



# Boston Children's Hospital

## F.M. Kirby Neurobiology Center

### Kirby Center News & Updates

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Website

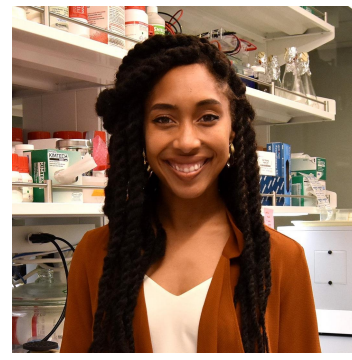
#### Announcements



**Mandana Arbab**, PhD, has been recruited by the Rosamund Stone Zander Translational Neuroscience Center and will join our Center as an Assistant Professor later this year, after finishing her postdoctoral fellowship with Dr. David Liu at the Broad Institute. Her research focuses on preclinical development of in vivo CRISPR nuclease and base editing strategies as well as developing genome editing corrective strategies for neuromuscular and movement disorders. Congratulations Manda, we look forward to welcoming you! (Photo credit: [ResearchGate](#))



**Mary Whitman**, MD, PhD, an Assistant Professor in the Ophthalmology department at Boston Children's Hospital, has been appointed as an affiliate faculty member to the Kirby Center. Her research focuses on the development of the oculomotor circuit, both in normal development and in eye movement disorders. Her long-term goal is to understand how oculomotor development is perturbed in eye movement disorders in order to develop new treatments that address underlying pathophysiology. Congratulations and welcome, Mary! (Photo credit: [MGB](#))



**Brielle Ferguson**, PhD, currently at Stanford, has been recruited as an Assistant Professor jointly by the Kirby Center and the Department of Genetics at Harvard Medical School. Brielle will join our Center later this year, and her lab will be located in the CLS building. Brielle is both an amazing scientist focused on exploring how the brain drives attention and the pathophysiological factors that cause attention deficit disorders, as well as a leader in diversity in the neurosciences, having helped established [Black in Neuro](#). Congratulations Brielle, we look forward to welcoming you! (Photo credit: [Forbes](#))

#### Research in News & Media

**Wei-Chung Allen Lee**, PhD, was selected to receive the [Jennifer N. Bourne Prize in Brain Ultrastructure](#), a newly established award from the Society for Neuroscience that honors early career neuroscientists for outstanding work that advances our understanding of brain structure and function at the nanometer scale. Congratulations, Wei!

In a recent "Four Thought" podcast by the BBC, **Beth Stevens**, PhD, [talks about brains cells most people have never heard of](#) and suggests that they may be the key to understanding much about the brain that we don't know.



Well done, Beth!

**Clifford Woolf**, MB, BCh, PhD, was interviewed by Cathryn Ramin for a recent article in *Nautilus Quarterly*, a New-York based science magazine. Along with Bruce Bean, PhD, and David Ginty, PhD, Dr. Woolf explains how [scientists are getting closer to designing safer, more targeted pain drugs to replace opioids](#) by taking a look at pain-sensing neurons known as nociceptors.



Looking for more meaningful ways to offer aid to Ukraine? The [Global Shapers](#), a network of young people driving action and change throughout the world, have created a [crowdsourced information platform](#) with the most comprehensive and up-to-date list of aid opportunities. Here, you can find ways to donate, send humanitarian supplies, volunteer, and most importantly: [read information from the source](#).

## Other News



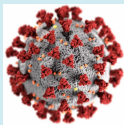
The Kirby Center welcomed **SJ Cunningham** in January 2022. SJ serves as the Executive Assistant to the Director of the Kirby Center and as a member of the larger administrative team. Before making the transition to Children's, SJ was an EA at a software-focused boutique investment bank.

SJ supports Dr. Woolf and his lab in all that they do, including pre-award grant support. SJ also organizes the faculty lunch series and retreats, and manages the Woolf lab website. To reach SJ for anything regarding Dr. Woolf, the Woolf lab, or the Kirby Center as a whole, you can find her at [sj.cunningham@childrens.harvard.edu](mailto:sj.cunningham@childrens.harvard.edu).



**Annexon Biosciences Reports Promising Interim Phase 2 Data Showing Improvement in Clinical Measures with ANX005 in Huntington's Disease Following Six-Month Treatment** ([source](#))

Annexon Biosciences, a company founded by Beth Stevens' late mentor, Ben Barres, has released promising preliminary data from Phase 2 clinical trials in Huntington's Disease. This is a very important vindication of the role of synapse elimination in disease that Beth initiated with her mentor Ben.



Where were you when the world shut down? **March 10, 2022** marks the two year anniversary of the [COVID-19 shutdown in Massachusetts](#). After too much time inside, too many surges and too many new viral strains, we are finally starting to see restrictions lifting slowly within the Children's community.

The **Rosamund Stone Zander Translational Neuroscience Center (RSZ TNC)** debuted their [new website](#). On their new page, you can explore job opportunities and training resources, submit requests for services, and keep up-to-date with upcoming RSZ TNC events.



The Kirby Center is excited to host the second cohort of [Bunker Hill Community College \(BHCC\)](#) interns this semester: **John Bianchi Colangeli** (Rotenberg lab), **Timothy Cha** (Holt/Géléoc lab), **Iman Cherif** (Kreiman lab), **Anna Kwon** (Engle lab), and **Nitara Vishwanath** (Do lab). Welcome, John, Timothy, Iman, Anna, and Nitara! (Photo credit: [MASSCC](#))

## Lab News

**Roshan Pandey** (Woolf lab) successfully defended his dissertation at the Université de Montréal. He will transition to a fellow role in the Woolf lab. Congratulations, Roshan!

Arnaud Frouin

## Postdoc News

### Support for Fellows Entering the Job Market

If you are entering the market and would like assistance, please email [SJ Cunningham](#) and [Mike Do](#) well in advance of your first deadline. We will convene a committee of Kirby faculty members who are appropriate for your research. This committee will



(Stevens lab) and family welcomed the arrival of baby Adele on December 6, 2021. Congratulations, Arnaud!



**Huyan Meng** (Z. He lab) and family welcomed the arrival of baby Marie in November 2021. Congratulations, Huyan!

1. Review a draft of your application.
2. Provide coaching on preliminary interviews.
3. Offer feedback on your job talk.
4. Take you through a mock chalk talk.
5. Provide advice on closing the deal.

When reaching out to us, please copy your advisor and ask them to give the green light for this process. We are most effective when your application, talk, and chalk talk are each at the fine-tuning stage.

Note that BCH offers a related service. Please choose one to avoid overburdening our faculty. I recommend ours because it is a fine way to strengthen ties within Kirby.

This assistance is meant to be highly individualized. If you communicate your particular needs (e.g., "I am a biophysicist with neuroethological leanings for whom English is a second language"), that would help us arrange the appropriate committee.

## Kirby Center Awards & Publications

### Recent Awards

**Michael Do**, PhD, was awarded a diversity supplement on his NIH R01 for his project titled, Origins and Transformations of Signals for Circadian Regulation.

**Jeffrey Holt**, PhD, received funding from SalioGen Therapeutics for his project titled, Evaluation of the SalioGase DNA Donor-RNA Helper System to Treat Sensorineural Hearing Loss.

**Scott Pomeroy**, MD, PhD, and his co-investigator Paola Arlotta, PhD, were awarded an NIH R01 for his project titled, Novel epigenetic mechanisms in neuronal development and cognitive function.

**Alexander Rotenberg**, MD, PhD, was awarded an NIH U44 for his project titled, Epilepsy Seizure Detection with Innovative Tripolar EEG (tEEG).

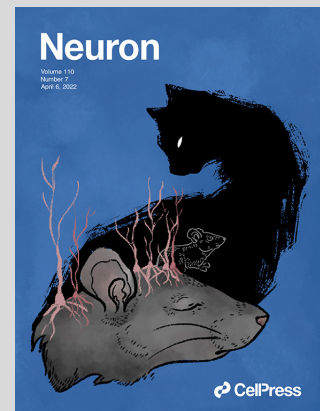
**Mustafa Sahin**, MD, PhD, received a diversity supplement for his NIH R01 project titled, Disrupted ciliary signaling in the brain pathology of Tuberous Sclerosis.

**Judith Steen**, PhD, received an award from The Ellison Foundation for her project titled, Halting the Tau Process in Alzheimer's Disease.

**Héctor Acarón Ledesma**, PhD (Chen lab), was awarded a Ruth L. Kirchstein National Research Service Award for Individual Postdoctoral Fellows for his project titled, Dendritic integration at the retinogeniculate synapse.

**Timothy Burbridge**, PhD (Umemori lab), received funding from Harvard Medical School for his project titled, Connecting

### Recent Featured Publications



**Woolf lab.** A Multiparametric Activity Profiling Platform for Neuron Disease Phenotyping and Drug Screening. Molecular Biology of the Cell. December 2021.

**Rosenberg lab.** Neuronal Loss of the Glutamate Transporter GLT-1 Promotes Excitotoxic Injury in the Hippocampus. Frontiers in Cellular Neuroscience. December 2021.

**Z. He and Schwarz labs.** Neuronal mitochondria transport PINK1 mRNA via Synaptotagmin2 to support local mitophagy. Neuron. February 2022.

**Koehler lab.** Generation and characterization of hair-bearing skin organoids from human pluripotent stem cells. Nature Protocols. March 2022.

**Sahin lab.** Validation of a computational phenotype for finding patients eligible for genetic testing for pathogenic PTEN variants across three centers. Journal of Neurodevelopmental Disorders. March 2022.

**Schwarz lab.** Serine/Threonine Protein Phosphatase 2A Regulates the Transport of Axonal Mitochondria. Frontiers in Cellular Neuroscience. March 2022.

spontaneous activity to circuit refinement through in vivo imaging.

**Franklin Caval-Holme**, PhD (Do lab), was awarded a Ruth L. Kirchstein National Research Service Award for Individual Postdoctoral Fellows for his project titled, Subcellular Origins of Extensive Spatial Integration by Ganglion Cell Photoreceptors.

**Kellen Winden**, MD, PhD (Sahin lab), received an NIH Mentored Clinical Scientist Development Award (K08) for his project titled, Molecular mechanisms of neuronal hyperactivity in Tuberous Sclerosis Complex.

**Stevens lab**. Dissection of artifactual and confounding glial signatures by single-cell sequencing of mouse and human brain. Nature Neuroscience. March 2022.

**Benowitz lab**. Monocyte-derived SDF1 supports optic nerve regeneration and alters retinal ganglion cells' response to PTEN deletion. Journal of Neuroscience. April 2022.

For a listing of additional recent Kirby Center publications, please visit PubMed:

- last name [A-K](#)
- last name [L-Z](#)



**Boston Children's Hospital**

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**HARVARD MEDICAL SCHOOL  
TEACHING HOSPITAL**

