



## **iJOBS Career Panel: Education and Science Outreach**

Monday May 22, 2017

4:30-6:00pm

675 Hoes Lane West

Room V10

Piscataway, NJ

If you want to get involved in teaching at high school consider doing the Alternate Route program to get certified to teach once you have the PhD

<https://cesp.rutgers.edu/nj-alternate-route-teaching-program>

Learn new approaches to teaching including flipped classroom, team based learning and interactive polling to keep students engaged. Learn how to develop online courses.

Take the Scientists Teaching Scientists class at NY Academy of Sciences. This is a very specific course for scientist with teaching experience, but no educational background. American Society for Microbiology, American Writers Association and other associations also have educational workshops. <https://www.nyas.org/STS2016>

There is also Scientist in Residence at NYAS to get placed in a school.

<https://www.nyas.org/WhatWeDo/ScientistsInResidence.aspx>

Consider applying for an IRACDA postdoc such as the INSPIRE one at Rutgers which includes teaching in addition to research.

<http://rwjms.umdnj.edu/research/postdoc/inspire/details.html>

American Museum of Natural History does have some Post-Doc positions, but they're located among the listings for job openings so if anyone is interested they can look there or inquire with the museum directly.

Teach at a Community College to get teaching experience. They have fairs once a year where new instructors can come to apply for jobs.

If you want to teach at a small college prepare a Teaching Portfolio which includes your Teaching Philosophy, Samples of Your Teaching Materials, and Evaluations. Your teaching philosophy statement is as important as your resume. It is part of your portfolio, but in many cases you are required to present a cover letter, resume and teaching philosophy statement before you even get an interview.

Get experience by volunteering in one or more of the following organizations:

**BioLinks** which goes to underserved high schools

<http://rwjms.rutgers.edu/research/postdoc/biolinks/index.html>

**Rutgers Science Bus** which takes a modified school bus to middle schools in NJ to do lab experiments.

<http://sciencebus.rutgers.edu/about-the-rse>

**BioBus** takes a modified school bus around New York for students to do experiments on.

<http://www.biobus.org/>

### **Students2Science**

Our mission is to inspire, motivate, and educate elementary, middle and high school students to pursue careers in science, technology, engineering and math (STEM subjects). We do so by providing an authentic, state-of-the-art laboratory experience complete with modern instrumentation and professional scientists.

Additionally, we offer remote, web-based virtual STEM experience that eliminates geographic and language constraints and broadens our reach to serve a wider audience. Teams of students, working collaboratively with scientific professionals who serve as role models, solve real life problems while being introduced to a wide variety of 21st century STEM career opportunities. as a mentor, lab assistant, instructor, V-lab volunteer.

[www.students2science.org](http://www.students2science.org)

### **Liberty Science Center**

<http://lsc.org/support-us/become-a-volunteer-or-intern/>

### **Turtleback Zoo**

<http://turtlebackzoo.com/discover/docents-volunteers/>

### **Patricia Irizarry, Ph.D.**

**Rutgers University**

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**Director, Rutgers Science Explorer**

**Associate Director, Rutgers Geology Museum**

**Coordinator, RUP-IMSD Program**



Dr. Patricia Irizarry has a BS in Biology from the University of Puerto Rico and a PhD in Molecular Biosciences from Robert Wood Johnson Medical School. She was awarded with the GSBS Outstanding Teaching and Service Award in 2012 for her work with the K-12 community with multiple programs, including BioLinks and the NSF GK-12 program. Since then she has devoted her time to Science Communication in a variety of learning environments and to train and mentor graduate and undergraduate students at Rutgers University. She is currently the program director for the Rutgers Science Explorer Bus and associate director of the Rutgers Geology Museum. She also coordinates the RUP-IMSD Program funded by the NIH to increase the participation of diversity students in the fields of Molecular Biosciences. Dr. Irizarry is also in the board of directors of the Mobile Laboratory Coalition, a national organization committed to the advancement of STEM

education. Since 2011 Dr. Irizarry has worked with over 30,000 K-12 students, 150 undergraduates and over 45 graduate students to engage in STEM related activities to foster understanding of scientific concepts.

**Paul Winslow, PhD.**

**President and Co-Founder of Students 2 Science**

**PaulWinslow@students2science.org**



Paul Winslow is the President and Co-Founder of Students 2 Science(S2S). He with fellow entrepreneurs created this non-profit organization in 2009 with the mission to inspire, motivate, and educate elementary, middle, and high school students to pursue high demand STEM careers. Since the inception of the program, over 18,000 students, hundreds of teachers, and over one thousand STEM volunteers, many with PhD's have participated in the program. Today, over 80% of S2S students come from communities in poverty.

S2S conducts its program in a contemporary fashion using project based and problem based learning in STEM education through three signature programs 1) Program One - Improving Students Affinity and Aptitude for Careers in STEM (The ISAAC Program), which provides students with authentic and rigorous STEM work experience in a state of the art \$ 4million analytical chemistry laboratory, (2) Program Two - S2S V-Lab Program, a laboratory for the 21<sup>st</sup> century where elementary, middle and high schools students learn via a collaborative hybrid communications platform available with interpreters, on demand, in 200 spoken languages and (3) Program Three - Professional Development and Technical Assistance for Teachers in STEM, providing content expertise, lesson plans, "How to Videos" and science kits as well as a planned Teachers Boot Camp and other enrichment programs for students and teachers.

Students 2 Science corporate partners include Alcami, Bayer, Becton Dickinson, Benjamin Moore, Bristol Meyers Squibb, Celgene, Daiichi Sankyo, Givaudan, International Fragrance and Flavors, Ferring Pharmaceutical, Merck, Novartis, Perkin Elmer, PSEG, Teva Pharmaceutical, Thermo Fisher Scientific among others.

Paul's passion for his work comes from his own motivation as the first member of his family to attend college at Saint Michael's College where he received his bachelor degree in chemisrty. He later pursued graduate studies at Rensselear- Polytechnic Institute for his PhD in organic chemistry.

Professionally, Paul's career spans over 30 years working in and consulting with the major pharmaceuticals and biotech companies providing regulatory compliance, vendor management and laboratory expertise. He was the Managing Director and Co-Founder of Quantitative Technologies. Inc, an independent analytical testing laboratory with over 20 years of experience providing analytical services.

He is a frequent author for scientific publications, and has presented his works to pharmaceutical and chemical industry groups including the American Association of Pharmaceutical Scientists, American Chemical Society and the Parental Drug Association. A dynamic advocate for STEM study and careers, Paul also holds 15 U.S patents.

**Kara Mann, MS**  
**Senior STEM Educator**  
**Traveling Science & Gallery Programs**  
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I am a Senior STEM Educator at Liberty Science Center. I, along with my coworkers, am responsible for delivering our Traveling Science Programs to schools around NJ, NY, CT, and PA. Our TSP offerings include assembly programs for large groups as well as hands-on, interactive classroom workshops. The STEM Education Team also presents 20 minute live science demonstrations on the museum floors. In addition to presenting programs, the STEM Ed team develops almost all of our own new content. I just finished creating a traveling science classroom workshop called *BRAAAAINS: You & the Zombie* in which students take on the role of CDC researchers trying to understand the changes that will occur in Zombie Behavior from the newly discovered mutated strains of the virus. I am also currently working on the curriculum for a conservation and adaptations summer camp titled *Creature Features*. This Fall I will be in charge of the day to day running of our after school programs as well. In addition to working at LSC I am also currently enrolled in the RU GSE working toward me EdD in Design of Learning Environments and hope to finish that by the end of 2017. In my free time (not that I have much of that) I try to spend time with my husband and our two dogs, when I have more free time, I also enjoy hiking, swimming, and various crafts.

**Tiffany King, PhD**  
**Staff Scientist - BioBus, Inc.**  
**[tiffany.rania.king@gmail.com](mailto:tiffany.rania.king@gmail.com)**



Dr. Tiffany King graduated from Spelman College in 2009 with a B.S. in Biology. After several undergraduate research experiences, including summers spent in labs at the University of Chicago, Princeton University, and the Naval Research Laboratory in Washington D.C., Tiffany went on to pursue a doctoral degree from Rutgers University Graduate School of Biomedical Sciences. She completed her Ph.D. in Cell and Developmental Biology under the guidance of Dr. Sunita Kramer in the Department of Pathology and Laboratory Medicine. Her graduate work focused on understanding cardiac cell migration, and early heart formation using *Drosophila melanogaster* embryos as a model. Her work has been published in peer-reviewed journals and presented at numerous scientific meetings. Tiffany has long been interested in education and science outreach, volunteering with organizations both during her undergraduate and graduate studies. While volunteering with the organization Citizen Schools, she enjoyed communicating scientific concepts to students through hands-on learning. The BioBus was the perfect place to continue presenting science in this manner, making it relatable and accessible to all students. Tiffany joined the BioBus team in early 2015, and the experience of igniting a passion of scientific exploration, and changing the idea of what a typical scientist is in the minds of young people has

been rewarding.

**Lucille O'Reilly, Ph.D.**  
**Science Teacher**  
**North Brunswick High School**  
**lo'reilly@nbtschools.org**

Lucille is alum of Rutgers for her PhD and has also taught at community colleges in addition to high school. She currently teaches Chemistry and is getting her degree in administration so she can be a supervisor of science.