

EX-Ls Retiree Newsletter

Lawrence Berkeley National Laboratory – Winter/Spring 2023

Join Us for the EX-Ls FREE Zoom Speaker

Date: Thursday, March 16, 2023

Title: Recent Advances in Deep Brain Stimulation

Speaker: Dr. Deborah Cahn-Weiner, Clinical Neuropsychologist and Technical Consultant with Medtronic.

Time: 1:00 to 2:00 pm

Register <u>here</u>

Deep brain stimulation (DBS) is an established treatment for a number of major neurological disorders, including Parkinson's

disease, Essential tremor, Dystonia and Epilepsy. DBS also shows potential for other prominent disorders including Tourette syndrome, Huntington's disease and chorea, chronic pain, and cluster headaches. Deborah Cahn-Weiner graduated from UC Berkeley in 1990 and received her Ph.D. from the SDSU/UCSD Joint Doctoral Program in Clinical Psychology. She has held faculty appointments in Neuropsychology at Brown University, UCSF and in the UC Davis Department of Neurology and Alzheimer's Disease Center. She



currently works in the Neuromodulation Division of Medtronic focusing on Deep Brain Stimulation.

EX-Ls Membership

We welcome new members to the LBNL Retirement Association or EX-Ls. If you would like to change your email address, please send an email with the words "Address Change" in the Subject line to <u>EX-Ls@berkeley.edu</u>. Include your name and the old and new email addresses in the body of the email. EX-Ls Mailing Address at UCB Retirement Center is: LBNL EX-Ls; 101 University Hall, Berkeley CA 94720-1550. Website: <u>https://retirement.berkeley.edu/ex-ls</u>

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2023 State of the Lab Q&A with Lab Director Mike Witherell



In a recent Q&A conducted by John German the Lab's Chief Communications Officer, Director Mike Witherell shares his thoughts on the Lab's current and future direction and its most urgent challenges. The following are excerpts from that interview. The entire interview can be read <u>here</u>.

What is the state of the Lab's science mission today?

Our capabilities couldn't be matched better to the nation's most urgent needs. We're addressing national priorities on accelerating decarbonization, developing the next generation of computers and quantum information technologies, pioneering the technologies that will be needed for tomorrow's microelectronics, and advancing biomanufacturing. Understanding the resilience of ecosystems under environmental stress is something we're putting a lot of effort into. And, of course, we are still leaders in the national programs to explore the universe and fundamental subatomic physics. We continue to be the Lab we always have been since our founding: leading researchers dedicated to exploring large complex problems and offering impactful solutions for science and humankind.

What are some of the Lab's recent major research achievements, and what are some of the biggest opportunities you see for the Lab?

This has been a period of building new scientific capabilities at the Laboratory. We completed an enormous NERSC upgrade and brought the Perlmutter facility into operation. This opens up a new era of computational power, allowing us to accelerate the science for thousands of DOE-supported researchers. The upgraded ESnet introduced a new, faster research network to support the world science community, as well, in an age of ever-demanding datasets. That will make it possible to do experiments in unprecedented ways, and this is really revolutionizing the use of computing for science across the system. The two large facilities we are operating for dark energy and dark matter experiments, DESI and LZ, have published initial results showing that they're operating extremely well, and we're going to see some terrifically exciting results from those experiments very soon. They've demonstrated their power to help solve some of the biggest mysteries of our universe. The Lab's climate and energy research programs are also having great impact in several areas. Our researchers are now able to estimate the impact of climate change on the intensity of storms, and even predict what the changing climate will mean for the frequency of atmospheric river events. Our research has made the news a lot lately, including in

renewable energy, batteries and energy storage, grid resiliency and interconnection, smart roofs, and even air quality in schools – these are all very important and relevant issues.

UC manages the Lab under contract with DOE. The current 10-year contract extension ends in May 2025. What contract-related activity can we expect between now and then?

Because of UC's excellent performance, its DOE contract to manage the Lab has already been extended to the maximum term of 20 years, with the current extension expiring in May of 2025. So we expect that DOE's Office of Science will reach a decision before that date on whether to hold a full competition for a new contract or negotiate a non-competitive extension with UC. Our performance record will play an important role in making that decision.

Where is Congress in negotiating the FY23 budget, and how is federal support shaping up for science, for DOE, and for Berkeley Lab?

It was a great relief to see that on December 23, just before our winter break, Congress completed work on an omnibus appropriations bill and passed an FY23 budget. This is good news because we know we aren't going to be on a continuing resolution for the whole year like we were for the first three months of the fiscal year that started on October 1. Mostly, the budget that passed held on to the improvements that the House and Senate had put into the President's Budget Request. So we're in reasonably good shape. The DOE Office of Science, for example, is up about 8% over FY22, as is the Office of Energy Efficiency and Renewable Energy. Of course, that just about keeps up with inflation during this time, but it does do that. We were quite worried about the operations budgets for the user facilities at the start of the process, but the House and Science appropriators recognized the problem and gave them a 5% increase, almost keeping up with inflation. All of our highest priority projects have what they need to keep making progress. We also expect to see a lot of funding opportunity announcements, or FOAs, in the new year, as DOE had to wait for an FY23 budget to be passed before they could launch new activities. Almost every area of the Laboratory will see new programmatic opportunities early this year, so many of our people are going to be really busy writing proposals over the coming months, I think.

Many modernization projects are starting up this year, and lots of construction is already under way. How will the construction affect us in the near term, and what new capabilities will the Lab gain?

Right now, of course, we're doing the ALS-Upgrade, the largest facility modernization project in the history of the Laboratory, which will put our light source at the forefront of exploratory science for another



generation or two. The BioEPIC building will forge new biological and earth systems discovery across scales, from microbes to ecosystems. And renewing our underground infrastructure, what we call our "linear assets," and replacing the cafeteria building — all of this will allow us to enable research and provide amenities on site that will help us continue to attract and recruit the best talent. Most importantly, these improvements will also make life better for everybody who is already here.

How have you seen the Lab's culture change and what are your thoughts on how we're managing all this change?

I would like to think we're still developing the culture of stewardship of the Laboratory and taking care of the things we need to sustain to be sure this remains a great Laboratory, that is, taking care of our people, research, and resources. As part of that, we started to lay the foundation a few years ago with establishing an IDEA [inclusion, diversity, equity, and accountability] Office that reports to me. Over time, these principles, I think, have become embedded in our institutional practices and in how we think about who we are as an organization. Our IDEA principles and Stewardship values have served us very well as we came into the pandemic. I don't know how we would have done over the last three years if we had not already had those conversations across the Laboratory.

What do you expect to be the greatest challenges for the Lab in the coming years?

I always start with thinking of all the large and challenging projects we have committed to completing, where we have been entrusted to bring these projects home safely, as we did for NERSC and ESnet. Other big ones now underway include the ALS-U and BioEPIC, but also the cosmology project CMB-S4. Building a big telescope array on Antarctica and Chile is really an exciting but challenging project. And, of course, building a new cafeteria and meeting facility. Those are all important projects, but also very difficult ones. Our record of doing these on time and budget has been exemplary, but it's taken enormous effort, and we need to keep doing that, and we need to do it in a period when supply chain problems and difficulties recruiting people can bring extra challenges. When I talk to our project managers and project directors, that's what's most on their minds right now.

What are some things you're looking forward to in the new year?

I'm looking forward to COVID not being as big a problem as it has been for the last three years. I know we're not out of it yet. But it is beginning to be more manageable, and, believe me, I'm looking forward to not thinking about it as much as I have been. I think we are starting to be able to have big group meetings here, and that's very important to the way we do our science. I think that will be a big transformation.

You announced to the Lab in September that you were beginning radiotherapy to treat your recently discovered prostate cancer. How are you feeling?

I got my last treatment in December and I feel great. I was able to work at the Lab every day during my treatments and generally felt good. When I walk around this spectacular site every day and I run into people, people have been really good about expressing their concern and best wishes. It's really encouraging to have that kind of support. I want everybody to understand that I really do appreciate that. It's a great privilege and joy to lead this Laboratory, where so many dedicated, talented people do work that has an impact on science and on society. I couldn't be luckier in that regard, and I can't imagine anything else I would want to do.

Walking the Lab With Mike Witherell



Because of the Covid pandemic, it has probably been a few years since most of us have visited the Lab. Not surprisingly, there have been changes. With more and more people returning to work on-site, a video was made of Lab Director Mike Witherell taking a stroll

around the Hill while reflecting on the benefits of both in-person and hybrid work modes. You can watch the video <u>here</u>.

Video of the Joint Genome Institute's 25th Anniversary Celebration



In 1997, as part of the Human Genome Project, DOE brought together the people and resources from Berkeley Lab, Lawrence Livermore and Los Alamos National Laboratories to form the DOE Joint Genome Institute (JGI). Over the next seven years, and in collaboration with researchers at the Stanford Human Genome Center, JGI staff worked around the clock to generate the sequences of three chromosomes that account for approximately 12-percent of the total human genome. In 2004, they published these sequences. The Human Genome Project was finally deemed complete on April 1, 2022. After completing the human genome, JGI became a national user facility, offering genomic science capabilities for energy and environmental research. The collaboration with the Stanford Human Genome Center evolved and continues today as a partnership with the Hudson Alpha Institute for Biotechnology. The year 2022 marked the JGI's 25th anniversary and users, stakeholders, and staff gathered to this past August to celebrate. You can watch highlights of the party in a series of quick video clips <u>here</u>.

WANT TO GET AWAY?

With Covid appearing to be on the wane, and pandemic restrictions and limitations being relaxed, many of us are eager to once again see the world. UC Retirees



Travel, a part of the Council of University of California Retirees Associations (CUCRA) to which the Lab belongs, offers extraordinary opportunities to discover and explore iconic sites and lesser-known destinations featuring a mix of history, culture, and nature. Expert group trip planners coordinate all of the details so that UC retirees, their family members and friends can relax and enjoy the journey. The next available trip is to Iceland with a scheduled departure of September 18. To learn more about this and future trips go <u>here</u>.

New Planetarium Show '5000 Eyes: Mapping the Universe with DESI' Set to Premiere



This spring, a stunning new documentary film featuring recent discoveries from the Dark Energy Spectroscopic Instrument (DESI) will be released to planetariums worldwide. Entitled "5000 Eyes: Mapping the Universe with DESI," the feature-length planetarium show was created in collaboration with the Berkeley Lab-led DESI consortium, an international group of scientists and engineers dedicated to creating the most complete map of our universe. To

read the full story and see a preview of the film go here.

Healthy & Well at LBNL

Healthy & Well at LBNL is a centralized location for finding support and resources to help build health, wellness and well-being. The website is intended to get you thinking about the things you can do to foster health and wellness in your life - both at work and at home. In each section you'll find a collection of resources from the Lab, UC Berkeley and the community that touch on different aspects of health and wellness. This month's edition of "Healthy & Well at LBNL" highlights National Nutrition Month, as well as the importance of finding connection, belonging, and a sense of community in both our personal and professional lives. Also in the March edition: pick up ergonomic tips, good reads, and podcast suggestions.

2023 EX-Ls OFFICERS, INFORMATION & CALENDARS EX-Ls BOARD OF DIRECTORS

President: Howard Hatayama 1st Vice-President: vacant 2nd Vice-President: vacant Secretary: Ken Barat Treasurer: vacant Membership: Jane Tanamachi Activities Coordinator: vacant LBNL Liaison: Margaret Dick CUCRA Representative: Nancy Brown UCBRC Advisory Board: Ben Feinberg/Howard Hatayama Editor EX-Ls Newsletter: Lynn Yarris UCBRC Director and Liaison: Cary Sweeney

EX-Ls Address at UCB Retirement Center

Mailing Address: LBNL EX-Ls; 101 University Hall, Berkeley CA 94720-1550

Website: <u>https://retirement.berkeley.edu/ex-ls</u>

Webmaster: Camille Koue, UCBRC

2023 EX-Ls Board Meeting Calendar

April 6, 2023 July 13, 2023 October 12, 2023

2023 Virtual Luncheon Meetings & Events

March 16, 2023 May 18, 2023 August 17, 2023 November 16, 2023 Director's Retiree Reception. Date TBD

Newsletter Suggestions

If you have an item to suggest for the EX-Ls Newsletter or an article you would like to see please contact Lynn Yarris: lcyarris@gmail.com

We are looking for volunteers to keep our organization alive and thriving. Please call or email us if you're interested in helping.