

MMI 291 Seminar Series

Current Theme: Interdisciplinary Research
Spring Quarter 2025 – CRN 47397

Friday Seminar at 12:10-1 p.m.

Genome and Biomedical Sciences Facility, Room 1005

“Why is ExoT so Essential to *Pseudomonas aeruginosa* Pathogenesis”

Research Bio

Shafikhani is a Professor and Director of Microbiome Research at the University of California, Davis. As a cellular microbiologist, Shafikhani leads research projects focusing on host/pathogen interaction, normal and chronic wound healing, development of immunomodulator-based therapeutics to control wound and surgical site infections, and cancer biology and therapeutics.

Publications

Mohamed F. Mohamed, Kajal Gupta, Josef W. Goldufsky, Ruchi Roy, Lauren T. Callaghan, Dawn M. Wetzel, Timothy M. Kuzel, Jochen Reiser and **Sasha H. Shafikhani**. “CrkII/Abl phosphorylation cascade is critical for NLRP4 inflammasome activity and is blocked by *Pseudomonas* ExoT”. *Nature Communications*. 2022 Mar 11. 13(1):1295. doi: 10.1038/s41467-022-28967-5. PMID: 35277504. PMCID: PMC8917168.

Ruchi Roy, Janet Zayas, Sunil K. Singh, Kaylee Delgado, Stephen J. Wood, Mohamed F. Mohamed, Dulce M. Frausto, Yasmeen A. Albalawi, Thea P. Price, Ricardo Estupinian, Eileena F. Giurini, Timothy M. Kuzel, Andrew Zloza, Jochen Reiser, and **Sasha H Shafikhani**. “Overriding impaired FPR chemotaxis signaling in diabetic neutrophil stimulates infection control in murine diabetic wound”. *eLife*. 2022, Feb 3. 11:e72071. doi: 10.7554/eLife.72071. PMID: 35112667. PMCID: PMC8846594.

Ruchi Roy, Janet Zayas, Mohamed F. Mohamed, Mohammad Bayat, Timothy M. Kuzel, Jochen Reiser and **Sasha H. Shafikhani**. “IL-10 Dysregulation underlies Global Chemokine Insufficiency, Delayed Macrophage Response, and Impaired Healing in Diabetic Wound”. *Journal of Investigative Dermatology*. 2022 Mar. 142(3 Pt A):692-704.e14. doi: 10.1016/j.jid.2021.08.428. Epub 2021 Sep 10. PMID: 34517005. PMCID: PMC8860852.

April
11



Sasha Shafikhani, Ph.D.
Professor
Director of Microbiome Research
Department of Dermatology
University of California, Davis

**April 11, 2025
12:10 – 1 p.m.**

**Genome and
Biomedical Sciences
Facility, Room 1005**

In-person presentation

Medical Microbiology and
Immunology
School of Medicine

Seminar Contact:
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We hope to see you there!