



Research in the Biosciences at Stony Brook:

*Neuroscience Axis Research Conference  
Presentation*

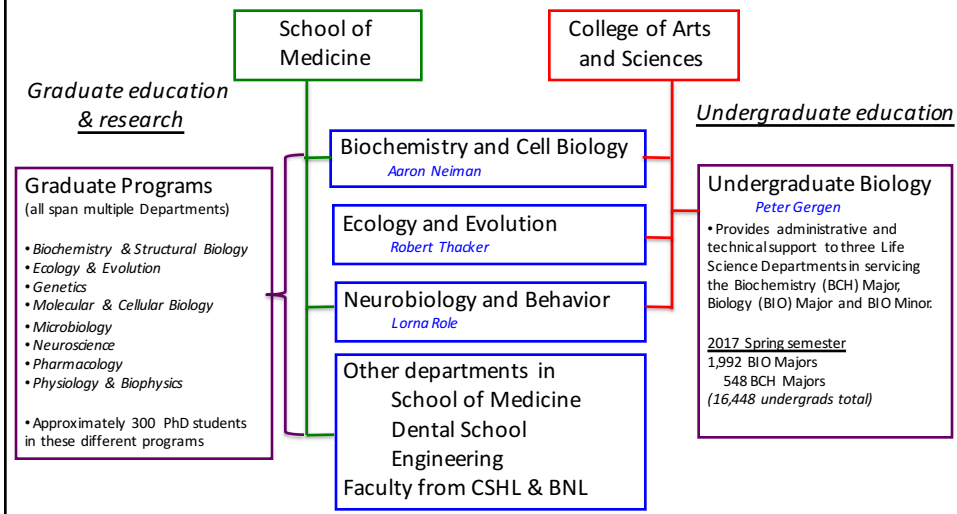
Wednesday, October 11, 2017

J. Peter Gergen

Professor, Department of Biochemistry and Cell Biology  
Director, Program in Undergraduate Biology

**Life Sciences at Stony Brook University:  
A crib sheet introduction and overview**

**Life Science Departments**



Stony Brook University | Undergraduate Biology

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## Get Involved


INTERNSHIPS

RESEARCH

- Pathways to Research
- Getting Started Guide
- Faculty Research Advisors
- Research Registration
- URECA Award Recipients
- Entering Research Workshop Invite Fall 2017

STUDENT CLUBS & ACTIVITIES

## Pathways to Research in the Biosciences at Stony Brook

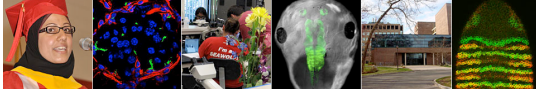


Priscilla Moley, URECA  
Biology  
Stony Brook University

YouTube

## Pathways to engage in research at Stony Brook:

- **Entering Research Workshop:** Provides a coherent and transparent pathway to research for students & faculty, offered by Biology Program every semester to qualified students – **27 students in Fall 2017 Workshop.**
- **URECA:** Travel funds and summer research support for students engaged in undergraduate research – **24 undergraduates received URECA awards to support research in the life sciences in the summer of 2017.**
- **Explorations in STEM Program:** Summer stipend support & housing for students to explore research – **20 students supported in summer of 2016.**
- **IMSD-MERGE:** NIH-funded program for students planning to go to graduate school. Provides summer support prior to junior and senior years, financial support and career development opportunities year round – **10 IMSD undergrads received support for research during the summer of 2017.**
- **iGEM (International Genetically Engineered Machines):** Student-led research competition involving a summer project in the field of synthetic biology that is presented at the iGEM International Jamboree in the fall – **16 member SBU 2016 iGEM team earned a Silver Medal at the Jamboree in October!**



**Entering Research Workshop**

In order to facilitate independent research opportunities for students in the life sciences the Undergraduate Biology Program offers an 'Entering Research Workshop' every semester.

Participants in this Workshop will:

- learn how research labs are organized;
- receive an overview of the research opportunities available to Stony Brook students;
- hear from a panel current of student researchers about their experiences;
- identify specific labs whose research is of interest to the participant;
- hear from a panel of faculty mentors about their expectations of undergraduate researchers;
- further explore the ongoing work in one lab in preparation for making an inquiry regarding research opportunities;
- complete training in lab safety and the responsible conduct of research that is required for doing research.
- earn a certificate documenting their participation.

There is limited availability for the 'Entering Research Workshop'. One of the criteria for selection is performance in BIO 204, Fundamentals of Scientific Inquiry in the Biological Sciences I. Students who have not earned credit for BIO 204 (either here at Stony Brook or as transfer credit) are strongly encouraged to complete this course before participating in the Entering Research Workshop. As one of the objectives is to help students identify a lab and participate in research for at least two semesters priority will be given to sophomore and junior-level students.

This Workshop is comprised of three approximately two-hour meetings on Monday evenings from 6:30 - 8:30 PM. The Workshop dates for the Fall 2017 semester are tentatively scheduled to be:


- Monday, September 18<sup>th</sup>
- Monday, October 16<sup>th</sup>
- Monday, November 6<sup>th</sup>

If you are interested in participating in the Fall 2017 Entering Workshop please complete the survey at the link below in order to apply.

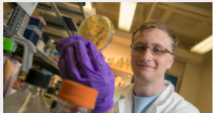
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Stony Brook University | Undergraduate Research & Creative Activities

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**RESEARCHER OF THE MONTH**



**October:** Justin Bell, Biology Major, class of 2018.  
Research Mentor: Dr. Michael Airola, *Biochemistry & Cell Biology*.


**NEWS & ANNOUNCEMENTS**

Evelyn Kandov wins 2017 Stony Brook chapter Sigma Xi Undergraduate Research Award

Christopher Giuliano & Ann Lin named 2017 Goldwater Scholars

Sarah Eller wins Scharps Legal Essay Competition

**URECA CELEBRATION**



**URECA's Celebration of Undergraduate Research & Creativity**, a campus-wide undergraduate research symposium with posters, talks, exhibits!

APRIL 25, 2018

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RESEARCHERS

Home > Summer Research

## Summer Research

URECA SUMMER

EXPLORATIONS IN STEM

ON-CAMPUS OPPORTUNITIES


OFF-CAMPUS OPPORTUNITIES

OPPORTUNITIES FOR NON-STONY BROOK STUDENTS

## Summer Opportunities for Research

Be sure to explore the on-campus program options including:

- URECA Summer
- Explorations in STEM
- IMSD-MERGE
- REU: Nanotechnology for Health, Energy and the Environment
- REU: Chemistry



## Summer Research

URECA SUMMER

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## URECA Summer Program

**Application Deadline:**  
March 10, 2017 (Deadline for 2018 summer program TBA!)

**Dates:**  
May 30 - August 4, 2017

**Description:**  
The URECA (Undergraduate Research and Creative Activities) Program supports SB students doing full-time faculty-mentored research or creative activity for ten weeks. At the end of the ten-week period, the URECA participants will prepare abstracts of their work and commit to presenting their work at the University's annual poster symposium in the following spring.

**Award:**  
URECA Summer Research Program participants receive a \$4,000 stipend. URECA students may opt to live on-campus during the URECA fellowship period but will be responsible for paying their housing bill and should consult the Campus Residences Website for online housing forms, rates, and housing-related questions.

**Eligibility:**  
This program is open to all current Stony Brook undergraduates except those graduating in May 2017. Applications should be submitted with an intended sponsor/mentor and project. Please note that URECA participants who wish to take classes or work at another job [limited hours only] during the program should obtain written permission from their faculty mentor and notify URECA at the time of application.

**Application:**  
The application packet consists of the following:

- a completed application form, including: Part 1 - online; Part 2 - a personal statement + research project proposal (see application instructions below);
- a transcript (unofficial);
- a letter from the sponsoring faculty member; and
- a supplemental form (recommended for students who wish to be considered for the URECA Explorations in STEM program); Pell eligible and/or underrepresented freshmen/sophomores are especially encouraged to apply.

The sponsoring faculty member's letter should comment on the student's research or creative capabilities and potential to carry out the specified project.

Candidates should submit a copy of the **completed application** (including part 2, transcript, letter) by March 10th to URECA, Melville Library N-3070-3071, Stony Brook University, Stony Brook, NY 11794-3357.

Stony Brook University | Undergraduate Research & Creative Activities

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**Summer Research**

URECA SUMMER

**EXPLORATIONS IN STEM**

ON-CAMPUS OPPORTUNITIES

OFF-CAMPUS OPPORTUNITIES

OPPORTUNITIES FOR NON-STONY BROOK STUDENTS

**Explorations in STEM - PSEG Scholars**


**Application Deadline:**  
TBA

**Dates:**  
The Explorations in STEM program will be offered in summer 2018!


**Description:**  
The Explorations in STEM program -- administered by the Dept. of Technology & Society, URECA and the Career Center -- seeks to provide research/professional development in STEM areas to undergraduate students. Students with demonstrated need (e.g. Pell-eligible students) and/or underrepresented students, particularly freshman/sophomores considering STEM careers, are encouraged to apply. This program particularly encourages the application of students majoring in electrical, mechanical, civil engineering and chemical engineering.

The Explorations in STEM supports SB students doing full-time faculty-mentored research in a STEM field for ten weeks. A major component of the program is the opportunity for students to participate in the weekly professional development workshops/events, which include workshops on communicating science, poster design, applying to graduate school, etc. At the end of the ten-week period, the participants will prepare abstracts of their work and will be required to present at the closing poster symposium at the end of the summer. Exploration in STEM participants are also required to present their work at the University's Celebration of Undergraduate Research & Creativity in the following spring.

**History:**  
This program was established at SB in Summer 2013 as part of a SUNY-wide initiative to increase student retention in STEM fields, and was sponsored by the SUNY Research Foundation, and the Office of the President. In Summer 2014, the program was renewed, and expanded, with increased support from the Office of the President and the Office of the Provost. The program is administered by Technology and Society; the Career Center; URECA and is a collaborative effort with Undergraduate Biology; and Teaching, Learning, Technology. We are delighted to announce that PSEG is sponsoring EXPLORATIONS IN STEM for Summers 2015 and 2016.



**Explorations in STEM - PSEG Scholar participants 2015 (left) and 2016 (right).**




**Explorations in STEM participants 2013 (left) and 2014 (right)**

Stony Brook University | Center for Inclusive Education

# IMSD-MERGE

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**Welcome to the IMSD-MERGE Program**

The Stony Brook University Initiative for Maximizing Student Development: Maximizing Excellence in Research for Graduate Education (IMSD-MERGE) Program aims to increase the number of underrepresented students (URM) completing highly productive biological and biomedical science degrees at Stony Brook University, and prepare them for seamless advancement into successful research careers. IMSD-MERGE is one of the many programs coordinated by the Center for Inclusive Education at Stony Brook University and is funded by the National Institutes of Health (NIH).

Stony Brook University | Center for Inclusive Education SEARCH

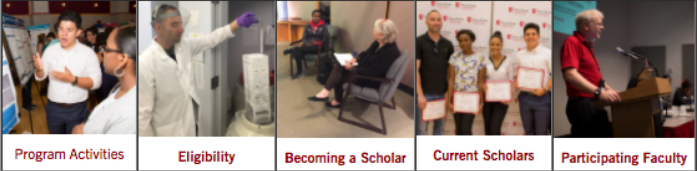
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# IMSD-MERGE

IMSD Home >

**IMSD-MERGE Undergraduate Track**

The goal of the IMSD-MERGE Undergraduate Program is to increase the number of underrepresented and economically disadvantaged scholars pursuing PhD degrees in the biological and biomedical sciences. IMSD-MERGE Undergraduate Scholars participate in a paid research internship during their junior and senior years to prepare them for seamless advancement into doctoral study. Scholars also receive the opportunity to participate in academic enrichment and professional development activities to enhance their competitiveness for admission into graduate school.



Program Activities Eligibility Becoming a Scholar Current Scholars Participating Faculty

## IMSD-MERGE

IMSD Home >

IMSD MERGE Undergraduate Scholars: Timeline of Activities

Summer Research Experience (Before Junior Year)

- Full-time Paid Research Experience Supervised by a Faculty Mentor
- Research and Graduate School Preparation Workshops
- Poster Presentation at Undergraduate Symposium and Closing Ceremony
- On-campus lodging and meals provided to all participants

Research Internship (Junior Year)

- Paid Academic Year Research Internship (8 hours per week)
- Poster Presentation at Stony Brook URECA
- Presentation/ Talk at National Conference
- External or Internal Summer Research Program

Graduate School Preparation (Senior Year)

- Science and Proposal Writing Workshop
- Paid Academic Year Research Internship/Tutoring in BioMath Learning Center
- Application to Doctoral Degree Program

## iGEM & the Synthetic Biology Society *be on the lookout for 2018!!*

**2017 iGEM Application:** Interested in becoming involved in a student-led research project? iGEM at Stony Brook is entering the iGEM (International Genetically Engineered Machine) competition for the fourth time. Teams will design and construct projects in the field of synthetic biology, which is a currently emerging field that involves manipulating the DNA of organisms to allow them to perform a novel function that would be beneficial to our society. The tentative timeline for the project is as follows: brainstorming and preparing in the Spring semester during the 1-credit reading course that meets once a week for two hours, performing most of the lab work throughout the summer, and completing the finishing touches of the project in the Fall semester, leading up to the Giant Jamboree presentation in November.

**Application deadline is December 31<sup>st</sup>, 2016 at 11:59 PM**

To be considered for the 2017 iGEM team, please fill out the application: [https://docs.google.com/a/stonybrook.edu/forms/d/e/1FAIpQLSdwo3s8bRifVS\\_AkAC15k3lcthdSrmZpp\\_m2\\_f2cc8oxTZQPg/viewform](https://docs.google.com/a/stonybrook.edu/forms/d/e/1FAIpQLSdwo3s8bRifVS_AkAC15k3lcthdSrmZpp_m2_f2cc8oxTZQPg/viewform) Email [igem.sbu@gmail.com](mailto:igem.sbu@gmail.com) with any questions!

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