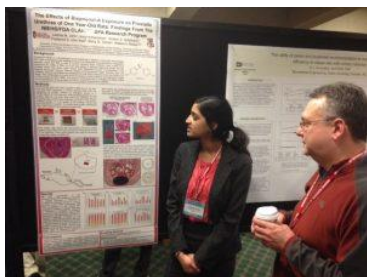




# UW-Madison Summer Program for Undergraduate Urology Research



- Do you have a passion for discovering new things?
- Do you wonder how organ systems function?
- Do you seek to improve human health?
- Are you committed to lifelong learning?
- Do you have the patience and endurance to complete a long-term project?

**If you answered yes to these questions, a biomedical research career might be right for you**

Gaining biomedical research experience is one way to prepare you for such a career

The **University of Wisconsin-Madison Summer Program for Undergraduate Urology Research (SPUUR)** is a 12 week paid summer research internship (May 21-August 12, 2023) for undergraduates from anywhere in the United States. Through our program, students will gain essential skills to position them for success in post-graduate studies. **APPLY BY FEBRUARY 28, 2023.** Send email to Dr. Chad Vezina to request application materials ([chad.vezina@wisc.edu](mailto:chad.vezina@wisc.edu)).



Our exciting research program will immerse students in laboratory research experiences and in weekly lectures and other activities related to non-malignant basic urologic science and clinical urology. Students will network with other students and faculty throughout the summer, including with those from other summer programs at other institutions. At the end of the program, students will present and receive feedback about their individual research.

## WHY UROLOGY???

There is an urgent need to improve genitourinary tract health in humans and animals. The underlying cause of many urinary tract problems is not known – many knowledge gaps exist. Moreover, urinary dysfunction, which takes many forms, can be debilitating, demoralizing, and costly to treat. Discovering the root causes of urologic problems requires a multidisciplinary approach. Through a carefully constructed curriculum of didactic and hands-on activities, summer interns will gain experience in many field, including:

- Basic, clinical, and translational science
- Biochemistry
- Biology
- Cell biology
- Chemistry
- Engineering
- Genetics
- Imaging (MRI, ultrasound, PET, MicroCT)
- Pathology and histology
- Pharmacology and toxicology
- Physiology

## WHY A SUMMER TRAINING PROGRAM IN UROLOGY RESEARCH?

Non-malignant urinary disorders cost Americans >\$10 billion annually. We face numerous challenges in driving down costs and improving outcomes in: identifying disease mechanisms, developing effective pharmaceuticals and other treatments, improving diagnostics and surgical outcomes, empowering community medicine, and improving patient care and quality of life. **Most importantly, we need a pool of bright, inquisitive, collaborative-minded investigators from diverse backgrounds and different lived experiences to address current and future needs and knowledge gaps.**



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## HOW IS THE UW-MADISON SUMMER UROLOGY PROGRAM DIFFERENT FROM OTHERS?

Our program fulfills a unique need among summer education programs related to the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). While most summer undergraduate student programs have had a kidney or hematologic focus the lower urinary tract has been and continues to be relatively underrepresented. Moreover, there are more career and research opportunities in areas related to the lower urinary tract versus other areas of biomedical science. Our SPUUR program, which focuses exclusively on the lower urinary tract, is thus unique. We will provide a hands-on curriculum that introduces students to challenges and opportunities presented to the urologic surgeon, basic urologic researcher, nurse, pharmacist, and veterinarian. We will develop responsible conduct in research and deliver exciting research experiences to stimulate lifelong interest in urology. We will recruit undergraduate students from traditionally underrepresented backgrounds and leverage the unique urology research resources at the UW-Madison to build scholar professional networks. We will ensure direct contact between our scholars and investigators at leading urology research institutions across the U.S. to support recruitment for advanced degree training.

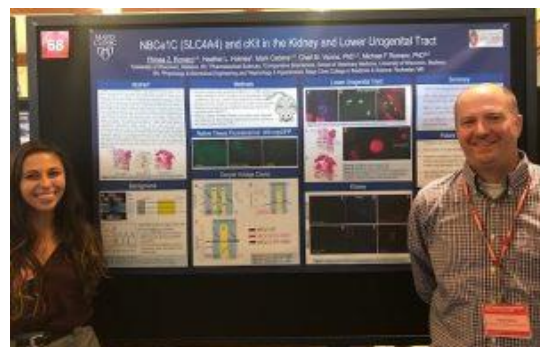
## IS THERE A COST?

There is no cost to students. **Students will be provided a \$6,459 stipend plus a \$900 housing voucher** for this 12-week program. Room and board are not provided, but the stipend is estimated to easily cover both. The UW-Madison SPUUR is funded by the National Institutes of Health and is a partnership between the University of Wisconsin School of Medicine and Public Health and the School of Veterinary Medicine.

## WHAT DOES SPUUR PARTICIPATION INVOLVE?

Up to 10 undergraduate students will be accepted each summer for a 12-week, full-time, supervised and mentored research opportunity. Students will be assigned individual research projects and will spend most of their time in hands-on biomedical research with a team consisting of a faculty mentor and graduate and post-graduate trainees. A weekly seminar series will provide:

- Interactions with other faculty and students at UW-Madison and beyond in a variety of in-person and virtual opportunities
- Faculty mentors who are top experts in their fields and leaders in the urologic clinical and research communities
- Presentations and lectures by scientists and clinicians from the UW-Madison and beyond
- Workshops in scientific methodology and responsible conduct of research
- Training and hands-on practicums in science reading, writing, and presentation
- “Lunch and Learn” educational enrichments led by faculty, community health experts, patient advocacy organizations, anti-racist activists, public health scholars, and more
- An orientation to preparing for graduate school
- Tours of various research and biomedical facilities affiliated with UW-Madison (e.g., swine research center, MRI facility, investigators’ research labs, urology simulation lab)



Students will present their work in both virtual and in-person venues at the end of the 12-week experience.



### SPUUR DIRECTORS

**Chad Vezina, PhD**, Professor of Comparative Biosciences, UW School of Veterinary Medicine, [chad.vezina@wic.edu](mailto:chad.vezina@wic.edu)

**Kristina Penniston, PhD, RDN**, Senior Scientist, Department of Urology, UW School of Medicine and Public Health, [penn@urology.wisc.edu](mailto:penn@urology.wisc.edu)



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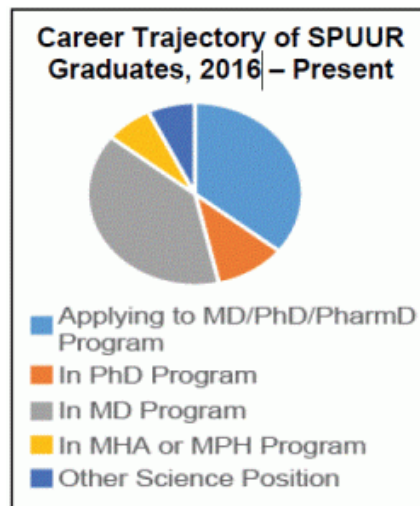
## APPLYING TO THE SPUUR PROGRAM

- **Program dates.** May 21 through August 12, 2023
- **Applicant qualifications:**
  - US citizenship or permanent residency and/or full-time graduate student at any US university or college in the spring 2023 semester
  - NOTE: Preference will be given to Junior- and Senior standing students with prior research experience, a GPA of at least 3.0, and a serious interest in pursuing a PhD, DVM, MD, or PharmD
- **Application requirements:**
  - Completed application
  - A description (≤1,000 words) of your career goals and steps you have taken already to achieve them
  - A current (unofficial transcript)
  - One letter of recommendation from a research mentor of undergraduate teacher
- **Diversity.** The UW-Madison SPUUR program encourages students from all backgrounds and those from all lived experiences to apply.
- **Application.** Available on SPUUR website, <https://spuur.wiscweb.wisc.edu/>; must complete in its entirety
- **Application deadline.** February 28, 2023
- **Notification date.** March 13, 2023

Contact SPUUR Director, Dr. Chad Vezina, for more information: [chad.vezina@wisc.edu](mailto:chad.vezina@wisc.edu)

## SPUUR FAQs

- **How do I apply?** Complete the online application (hyperlink to application).
- **When is the application deadline?** February 28, 2023
- **When will I find out if I'm accepted?** March 13, 2023
- **Can I enroll in summer courses during the internship?** No, this is a full-time commitment.
- **What is meant by "full-time commitment?"** You are expected to contribute 40 hours per work week.
- **What is the stipend?** You will receive a \$6,569 stipend plus a \$900 housing voucher.
- **How do I arrange for housing?** Students are responsible for securing their own housing. There are no on-campus options. However, the UW-Madison Campus Area Housing page has a convenient search engine for finding off-campus rental housing – privately-owned apartments, houses, and rooms for sub-lease – as well as consumer rental information. Other options for finding house include Madison Craigslist and Facebook.
- **Where can I find out more about the UW-Madison campus?** Call the UW-Madison Campus and Visitor Relations office at (608) 263-2400.
- **How do I get to and from campus?** Most off-campus students walk, bike, or bus to campus. The UW-Madison Campus and Visitor Relations office [(608) 263-2400] can provide details about bike and bus routes.
- **Can I receive research credit for the internship?** No credit will be granted.
- **I am planning a summer vacation - can I miss a week?** No, students are expected to participate each week of the summer research experience.
- **I am a full-time student at a US university but not a US citizen or permanent resident - can I still apply to the program?** Yes, you may still apply.
- **How many applicants will be accepted?** Up to 10 students.
- **How is this program funded, and who is its sponsor?** The program is funded by the National Institutes of Health and is a partnership between the University of Wisconsin School of Medicine and Public Health and the School of Veterinary Medicine.
- **How have prior UW-Madison SPUUR students benefited from their participation?** Most have gone on to apply to or initiate medical training (e.g., as physicians, veterinarians, pharmacists, etc.). Others have matriculated to graduate school or are working in occupations related to urology, public health, and other areas of science. See "Career Trajectory" graph at right.





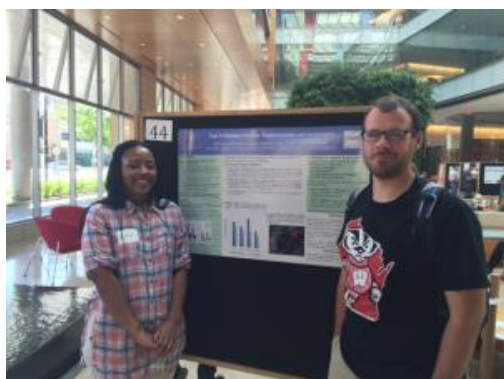
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## UW SPUUR ALUMNI AND TESTIMONIALS

Below are photos and a few testimonials from various UW SPUUR participants

*I was a SPUUR student during the summer of 2018, and feel very fortunate to have been placed in the labs of Alejandro Roldán-Alzate, PhD and Diego Hernando, PhD. Together, they have affiliations spanning the UW departments of biomedical engineering, mechanical engineering, radiology and medical physics. Having no prior experience with engineering, this placement inserted me into a brand new world, and I absolutely loved it. I was introduced to engineering software that could translate medical imagery into computational data. Specifically, my project involved using pelvic MRIs to create 3D models of the human bladder and prostate, from which we could extract information on a wide variety of parameters. Afterwards, we analyzed the data for trends. This work left me fascinated every day of the internship.*

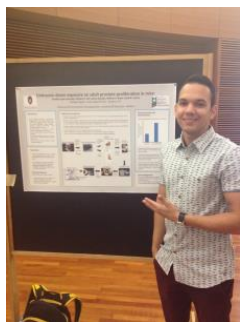
– Lucille Anzia, UW-Madison summer urology program, 2018



*I participated in the Summer Program for Undergraduate Urology Research (SPUUR) in the summer of 2018. As a proud Latina and immigrant student majoring in Biochemistry at UW-Madison, I bring along with me a unique set of characteristics and experiences to STEM-related programs, such as SPUUR. Prior to starting this program, I had little experience and exposure to intensive research opportunities such as the one SPUUR offered. At first, I felt out of my comfort zone and experienced self-doubt as I questioned whether I would be able to succeed in this program. All of these fears and doubts vanished as I started conducting my summer research. I was welcomed into an incredibly supportive and encouraging laboratory team. I am so thankful to have been able to expand my social network through this program, while also being able to form new friendships. Overall, this opportunity served as a meaningful academic “growth spurt” for me, and raised my interest in urologic*

*research and urologic clinical practice. Today, as first-generation medical student at the Medical College of Wisconsin, I can confidently say the SPUUR program played a critical role to my path to medical school.*

– Ana Maria Viteri, UW-Madison summer urology program, 2018



*SPUUR introduced me to the fascinating field of urological research and taught me the necessary skills to be a strong student and undergraduate researcher. During my time in the program and laboratory, I contributed to three publications and when I matriculated to Vanderbilt for college, my strong scientific background inculcated through SPUUR helped me find a position in a similar laboratory. Now as an applicant to medical school, I firmly believe that my participation in SPUUR contributed significantly to helping me gain admission to several competitive programs. And as I continue to pursue a career in medicine, urology remains a field that I am heavily interested in pursuing.*

– Anoop Chandrashekar, UW-Madison summer urology research program, 2017

*Being accepted into the SPUUR program was an important milestone in my professional growth and development into a scientist. This program taught me to develop research questions into concrete presentations and be a thoughtful investigator. Moreover, as a student from a middle class background, this internship provided me with a paid immersive experience that furthered*



*my career. Further, the SPUUR program’s emphasis on research seminars and team learning, was very different than a typical research experience in an undergraduate lab. The skills I learned in the SPUUR program have helped me to excel in renal and anatomy block courses, which have become exceedingly difficult due to the online environment in which they are taught. Overall, I would highly recommend this program to any student interested in a career in medicine. Over the course of the SPUUR program I learned a slew of technical skills that are crucial to my career, and position as a medical student including surgical technique, immunohistochemistry, microscopy, data analysis and*

*scientific presentation. As a physician I hope to continue to advance progress in the field of urology, through clinical research. The SPUUR program is an extremely valuable program that will help populate the field of urology with a new generation of qualified research scientists and clinicians.*

– Samuel Tesch, UW-Madison summer urology research program, 2016

