

# ENERGY AND PHOTON SCIENCES DIRECTORATE NEWSLETTER

**JULY 7, 2023**

Volume 4, Issue 3

## MEET OUR NEW COLLEAGUES:

Clarisse Allen, NSLS-II  
Steven Arias, NC  
Corey Austin, NSLS-II  
Mariah Barget, NSLS-II  
Daniel Bethell, NSLS-II  
Jennifer Bjorklund, NC  
Ashley Blackwell, DC  
Jordan Coney, DC  
Paul Decker, NSLS-II  
Arin Farsen, NSLS-II  
Raymund Gonzales, NSLS-II  
Kaytilin Harrison, DC  
David Hohf, NSLS-II  
Bin Huang, IS  
Xiaoge Huang, IS  
Davis Koci, NSLS-II  
Fnu Leena, PM  
Sean Lehn, NSLS-II  
Wenji Liao, CO  
Florence Lucey, NC  
Steven Meyer, NSLS-II  
Tianmyou Mou, CO  
Patrick N'Gotta, NSLS-II  
Christopher Rodgers, NSLS-II  
Sean Ruga, CO  
Maryann Sarro, NSLS-II  
Wijesinghe Mudiyansele  
Wijesinghe, NSLS-II  
Feipeng Yang, NSLS-II

## A MESSAGE FROM JIM

Welcome to the third newsletter of the calendar year 2023. As the first half of the year ends, the Lab begins a period of many changes.

We have a new Lab Director, Dr. Joanne Hewett, who comes to the Lab from SLAC National Accelerator Laboratory in Menlo Park, CA. At SLAC, Hewett was an Associate Lab Director (ALD) for Fundamental Physics and Chief Research Officer. She was also Professor of Particle Physics and Astrophysics at SLAC/Stanford University. Here, she will become a Professor at the Yang Institute for Theoretical Physics at SUNY Stony Brook. She arrives in August with Jack Anderson serving as the Interim Lab Director. Our best wishes to our former Director Doon Gibbs. Our advances in DEI all happened under his tenure, and he steered us through the challenges of the pandemic. We are very grateful for this. We also have a [new Deputy Director for Science and Technology, John Hill](#) who moves from his position of Director of the NSLS-II. Congratulations to John (please read the article for more on John).

Our congratulations to [John Tranquada](#) who was just made a member of the National Academy of Sciences (one of the highest honors a scientist can receive). He is among 120 new members and 23 foreign members this year. John came to the Lab as a postdoctoral research associate and spent his entire very distinguished career here, carrying out landmark research in high temperature superconductors.

We now have over 500 students on site for the summer in addition to our full complement of staff, guests, and visitors. It is important to remember that the additional vehicles (bicycles and cars) and pedestrian population requires that we be particularly mindful of our surroundings. It is all too easy to be distracted by wearing headphones or talking and miss signs of traffic. Please be careful and attentive as you move around on site. As Jack Anderson said in his Monday Memo last month *"we all serve as role models for these students through our actions."*

Meetings are underway to introduce the new Childcare Center to Lab employees, guests, and visitors. It is opening in early September for children from infants to pre-Kindergarten. The 2019 CultureIQ survey showed how important it was for Lab employees to work at a place that offered on-site childcare, and this is finally being realized. See more on the Childcare Center later in the newsletter.

This summer marked the return of on-site [Summer Sundays](#). This is a wonderful opportunity to bring your families and visitors to see our facilities and programs on site. CFN and NSLS-II host Summer Sundays on July 16 and July 23, respectively, with the Science Learning Center and the Relativistic Heavy Ion Collider (RHIC) bookending these programs.

The second quarter of the year brought us Asian Pacific American Heritage Month, Memorial Day, Pride Month, Juneteenth and Independence Day. We will present a recap of some of the programs with links to recordings of events wherever possible. The third quarter brings us National Hispanic Heritage Month from Friday, September 15, 2023 through Sunday, October 15, 2023. Please watch the Lab calendar for the events which include speakers, food festivals and discussions.



Jim Misewich

*"I was fifteen years old when I understood how it is that things break down: people can't imagine someone else's point of view."  
Supreme Court Justice Sonia Sotomayor*

## From the EPSD DEI Council

You may see various colorful posters in buildings on site from the Lab Diversity, Equity, and Inclusion (DEI) Office centered around ideas of respect. We have ones in ISB, CFN and NSLS-II and will have more in our other buildings. It is important that we all prioritize these ideas. We may not always agree in our ways of approaching our jobs or other aspects of life but we all owe each other respect and courtesy.

The EPSD [Peer Counselors](#) are members of the DEI Council and welcome conversations about any workplace concerns with EPSD employees and guests. Be assured that confidentiality is an utmost priority within the constraints of Lab policy. The three areas in which we cannot be involved are policy violations, illegal activities, and harassment/discrimination. Those areas are legally bound and require reporting to Human Resources. Our current EPSD roster of Peer Counsellors is:

Diane Cabelli (Ext. 4361, [cabelli@bnl.gov](mailto:cabelli@bnl.gov)),  
Fernando Camino (Ext. 7606, [fcamino@bnl.gov](mailto:fcamino@bnl.gov)),  
Michael Cowell (Ext. 7076, [cowell@bnl.gov](mailto:cowell@bnl.gov)),  
Kenneth Evans-Lutterodt (Ext. 2095, [kenne@bnl.gov](mailto:kenne@bnl.gov)),  
Vivian Stojanoff (Ext. 8375, [stojanof@bnl.gov](mailto:stojanof@bnl.gov)),  
John Tranquada (Ext. 7547, [jtran@bnl.gov](mailto:jtran@bnl.gov)), and  
Grace Webster (Ext. 3227, [gwebster@bnl.gov](mailto:gwebster@bnl.gov)).

We welcome emails or phone calls to either discuss issues or to arrange for times for private conversations.

On the EPSD DEI website we have a process to receive [anonymous messages](#) to the DEI Council and Jim Misewich. These really are anonymous to all of us. In addition, there are green envelopes in many mail rooms that can be used to mail anonymous comments and/or suggestions to the Council. The envelopes are pre-addressed; you need to only put in your comments and place it in the interoffice mail and they will be routed directly to the EPSD DEI Council Chair (Cabelli). The anonymous communications will be answered on the "Ask Jim" webpage.

Lab employees are required to have DEI goal(s) on their performance appraisal goal setting document. To help, the Lab DEI pages include a [guidance document](#) with suggestion for goals that meet the requirement of personal, group and organizational impact. In addition, we have a web page with [suggested goals](#).

## In 2023

This is the third newsletter of 2023. We began this year with hope for a less tumultuous year than 2022, and this quarter we advanced our return to pre-COVID conditions with the return of students on site and the return of Summer Sundays to our facilities. We are no longer receiving weekly Covid updates as Suffolk County remains in the low category in all three indicators!

The DEI Council and Jim are asking if you would let us know where your priorities lie for the DEI Council programs and whether you have suggestions going forward. You can email Jim or any member of the council directly or you can put it in the [anonymous messages](#) suggestion box found on the [DEI web page](#). We are

interested both in programs we can pilot (e.g., DEI performance goals, welcoming letters) and programs where we can provide support (e.g., International Woman's Day Program). Of particular interest are programs that take advantage of the electronic tools that we have used since the start of the pandemic. We have all learned valuable new skills and challenged our creativity; taking advantage of these lessons may be the good that comes out of a very difficult, often heartbreaking, time. Remember that all ideas are worth considering. The DEI Council will respond to these ideas either directly, if you choose to send an email, or on the "Ask Jim" page for anonymous communications.

## Services at the Lab

THE [CHILDCARE CENTER IS COMING BACK!](#) Kudos to Interim Director Jack Anderson and his team and many thanks to the Lab employees who served on committees and provided input and work in order to make this happen. It took a community willing to volunteer valuable time and a commitment from management to make this happen. We thank you all!

The opening of the Lab Childcare Center is planned for early September. Two meetings were held by the chosen provider, Sky's the Limit Academy, where the director described the childcare they will offer for children and grandchildren of Brookhaven Lab staff, employees of the Department of Energy's Brookhaven Site Office, and guests and users at the Lab. A website has been set up where the talks can be viewed and information about the program accessed. They expect to be able to accommodate about 70 children in infant through pre-K classes. Enrollment forms are at Human Resources (HR) and can be accessed electronically on the website.

To increase drivers' awareness of safe driving practices while using the circle, the Safety & Health Services Division (SHSD) developed a brief "[Traffic Circle Safety](#)" video for all Lab employees and guests. This video re-enacts a collision there and gives clear tips and guidance on how to maneuver the circle safely.

We still have food trucks coming on site each weekday. You can find the schedule and menus, including online pre-ordering when available, on the [Guest Services Division website](#), [Food Services](#). The website also lists places that will deliver food and groceries to the Lab site.

## Recommended Articles and Videos

For those who missed the talks on Wellness Week, here are links to the Lab videos:

[Wellness Week: Hypertension, Hyperlipidemia and Advance Directives](#): An overview of high blood pressure, high cholesterol, and end of life care.

[Wellness Week: Ergonomics Preventing MSD](#): Demonstration on office ergonomic desk. How to prevent Musculoskeletal Disorders (MSD) in the workplace.

[Wellness Week: The Fit Lab - Experimenting with Functional Fitness](#): The Lab's Exercise Physiologist discusses functional fitness and how general day-to-day movements, when perfected, can transform lives.

[Wellness Week: Lifestyle Medicine](#): Lifestyle medicine uses, evidence-based, therapeutic lifestyle interventions as a primary way to treat and prevent most chronic medical conditions.

[Wellness Week: Burnout & Stress Management](#): We all are impacted by stress and can potentially experience burnout. Learn effective ways to identify and prevent burnout and reduce the impact of stress.

### Recommended non-Lab articles

[A Nobel laureate claimed antimale discrimination. An early-career researcher called it out](#): Chemist Kurt Wüthrich's comments during the Lindau Nobel Laureate Meeting highlight a schism in the research community.

### DEI Quarterly Themes Initiative: Cultivating an inclusive Workplace

The third quarter of the fiscal year was the roll-out of the DEI Quarterly themes initiative. In this initiative, an aspect of behavior that helps promote a healthy and inclusive workplace will be addressed each quarter. The Lab DEI Office provides a variety of videos and reading material for everyone to consider as we are a diverse community and different communication styles and messages resonate differently with each of us.

The first of the themes was that of [Emotional Intelligence \(EI\)](#). You can assess your EI using the free [Harvard Business Review EI Quiz](#). As described on the website "reflect on your score and feedback. Identify a skill or behavior you want to work on. Add that to your DEI Goals in the ePerformance system." Look at some of the material on the website as well.

In the final quarter of the fiscal year and the third quarter of the calendar year, the DEI Quarterly Theme will be Cultivating an Inclusive Workplace. Details of the program can be found at the [DEI Quarterly Themes website](#).

### Events in the Past Quarter

This year's [NSLS-II and CFN Users' Meeting](#) welcomed the Laboratory for BioMolecular Structure (LBMS) as the third facility. With this addition there were over 750 registered attendees coming from nearly 300 different institutions. The meeting included a virtually held plenary session, an awards session, 16 workshops, vendor exhibition, and poster session. There was also a vendor exhibition held in person at the Lab. The majority of the [Users' Meeting](#) can be accessed and the plenary session included talks from John Hill, Chuck Black, Dr. Linda Horton (Associate Director of Science for Basic Energy Sciences, U.S. Department of Energy) and a Q&A session.

The Brookhaven Veterans Associated (BVA) hosted a [Memorial Day ceremony](#) on May 26 featuring remarks from guest speaker retired Major Peter Janow who served in the U.S. Marines for more than 20 years.

June was Lesbian, Gay Bisexual, Transgender, and Queer+ (LGBTQ+) Pride month. On the [Pride Alliance](#) website, you can see photos of the Flag raising on June 12<sup>th</sup> on Flickr and an article by CFN's Dr. Sara Mason.

[Coming Out is a Lifelong Process](#). CFN's Sara E. Mason explains the need to constantly explain and what can help change that.

### Upcoming Events this Quarter

National Hispanic Heritage Month occurs from Friday September 15, 2023 through Sunday, October 15, 2023. As the date approaches, please watch for events listed on the Lab calendar.

### From the Employee Engagement Survey

The ongoing work in response to the DeepDive Survey results from 2022 can be viewed on the [Employee Experience Website](#). You can also revisit the All-hands briefing from Brookhaven Lab Director Doon Gibbs and other lab leaders joined by Scott Young of CultureIQ by re-watching the [DeepDive Survey Results Briefing Video](#).

As you know, the DeepDive survey is one of several methods designed to help improve the employee experience at Brookhaven. For this reason, we continue to use the results and comments of the survey in our improvement efforts across the Lab. Organizational Change Management Specialist [Claudine Cangiano](#) has been organizing meetings with groups of employees to facilitate discussions about the content of the DeepDive survey. She also met with the newly formed EPSD Working Group.

In the past, the EPSD Working Group has inquired about the plans for the cafeteria, vending machines, and childcare with Jack Anderson and the F&O team. On June 14<sup>th</sup>, the group met with Jim Misewich to discuss ideas to address staff seeking opportunities to informally explore collaborations (e.g., all-hands coffee break, posters), to improve transparency and communication (e.g., attending Jim's Monday Management Meeting), and reduce redundancies in training. Here are the [recommendations](#) presented to Jim.

The Chair of the Working group, Cara Laasch, has left the Lab to take a position at Lawrence Berkeley National Laboratory. The new co-Chairs of the Working Group are Priscilla Antunez ([antunez@bnl.gov](mailto:antunez@bnl.gov)) and Andrei Fluerasu ([fluerasu@bnl.gov](mailto:fluerasu@bnl.gov)). They can be contacted if you have any concerns. We will be providing quarterly updates from the new Working Group here.

### Highlights of Science in EPSD

Congratulations to the members of EPSD who have received Project Seed grants: **Dmytro Nykpanchuk** (CFN) and Christian Aponte-Rivera (Stony Brook, Chemistry) for polymeric characterization of intrinsically disordered tau protein: towards a molecular understanding of aggregation in prion like proteins; **Liguo Wang** (Lab for BioMolecular Structure NSLS-II) and David Thanassi (Stony Brook, Microbiology and Immunology) Analysis of Francisella tularensis membrane-derived structures and host-pathogen interactions using cryo-electron tomography.

CFN: [Scientists Use Peroxide to Peer into Metal Oxide Reactions](#): Using advanced in-situ spectroscopy techniques, scientists at Binghamton University and Brookhaven Lab gain new insights into catalytic oxidation.

CO: [Chemists Unravel Reaction Mechanism for Clean Energy Catalyst](#): Pulse radiolysis experiments at Brookhaven Lab revealed rapid reactivity that has never been observed before

CMPMSD: [Charge Density Wave' Linked to Atomic Distortions in Would-be Superconductor](#): Precision measurements reveal connection between electron density and atomic arrangements in charge-ordered states of a superconducting copper-oxide material.

CFN/CMPMSD/C2QA: [Understanding the Tantalizing Benefits of Tantalum for Improved Quantum Processors](#): Scientists decode the chemical profile of tantalum surface oxides to understand loss and improve qubit performance.

NSLS-II: [The Problems with Coal Ash Start Smaller Than Anyone Thought](#): How well toxic elements leach out of coal ash depends on the ash's nanoscale composition.

LBMS-NSLS-II: [Zinc Transporter Has Built-in Self-regulating Sensor](#): New cryo-EM structure of a zinc-transporter protein reveals how this molecular machine functions to regulate cellular levels of zinc, an essential micronutrient.

CMPMSD: [X-rays Reveal Electronic Details of Nickel-based Superconductors](#): Findings show similarities to and differences from cuprate superconductors, including more complex electronic structure.

CMPMSD: [First Direct Visualization of a Zero-Field Pair Density Wave](#): Tunneling spectroscopy uncovers the clearest proof yet that this exotic superconducting state of matter exists without a magnetic field in an iron-based superconductor

## Highlights of People in EPSD

[Meet Mike Bromfield, Project Engineer at NSLS-II](#): Bromfield handles a wide range of facility construction projects and tasks including beamline modifications and staff safety training.

[Using Computation and Theory to Enhance Nano-Agriculture and Beyond](#): Sara E. Mason interview with a CFN Group Leader.

## In Memoriam

Peter Ratzke (NSLS-II), May 29, 2023.

## On the Move in EPSD

We wish the best to Lindamulage De Silva who left NSLS-II to take a position at CAD.

## Help Welcome our New Colleagues to EPSD

Once again, we are introducing our newly hired colleagues to you. If you find common interests or places where you can assist, please do. Join me in welcoming them to the directorate:

### Clarisse Allen, Miscellaneous

Supervisor: Wuxian Shi

Email: [callen@bnl.gov](mailto:callen@bnl.gov)

Start Date: 5/30/2023

### Steven Arias, Postdoctoral Res

Supervisor: Anibal Boscoboinik

Email: [sarias@bnl.gov](mailto:sarias@bnl.gov)

Start Date: 5/1/2023

### Corey Austin, Postdoctoral Res

Supervisor: Lei Huang

Email: [caustin@bnl.gov](mailto:caustin@bnl.gov)

Start Date: 6/12/2023

Pronouns: He/him/his

Interests: Spending time outdoors fishing, backpacking, and playing disc golf.

### Mariah Barget, Administrative

Supervisor: Lisa Miller

Email: [mbarget@bnl.gov](mailto:mbarget@bnl.gov)

Start Date: 5/1/2023

Pronouns: She/her

Interests: Traveling with my husband Dominick, baking and hosting parties.



### Daniel Bethell, Technical

Supervisor: James Grandy

Email: [dbethell@bnl.gov](mailto:dbethell@bnl.gov)

Start Date: 5/1/2023

### Jennifer Bjorklund, Postdoctoral Res Assoc/Fellow

Supervisor: Sara Mason

Email: [jbjorklun@bnl.gov](mailto:jbjorklun@bnl.gov)

Start Date: 6/12/2023

Pronouns: She/her

Interests: Personal interests include traveling, hiking, kayaking, brewing beer, and making ice cream.



### Ashley Blackwell, Miscellaneous

Supervisor: Kimberly McGuire

Email: [ablackwel@bnl.gov](mailto:ablackwel@bnl.gov)

Start Date: 6/12/2023

### Jordan Coney, Miscellaneous

Supervisor: Kimberly McGuire

Email: [jconey@bnl.gov](mailto:jconey@bnl.gov)

Start Date: 6/12/2023

### Paul Decker, Technical

Supervisor: Christopher Stelmach

Email: [pdecker@bnl.gov](mailto:pdecker@bnl.gov)

Start Date: 6/5/2023

Interests: Wood working, mechanical work, inventing, machine shop, gardening, dogs, boating, cars, off road cycling, and hiking.

### Aren Farsin, Technical

Supervisor: Christopher Stelmach

Email: [afarsin@bnl.gov](mailto:afarsin@bnl.gov)

Start Date: 5/15/2023

### Fnu Leena, Postdoctoral Res Assoc/Fellow

Supervisor: Ivan Bozovic

Email: [fleena@bnl.gov](mailto:fleena@bnl.gov)

Start Date: 4/24/2023

**Raymund Jonas Gonzales, Technical**

**Supervisor:** Danny Padrazo

**Email:** [rgonzales@bnl.gov](mailto:rgonzales@bnl.gov)

**Start Date:** 6/5/2023

**Interests:** In my spare time, I like to listen to audio books, spend time with family and I adore dogs.



**Kaytlin Harrison, Teaching Assistant**

**Supervisor:** Kimberly McGuire

**Email:** [kharrison1@bnl.gov](mailto:kharrison1@bnl.gov)

**Start Date:** 6/12/2023

**David Hohf, Technical**

**Supervisor:** Christopher Stelmach

**Email:** [dhohf@bnl.gov](mailto:dhohf@bnl.gov)

**Start Date:** 5/8/2023

**Bin Huang, Miscellaneous**

**Supervisor:** Meng Yue

**Email:** [bhuang4@bnl.gov](mailto:bhuang4@bnl.gov)

**Start Date:** 6/12/2023

**Pronouns:** He/his/him

**Interests:** Research interests lie in the applications of quantum computing and machine learning in energy systems.



**Xiaoge Huang, Miscellaneous**

**Supervisor:** Meng Yue

**Email:** [xhuang4@bnl.gov](mailto:xhuang4@bnl.gov)

**Start Date:** 6/12/2023



**Davis Koci, Miscellaneous**

**Supervisor:** Wuxian Shi

**Email:** [dkoci@bnl.gov](mailto:dkoci@bnl.gov)

**Start Date:** 4/24/2023

**Sean Lehn, Technical**

**Supervisor:** Jorge Oliva

**Email:** [slehn@bnl.gov](mailto:slehn@bnl.gov)

**Start Date:** 5/15/2023

**Wenjie Liao, Postdoctoral Res Assoc/Fellow**

**Supervisor:** Ping Liu

**Email:** [wliao@bnl.gov](mailto:wliao@bnl.gov)

**Start Date:** 5/22/2023

**Florence Lucey, Miscellaneous**

**Supervisor:** Mircea Cotlet

**Email:** [fluaceyren@bnl.gov](mailto:fluaceyren@bnl.gov)

**Start Date:** 6/12/2023

**Steven Meyer, Technical**

**Supervisor:** Masafumi Fukuto

**Email:** [smeyer@bnl.gov](mailto:smeyer@bnl.gov)

**Start Date:** 6/26/2023

**Tianyou Mou, Postdoctoral Res Assoc/Fellow**

**Supervisor:** Ping Liu

**Email:** [tmou1@bnl.gov](mailto:tmou1@bnl.gov)

**Start Date:** 6/5/2023

**Patrick N'Gotta, Scientific Staff**

**Supervisor:** Sushil Sharma

**Email:** [pngotta1@bnl.gov](mailto:pngotta1@bnl.gov)

**Start Date:** 4/24/2023

**Christopher Rodgers, Technical**

**Supervisor:** Emil Zitvogel

**Email:** [crodgers@bnl.gov](mailto:crodgers@bnl.gov)

**Start Date:** 6/12/2023

**Pronouns:** He/him

**Interests:** I enjoy spending time with my wife Shawna and my 5-year-old son Neiley. I also enjoy tending to my koi pond, cooking food in the smoker as well as singing and playing guitar.

**Sean Ruga, Technical**

**Supervisor:** James Anselmini

**Email:** [sruga@bnl.gov](mailto:sruga@bnl.gov)

**Start Date:** 4/3/2023

**Maryann Sarro, Administrative**

**Supervisor:** Wah-Keat Lee

**Email:** [msarro@bnl.gov](mailto:msarro@bnl.gov)

**Start Date:** 6/5/2023

**Pronouns:** She/hers

**Interests:** In my free time I often ride horses.



**Wijesinghe Mudiyansele Wijesinghe, Scientific Staff**

**Supervisor:** Maksim Rakitin

**Email:** [wwijesing1@bnl.gov](mailto:wwijesing1@bnl.gov)

**Start Date:** 4/3/2023

**Feipeng Yang, Scientific Staff**

**Supervisor:** Ruipeng Li

**Email:** [fyang2@bnl.gov](mailto:fyang2@bnl.gov)

**Start Date:** 6/5/2023

**Interests:** Hiking and running.



*Members of the EPD DEI Council (clockwise from top): Priscilla Antunez, Diane Cabelli, Fernando Camino, Michael Cowell, Mark Dean, Kenneth Evans-Lutterodt, Vivian Stojanoff, John Tranquada, Grace Webster and Xi Yang.*



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