

Joint Meeting of the Missouri and Missouri Valley Branches of the American Society for Microbiology



March 17-18, 2017



Missouri State
UNIVERSITY



Hosted by the Missouri State University

The Missouri branch and the Missouri Valley branch of the American Society for Microbiology invite scientists and students to their annual meeting to be held jointly on the campus of the Missouri State University in Springfield, MO on March 17-18, 2016. The meeting will feature lectures by two ASM Distinguished Lecturers and several prominent local microbiology researchers and presentations by students from the region. The meeting is a great venue for undergraduate and graduate student researchers to gain experience presenting their research. Students can give a short oral or a poster presentation at this meeting and awards will be given to the top presenters in different categories. This meeting also is an excellent opportunity for microbiologists from Missouri, Nebraska, Kansas, and Oklahoma to become acquainted. We look forward to seeing you at the meeting, and we encourage students to submit abstracts of their research.

Overview of Schedule (See mvasm.unl.edu/annual-meeting for more detailed information)

Friday, March 17	5:00 PM – 9:00 PM
Saturday, March 18	8:00 AM – 5:00 PM

Invited ASM Distinguished Speakers and their Topics

- Dr. D. Jay Grimes, The University of Southern Mississippi (Marine Bacteria)
- Dr. Steven C. Ricke, The University of Arkansas (Prevention of Salmonellosis)

Venue: Plaster Student Union, Missouri State University, Springfield MO [Link to Google Map](#).

Housing: Recommended hotels. 1) The [University Plaza Hotel](#) is located just north of campus and is a 15 minute walk from the meeting venue, 2) [Holiday Inn Express and Suites](#) is located further north of campus near Hammons Field. 3. [Walnut Street Inn](#) is a nice bread and breakfast located just north of campus.

Registration Options (Note you should register even if no payment is needed)

1. **Preferred:** Mail Registration form and check for any registration fees (made out to “Missouri Branch ASM”) by March 10, 2017 to Paul Schweiger at Missouri State University (address on registration form).
2. **At Meeting.** Register at meeting and paid by cash or check made out to “Missouri Branch ASM”. Late fee will be applied.
3. **For Credit Card payment:** Payee should email registration forms to Donald Rowen (drowen@unomaha.edu, 402-554-2143) by March 10th and a request to pay invoice will be sent back.

Abstract Submission for Student Presentations: Due by **March 6, 2016**. Abstracts should be sent to asmabstracts@missouristate.edu. Formatting instructions are included in the brochure. Questions: email asmabstracts@missouristate.edu, or call Paul Schweiger (417-886-5062) or Chris Lupfer (417-836-6887).

Additional information: Will be posted at mvasm.unl.edu/annual-meeting.

Instructions for Abstract Submission (Due by March 6, 2017)

Updated 1/8/17

All students in the region doing microbiology related research are invited to submit abstracts for a 12-15 minute oral presentation or a poster presentation. To be eligible to present, one must be a Missouri or Missouri Valley ASM Branch member. One can become a branch member by registering for the meeting. Please remember that this is a regional meeting and does not prevent one from presenting your work at the national level.

Guidelines. Abstracts must be 200 words or less. Type the title first using title casing and a **bold** font. Capitalize the first letter of each word except prepositions, articles, and names of species. *Italicize* the Latin binomial names of organisms. List all authors with an asterisk following the name of the person delivering the presentation. If the presenter is a student, please indicate the level (doctoral, master's, undergraduate, or high school) parenthetically between the name and asterisk so that students may be placed in the appropriate competition areas. For each author, list institutional affiliations and short addresses (city and state only). Indicate the preferred category after the abstract text. Submitted abstracts will not be edited in any way, so please adhere to these guidelines and check carefully for grammatical errors. If you have any limitations on when you can present, please include that information with your submitted abstract.

Categories

- I. General Microbiology Graduate Student Oral Presentation (Sat AM and PM)
- II. Environmental Microbiology Graduate Student Oral Presentation (Sat AM and PM)
- III. Medical Microbiology/Immunology Graduate Student Oral Presentation (Sat AM and PM)
- IV. Undergraduate or High School Oral Presentation (Saturday AM and PM)
- V. Graduate Student Poster presentation (Saturday PM or perhaps Friday Evening)
- VI. Undergraduate or High School Poster Presentation (Saturday AM)

Example

Relationship Between Extracellular Polysaccharide Expression and Propensity to Form Biofilms in Clinical Isolates of *Burkholderia multivorans*. Sallie A. Ruskoski (Masters)*, Gerwald A. Köhler, and Franklin R. Champlin. Oklahoma State University Center for Health Sciences, Tulsa, Oklahoma.

Burkholderia multivorans is a gram-negative bacillus that causes opportunistic pulmonary infections in patients having underlying disease. It is hypothesized that the ability to adhere to host tissues is affected by bacterial cell surface properties and most strains are known to elaborate extracellular polysaccharide capsules comprised of disparate biopolymers. The purpose of the present study was to better characterize the cell surface physiology of a type reference strain and seven clinical isolates which represent virulence and colonial phenotypic variants. Microscopic observation, standard macrobroth dilution susceptibility, cell surface hydrophobicity, and biofilm formation analyses were employed to assess pertinent aspects of outer cell surface physiology among strains. The cell surface of the mucoid phenotype was found to be a function of extracellular polysaccharide expression and appeared to facilitate initiation of biofilm production, while being inversely related to cell surface hydrophobic properties. However, the outer cell envelopes of all strains were uniformly permeable to hydrophobic antimicrobial agents as suggested by their uniform minimal inhibitory concentrations. These data support the hypothesis that while extracellular polysaccharide production may affect the ability of *B. multivorans* to bind to host cells, it does not influence the accessibility of the outer cell surface to nonpolar antimicrobial agents.

Category III Medical Microbiology/Immunology Graduate Student Oral presentation

The abstract must be submitted via email by March 6, 2017 to asmabstracts@missouristate.edu. Questions: email asmabstracts@missouristate.edu, or call Paul Schweiger (417-886-5062) or Chris Lupfer (417-836-6887).