



# Outstanding Ph.D. Candidates Win Medical Faculty Association Best Research Awards

Four Ph.D. candidates at the University of Miami Miller School of Medicine have been selected as this year's Medical Faculty Association (MFA) Best Research Award winners. Jacob Rowe, Jamie Burgess, Christine Ryan, and Yaa Abu were awarded plaques and cash prizes ranging from \$1,000 to \$3,000.



From left: Yaa Abu, Jacob Rowe, and Christine Ryan. Not pictured: Jamie Burgess

The annual awards recognize Ph.D. candidates completing their dissertations, usually with one winner each in first through fourth place. Because the pool of applicants was exceptionally



competitive this year, the MFA selected two finalists for third-place awards.

“The young researchers at the Miller School of Medicine are incredibly talented and hard-working,” said Ana Fiallos, Ph.D., director of career and professional development for graduate studies. “We are grateful to the MFA for this opportunity to recognize the scientific achievements of our Ph.D. students.”

## Setting the Standard



Jacob Rowe

Jacob Rowe, a fifth-year Ph.D. candidate in the cellular and molecular biology program, won the \$3,000 first-place award. Rowe is focusing his thesis on “Identifying the Molecular Detriments of pH-sensing GPCRs,” with the guidance of his advisor, Daniel Isom, Ph.D., assistant professor of molecular and cellular pharmacology.

Rowe’s extensive CV includes five published papers in academic journals, including the *Proceedings of the National Academy of*



*Sciences* and the *Journal of Biological Chemistry*, as first and second author. Additional accomplishments include attending nine national conferences, publication in three abstract posters, and awards including this year's JBC Herbert Tabor Early Career Investigator Award and the 2021 Travel Award from the American Society for Pharmacology and Experimental Therapeutics.

“Through Rowe’s unmatched work ethic, diligence, and leadership, he both initiated and continues to expand the unique biotechnological infrastructure and culture of innovation established in the lab,” Dr. Isom said. “As a fifth-year graduate student, Jacob has rapidly achieved a significant level of success that set the standard for excellence in graduate research at UM.”

## Wound Healing Dedication



Jamie Burgess

Jamie Burgess, a third-year M.D./Ph.D. candidate completing her graduate program in Molecular and Cellular Pharmacology, received the \$2,000 second-place award for her extensive



research insights in wound healing. Burgess is a part of the wound healing lab at the Miller School, run by her advisor Marjana Tomic-Canic, Ph.D., director of the Wound Healing and Regenerative Medicine Research Program. Burgess has made significant contributions resulting in co-authorships on several publications during her lab rotation.

“Jamie has it all: She is brilliant, has excellent knowledge in basic science, driving curiosity, scientific and creative thinking, and excellent technical skills,” Dr. Tomic-Canic said. “She shows high productivity and receives recognition for her work in NIH funding, publications, and awards, but also shows exceptional potential to succeed as a physician-scientist in the translational field of regenerative medicine.”

As a student in the Medical Scientist Training Program, Burgess was awarded an F30 fellowship from the National Institutes of Health to advance her dissertation on “Mechanisms that Contribute to Inhibition of Wound Healing in Diabetic Foot and Venous Leg Ulcers.” Burgess has published eight papers and was accepted for a plenary presentation at last year’s Symposium on Advanced Wound Care, where she won the award for best abstract in the basic science category.

## **Scientific Passion**



Yaa Abu

One of the \$1,000 third-place awards went to Yaa Abu, M.D./Ph.D. candidate with a concentration in the microbiology and immunology program. Abu has spent the past four years focusing on opioids with her dissertation on “Prenatal Opioid Exposure and Immune Dysfunction: The Role of the Microbiome and Epigenome,” under the guidance of Sabita Roy, Ph.D., professor of surgery at Sylvester Comprehensive Cancer Center.

During this time, Abu has achieved several milestones, including five published papers, three manuscripts, and being awarded an F31 grant by the National Institutes of Health. She has also earned awards for her opioid research, including third place in the Eastern Atlantic Research Forum, second place in the Palm Beach County Medical Society Symposium, and first place honors with the Society of NeuroImmune Pharmacology Early Career Investigator Award.

“Yaa exhibits an overwhelmingly positive attitude toward research, as it is evident she thoroughly enjoys science,” Dr. Roy said. “I am highly impressed by her thoroughness, dedication to science, and persistence in the face of many



hardships she has endured, giving her every advantage to have a successful career as a physician-scientist.”

## Neuroscience Ambassador



Christine Ryan

Joining Abu in the third-place category is Christine Ryan, Ph.D. candidate in the neuroscience program. During her five years at the Miller School, Ryan has developed an interest in spinal cord injury, leading to her dissertation “Contribution of Lipid-Laden Foamy Macrophages to Spinal Cord Injury Pathology.”

Ryan’s investigation on the subject led to her developing an in vitro model and unraveling the molecular mechanisms of lipid droplet accumulation in macrophages in response to spinal cord injury. Her findings can be noted in two first-author and one co-author publications. She has also made seven oral/poster presentations with abstracts, earned an F31 award and a Lois Pope LIFE Fellowship, and won third place for her poster at this year’s Society for Biomolecular Imaging and Informatics.



Apart from her research, Ryan has distinguished herself through her work outside the lab. She co-founded the Miami chapter of Apollo Society for Translational Medicine, and has organized a virtual symposium and served on a grant writing workshop panel for the neuroscience program.

“For all that Christine has accomplished and gained through the graduate program, she has given back even more,” said Jae K. Lee, Ph.D., professor in the Department of Neurological Surgery and Ryan’s advisor. “In my 11 years in the neuroscience program, Christine is the only student I have nominated for this award, which reflects how highly I think of her as a student and a citizen of the program. I truly cannot think of anyone more deserving.”

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