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Nancy Ryan Gray, Ph.D.
Director

**2010 GORDON RESEARCH CONFERENCE
On MICROBIAL STRESS RESPONSE**

FINAL PROGRESS REPORT

DEPARTMENT OF ENERGY
GRANT NO DE-SC0004930

The Gordon Research Conference on MICROBIAL STRESS RESPONSE was held at Mount Holyoke College, South Hadley, MA July 18-23, 2010. The Conference was well-attended with 172 participants (attendees list attached). The attendees represented the spectrum of endeavor in this field coming from academia, industry, and government laboratories, both U.S. and foreign scientists, senior researchers, young investigators, and students. Of the 172 attendees, 87 voluntarily responded to a general inquiry regarding ethnicity which appears on our registration forms. Of the 87 respondents, 13% were Minorities – 3% Hispanic, and 10% Asian. Approximately 48% of the participants at the 2010 meeting were women.

In designing the formal speakers program, emphasis was placed on current unpublished research and discussion of the future target areas in this field. There was a conscious effort to stimulate lively discussion about the key issues in the field today. Time for formal presentations was limited in the interest of group discussions. In order that more scientists could communicate their most recent results, poster presentation time was scheduled. Attached is a copy of the formal schedule and speaker program and the poster program. In addition to these formal interactions, "free time" was scheduled to allow informal discussions. Such discussions are fostering new collaborations and joint efforts in the field.

Thank you for your support of this Conference. As you know, in the interest of promoting the presentation of unpublished and frontier-breaking research, Gordon Research Conferences does not permit publication of meeting proceedings. If you wish any further details, please feel free to contact me. Thank you.

Sincerely,
Sarah Ades, Conference Chairperson
PENN STATE UNIVERSITY

MICROBIAL STRESS RESPONSE

July 18-23, 2010
Mount Holyoke College
South Hadley, MA

Chair:
Sarah Ades

Vice Chair:
Timothy Donohue

The 2010 Gordon Research Conference on Microbial Stress Responses provides an open and exciting forum for the exchange of scientific discoveries on the remarkable mechanisms used by microbes to survive in nearly every niche on the planet. Understanding these stress responses is critical for our ability to control microbial survival, whether in the context of biotechnology, ecology, or pathogenesis. From its inception in 1994, this conference has traditionally employed a very broad definition of stress in microbial systems. Sessions will cover the major steps of stress responses from signal sensing to transcriptional regulation to the effectors that mediate responses. A wide range of stresses will be represented. Some examples include (but are not limited to) oxidative stress, protein quality control, antibiotic-induced stress and survival, envelope stress, DNA damage, and nutritional stress. The 2010 meeting will also focus on the role of stress responses in microbial communities, applied and environmental microbiology, and microbial development. This conference brings together researchers from both the biological and physical sciences investigating stress responses in medically- and environmentally relevant microbes, as well as model organisms, using cutting-edge techniques. Computational, systems-level, and biophysical approaches to exploring stress responsive circuits will be integrated throughout the sessions alongside the more traditional molecular, physiological, and genetic approaches. The broad range of excellent speakers and topics, together with the intimate and pleasant setting at Mount Holyoke College, provide a fertile ground for the exchange of new ideas and approaches.

Contributors



SUNDAY

2:00 pm - 9:00 pm	Arrival and Check-in (Office Closed 6:00 pm - 7:00 pm)
6:00 pm	Dinner
7:30 pm - 7:40 pm	Welcome / Introductory Comments by GRC Site Staff
7:40 pm - 9:30 pm	Control of Stress-Responsive Gene Expression
	Discussion Leader: Amy Vollmer (Swarthmore College)
7:40 pm - 8:20 pm	Susan Gottesman (National Cancer Institute) "Integrating multiple inputs to regulate RpoS synthesis: sRNAs and antiadaptors"
8:20 pm - 8:25 pm	Discussion
8:25 pm - 8:50 pm	Richard Gourse (University of Wisconsin-Madison) "The original stress response: Control of rRNA and other promoters by DksA, NTPs, and ppGpp"
8:50 pm - 8:55 pm	Discussion
8:55 pm - 9:20 pm	Sunney Xie (Harvard University) "Single-cell <i>E. coli</i> proteome and transcriptome with single-molecule sensitivity"
9:20 pm - 9:30 pm	Discussion
9:30 pm	Reception, Willits-Hallowell Conference Center

MONDAY

7:30 am - 8:30 am	Breakfast
8:45 am	Group Photo
9:00 am - 12:30 pm	Signal Sensing and Processing
	Discussion Leader: Mark Goulian (University of Pennsylvania)
9:00 am - 9:25 am	Regine Hengge (Freie Universität Berlin) "Role of the small regulatory RNA RprA in the RpoS/CsgD/Rcs biofilm control network of <i>E. coli</i> "
9:25 am - 9:30 am	Discussion
9:30 am - 9:55 am	Hendrik Szurmant (Scripps Institute) "Resolution of Protein Domain Complexes that Drive Bacterial Signaling"
9:55 am - 10:00 am	Discussion
10:00 am - 10:10 am	Stefan Klumpp (Max Planck Institute of Colloids and Interfaces) "Growth-rate dependent global effects on gene expression in bacteria"
10:10 am - 10:15 am	Discussion
10:15 am - 10:45 am	Coffee Break
10:45 am - 11:10 am	Michael Laub (MIT) "Post-transcriptional regulation of the <i>Caulobacter</i> cell cycle"
11:10 am - 11:15 am	Discussion

11:15 am - 11:40 am **Eduardo Groisman** (Washington University, Saint Louis)
"RNA-mediated control of magnesium homeostasis"

11:40 am - 11:45 am Discussion

11:45 am - 11:55 am **Peter Lund** (University of Birmingham)
"High throughput methods shed light on how *E. coli* senses and responds to acid stress"

11:55 am - 12:00 pm Discussion

12:00 pm - 12:10 pm **Anna Staron** (Ludwig-Maximilians-University Munich)
"The LsdRS-AB and BceRS-AB Detoxification Modules: Specificity and Insulation in Sensing Peptide Antibiotics"

12:10 pm - 12:15 pm Discussion

12:15 pm - 12:25 pm **Tim Miyashiro** (University of Wisconsin, Madison)
"Examining the evolutionary context of small RNAs in a quorum-sensing pathway"

12:25 pm - 12:30 pm Discussion

12:30 pm Lunch

1:30 pm - 4:00 pm Free Time

4:00 pm - 6:00 pm Poster Session I

6:00 pm Dinner

7:30 pm - 9:30 pm **Microbial Communities and Interactions with the Environment**

7:30 pm - 7:40 pm Discussion Leader: **John Kirby** (University of Iowa)
Introduction

7:40 pm - 8:05 pm **Cameron Currie** (University of Wisconsin-Madison)
"Bacterial mediation of insect-fungal mutualisms"

8:05 pm - 8:10 pm Discussion

8:10 pm - 8:35 pm **Julie Segre** (NHGRI, Bethesda)
"Genomic Examination of the Human Skin Microbiome"

8:35 pm - 8:40 pm Discussion

8:40 pm - 9:05 pm **George O'Toole** (Dartmouth)
"To Build a Biofilm"

9:05 pm - 9:10 pm Discussion

9:10 pm - 9:20 pm **Erik Zinser** (University of Tennessee)
"Heterotrophic bacteria protect the marine cyanobacterium, *Prochlorococcus*, from oxidative damage"

9:20 pm - 9:30 pm Discussion

TUESDAY

7:30 am - 8:30 am Breakfast

9:00 am - 12:30 pm **Intracellular Damage Control**

	Discussion Leader: Tim Donohue (University of Wisconsin-Madison)
9:00 am - 9:25 am	Heran Darwin (New York University) "Proteolysis and Pathogenesis by <i>M. tuberculosis</i> "
9:25 am - 9:30 am	Discussion
9:30 am - 9:55 am	Tania Baker (MIT) "Interplay between the sHSPs and the AAA+ Proteases in Protein Quality Control"
9:55 am - 10:00 am	Discussion
10:00 am - 10:10 am	William Navarre (University of Toronto) "PoxA, YjeK and Elongation Factor P Coordinately Modulate Resistance to Multiple Unrelated Stressors"
10:10 am - 10:15 am	Discussion
10:15 am - 10:45 am	Coffee Break
10:45 am - 11:10 am	Julie Maupin-Furlow (University of Florida) "Ubiquitin-like Small Archaeal Modifier Proteins (SAMPs) and their Conjugation to Proteins in <i>Haloferax volcanii</i> "
11:10 am - 11:15 am	Discussion
11:15 am - 11:40 am	Miroslav Radman (Université Paris Descartes) "Desiccation and radiation stress responses in bacteria"
11:40 am - 11:45 am	Discussion
11:45 am - 11:55 am	Marion Dorer (Fred Hutchinson Cancer Research Institute) "DNA damage triggers genetic exchange in <i>Helicobacter pylori</i> "
11:55 am - 12:00 pm	Discussion
12:00 pm - 12:10 pm	Cari Vanderpool (University of Illinois at Urbana-Champaign) "A dual-function small RNA regulator coordinates a metabolic stress response"
12:10 pm - 12:15 pm	Discussion
12:15 pm - 12:25 pm	Tinya Fleming (UCSD) "Dynamic assembly of the DNA translocase SpoIIIE around trapped DNA"
12:25 pm - 12:30 pm	Discussion
12:30 pm	Lunch
1:30 pm - 4:00 pm	Free Time
4:00 pm - 6:00 pm	Poster Session II
6:00 pm	Dinner
7:30 pm - 9:30 pm	Cell Shape, Development, and Growth
7:30 pm - 7:40 pm	Discussion Leader: Alan Grossman (MIT) Introduction
7:40 pm - 8:05 pm	Thomas Bernhardt (Harvard University) "Cognate lipoprotein-PBP complexes are required for peptidoglycan

	biogenesis in <i>Escherichia coli</i> "
8:05 pm - 8:10 pm	Discussion
8:10 pm - 8:35 pm	Marie Elliot (McMaster University) "Dormancy and resuscitation: the role of cell wall remodeling in <i>Streptomyces coelicolor</i> "
8:35 pm - 8:40 pm	Discussion
8:40 pm - 9:05 pm	Petra Levin (Washington University, Saint Louis) "A look across species: Carbon availability and cell size in <i>E. coli</i> and <i>B. subtilis</i> "
9:05 pm - 9:10 pm	Discussion
9:10 pm - 9:20 pm	Teuta Pilizota (Princeton University) "Bacteria regulate turgor pressure in order to grow"
9:20 pm - 9:30 pm	Discussion

WEDNESDAY

7:30 am - 8:30 am	Breakfast
9:00 am - 12:30 pm	Cell Envelope Stress
	Discussion Leader: Thorsten Mascher (Karlsruhe Institute of Technology)
9:00 am - 9:25 am	Diego de Mendoza (Universidad Nacional de Rosario) "The Molecular Logic of Cold Sensation in Bacillus"
9:25 am - 9:30 am	Discussion
9:30 am - 9:55 am	Carol Gross (UCSF) "Phenotypic landscape of a bacterial cell"
9:55 am - 10:00 am	Discussion
10:00 am - 10:10 am	Christopher Hayes (UCSB) "A widespread family of polymorphic contact-dependent toxin delivery systems in bacteria"
10:10 am - 10:15 am	Discussion
10:15 am - 10:45 am	Coffee Break
10:45 am - 11:10 am	Natacha Ruiz (Princeton University) "Downregulation of envelope stress responses by YdcQ"
11:10 am - 11:15 am	Discussion
11:15 am - 11:40 am	Andrew Darwin (New York University) "The phage-shock-protein stress response: a very complicated simple system"
11:40 am - 11:45 am	Discussion
11:45 am - 11:55 am	Kevin Devine (Trinity College, Dublin) "Regulation of cell wall synthesis by the WalRK(YycFG) and PhoPR two-component systems in Bacillus subtilis"
11:55 am - 12:00 pm	Discussion

12:00 pm - 12:10 pm	James Weisshaar (University of Wisconsin, Madison) "Single-cell, real-time study of LL-37 antimicrobial attack on live <i>E. coli</i> cells"
12:10 pm - 12:15 pm	Discussion
12:15 pm - 12:25 pm	Errett Hobbs (NIH) "A small protein required for antibiotic resistance in <i>E. coli</i> interacts with the AcrAB-TolC efflux pump"
12:25 pm - 12:30 pm	Discussion
12:30 pm	Lunch
1:30 pm - 4:00 pm	Free Time
4:00 pm - 6:00 pm	Poster Session III
6:00 pm	Dinner
7:00 pm - 7:30 pm	<u>Business Meeting</u> (Nominations for the next Vice Chair; Fill out Conference Evaluation Forms; Discuss future Site & Scheduling preferences; Election of the next Vice Chair)
7:30 pm - 9:30 pm	Stress in Applied and Environmental Microbiology Discussion Leader: Steve Finkel (University of Southern California)
7:30 pm - 7:55 pm	Steve Finkel (University of Southern California) "Long-term survival and evolution in biofilms"
7:55 pm - 8:00 pm	Discussion
8:00 pm - 8:25 pm	Dianne Newman (Caltech) "Microbial hopanoids: no longer biomarkers of oxygenic photosynthesis, but rather, of stress"
8:25 pm - 8:30 pm	Discussion
8:30 pm - 8:55 pm	Thomas Bobik (Iowa State) "Sequestration of toxic metabolites by bacterial microcompartments"
8:55 pm - 9:00 pm	Discussion
9:00 pm - 9:25 pm	David Stahl (University of Washington) "Divergent lifestyles and stress response of <i>Desulfovibrio</i> and <i>Nitrosomonas</i> species"
9:25 pm - 9:30 pm	Discussion

THURSDAY

7:30 am - 8:30 am	Breakfast
9:00 am - 12:30 pm	Oxidative Stress Discussion Leader: Tricia Kiley (University of Wisconsin-Madison)
9:00 am - 9:25 am	Ursula Jakob (University of Michigan) "Oxidative Stress and Redox Regulation"
9:25 am - 9:30 am	Discussion

9:30 am - 9:55 am **Chris Kaiser** (MIT)
 "How the ER Moderates Oxidative Stress"

9:55 am - 10:00 am Discussion

10:00 am - 10:10 am **Ivan Gusarov** (NYU School of Medicine)
 "Nitric Oxide protects Gram-positive bacteria against a wide spectrum of antimicrobials"

10:10 am - 10:15 am Discussion

10:15 am - 10:45 am Coffee Break

10:45 am - 11:10 am **John Helmann** (Cornell University)
 "Diverse roles of bacillithiol in *Bacillus subtilis* stress responses"

11:10 am - 11:15 am Discussion

11:15 am - 11:40 am **Tim Donohue** (University of Wisconsin-Madison)
 "Convergence of bacterial transcriptional responses to heat shock and singlet oxygen stress"

11:40 am - 11:45 am Discussion

11:45 am - 11:55 am **Jiqiang Ling** (Yale University)
 "Oxidative stress induced protein mistranslation"

11:55 am - 12:00 pm Discussion

12:00 pm - 12:10 pm **Jean Francois Collet** (de Duve Institute, Université catholique de Louvain)
 "A periplasmic system protecting single cysteine residues from oxidation"

12:10 pm - 12:15 pm Discussion

12:15 pm - 12:25 pm **Jeannette Winter** (Technische Universitaet Muenchen)
 "YjiE - a novel HOCl-responsive transcription factor that protects *Escherichia coli* from oxidative stress"

12:25 pm - 12:30 pm Discussion

12:30 pm Lunch

1:30 pm - 4:00 pm Free Time

4:00 pm - 6:00 pm Poster Session IV

6:00 pm Dinner

7:30 pm - 9:30 pm **Antimicrobial Stress and Survival**
 Discussion Leader: **Sarah Ades** (The Pennsylvania State University)

7:30 pm - 7:55 pm **Jennifer Leeds** (Novartis)
 "Unraveling novel mechanisms of antibacterial activity - a case study"

7:55 pm - 8:00 pm Discussion

8:00 pm - 8:25 pm **Roy Kishony** (Harvard University)
 "Evolution in multi-drug environment"

8:25 pm - 8:30 pm Discussion

8:30 pm - 8:55 pm **Terry Hwa** (UCSD)

	"Intrinsic feedback between cell growth and antibiotic resistance: growth transition, persistence, and rapid evolution"
8:55 pm - 9:00 pm	Discussion
9:00 pm - 9:25 pm	Keith Poole (Queen's University) "Multidrug efflux systems as components of stress responses in <i>Pseudomonas aeruginosa</i> : implications for in vivo recruitment of efflux mechanisms and promotion of multidrug resistance"
9:25 pm - 9:30 pm	Discussion

FRIDAY

7:30 am - 8:30 am	Breakfast
9:00 am	Departure

Funding for this conference was made possible [in part] by 1R13AI088776-01 from the National Institute of Allergy and Infectious Diseases. The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services; nor does mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government.

Microbial Stress Response (2010)

Name	Organization	Participation	Status
ABROMAITIS, STEPHANIE	UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	Poster Presenter	Registered
ADES, SARAH E	PENN STATE UNIVERSITY	Chair	Registered
AN, DINGDING	BRIGHAM AND WOMEN'S HOSPITAL	Poster Presenter	Registered
ANTELMANN, HAIKE	UNIVERSITY OF GREIFSWALD	Poster Presenter	Registered
APPIA-AYME, CORINNE	UNIVERSITY OF EAST ANGLIA	Poster Presenter	Registered
ARTSIMOVITCH, IRINA	OHIO STATE UNIVERSITY	Poster Presenter	Registered
BAHAROGLU, ZEYNEP	INSTITUT PASTEUR PARIS	Poster Presenter	Registered
BAKER, TANIA	MIT	Speaker	Registered
BALASUBRAMANIAN, DEEPAK	FLORIDA INTERNATIONAL UNIVERSITY	Poster Presenter	Registered
BANTA, AMY B	UNIVERSITY OF WISCONSIN-MADISON	Poster Presenter	Registered
BARRAS, FREDERIC	CNRS	Attendee	Registered
BATTESTI, AURELIA	NIH/NCI	Poster Presenter	Registered
BERGHOLZ, TERESA M	CORNELL UNIVERSITY	Poster Presenter	Registered
BERNHARDT, THOMAS G	HARVARD MEDICAL SCHOOL	Speaker	Registered
BITTNER, ALYCIA N	BAYLOR COLLEGE OF MEDICINE	Poster Presenter	Registered
BOBIK, THOMAS A	IOWA STATE UNIVERSITY	Speaker	Registered
BOUVERET, EMMANUELLE	CNRS	Poster Presenter	Registered
BUTALA, MATEJ	UNIVERSITY OF LJUBLJANA	Poster Presenter	Registered
CALY, DELPHINE L	UNIVERSITY COLLEGE CORK	Poster Presenter	Registered
CAMACHO, DIOGO M	BOSTON UNIVERSITY / HHMI	Poster Presenter	Registered
CHANDER, MONICA	BRYN MAWR COLLEGE	Poster Presenter	Registered
CHIVERS, PETER T	WASHINGTON UNIVERSITY SCHOOL OF MEDICINE	Poster Presenter	Registered
COLLET, JEAN FRANCOIS	DE DUVE INSTITUTE, UNIVERSITE CATHOLIQUE DE LOUVAI	Speaker	Registered
CSONKA, LASZLO N	PURDUE UNIVERSITY	Poster Presenter	Registered
CURRIE, CAMERON	UNIVERSITY OF WISCONSIN	Speaker	Registered
DARE, KILEY E	OHIO STATE UNIVERSITY	Poster Presenter	Registered
DARWIN, ANDREW	NEW YORK UNIVERSITY	Speaker	Registered
DARWIN, HERAN	NYU SCHOOL OF MEDICINE	Speaker	Registered
DE MENDOZA, DIEGO	UNIVERSIDAD NACIONAL DE ROSARIO	Speaker	Registered
DENONCIN, KATLEEN	UNIVERSITE DE LOUVAIN	Poster Presenter	Registered
DERIS, BARRETT	UNIVERSITY OF CALIFORNIA SAN DIEGO	Poster Presenter	Registered
DEVINE, KEVIN M	TRINITY COLLEGE DUBLIN	Speaker	Registered
DIETRICH, LARS E	MASSACHUSETTS INSTITUTE OF TECHNOLOGY	Poster Presenter	Registered
DIKSHIT, KANAK L	INSTITUTE OF MICROBIAL TECHNOLOGY	Poster Presenter	Registered
DONOHUE, TIMOTHY J	UNIVERSITY OF WISCONSIN-MADISON	Vice Chair	Registered
DORER, MARION S	FRED HUTCHINSON CANCER RESEARCH INSTITUTE	Speaker	Registered
DOUGAN, DAVID A	LA TROBE UNIVERSITY	Poster Presenter	Registered
EGUCHI, YOKO	KINKI UNIVERSITY	Poster Presenter	Registered
EKICI, N SEDA	UNIVERSITY OF PENNSYLVANIA	Poster Presenter	Registered
ELLIOT, MARIE	MCMASTER UNIVERSITY	Speaker	Registered
ENGELBERG-KULKA, HANNA	HEBREW UNIVERSITY	Poster Presenter	Registered
FINKEL, STEVEN	UNIVERSITY OF SOUTHERN CALIFORNIA	Discussion Leader	Registered
FLEMING, TINYA C	UNIVERSITY OF CALIFORNIA, SAN DIEGO	Speaker	Registered
FLORES, ZOMARY	UNIVERSITY OF GEORGIA	Poster Presenter	Registered

FOLKESSON, ANDERS	TECHNICAL UNIVERSITY OF DENMARK	Poster Presenter	Registered
FRIEDBERG, DEVORAH	HEBREW UNIVERSITY MEDICAL SCHOOL	Attendee	Registered
FRISCH, RYAN L	BAYLOR COLLEGE OF MEDICINE	Poster Presenter	Registered
FURMAN, RAN	OHIO STATE UNIVERSITY	Poster Presenter	Registered
GEBENDORFER, KATHARINA M.	TECHNISCHE UNIVERSITAET MUENCHEN	Poster Presenter	Registered
GEHRING, AMY M	WILLIAMS COLLEGE	Poster Presenter	Registered
GERDES, KENN	UNIVERSITY OF NEWCASTLE	Poster Presenter	Registered
GERLAND, ULRICH	UNIVERSITY OF MUNICH (LMU)	Poster Presenter	Registered
GOTTESMAN, SUSAN	NIH, NCI	Speaker	Registered
GOULIAN, MARK D	UNIVERSITY OF PENNSYLVANIA	Chair	Registered
GOURSE, RICHARD	UNIVERSITY OF WISCONSIN-MADISON	Speaker	Registered
GROISMAN, EDUARDO A	WASHINGTON UNIVERSITY SCHOOL OF MEDICINE	Speaker	Registered
GROSS, CAROL	UNIVERSITY OF CALIFORNIA, SAN FRANCISCO	Speaker	Registered
GROSSMAN, ALAN	MASSACHUSETTS INSTITUTE OF TECHNOLOGY	Discussion Leader	Registered
GUSAROV, IVAN	NYU SCHOOL OF MEDICINE	Speaker	Registered
HACHMANN, ANNA-BARBARA G	HARVARD MEDICAL SCHOOL	Poster Presenter	Registered
HARTLEY, MEREDITH D	MASSCHUSETTS INSITUTE OF TECHNOLOGY	Poster Presenter	Registered
HAYES, CHRISTOPHER S	UNIVERSITY OF CALIFORNIA, SANTA BARBARA	Speaker	Registered
HELMANN, JOHN D	CORNELL UNIVERSITY	Speaker	Registered
HENGGE, REGINE	FREIE UNIVERSITAT BERLIN	Speaker	Registered
HERMSEN, RUTGER	UNIVERSITY OF CALIFORNIA SAN DIEGO,	Poster Presenter	Registered
HETRICK, KYLE M	INDIANA UNIVERSITY BLOOMINGTON	Poster Presenter	Registered
HOBBS, ERRETT C	NATIONAL INSTITUTES OF HEALTH	Speaker	Registered
HU, LINDA I	LOYOLA UNIVERSITY CHICAGO	Poster Presenter	Registered
HWA, TERENCE	UNIVERSITY OF CALIFORNIA, SAN DIEGO	Speaker	Registered
IBBA, MICHAEL	OHIO STATE UNIVERSITY	Poster Presenter	Registered
IGOSHIN, OLEG A	RICE UNIVERSITY, BIOENGINEERING DEPT	Poster Presenter	Registered
ISHII, EIJI	KINKI UNIVERSITY	Poster Presenter	Registered
JAKOB, URSULA	UNIVERSITY OF MICHIGAN	Speaker	Registered
JOHNSON, MATTHEW D	UNIVERSITY OF BIRMINGHAM	Poster Presenter	Registered
KAISER, CHRIS	MASSACHUSETTS INSTITUTE OF TECHNOLOGY	Speaker	Registered
KARR, ELIZABETH A	UNIVERSITY OF OKLAHOMA	Attendee	Registered
KILEY, PATRICIA J	UNIVERSITY OF WISCONSIN	Discussion Leader	Registered
KIRBY, JOHN	UNIVERSITY OF IOWA	Discussion Leader	Registered
KISHONY, ROY	HARVARD UNIVERSITY	Speaker	Registered
KLUMPP, STEFAN	MAX PLANCK INSTITUTE OF COLLOIDS AND INTERFACES	Speaker	Registered
KRAEMER, REINHARD	UNIVERSITY OF COLOGNE	Poster Presenter	Registered
KRALJ KUNCIC, MARJETKA	UNIVERSITY OF LJUBLJANA	Poster Presenter	Registered
KWON, OHSUK	KOREA RES. INST. OF BIOSCIENCE AND BIOTECHNOLOGY	Poster Presenter	Registered
LASARO, MELISSA A	UNIVERSITY OF PENNSYLVANIA	Poster Presenter	Registered
LAUB, MICHAEL	MASSACHUSETTS INSTITUTE OF TECHNOLOGY	Speaker	Registered
LEEDS, JENNIFER A	NOVARTIS INSTITUTES FOR BIOMEDICAL RESEARCH	Speaker	Registered
LENNON, CHRISTOPHER W	UNIVERSITY OF WISCONSIN-MADISON	Poster Presenter	Registered
LEVIN, PETRA A	WASHINGTON UNIVERSITY	Speaker	Registered

LIBBY, ELIZABETH	UNIVERSITY OF PENNSYLVANIA	Poster Presenter	Registered
LIN, CHING-TING	CHINA MEDICAL UNIVERSITY	Poster Presenter	Registered
LING, JIQIANG	YALE UNIVERSITY	Speaker	Registered
LOURENCO, ROGERIO	UNIVERSIDADE DE SAO PAULO	Poster Presenter	Registered
LUIDALEPP, HANNES	UNIVERSITY OF TARTU	Poster Presenter	Registered
LUND, PETER A	UNIVERSITY OF BIRMINGHAM	Speaker	Registered
MACLELLAN, SHAWN R	UNIVERSITY OF NEW BRUNSWICK	Attendee	Registered
MACOMBER, LEE E	MICHIGAN STATE UNIVERSITY	Poster Presenter	Registered
MADDOCK, JANINE R	UNIVERSITY OF MICHIGAN	Attendee	Registered
MASCHER, THORSTEN	LUDWIG-MAXIMILIANS-UNIVERSITY	Discussion Leader	Registered
MAUPIN-FURLOW, JULIE	UNIVERSITY OF FLORIDA	Speaker	Registered
MCCLEARY, WILLIAM R	BRIGHAM YOUNG UNIVERSITY	Poster Presenter	Registered
MEYER, ANNE S	MASSACHUSETTS INSTITUTE OF TECHNOLOGY	Poster Presenter	Registered
MILANESIO, PAOLA	NIH/NCI	Poster Presenter	Registered
MIYASHIRO, TIM	UNIVERSITY OF WISCONSIN-MADISON	Speaker	Registered
MONDS, RUSSELL D	STANFORD UNIVERSITY	Poster Presenter	Registered
MORALES, DIANA K.	DARTMOUTH MEDICAL SCHOOL	Poster Presenter	Registered
MUELLER, SUSANNE	UNIVERSITY OF IOWA	Poster Presenter	Registered
MUKHOPADHYAY, AINDRILA	LAWRENCE BERKELEY NATIONAL LABORATORY	Poster Presenter	Registered
MURDESHWAR, MAYA S	INDIAN INSTITUTE OF SCIENCE, BANGALORE, INDIA	Poster Presenter	Registered
MURDOCK, ANN E	BATTELLE	Attendee	Registered
MYERS, KEVIN S	UNIVERSITY OF WISCONSIN-MADISON	Poster Presenter	Registered
NAVARRE, WILLIAM W	UNIVERSITY OF TORONTO	Speaker	Registered
NEWMAN, DIANNE K	CALTECH	Speaker	Registered
O'TOOLE, GEORGE	DARTMOUTH MEDICAL SCHOOL	Speaker	Registered
OKANO, HIROYUKI	UNIVERSITY OF CALIFORNIA AT SAN DIEGO	Attendee	Registered
ONG, CHERYL-LYNN Y	UNIVERSITY OF QUEENSLAND	Poster Presenter	Registered
ORSI, RENATO H	CORNELL UNIVERSITY	Poster Presenter	Registered
PALIY, OLEG	WRIGHT STATE UNIVERSITY	Poster Presenter	Registered
PARK, DAN M	UNIVERSITY OF WISCONSIN	Poster Presenter	Registered
PAULANDER, WILHELM	UNIVERSITY OF COPENHAGEN	Poster Presenter	Registered
PAULETA, SOFIA R.	UNIVERSIDADE NOVA DE LISBOA	Poster Presenter	Registered
PENTERMAN, JON N	UNIVERSITY OF WASHINGTON SCHOOL OF MEDICINE	Poster Presenter	Registered
PILIZOTA, TEUTA	PRINCETON UNIVERSITY	Speaker	Registered
POISOT, TIMOTHEE	UNIVERSITÉ MONTPELLIER 2	Poster Presenter	Registered
POOLE, KEITH	QUEEN'S UNIVERSITY	Speaker	Registered
QUIN, MAUREEN	UNIVERSITY OF NEWCASTLE UK	Poster Presenter	Registered
RAMACHANDRAN, REVATHY	VIRGINIA TECH	Poster Presenter	Registered
RASKIN, DAVID M	METHODIST HOSPITAL RESEARCH INSTITUTE	Poster Presenter	Registered
REFFATTI, PATRICIA P.F	UNIVERSITY OF WESTMINSTER	Poster Presenter	Registered
ROE, JUNG-HYE	SEOUL NATIONAL UNIVERSITY	Poster Presenter	Registered
ROSNER, JUDAH L	NIDDK/NIH	Poster Presenter	Registered
ROSS, WILMA E	UNIVERSITY OF WISCONSIN-MADISON	Attendee	Registered
RUIZ, NATIVIDAD	PRINCETON UNIVERSITY	Speaker	Registered
SARWAR, ZAARA	SYRACUSE UNIVERSITY	Poster Presenter	Registered
SCARIA, JOY	CORNELL UNIVERSITY	Poster Presenter	Registered

SCHMID, AMY K	DUKE UNIVERSITY	Poster Presenter	Registered
SEGRE, JULIE A	NIH	Speaker	Registered
SHEE, CHANDAN	BAYLOR COLLEGE OF MEDICINE	Poster Presenter	Registered
SHELL, SCARLET S	HARVARD SCHOOL OF PUBLIC HEALTH	Poster Presenter	Registered
SIEGELE, DEBORAH A	TEXAS A&M UNIVERSITY	Poster Presenter	Registered
SIMMONS, LYLE A	UNIVERSITY OF MICHIGAN	Poster Presenter	Registered
SLONCZEWSKI, JOAN L	KENYON COLLEGE	Poster Presenter	Registered
SPIRO, STEPHEN	UNIVERSITY OF TEXAS, DALLAS	Attendee	Registered
STAHL, DAVID A	UNIVERSITY OF WASHINGTON	Speaker	Registered
STARON, ANNA	LUDWIG-MAXIMILIANS-UNIVERSITY MUNICH	Speaker	Registered
STEVENS, ANN M	VIRGINIA TECH	Poster Presenter	Registered
SWINGLE, BRYAN	USDA-ARS	Poster Presenter	Registered
SZURMANT, HENDRIK	SCRIPPS RESEARCH INSTITUTE	Speaker	Registered
TYPAS, ATHANASIOS	UNIVERSITY OF CALIFORNIA AT SAN FRANCISCO	Poster Presenter	Registered
VALERIE, NICOLAES	UNIVERSITE DE LOUVAIN	Poster Presenter	Registered
VAN BOKHORST-VAN DE VEEN, HERMIEN H	TI FOOD & NUTRITION	Poster Presenter	Registered
VAN DYK, TINA K	DUPONT COMPANY	Attendee	Registered
VAN OOIJ, CHRISTIAAN	NATURE REVIEWS MICROBIOLOGY	Attendee	Registered
VANDERPOOL, CARI	UNIVERSITY OF ILLINOIS	Speaker	Registered
VOLLMER, AMY CHENG	SWARTHMORE COLLEGE	Discussion Leader	Registered
VULIC, MARIN	NORTHEASTERN UNIVERSITY	Poster Presenter	Registered
WAKAO, SETSUKO	UNIVERSITY OF CALIFORNIA BERKELEY	Poster Presenter	Registered
WASSARMAN, KAREN	UNIVERSITY OF WISCONSIN-MADISON	Poster Presenter	Registered
WATERS, LAUREN S	NATIONAL INSTITUTES OF HEALTH	Poster Presenter	Registered
WECKE, TINA	LUDWIG-MAXIMILIANS-UNIVERSITY (LMU)	Poster Presenter	Registered
WEISSHAAR, JAMES C	UNIVERSITY OF WISCONSIN-MADISON	Speaker	Registered
WHITE-ZIEGLER, CHRISTINE A	SMITH COLLEGE	Poster Presenter	Registered
WINTER, JEANNETTE	TECHNISCHE UNIVERSITAET MUENCHEN	Speaker	Registered
WOLFE, ALAN J	LOYOLA UNIVERSITY CHICAGO	Poster Presenter	Registered
WU, CHIEN-CHEN	NATIONAL CHIAO TUNG UNIVERSITY	Poster Presenter	Registered
XAVIER, KARINA B	IGC / ITQB UNIVERSIDADE NOVA DE LISBOA	Poster Presenter	Registered
XIE, SUNNEY	HARVARD UNIVERSITY	Speaker	Registered
YAMAGUCHI, SAORI	NEW YORK UNIVERSITY SCHOOL OF MEDICINE	Poster Presenter	Registered
YAN, AIXIN	UNIVERSITY OF HONG KONG	Poster Presenter	Registered
YEO, WONSIK	WASHINGTON UNIVERSITY IN ST. LOUIS	Poster Presenter	Registered
ZIELKE, RYSZARD A	UNIVERSITY OF MICHIGAN	Poster Presenter	Registered
ZINSER, ERIK	UNIVERSITY OF TENNESSEE	Speaker	Registered
ZWEERS, JESSICA C	UNIVERSITY MEDICAL CENTRE GRONINGEN (UMCG)	Poster Presenter	Registered

172 participants