**Instructions for Abstract Submission (Due by February 24, 2023)**

Anyone in the region who is pursuing microbiology related research is invited to submit abstracts for a 12-15 minute oral presentation, a 5 minute flash talk, or a poster presentation. To be eligible to present, one must be a 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 and Tentative time for presentation**

I. General Microbiology Oral Presentation

II. Environmental Microbiology Oral Presentation

III. Medical Microbiology/Immunology Oral Presentation

IV. Poster Presentation

V. Flash talk

**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 February 24, 2023 to cbourne@ou.edu.