

LET'S HAVE A MOMENT OF SCIENCE



COLLEGE OF
SCIENCE

NOV. 11
2016

8:30 a.m.-11:30 a.m.

Venue Villita
401 Villita Street
San Antonio, Texas

On the River walk

Join five Notre Dame science and engineering faculty for four TED-style talks to learn how Notre Dame is fighting for farmers and freshwater, understanding mathematical patterns in our own world, exploring facial recognition, and investigating diseases such as the Zika virus in our own backyard. Experience hands-on science and engineering demonstrations with Notre Dame students. You can follow discussions about Let's Have a Moment of Science on social media using the hashtags **#MomentofScience** and **#ShamrockSeries**.

..... 10:00 a.m.

Faculty presentations:

Fighting for farmers and freshwater

Jennifer Tank, The Ludmilla F., Stephen J., and Robert T. Galla Professor of Biological Sciences



Excess fertilizer runoff from farm fields can enter adjacent agricultural streams. These excess nutrients can contaminate drinking water, harm sensitive species, and fuel downstream algal blooms and low-oxygen "dead zones" that cost millions of dollars a year across the U.S. Tank's research group is investigating how novel conservation strategies minimize these impacts to our valuable freshwater ecosystems.

Understanding mathematical patterns in our world

David Galvin, Associate Professor of Mathematics



Galvin's mathematics deals with patterns among numbers. He asks questions like: if you only know the first few numbers of a sequence, can you figure out how the sequence continues? And what does that tell us? He will talk about some of these questions, but more importantly, he will explain why he cares passionately about them.

Bugs in our 'backyard': tropical diseases in the USA

Nicole Achee, Research Associate Professor of Biological Sciences

John Grieco, Research Associate Professor and Associate Director,
Eck Institute for Global Health



Achee and Grieco are medical entomologists and their research focuses on understanding the habits of arthropod carriers of human disease. Come join us for a dynamic and interactive look at a selection of some of these bugs and diseases that afflict millions across the globe which also have an impact on health here at home.

Human faces: simple and complex, diverse and alike

Patrick Flynn, Duda Family Professor, Department of Computer Science and Engineering; Director, Notre Dame California



When we study recognition of faces by computers and by humans, we must understand the diversity of facial appearance. In this presentation, we explore the landscape of facial appearance and expressiveness relevant to human and machine processing of face images, with a focus on special situations such as the faces of identical twins and the effects of facial plastic surgery and aging.

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STEM Demos

Harper Cancer Research Institute

Antibodies have a broad range of use in science. They are even used to detect and treat certain forms of cancer. Students will experience a hands-on approach to learning about the structure of antibodies through 3D printing, video, and other imaging.

Presenters: **Sarah Fracci and Lan Jiang**

DNA Learning Center

Work with Notre Dame students from the DNA Learning Center to learn about DNA . . . and actually see your own DNA without a microscope!

Presenters: **Glen McClain and Allison Angeli**

Plus, many more with a focus on exploring fields, such as **biology, chemistry, mathematics, physics, robotics, and energy.**



Register at: science.nd.edu/events/shamrockseries/

Search for **Notre Dame Science** on social media.

