in Staphylococci

Rodrigo H. Coronel-Tellez¹, Mateusz Pospiech², Maxime Barrault¹, Wenfeng Liu¹, Valérie Bordeau³, Christelle Christelle Vasnier², Brice Felden³, Bruno Sargueil², Philippe Boulloc¹
¹Université Paris-Saclay, CEA, CNRS, I2BC, Gif-sur-Yvette, France. ²Université de Paris, CNRS, UMR 8038, Paris, France. ³Université de Rennes 1, UMR_S 1230, Rennes, France

P1-08 Spf and GcvB contribute to intrinsic beta-lactam susceptibility and oxidative stress protection, respectively in *Klebsiella pneumoniae*

Pujitha Raja, Pedro Arede, Sander Granneman, Thamarai Schneiders
University of Edinburgh, Edinburgh, United Kingdom

P1-09 Iron acquisition control in bacteria: *fepA* repression by multiple small RNAs

Eugenio Solchaga Flores, Jonathan Jagodnik, Alexey Korepanov, Fanny Quenette, Maude Guillier
CNRS UMR8261, IBPC, Paris, France

P1-10 OLE RNA is a large noncoding RNA involved in several stress responses in bacteria

Frey D. R. Wencker¹, Kimberly A. Harris², Seth E. Lyon³, Ronald R. Breaker^{1,2,3}

¹Howard Hughes Medical Institute, New Haven, CT, USA. ²Department of Molecular, Cellular and Developmental Biology, Yale University, New Haven, CT, USA. ³Department of Molecular Biophysics and Biochemistry, Yale University, New Haven, CT, USA

P1-11 Iron responsive elements (IRE) in *Pseudomonas aeruginosa*, interact with the aconitase enzyme for iron homeostasis.

Vikram Sen^{1,2}, Dolly Mehta¹, Arati Ramesh¹

¹National Centre for Biological Sciences in Bangalore (NCBS), Bengaluru, Karnataka, India. ²The Shanmugha Arts, Science, Technology & Research Academy (SASTRA), Thanjavur, Tamil Nadu, India

P1-12 Variants of the guanine riboswitch class exhibit altered ligand specificities for several purine derivatives

Siddhartha Hamal Dhakal, Shanker S.S. Panchapakesan, Paul Slattery, Adam Roth, Ronald Breaker
Yale University, New Haven, CT, USA

P1-13 RNA-DRaCALA, a method for analyzing RNA aptamer-ligand binding: unexpected specificity for ppGpp or pppGpp

Jonathan Jagodnik^{1,2}, Brian Tjaden³, Wilma Ross¹, Richard Gourse¹

¹Department of Bacteriology, University of Wisconsin–Madison, Madison, WI, USA. ²UMR8261, CNRS, Institut de Biologie Physico-Chimique, Paris, France. ³Department of Computer Science, Wellesley College, Wellesley, MA, USA

P1-14 The discovery of novel noncoding RNAs in 50 bacterial genomes

Aya Narunsky, Gadareth Higgs, Ronald Breaker
Yale University, New Haven, CT, USA

P1-15 RNA regulators in *Streptococcus pneumoniae* control metabolism and pathogenesis

Indu Warriar, Ariana Hazery, Jon S. Anthony, Tim van Opijnen, Michelle M. Meyer
Boston College, Chestnut Hill, Massachusetts, USA

P1-16 System analysis of tRNA modification deficiency in *Escherichia coli* K12

Jo Marie Bacusmo¹, Jill Babor¹, Leticia Pollo de Oliveira¹, Jennifer Hu², Hirotada Mori³, Jane Jackman⁴, Peter C. Dedon², Valérie de Crécy-Lagard¹

¹University of Florida, Gainesville, FL, USA. ²Massachusetts Institute of Technology, Cambridge, MA, USA. ³Keio University, Tokyo, Japan. ⁴The Ohio State University, Columbus, OH, USA

P1-17 The global RNA-binding protein ProQ promotes SPI-2 gene expression through the transcriptional regulator PhoP

Sofia Berggren, Yolanda Martinez Burgo, Erik Holmqvist

Department of Cell and Molecular Biology, Uppsala University, Uppsala, Sweden

P1-18 Implementation of PAR-CLIP to characterize RNA-protein interactions in prokaryotes at nucleotide resolution

Sandeep Ojha, Chaitanya Jain

Department of Biochemistry and Molecular Biology, University of Miami Miller School of Medicine, Miami, FL, USA

P1-19 The Dynamics of the Hfq C-terminal Domain and Its Role in RNA Binding

Hantian Li, Ana Damjanovic, Jorjetha Roca, Sarah Woodson
T. C. Jenkins Department of Biophysics, Johns Hopkins University, Baltimore, MD, USA

P1-20 The DEAD box RNA helicase RhlE promotes enterohemorrhagic Escherichia coli O157:H7 virulence

Elizabeth M. Melson, Hallie E. Rauch, Melissa M. Kendall
Department of Microbiology, Immunology, and Cancer Biology, University of Virginia School of Medicine, Charlottesville, VA, USA

P1-21 Uncovering novel bacterial RNA chaperones in *E. coli*

Alejandra Matsuri Rojano-Nisimura¹, Aparna Anantharaman¹, A. Travis Middleton¹, Jorge Vazquez-Anderson¹, Elroi Kibret², Sung H. Jung¹, Rick Russell¹, Lydia M. Contreras¹
¹University of Texas at Austin, Austin, Texas, USA. ²California State University, Long Beach, California, USA

P1-22 Endogenous activation of bacterial toxins and identification of their mRNA targets

Julia Tanquary^{1,2}, Ian Pavelich^{1,3}, Christine Dunham¹
¹Department of Biochemistry, Emory University School of Medicine, Atlanta, GA, USA. ²Graduate Program in Biochemistry, Cell and Developmental Biology, Emory University, Atlanta, GA, USA. ³Department of Chemistry, Emory University, Atlanta, GA, USA

P1-23 Dissecting gene expression heterogeneity in the abundant microbiota member *Bacteroides thetaiotaomicron*

Elise Borne¹, Christina Homberger^{1,2}, Jorg Vogel^{1,2}, Alexander Westermann^{1,2}
¹Helmholtz Institute for RNA based Infection Research, Würzburg, Germany. ²Institute of Molecular Infection Biology (IMIB), University of Würzburg, Würzburg, Germany

P1-24 Bacterial single-cell RNA-seq unravels growth-dependent heterogeneity in *Salmonella*

Christina Homberger¹, Regan Hayward², Antoine-Emmanuel Saliba², Lars Barquist^{2,3}, Jörg Vogel^{1,2}
¹Institute of Molecular Infection Biology (IMIB), University of Würzburg, Würzburg, Germany. ²Helmholtz Institute for RNA-based Infection Research (HIRI), Helmholtz Centre for Infection Research (HZI), Würzburg, Germany. ³Faculty of Medicine, University of Würzburg, Würzburg, Germany

P1-25 RNA thermometers control the assembly and functionality of type III secretion system in *Yersinia pseudotuberculosis*

Soheila Javadi¹, Stephan Pienkoß¹, Paweena Chaoprasid², Petra Dersch², Franz Narberhaus¹
¹Microbial Biology, Ruhr University Bochum, Bochum, Germany. ²Institute of Infectiology, Center for Molecular Biology of Inflammation (ZMBE), University of Münster, Münster, Germany

P1-26 Characterization of Four Virulence-Associated RNA Thermometers in *Shigella dysenteriae*

Kellen Alsip, Erin Murphy
Ohio University, Athens, OH, USA

P1-27 Investigation of a 3'UTR regulatory element from the mRNA encoding the major pneumococcal virulence factor PspA

Jens Pettersen, Anette Lund, Finn Kirpekar, Mikkel Girke Jørgensen
University of Southern Denmark, Odense, Denmark

P1-28 Development of a *Chlamydia* sRNA overexpression system for functional analysis and target identification

Kevin Wang, Lauren Sheehan, Cuper Ramirez, Christine Sütterlin, Ming Tan
UC Irvine, Irvine, CA, USA

Tuesday, January 4, 2022

09:00 - 10:50

Regulatory RNA in Space and Time

Session Chair: Susan Gottesman

09:00 - 09:25

T-07 RNA binding proteins in *Bacteroides* species control polysaccharide metabolism

Amanda Adams¹, Muhammad Azam², Zachary Costliow³, Xiangqian Ma¹, Patrick Degnan⁴, [Carin Vanderpool](#)¹

¹University of Illinois, Urbana, IL, USA. ²University of Chicago, Chicago, IL, USA. ³Broad Institute, Boston, MA, USA. ⁴University of California Riverside, Riverside, CA, USA

09:25 - 09:40

T-08 Post-transcriptional regulation at the branch point between carbon and nitrogen metabolism by an NtrC-dependent small RNA in *Salmonella*

[Masatoshi Miyakoshi](#), Asaki Lejars

University of Tsukuba, Tsukuba, Ibaraki, Japan

09:40 - 09:55

T-09 Sigma 28-dependent small RNAs regulate timing of flagella biosynthesis

[Sahar Melamed](#)¹, Aixia Zhang², Michal Jarnik², Joshua Mills², Hongen Zhang², Gisela Storz²

¹The Hebrew University of Jerusalem, Jerusalem, Israel. ²Eunice Kennedy Shriver National Institute of Child Health and Human Development, Bethesda, MD, USA

09:55 - 10:10

T-10 An RNA sponge controlling quorum sensing dynamics and biofilm formation in *Vibrio cholerae*

Michaela Huber¹, [Anne Lippegau](#)¹, Sahar Melamed², Malte Siemers¹, Benjamin R. Wucher³, Mona Hoyos¹, Carey Nadell³, Gisela Storz², Kai Papenfort^{1,4}

¹Friedrich Schiller University, Institute of Microbiology, 07745 Jena, Germany. ²Division of Molecular and Cellular Biology, Eunice Kennedy Shriver National Institute of Child Health and Human Development, Bethesda, MD 20892-5430, USA.

³Department of Biological Sciences, Dartmouth College, Hanover, NH 03755, USA. ⁴Microverse Cluster, Friedrich Schiller University Jena, 07743 Jena, Germany

10:10 - 10:25

T-11 Synthesis of the NarP response regulator of nitrate respiration in *Escherichia coli* is regulated at multiple levels by Hfq and small RNAs

Anaïs Brosse¹, Pierre Boudry¹, Anne Walburger², Axel Magalon², [Maude Guillier](#)¹

¹CNRS UMR8261, Paris, France. ²LCB, UMR 7283, Marseille, France

10:25 - 10:50

T-12 Membraneless Organelles and Wisdom of the Crowds: Novel Mechanisms Underlying sRNA-Mediated Regulation

Omer Goldberger, Tamar Szoke, [Orna Amster-Choder](#)

The Hebrew University, Jerusalem, Israel

10:50 - 11:00

short break

11:00 - 12:10

CRISPR-Cas

Session Chair: Sarah Woodson

11:00 - 11:25

T-13 Know thy enemy: Making CRISPR memories

Xinfu Zhang¹, Sandra Garrett², Brenton Graveley², Michael Terns¹

¹University of Georgia, Athens, GA, USA. ²University of Connecticut, Farmington, CT, USA

11:25 - 11:40

T-14 Mechanisms of CRISPR adaptation

Andrew Santiago-Frangos, Murat Buyukyoruk, Tanner Wiegand, Pushya Krishna, Blake Wiedenheft

Montana State University, Bozeman, Montana, USA

11:40 - 11:55

T-15 The widespread IS200/IS605 transposon family encodes diverse programmable RNA-guided endonucleases

Han Altae-Tran^{1,2,3,4,5}, Soumya Kannan^{1,2,3,4,5}, F. Esra Demircioglu^{1,2,3,4,5}, Rachel Oshiro^{1,2,3,4,5}, Suchita Nety^{1,2,3,4,5}, Luke J. McKay^{6,7,8}, Mensur Dlakic⁹, William P. Inskeep^{6,7}, Kira S. Makarova¹⁰, Rhiannon K. Macrae^{1,2,3,4,5}, Eugene V. Koonin¹⁰, Feng Zhang^{1,2,3,4,5}

¹Howard Hughes Medical Institute, Massachusetts Institute of Technology, Cambridge, MA, USA. ²Broad Institute of MIT and Harvard, Cambridge, MA, USA. ³McGovern Institute for Brain Research, Massachusetts Institute of Technology, Cambridge, MA, USA. ⁴Department of Brain and Cognitive Science, Massachusetts Institute of Technology, Cambridge, MA, USA.

⁵Department of Biological Engineering, Massachusetts Institute of Technology, Cambridge, MA, USA. ⁶Department of Land Resources and Environmental Sciences, Montana State University, Bozeman, MT, USA. ⁷Thermal Biology Institute, Montana State University, Bozeman, MT, USA. ⁸Center for Biofilm Engineering, Montana State University, Bozeman, MT, USA.

⁹Department of Microbiology and Cell Biology, Montana State University, Bozeman, MT, USA. ¹⁰National Center for Biotechnology Information, National Library of Medicine, Bethesda, MD, USA

11:55 - 12:10

T-16 Pulling the plug on bacteriophage infection: the pore behavior of the Cas13-RNase-activated membrane protein CRISPR-Csx28

Arica R. VanderWal^{1,2}, Jung-Un Park³, Bogdan Polevoda^{1,2}, Elizabeth H. Kellogg³, Mitchell O'Connell^{1,2}

¹Univ of Rochester, Dept of Biochemistry & Biophysics, Rochester, NY, USA. ²Center for RNA Biology, Univ of Rochester, Rochester, NY, USA. ³Cornell Univ, Dept of Molecular Biology & Genetics, Ithaca, NY, USA

Wednesday, January 5, 2022

09:00 - 10:20

Regulation During RNA and Protein Synthesis

Session Chair: *Silvi Rouskin*

09:00 - 09:25

T-17 Intra- and extra-ribosomal roles of hibernation factor

M.N. Frances Yap

Northwestern University, Chicago, IL, USA

09:25 - 09:40

T-18 Structural insights into RNA-mediated transcription regulation in bacteria.

Sanjay Dey¹, Claire Batisse¹, Jinal Shukla¹, Michael W. Webster¹, Maria Takacs¹, Albert Weixlbaumer^{1,2,3}

¹IGBMC, Strasbourg, France. ²CNRS, Strasbourg, France. ³Inserm, Strasbourg, France

09:40 - 09:55

T-19 Rho-dependent intrinsic termination in *Bacillus subtilis*

Zachary Mandell, Dr. Rishi Vishwakarma, Dr. Paul Babitzke

Pennsylvania State University, State College, PA, USA

09:55 - 10:20

T-20 Modulating the functions of the ribosome by small molecules

Alexander Mankin

University of Illinois, Chicago, IL, USA

10:20 - 10:30

short break

10:30 - 11:30

Poster Session 2

P2-29 Global transcriptomic and stability analysis of sRNAs in Group B *Streptococcus* identifies the first sRNA that contributes to GBS colonization.

Rebecca Keogh¹, Brady Spencer¹, Amanda Haeberle¹, Hailee Sorensen², Rachel Zapf², Paul Briaud², Abigail Bonsall², Ronan Carroll², Kelly Doran¹

¹CU Anschutz, Aurora, CO, USA. ²Ohio University, Athens, OH, USA

P2-30 Machine learning to investigate the determinants of mRNA stability in mycobacteria

Huaming Sun¹, Ying Zhou¹, Diego Vargas-Blanco^{1,2}, Jessica Kelly¹, Scarlet Shell¹

¹Worcester Polytechnic Institute, Worcester, MA, USA. ²Massachusetts General Hospital, Boston, MA, USA

P2-31 Regulation of a bacterial RNA repair operon by tRNA fragments

Xinguo Chen¹, Kevin Hughes^{1,2}, Sandra Wolin¹

¹RNA Biology Laboratory, Center for Cancer Research, National Cancer Institute, Frederick, MD, 21702, USA. ²Department of Cell Biology, Yale School of Medicine, New Haven, CT, 06510, USA

P2-32 Identification of a class of sRNA targets impacted only at their protein level, by pulsed SILAC

Delphine Allouche¹, Gergana Kostova², Christophe Marchand², Marion Hamon², Sihem Belhocine², Violette Charteau³, Ciarán Condon², [Sylvain Durand](#)²

¹Institut Necker Enfants Malades - U1151, PARIS, France. ²Institut de Biologie Physico-Chimique, PARIS, France. ³Institute for Molecules and Materials, Nijmegen, Netherlands

P2-33 Transcriptome-wide effects of NusA on RNA polymerase pausing in *Bacillus subtilis*

[Oshadhi Jayasinghe](#)¹, Zachary Mandell¹, Alexander Yakhnin², Mikhail Kashlev², Paul Babitzke¹

¹Department of Biochemistry and Molecular Biology, Pennsylvania State University, University Park, Pennsylvania, USA. ²NCI RNA Biology Laboratory, Center for Cancer Research, NCI, Frederick, Maryland, USA

P2-34 Iron availability and cell division are linked in *Escherichia coli*

[Evelyne Ng Kwan Lim](#), David Lalaoua, Eric Massé

University of Sherbrooke, Sherbrooke, Québec, Canada

P2-35 RyhB regulates the entire Fe-S cluster biogenesis systems in *Escherichia coli*

[Karine Prévost](#)¹, Marie-Hélène Normand¹, David Lalaoua², Eric Massé¹

¹Université de Sherbrooke, Sherbrooke, Québec, Canada. ²Université de Strasbourg, Strasbourg, France

P2-36 Post-transcriptional regulation of copper import operon by an upstream ORF

[Gauthier Roy](#)¹, Rudy Antoine¹, Annie Schwartz², Stephanie Slupek¹, Marc Boudvillain², Françoise Jacob-Dubuisson¹

¹UMR 9017-CIIL-Center for Infection and Immunity of Lille, Lille, France. ²Centre National de la Recherche Scientifique (CNRS), Centre de Biophysique Moléculaire, Orléans, France

P2-37 Modification of protein activity by small, base pairing RNAs

[Narumon Thongdee](#), Gisela Storz

National Institutes of Health, Bethesda, MD, USA

P2-38 Biophysical modeling of the post-transcriptional regulator, RsmA, identifies novel regulatory mechanisms in *Pseudomonas aeruginosa*

[Alexandra Lukasiwicz](#), Abigail Leistra, Lydia Contreras

The University of Texas at Austin, Austin, TX, USA

P2-39 RNA structural ensembles of the entire SARS-CoV-2 genome in infected cells reveal new mechanisms regulating ribosomal frameshifting

[Matty Allan](#)^{1,2}, Mark Bathe², Silvi Rouskin¹

¹Harvard Medical School, Boston, MA, USA. ²Massachusetts Institute of Technology, Cambridge, MA, USA

P2-40 Term-seq reveals abundance of riboswitches-associated small peptides in *Mycobacterium tuberculosis*

[Alexandre D'Halluin](#)¹, Teresa Cortes², Kristine Arnvig¹

¹Institute for Structural and Molecular Biology, University College London, London, United Kingdom. ²TB Centre and Department of Infection Biology, Faculty of Infectious and Tropical Diseases, London School of Hygiene and Tropical Medicine, London, United Kingdom

P2-41 Exploring the relationship between sequence and antibiotic resistance with FMN riboswitch fitness landscape

[Rebecca Korn](#), Indu Warriar, Michelle Meyer

Boston College, Boston, MA, USA

P2-42 Natural Riboswitches Selective for Sodium and Lithium Regulate Genes for Ion Transport, Osmoregulation and ATP Production

Harini Sadeeshkumar, Neil White, Anna Sun, Narasimhan Sudarsan, Ronald Breaker
Yale University, New Haven, CT, USA

P2-43 Detecting binding of antisense oligonucleotides in cells

Jia Zheng Woo¹, Chi Zhu², Anders Naar², Silvi Rouskin¹
¹Harvard Medical School, Boston, MA, USA. ²University of California, Berkeley, Berkeley, CA, USA

P2-44 Ribosome degradation in *Staphylococcus aureus* lacking the hibernation-promoting factor

Anna Liponska, Mee-Ngan Frances Yap
Northwestern University, Chicago, IL, USA

P2-45 Obtaining structural insights into the RYPER RNA degradation machine

Ruchika Bhujbalrao, Xinguo Chen, Sandra Wolin
RNA Biology Laboratory, Center for Cancer Research, National Cancer Institute, Frederick, MD, USA

P2-46 A NusG Specialized Paralog That Exhibits Specific, High-Affinity RNA-Binding Activity

Madison Jermain¹, Amr Elghondakly², Adrian Ferre-D'Amare², Wade Winkler¹
¹The University of Maryland, Department of Cell Biology and Molecular Genetics, College Park, MD, USA. ²Biochemistry and Biophysics Center, National Heart, Lung and Blood Institute, National Institutes of Health, Bethesda, MD, USA

P2-47 Attenuators of transcription termination involved in sRNA signaling in *Escherichia coli*

Tepei Morita^{1,2}, Nadim Majdalani³, Masahiro Miura^{1,2}, Taku Oshima⁴, Akio Kanai^{1,2}, Susan Gottesman³
¹Institute for Advanced Biosciences, Keio University, Tsuruoka, Japan. ²Graduate School of Media and Governance, Keio University, Fujisawa, Japan. ³National Cancer Institute, NIH, Bethesda, MD, USA. ⁴Faculty of Engineering of Biotechnology, Toyama Prefectural University, Imizu, Japan

P2-48 A ProQ-dependent base-pairing small RNA promotes flagellar gene expression in *Salmonella*

Alisa Rizvanovic, Erik Holmqvist
Department of Cell and Molecular Biology, Biomedical Centre, Uppsala University, Uppsala, Sweden

P2-49 RNase-sensitive gradient profiling to identify global RNA-binding proteins in *Bacteroides thetaiotaomicron*

Ann-Sophie Rüttiger¹, Milan Gerovac¹, Jörg Vogel^{1,2}, Alexander J. Westermann^{1,2}
¹Institute for Molecular Infection Biology (IMIB), University of Würzburg, Würzburg, Germany. ²Helmholtz Institute for RNA-based Infection Research (HIRI), Helmholtz Centre for Infection Research (HZI), Würzburg, Germany

P2-50 Identification of KhpB as a common sRNA-binding protein in the emerging cancer-associated microbe *Fusobacterium nucleatum*

Yan Zhu¹, Falk Ponath², Jörg Vogel^{1,2}
¹Institute for Molecular Infection Biology, University of Würzburg, Würzburg, Germany. ²Helmholtz Institute for RNA-based Infection Research, Helmholtz Centre for Infection Research, Würzburg, Germany

P2-51 The small RNA Teg41 is a pleiotropic regulator in *Staphylococcus aureus*

Paul Briaud¹, Rachel L Zapf¹, Ana Mayher¹, Rebecca A Keogh¹, Hailee M Sorensen¹, Richard E Wiemels¹, Ronan K Carroll^{1,2}
¹Department of Biological Sciences, Ohio University, Athens, OH, USA. ²Infectious and Tropical Disease Institute, Ohio University, Athens, OH, USA

P2-52 Understanding InvR-mediated Post-transcriptional Regulation of SPI-1 Transcriptional Activator HilA in *S. Typhimurium*

Kyungsub Kim¹, Yutong Hou², Carin.K. Vanderpool², James.M. Slauch²

¹Massachusetts General Hospital, Boston, MA, USA. ²University of Illinois Urbana-Champaign, Urbana, IL, USA

P2-53 A 3'UTR-derived, processed small RNA modulates flagellar biogenesis by repression of the anti-sigma factor FlgM in *Campylobacter jejuni*

Fabian König, Cynthia Sharma

Department of Molecular Infection Biology II, Institute of Molecular Infection Biology, University of Würzburg, Würzburg, Germany

P2-54 Characterization of *ryfA*, a Putative Dual-Function RNA in *Shigella flexneri*

David Daniel Sarpong, Hannah Johns, Ernest Dankwah, Peter Coschigano, Erin Murphy

Ohio University, Athens, OH, USA

P2-55 Critical role of small RNA CjNC140 for the pathobiology of *Campylobacter jejuni*

Brandon Ruddell^{1,2}, Alan Hassall^{1,2,3}, Qijing Zhang^{2,3}, Orhan Sahin^{2,3}, Paul Plummer^{1,2,3}, Amanda Kreuder^{1,2}

¹Department of Veterinary Microbiology and Preventive Medicine, College of Veterinary Medicine, Iowa State University, Ames, Iowa, USA. ²National Institute of Antimicrobial Resistance Research and Education (NIAMRRE), Iowa State University Research Park, Ames, Iowa, USA. ³Department of Veterinary Diagnostic and Production Animal Medicine, College of Veterinary Medicine, Iowa State University, Ames, Iowa, USA

P2-56 Exploring the *de novo* origins of RNA regulatory networks: *In vivo* selection of a novel multi-target noncoding RNA from random sequence

Arianne Babina, Dan Andersson

Uppsala University, Uppsala, Sweden

11:30 - 13:05

Small RNAs: Discovery to Function

Session Chair: Erik Holmqvist

11:30 - 11:55

T-21 Title TBD

Lydia Contreras

University of Texas, Austin, TX, USA

11:55 - 12:10

T-22 Role and conservation of the nitrogen-responsive sRNA GlnZ in *Escherichia coli*

Lauren Walling, Andrew Kouse, Gisela Storz

National Institutes of Health, Bethesda, MD, USA

12:10 - 12:25

T-23 The oxygen-induced small RNA FoxI provides the noncoding arm of the Sigma E response of the cancer-associated *Fusobacterium nucleatum*

Falk Ponath¹, Yan Zhu², Jörg Vogel^{1,2}

¹Helmholtz Institute for RNA-based Infection Research (HIRI), Würzburg, Germany. ²Institute for Molecular Infection Biology (IMIB), University of Würzburg, Würzburg, Germany

12:25 - 12:40

T-24 Sibling Team Work – Characterization of a family of regulatory RNAs and their interaction with an RNA sponge in *Caulobacter crescentus*

Kathrin Fröhlich

RNA Biology Group, Institute of Microbiology, Jena, Germany

12:40 - 13:05

T-25 Post-transcriptional mechanisms of the oxidative stress response in halophilic archaea

Diego Gelsinger¹, Jocelyne DiRuggiero²

¹Columbia University, New York, NY, USA. ²Johns Hopkins University, Baltimore, MD, USA

Thursday, January 6, 2022

09:00 - 10:10

Signaling Nucleotides & RNA Binding Proteins

Session Chair: Simon Dove

09:00 - 09:25

T-26 Binding of mRNAs by the stringent response regulator, RelA, interferes with translation initiation

Shoshy Altuvia, Pallabi Basu

The Hebrew University, Jerusalem, Israel

09:25 - 09:40

T-27 A Sequencing-based Assay for High-Throughput Mutational Analysis of Translational Riboswitches

Caroline Focht, Scott Strobel

Yale University, New Haven, CT, USA

09:40 - 09:55

T-28 Functional Analysis of Short RNA Degrading Enzymes

Tanner Myers¹, Cordelia Weiss², Daniel Wu¹, Holger Sondermann³, Vincent Lee¹, Wade Winkler¹

¹University of Maryland, College Park, MD, USA. ²Imperial College London, London, United Kingdom. ³Deutsches Elektronen-Synchrotron (DESY), Hamburg, Germany

09:55 - 10:10

T-29 A Novel Acetyltransferase Silences Small RNA Signaling via the RNA Chaperone Hfq in *E. Coli*

Xing Luo¹, Jiandong Chen², François de Mets³, Nadim Majdalani¹, Chin-Hsien Tai¹, Susan Gottesman¹

¹Laboratory of Molecular Biology, National Cancer Institute, Bethesda, MD, USA. ²Department of Microbiology, University of Pennsylvania, Philadelphia, PA, USA. ³Department of Biology, Georgetown University, Washington, DC, USA

10:10 - 10:20

short break

10:20 - 11:20

Poster Session 3

P3-57 Diversity within bacterial RNA families explored using covariance approach

Dolly Mehta^{1,2}, Anjali K¹, Arati Ramesh¹

¹National Centre for Biological Sciences (NCBS), Bangalore, Karnataka, India. ²Shanmugha Arts, Science, Technology and Research Academy (SASTRA), Thanjavur, Tamil Nadu, India

P3-58 RILSeqExplorer – Interactive visualizations of RNA-RNA interactions with functional annotations

Malte Siemers, Kai Papenfort

Friedrich-Schiller-University, Jena, Germany

P3-59 Two small RNAs control *E. coli* Fe-S cluster biogenesis in opposite ways and in response to opposite conditions

Corentin Baussier¹, Béatrice Py¹, Frédéric Barras², Pierre Mandin¹
¹CNRS, Marseille, France. ²Institut Pasteur, Paris, France

P3-60 Characterizing novel mechanisms of gene regulation mediated by bacterial small RNAs (sRNAs) during transcription

Kristen Farley¹, Colleen Bianco², Carin Vanderpool¹
¹University of Illinois Urbana-Champaign, Urbana, Illinois, USA. ²Children's Hospital of Philadelphia, Philadelphia, Pennsylvania, USA

P3-61 Role of the sRNA GcvB in the process of hibernation in *Escherichia coli*

Maxence Lejars, Masatoshi Miyakoshi
Department of Infection Biology, Faculty of Medicine, University of Tsukuba, Tsukuba, Ibaraki, Japan

P3-62 *lrhA* and *rbsD*: Two Genes Involved in the Translational Regulation of *rpoS*

Abbigale Perkins, Nadim Majdalani, Susan Gottesman
National Institute of Health, Bethesda, MD, USA

P3-63 High-throughput RNA-based approaches to explore the interaction between *Bacteroides thetaiotaomicron* and its host

Gianluca Prezza¹, Daniel Ryan¹, Gohar Mädler², Chunyu Liao¹, Chase L. Beisel^{1,3}, Alexander J. Westermann^{1,2}
¹Helmholtz Institute for RNA-based Infection Research (HIRI), Helmholtz Centre for Infection Research (HZI), Würzburg, Germany. ²Institute for Molecular Infection Biology (IMIB), University of Würzburg, Würzburg, Germany. ³Medical Faculty, University of Würzburg, Würzburg, Germany

P3-64 Regulation of small regulatory RNAs in the phytopathogen *Agrobacterium tumefaciens*

Janka J. Schmidt, Alexander Kraus, Jessica Eisfeld, Vivian B. Brandenburg, Franz Narberhaus
Ruhr-University Bochum, Bochum, Germany

P3-65 RIL-seq analysis reveals the RNA interactome of *Caulobacter crescentus*

Manuel Velasco Gomariz¹, Laura Vogt¹, Kathrin S Fröhlich^{1,2}
¹Institute of Microbiology, Friedrich Schiller University, Jena, Thuringen, Germany. ²Microverse Cluster, Friedrich Schiller University, Jena, Thuringen, Germany

P3-66 Towards the biological function of small DUF1127 proteins in *Agrobacterium tumefaciens*

Donata Remme, Alexander Kraus, Franz Narberhaus
Ruhr-Universität Bochum, Bochum, Germany

P3-67 Switching at the ribosome: riboswitches need rProteins as modulators to regulate translation

Vanessa de Jesus¹, Nusrat Qureshi¹, Sven Warhaut¹, Jasleen Bains¹, Marina Dietz², Mike Heilemann², Harald Schwalbe¹, Boris Fürtig¹
¹Goethe University, Institute for Organic Chemistry and Chemical Biology, Frankfurt, Germany. ²Goethe University, Institute of Physical and Theoretical Chemistry, Frankfurt, Germany

P3-68 Characterization of the SAM-I Riboswitches of *Listeria monocytogenes*

Ian Hall, Sarah Keane
The University of Michigan, Ann Arbor, Michigan, USA

P3-69 The *glmS* ribozyme self-cleaves co-transcriptionally leading to transcription attenuation by RNase J1

Yuan Lou, Sarah A. Woodson

T.C. Jenkins Department of Biophysics, Johns Hopkins University, Baltimore, MD, USA

P3-70 Analysis of co-factor binding by *nadA-I* riboswitches

Yoshita Srivastava, Maya Blau, Jermaine Jenkins, Joseph E Wedekind

Department of Biochemistry & Biophysics and Center for RNA Biology, URMC, Rochester, NY, USA

P3-71 Exploring GcvB sRNA cellular localization and RNA target repartition by super-resolution imaging in *Escherichia coli*

Asaki Lejars¹, Norio Takeshita², Masatoshi Miyakoshi¹

¹Department of Infection Biology, Faculty of Medicine, University of Tsukuba, Tsukuba, Ibaraki, Japan. ²Microbiology Research Center for Sustainability (MiCS), Faculty of Life and Environmental Sciences, University of Tsukuba, Tsukuba, Ibaraki, Japan

P3-72 Investigation of the *Bartonella henselae* Houston 1 Queuosine modification pathway

Samia Quaiyum¹, Yifeng Yuan¹, Geoffrey Hutinet¹, Peter C. Dedon², Michael F. Minnick³, Valérie de Crécy-Lagard¹

¹University of Florida, Gainesville, FL, USA. ²Massachusetts Institute of Technology, Cambridge, MA, USA. ³University of Montana, Missoula, MT, USA

P3-73 Functional characterization of a widely conserved pair of interacting KH domain RNA-binding proteins in *Campylobacter jejuni*

Lydia Hadjeras¹, Manasa Narayan¹, Sara K Eisenbart¹, Sahil Sharma¹, Kathrin Froschauer¹, Fabian König¹, Elisabetta Fiore¹, Thorsten Bischler², Lars Barquist³, Julia Bosselmann⁴, Martin Kucklick⁴, Susanne Engelmann⁴, Cynthia M Sharma¹

¹Institute of Molecular Infection Biology (IMIB), Würzburg, Germany. ²Core Unit SysMed, University of Würzburg, Würzburg, Germany. ³Helmholtz Institute for RNA-based Infection Research (HIRI), Würzburg, Germany. ⁴Helmholtz Centre for Infection Research (HZI), Braunschweig, Germany

P3-74 Grad-seq in *Clostridioides difficile* identifies KhpB as a global RNA-binding protein and regulator of toxin production

Vanessa Lamm-Schmidt¹, Manuela Fuchs¹, Johannes Sulzer¹, Milan Gerovac¹, Jens Hör¹, Petra Dersch², Jörg Vogel^{1,3}, Franziska Faber¹

¹Institute for Molecular Infection Biology, Faculty of Medicine, University of Würzburg, Würzburg, Bavaria, Germany. ²Centre for Molecular Biology of Inflammation, Institute for Infectiology, University of Münster, Münster, North Rhine-Westphalia, Germany. ³Helmholtz Institute for RNA-based Infection Research (HIRI), Würzburg, Bavaria, Germany

P3-75 Mechanism of *E. coli* Ribosomal Protein Switching in Response to Zinc

Rebecca Rasmussen^{1,2}, Suning Wang^{2,3}, Jeannie Camarillo⁴, Victoria Sosnowski⁴, Byoung-Kyu Cho⁴, Young Goo⁴, Julius Lucks^{5,6,1,2}, Thomas O'Halloran^{3,7,8}

¹Interdisciplinary Biological Sciences Graduate Program, Northwestern University, Evanston, IL, USA. ²Chemistry of Life Process Institute, Northwestern University, Evanston, IL, USA. ³Department of Chemistry, Northwestern University, Evanston, IL, USA. ⁴Northwestern Proteomics Core, Northwestern University, Evanston, IL, USA. ⁵Department of Chemical and Biological Engineering, Northwestern University, Evanston, IL, USA. ⁶Center for Synthetic Biology, Northwestern University, Evanston, IL, USA. ⁷Department of Chemistry, Michigan State University, East Lansing, MI, USA. ⁸Department of Microbiology & Molecular Genetics, East Lansing, MI, USA

P3-76 Finding the right partner among many in sRNA-based post-transcriptional regulation

Jorjetha Roca, Sarah A Woodson

Johns Hopkins University, Baltimore, MD, USA

P3-77 Global identification of RNA-binding proteins in *E. coli*

Thomas Søndergaard Stenum¹, Ankith Kumar¹, Friederike Sandbaumhüter², Erik T. Jansson², Erik Holmqvist¹
¹Microbiology and Immunology, Department of Cell and Molecular Biology, Biomedical Centre, Uppsala University, Uppsala, Sweden. ²Medical Mass Spectrometry, Department of Pharmaceutical Biosciences, Biomedical Centre, Uppsala University, Uppsala, Sweden

P3-78 small RNAs regulate Salmonella Pathogenicity Island 1 by modulating stability of the *hilD* mRNA 3' UTR

Sabrina Abdulla, James Slauch, Carin Vanderpool
University of Illinois at Urbana-Champaign, Urbana, IL, USA

P3-79 Characterization of a novel antisense small RNA in Group B *Streptococcus* involved vaginal colonization and ascension

Amanda Haeberle, Rebecca Keogh, Lindsey Burcham, Kelly Doran
University of Colorado Anschutz Medical Campus, Aurora, CO, USA

P3-80 The Physiological Consequences of Queuosine and its Precursors in the oral pathogen *Streptococcus mutans*

Marshall Jaroch, Kelly Rice, Valerie de Crecy-Lagard
University of Florida, Gainesville, FL, USA

P3-81 Investigating the effect of bacterial EV packaged RNA on human gene expression

Emily Marino, Paul Briaud, Emily Sudnick, Ronan Carroll
Ohio University, Athens, Ohio, USA

P3-82 RNA-Mediated Response to Temperature Change in *Staphylococcus aureus*

Raeven Bastock, Emily Marino, Richard Wiemels, Donald Holzschu, Rebecca Keogh, Rachel Zapf, Erin Murphy, Ronan Carroll
Ohio University, Athens, OH, USA

P3-83 Characterization of *Borrelia burgdorferi* sRNAs detected by 5' and 3' RNA-sequencing

Daniel Tetreault, Maxime Zamba-Campero, Emily Petroni, Philip Adams
National Institutes of Health, Bethesda, Maryland, USA

P3-84 Scaling up by scaling down: Using Fluorescent Activated Droplet Sorting to Assay Cis-Regulatory RNA Libraries

Elise Gray, Michelle Meyer
Boston College, Chestnut Hill, MA, USA

11:20 - 13:00

RNA-Binding Proteins - continued

Session Chair: Paul Babitzke

11:20 - 11:35

T-30 Hfq compacts mRNA to recognize distant sRNA-binding sites

Ewelina Malecka, Sarah Woodson
Johns Hopkins University, Baltimore, MD, USA

11:35 - 11:50

T-31 Kinetic modeling reveals additional regulation at co-transcriptional level by post-transcriptional sRNA regulators

Matthew Reyer¹, Shriram Chennakesavalu¹, Emily Heideman¹, Xiangqian Ma², Magda Bujnowska¹, Lu Hong¹, Aaron Dinner¹, Carin Vanderpool², [Jingyi Fei](#)¹

¹The University of Chicago, Chicago, IL, USA. ²University of Illinois Urbana-Champaign, Urbana, IL, USA

11:50 - 12:05

T-32 Genetic and biochemical insights into the mechanism of *E. coli* ProQ-RNA interactions

Suxuan Wang¹, Ewa Stein², Katherine Dailey¹, Shiyong Wang¹, Chandra Gravel¹, Oliver Stockert¹, Maria Mamońska², Mikolaj Olejniczak², [Katherine Berry](#)¹

¹Mount Holyoke College, South Hadley, MA, USA. ²Adam Mickiewicz University, Poznan, Poland

12:05 - 12:20

T-33 KhpB – a global RNA-binding protein in *Clostridioides difficile*

Vanessa Lamm-Schmidt, Manuela Fuchs, [Franziska Faber](#)

University of Würzburg, Würzburg, Germany

12:20 - 12:35

T-34 Bayesian Modelling Identifies Transcriptome-wide Effects of Major Bacterial RNA-binding Proteins on RNA Stability

Laura Jenniches¹, Charlotte Michaux², Jörg Vogel^{1,2}, Alexander Westermann^{1,2}, [Lars Barquist](#)^{1,3}

¹Helmholtz Institute for RNA-based Infection Research, Würzburg, Bayern, Germany. ²Institute for Molecular Infection Biology, University of Würzburg, Würzburg, Bayern, Germany. ³Faculty of Medicine, University of Würzburg, Würzburg, Bayern, Germany

12:35 - 13:00

T-35 Light-dependent Control of RNA Activity

[Andreas Möglich](#)

Universität Bayreuth, Bayreuth, Germany

Friday, January 7, 2022

09:00 - 10:40

Processing and Modification of RNAs

Session Chair: Chaitanya Jain

09:00 - 09:25

T-36 Structure of *B. subtilis* maturation ribonucleases captured on pre-50S ribosomes

Ciarán Condon

UMR8261 CNRS Université de Paris, Institut de Biologie Physico-Chimique, Paris, France

09:25 - 09:40

T-37 mRNA editing in bacteria affects protein sequence and function with consequences for bacterial fitness

Dan Bar Yaacov¹, Orna Dahan², Yitzhak Pilpel²

¹The Shraga Segal Department of Microbiology and Immunology, Ben-Gurion University of the Negev, Be'er Sheva, Israel.

²Department of Molecular Genetics, The Weizmann Institute of Science, Rehovot, Israel

09:40 - 09:55

T-38 System analysis of tRNA modification deficiency in *Escherichia coli* K12.

Jo Marie Bacusmo¹, Jill Babor¹, Leticia Pollo de Oliveira¹, Jennifer Hu², Peter Dedon², Valérie de Crécy-Lagard¹

¹University of Florida, Gainesville, Florida, USA. ²Massachusetts Institute of Technology, Cambridge, Massachusetts, USA

09:55 - 10:10

T-39 Post-transcriptional regulation by the RNA degradosome of the gastric pathogen *Helicobacter pylori*

Alejandro Tejada-Arranz^{1,2,3}, Hilde De Reuse^{1,2}

¹Institut Pasteur, unité Pathogenèse de Helicobacter, Paris, France. ²CNRS UMR2001, Paris, France. ³present address: Biozentrum, University of Basel, Basel, Switzerland

10:10 - 10:25

T-40 Target recognition by RNase E RNA-binding domain (AR2) drives sRNA decay in the absence of PNPase

Dhriti Sinha, Nicholas De Lay

University of Texas Health Science Center at Houston, Houston, Texas, USA

10:25 - 10:40

T-41 Changes to the major RNA pools during nutrient starvation: Lessons learned about quantification of *E.coli* RNA outside of the steady-state growth regime

Thomas Prossliner, Rocío E. Portero, Bertil Gummesson, Mathias Fessler, Michael A. Sørensen, Sine L. Svenningsen

Department of Biology, University of Copenhagen, Copenhagen, Denmark

10:40 - 10:50

short break

10:50 - 11:30

Keynote Talk: Ronald Breaker

K-02 **Prospects for Riboswitch Discovery and Analysis**

Ronald Breaker

Yale University, New Haven, Connecticut, USA

11:30 - 12:40

Riboswitches and RNA Structure

Session Chair: Franz Narberhaus

11:30 - 11:55

T-42 **The impact of RNA cis-regulators on *Streptococcus pneumoniae* growth and pathogenesis**

Indu Warriar, Ariana Hazery, Tim van Opijnen, Michelle Meyer

Boston College, Chestnut Hill, MA, USA

11:55 - 12:10

T-43 **Riboswitch-regulated uORFs in *Mycobacterium tuberculosis*: expression platform or target?**

Alexandre D'Halluin, Terry Kipkorir, Kristine Arnvig

UCL, London, United Kingdom

12:10 - 12:25

T-44 **A Small RNA that Cooperatively Senses Two Stacked Metabolites in One Pocket for Gene Control**

Griffin Schroeder^{1,2}, Chapin Cavender^{1,2}, Maya Blau³, Jermaine Jenkins^{1,2}, David Mathews^{1,2}, Joseph Wedekind^{1,2}

¹Department of Biochemistry and Biophysics, University of Rochester School of Medicine & Dentistry, Rochester, NY, USA.

²Center for RNA Biology, University of Rochester School of Medicine & Dentistry, Rochester, NY, USA. ³University of Rochester, Rochester, NY, USA

12:25 - 12:40

T-45 **Reconsidering the *czcD* (NiCo) riboswitch as an iron riboswitch**

Jiansong Xu, Joseph Cotruvo, Jr.

Penn State University, University Park, PA, USA

12:40 - 12:50

Poster Awards and Closing

Thank you for attending the 6th Meeting on Regulating with RNA in Bacteria and Archaea! Mark your calendar to join us in person at the 7th meeting in St. Petersburg, Florida September 5 to 8, 2023.