

## **RENSSELAER ENGINEERING NSF CAREER & YIP AWARD WINNERS**

Rensselaer School of Engineering Congratulates Our Winners of the Faculty Early Career Development Award (CAREER) from the National Science Foundation (NSF) and Our Recipient of the Air Force Office of Scientific Research Young Investigator Research Program (YIP)

## RENSSELAER SCHOOL OF ENGINEERING



Ryan Gilbert



Xavier Intes, Assistant Professor in the Department of Biomedical Engineering, will apply the award to further his research into non-invasive biomedical imaging technique to help identify and treat cancerous tumors. With his CAREER project, titled "Whole-Body FRET Tomography," Intes will adapt Forster Resonance Energy Transfer (FRET) to observe protein interactions in live animals. FRET is an easy, non-invasive, harmless means to detect whether the drug successfully located and interacted with the tumor.

Ryan Gilbert, Assistant Professor, Department of Biomedical Engineering will use the award to develop

new biomaterials for the treatment of spinal cord injuries. With his CAREER project, titled "Study of

Astrocyte Migration and Reactivity Using Novel Biomaterial Platforms," Gilbert seeks to innovate a

often lose body function below the injury site, which can lead to lifelong paralysis.

solution to the known problem of astrocyte reactivity, in individuals who suffer spinal cord injuries who





Jie Lian

**Jie Lian**, Assistant Professor in the Department of Mechanical, Aerospace, and Nuclear Engineering will use the award to further his research into the design of nanomaterials for use in nuclear energy systems. With his CAREER project, titled "Radiation Interaction with Nanostructured Ceramics— Integrating Materials Solutions into Nuclear Education," Lian will study the behavior of certain nanostructured ceramics when they are exposed to environments with extreme levels of radiation.

## NSF CAREER AWARD WINNERS

THE CAREER AWARD IS GIVEN TO FACULTY MEMBERS	THE YIP IS OPEN TO SCIENTISTS AND EN
AT THE BEGINNING OF THEIR ACADEMIC CAREERS AND	WHO RECEIVED A PH.D. IN THE LAST FIVE
IS ONE OF NSF'S MOST COMPETITIVE AWARDS,	EXCEPTIONAL ABILITY AND PROMISE FOR

## YIP AWARDEE

E YEARS AND SHOW

IGINEERS ACROSS THE US

R CONDUCTING RESEARCH.



Riccardo Bevilacqua

**Riccardo Bevilacqua**, assistant professor in the Department of Mechanical, Aerospace, and Nuclear Engineering received a, \$334,000 grant from the Air Force Office of Scientific Research (AFOSR) Young Investigator Research Program, for his project, titled "Propellant-free Spacecraft Relative Maneuvering via Atmospheric Differential Drag". This new research program at Rensselaer Polytechnic Institute seeks to define the next-generation of low-orbit satellites that are more maneuverable, cheaper to launch, easier to hide, and longer lived.

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