



Name: Sejal Sharma

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Major Professor: Dr. Manish Patankar

Degree Objective: Endocrinology and Reproductive Physiology

Background: MS Medical Biotechnology, Univ of Illinois at Chicago. 2019 - 2021

Ph.D. Endocrinology and Reproductive Physiology, Univ WI Madison 2021- Ongoing

Current Research Project: My PhD thesis focus is to develop a combination therapy of OXPHOS inhibitors with Cancer vaccines for treatment of Ovarian Cancer: Below are the aims of my project:

Aim 1: Using data mining approach to identify OXPHOS inhibitors against ovarian cancer.

Aim 2: To determine if atovaquone upregulates PD-L1 expression via activation of the ATM/ATR DNA damage response pathway and to see if can be combined with anti PDL1 therapy for ovarian cancer.

Honors:

1. Research Travel Award from the School of Graduate Studies (1500\$).
2. Received Best Student Academic Research Excellence Award at Endocrinology and reproductive physiology conference 2024 (250\$ compensation)

Grants Received: On VA grant for PhD project.

Publications:

- **Sharma, S.**, Feng, L., Boonpatrawong, N. *et al.* Data mining of PubChem bioassay records reveals diverse OXPHOS inhibitory chemotypes as potential therapeutic agents against ovarian cancer. *J Cheminform* 16, 112 (2024). <https://doi.org/10.1186/s13321-024-00906-0>

National Presentations:

- Poster Presentation: **Sharma.S.**, Nicha Boonpatrawong, Lisa M. Barroilhet, Manish Patankar., (2024)., "Atovaquone upregulates PD-L1 expression via activation of the ATM/ATR DNA damage response pathway", Rivkin Ovarian Cancer Conference 2024.
- Poster Presentation – **Sharma, S.**, Paul, P., Das, R., Kapur, A., Barroilhet, L., Galipeau, J., Patankar, M., American Association of Cancer Research, New Orleans, 2022. "Synthetic Fusion Cytokine, GIFT4, Transduced Immune Cells - a Novel Cell Therapy for Treatment of Ovarian Cancer".



- Poster Presentation – **Sharma.S.**, Liping Feng, Nicha Boonpatrawong, Lisa M. Barroilhet, Manish Patankar, Spencer S. Ericksen., American Association of Cancer Research, Florida, 2023., “Data mining of PubChem bioassay data reveals OXPHOS inhibitors with anti-cancer activity”.
- Poster Presentation – Boonpatrawong, N., **Sharma, S.**, Schultz, R., Ponce, M. A. B., Barroilhet, L. M., & Patankar, M. (2023). Atovaquone-induced increase in reactive oxygen species leads to impaired glycolytic functions in ovarian cancer cells. American Association of Cancer Research, Florida, 2023.
- Poster Presentation – Ponce, M. A. B., Boonpatrawong, N., **Sharma, S.**, Gumperz, J., Patankar, M., & Barroilhet, L. (2023). Atovaquone promotes the release of damage-associated molecular patterns from epithelial ovarian cancer cells. American Association of Cancer Research, Florida, 2023.

Other Presentations:

- Poster Presentation – **Sharma, S.**, Paul, P., Das, R., Kapur, A., Barroilhet, L., Galipeau, J., Patankar, M., 26th Annual Research Day, UICOM-Rockford, IL, 2021., “Synthetic Fusion Cytokine, GIFT4, Transduced Immune Cells - a Novel Cell Therapy for Treatment of Ovarian Cancer”.
- Poster Presentation – **Sharma, S.**, Paul, P., Das, R., Kapur, A., Barroilhet, L., Galipeau, J., Patankar, M., UW Carbone Cancer Centre Research Retreat, 2021, Madison WI., “Synthetic Fusion Cytokine, GIFT4, Transduced Immune Cells - a Novel Cell Therapy for Treatment of Ovarian Cancer”.

Teaching and Mentorship:

1. Abraham Mathew Panichikudiyil, freshman year – Mentorship in cell culture and in-vitro biological assays.
2. Pratichi Halder, BSc - Mentorship in designing experiment for Flow cytometry, Cell culture, ELISA.
3. Achal Mankodi, BSc - Mentorship in designing experiment for Flow cytometry, Cell culture.

ERP Service:

1. ERP Student Committee 2021- Current