



MMI 291 Seminar Series

Current Theme: Interdisciplinary Research
Fall Quarter 2021 – CRN 41611

Friday Seminar – 12:10-1 PM



“Activation of ER stress impacts immune responses to enteric pathogens.”

Research / Bio

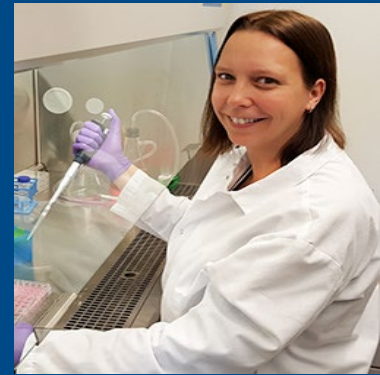
Dr. Marijke Keestra-Gounder earned her doctoral degree in 2008 from the Utrecht University (the Netherlands), Department of Infectious Diseases and Immunology. She was a postdoctoral researcher for 4 years (2008-2012) and a project scientist (2012-2016) for 4 years at the University of California, Davis, Department of Medical Microbiology and Immunology, in the laboratory of Dr. Andreas Bäumlner. She joined the faculty of the University of Colorado School of Medicine, Department of Immunology and Microbiology in 2016. NOD1 and NOD2 are pattern recognition receptors that sense bacterial peptidoglycans from gram-positive and gram-negative bacteria. Recently, we have shown that NOD1 and NOD2 are also crucial sensors of endoplasmic reticulum stress. The link between the ER stress and NOD1/2 signaling is especially important in the intestinal tract since mutations in both pathways have been linked to increased susceptibility to colitis. In our lab we explore the connection between ER stress and NOD1/2 signaling using the *Citrobacter rodentium* and *Salmonella Typhimurium* infection models.

Publications

Jonathan M. Mendez, Lakshmi Divya Kolora, James S. Lemon, Steven L. Dupree, **A Marijke Keestra-Goundera**, Activation of the Endoplasmic Reticulum Stress Response. Impacts the NOD1 Signaling Pathway. *Infection and Immunity* (2019) Aug <https://doi.org/10.1128/IAI.00826-18>

Keestra-Gounder A. M., Byndloss M. X., Seyffert N., Young B. M., Chavez-Arroyo A., Tsai A. Y., Cevallos S. A., Winter M. G., Pham O. H., Tiffany C. R., de Jong M. F., Kerrinnes T., Ravindran R., Luciw P. A., McSorley S. J., Bäumlner A. J., Tsois R. M. NOD1 and NOD2 signaling links ER stress with inflammation. *Nature* (2016) April 21;532(7599):394-7

Nov
05



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Nov 05, 2021
12:10 – 1 PM
ZOOM Meeting

Medical Microbiology
& Immunology
School of Medicine

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We hope to see you there!