

The Postdoc Press

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Scientists and science-supporters march world-wide



Postdoctoral Affairs Administrator Erin Heckler, PDA President John Leonard (2nd from left) and other UChicago postdocs participated in the March for Science in Chicago.

The March for Science organized scientists and science-supporters across the globe with Marches in more than 600 cities on April 22nd, 2017. In this Q&A, Kristian Aloma, the Director of the March for Science Chicago, discusses the challenges of planning the Chicago Science March, the outcome, and what happens next.

What was the most challenging aspect of planning the March for Science? Time - or the lack of it. Since I have a full-time job, a family and am working on my PhD, I am already pretty much out of time as it is. But this was important. Finding the nooks and crannies of time, the margins on my commute or after the kids went to bed made it hard to get into states of flow on my work or dedicate a good chunk of time to march details.

Was the outcome what you hoped it would be? It was. We had 60,000 Chicagoans march with us on that Saturday. It was one of the largest science marches in the world that day. This fact still blows me away. Not only that, we had such great engagement and excitement at the Expo after the march and our speakers were amazing. I couldn't ask for better. This is important because science is a central component to progress, innovation and survival. And when science, scientific data, or the method of understanding the world are removed from politics, or are de-prioritized in our lives, that erodes the very engine that drives our way of living forward.

What made the March for Science Chicago special? While other marches had a lot of celebrity power behind them, both within the science marches (Bill Nye, Adam Savage, etc) and at marches previous, our march in Chicago was hyper-local. We tapped local citizens that are making a difference, Emily Graslie, who is The Field Museum's YouTube host with a pretty awesome following, and a middle-school student to read his essay. Also, we broke our fundraising goals with primarily individual contributions. We had a few major gifts but that only made up less than 15% of our funds. The average donation was about 45 dollars from individuals that care about science. That to me is a testament to the fact that Chicago is a science city and its citizens are defending it.

What is next for the March for Science movement? Stay engaged. After a long nap, we're now in the planning stage. The organizers are meeting with a number of volunteers to discuss what we look like and do next. How we keep the lights on and how we keep making noise around this issue. More than anything, we want to figure out how for the long-term we continue to bridge the gap between science and society.

Postdoc Spotlight: Pedro Brugarolas

Lab: Brian Popko **Department:** Neurology

What is your research focus? I am interested in developing new radiotracers for positron emission tomography (PET). PET tracers are radioactive drugs that can be imaged using a PET scanner. Most often these compounds are labeled with fluorine-18 (2h half-life) or carbon-11 (20 min half-life), which are produced in a small accelerator called a cyclotron. After labeling and purifying these compounds, they can be injected intravenously and their 3-dimensional distribution within the body can be imaged by PET. My goal is to find molecules that bind to proteins or other structures associated with diseases and can be used for diagnostic purposes. After finding a candidate molecule one has to radiolabel the molecule and perform PET imaging in animal models to determine if it has potential. It is surprising to me that there are so many therapeutic drugs out there and so few radiopharmaceuticals. Nowadays, radiochemistry is at a point where we can label almost any molecule and test it relatively quickly so I believe we are going to see a lot of new PET tracers.

Why did you decide to work on MS? I became interested in MS when a friend of mine was diagnosed with the disease. After reading about current therapies and diagnostics, I learned that there was a need for more specific imaging methods. As a chemist, I had the idea



of turning an MS drug which is thought to bind to demyelinated axons into a PET tracer for imaging demyelination. I was very fortunate to find experts at The University of Chicago in the different areas (i.e., animal models of demyelination, ion channels and PET imaging) that encouraged and helped me pursue the idea. We have gotten exciting data with this compound in rodents and primates and expect to take it into humans in the near future. As for my future research, I'm planning to expand to other targets and other diseases.

Future position: Pedro is currently doing a three-month stint working at NIH as part of his **K99 Career Development Award**. Afterwards he will begin his position as Assistant Professor at Harvard Medical School Massachusetts General Hospital in the department of Radiology to continue his work on PET tracer development.

Jo Handelsman discussed her former role in the White House Office of Science & Technology Policy with postdocs

On April 25th the PDA Science Policy Committee hosted **Dr. Jo Handelsman**, former Associate Director of Science at the White House Office of Science and Technology Policy (OSTP) and current Director of the Wisconsin Institutes for Discovery, to discuss her experiences in academia and the White House. Handelsman was appointed to the OSTP by former President Barack Obama and served in the position for 3 years. Handelsman discussed how making policy changes is not always that easy and involves creativity. During



PDA Science Policy Co-Chair Cara Froyd (L) and Jo Handelsman (R).

the Obama Administration, the OSTP worked to increase science visibility and it's importance to the public, highlighting basic science and STEM education. According to Handelsman, the White House Science Fair was Obama's favorite day of the year. After the seminar, a small group of graduate students and postdocs joined Handelsman for a discussion on science policy and careers.

STEM Outreach

The **PDA Outreach Committee**, in a continuing collaboration with Thornwood High School, hosted 25 students in April. The event, organized by postdoc Parker Woods, showcased science happening at UChicago and gave the students hands-on experiences with a broad spectrum of science fields. The students first toured the zebrafish facility, where postdoc and PDA leader Sean McConnell and graduate student Clara Kao of the de Jong lab talked about using zebrafish as a model to study cancer. Next up was a stop at the greenhouse with graduate students Erick Bayala and Daniela Palmer of the Kronforst lab to show the students the butterflies they use to study the genetics of wing patterning and adaptation/evolution. Lastly, the students stopped at the Fossil Lab, where Maria Viteri of the Sereno lab gave a demonstration of how paleontologists make molds of fossil and explained what fossils can tell scientists about how prehistoric animals lived.



If you are interested in learning about the Outreach Committee contact bsdpostdoc@gmail.com. Check out our [website](http://www.bsdpostdoc.org) for info on outreach opportunities.



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