

# The EX-Ls Retiree Association Celebrates 40 years



## EX-Ls Retiree Newsletter

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Lawrence Berkeley National Laboratory – Fall/Winter 2023

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### Message from the President – Howard Hatayama



Happy Holidays EX-Ls! While we continue to search for volunteers to serve in key roles, through the collective effort of those who are involved, we managed to provide a number of very interesting seminars on ZOOM in 2023, including Deborah Cahn Weiner on recent advances in deep brain stimulation; Andreas Scholl on the Advanced Light Source; and Bani Tamraz on pharmacogenetics for personalized medicine (see more in

this issue of the Newsletter). In addition, we collaborated on a couple of activities with the other retiree groups under the UC Berkeley Retirement Center (UCBRC) umbrella. This included the Renegade Retirees Picnic, as well as planning for an outing on the USS Potomac. The latter was ultimately postponed to sometime in 2024 so if you're interested in cruising the Bay on this historic vessel, keep your eyes open for announcements in the coming year.

We were also able to continue to advocate on your behalf for better service from the UC Retirement Service Center through our participation in the Council of UC Retiree Associations and Council of UC Emeriti Associations. None of the above would be possible without the leadership and support provided by the UCBRC Director Cary Sweeney and Associate Director Camille Koue. We continue to advise them through participation in the UCBRC Advisory Board.

Looking forward to 2024, our first seminar is scheduled for Thursday February 15, 2024. During his talk, Andreas Scholl invited us to tour the Advanced Light Source and we would like to take him up on it. But we need some help from one of you to help make it happen. We are also planning to participate in the Renegade Retirees Picnic along with UCB and UCOP retirees in July. But we need help to organize our end of the affair.

We can do more to support the EX-Ls but not without volunteers to serve on our Board and help organize events and outings. I am going into my third year as President and am also wearing the Treasurer's and Secretary's hats. Thanks to ex-presidents Ben Feinberg, Bob Cahn, Nancy Brown, newsletter editor Lynn Yarris, former activities coordinator Kathy Bjornstad and membership coordinator Jane Tamanachi, we are able to keep the EX-Ls alive as an organization. But

we need your help to sustain it into the future. Please volunteer! In the meantime, here's wishing you and yours a happy and healthy 2024.

**Save the Date: Thursday, February 15, 2024**

**EX-Ls ZOOM Seminar: Speaker Lewis Feldman,  
Director of the University of California Botanical  
Gardens, and UC Berkeley Professor of Plant Biology.**

## **Three Zoom Seminars Highlighted EX-Ls 2023 Events**

Covid concerns and other issues prevented EX-Ls from hosting in-person seminars but thanks to the connectivity provided through Zoom, we were able to present three seminars in 2023, covering a deep look inside the brain, a preview of coming attractions at the Advanced Light Source, and an introduction to the future of personalized medicine. Neuropsychologist Deborah Cahn-Weiner kicked things off last March with her talk: Recent Advances in 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. Cahn-Weiner, a Technical Consultant with Medtronic, discussed how the implantation of electrodes within certain areas of the brain can produce electrical impulses that help regulate abnormal impulses. These electrical impulses can also affect certain cells and chemicals within the brain. DBS, she said, has



advanced our understanding of the fundamental causes of brain disorders, and shows great promise for the development of novel therapies.



In August, Andreas Scholl, ALS Division Deputy for Science, gave a talk titled: The Advanced Light Source: Past, Present and Future. Scholl's talk focused on the ALS Upgrade project (ALS-U), which is designed to boost the performances of current ALS beamlines up to 100-fold. The ALS-U project will require a one-year shutdown of the facility starting 2025, in which the storage ring will be replaced, enabling the ALS to produce near-fully coherent low-energy or “soft” x-rays of unprecedented brightness. These beams will be ideal for studying material surfaces and biological samples with innovative nanometer-resolved imaging techniques, and time-correlation methods in the nanosecond range. Scholl also talked about a “dream” for a new campus behind the ALS, dubbed the “Charter Hill Project,” in which the now demolished “Old Town” buildings would be replaced with new science laboratories for ALS-related research.

Bani Tamraz, Director of Pharmacogenomics at UC San Francisco's School of Pharmacy, delivered a highly informative presentation on the promise of pharmacogenomics (PGx) — how a patient's unique genetic makeup influences the safety and efficacy of drug therapies. In his talk: Introduction to Pharmacogenomics for



Personalized Medicine and Its Clinical Application at UCSF Health, Tamraz, who is also an Associate Professor of Clinical Pharmacy at UCSF, described UCSF Health's Clinical Pharmacogenomics program,

the first such program to be implemented into clinical practice in California. Covering 15 genes and 56 drug therapies, this new program enables clinicians to design individualized and precise medical care plans for speedier, more effective and comfortable treatment journeys and outcomes.

## Berkeley Lab Winter Food Bank Challenge



For the fourth consecutive year, the Berkeley Lab community is joining together for a Winter Food Bank Challenge to support the [Alameda County Community Food Bank](#) (ACCFB) and the [Food Bank of Contra Costa and Solano](#) (FBCCS). Since March 2020, the Lab community has raised over \$472,000 through Lab-sponsored virtual campaigns. The goal is to make this year's Challenge the most successful campaign to date as food costs more, gas costs more, health care costs more, and rent costs more. The Challenge runs through Friday, December 22. Please consider making a contribution by clicking on the links above, and helping spread the word about the virtual donation drive with your colleagues, family, friends, neighbors, and professional networks.

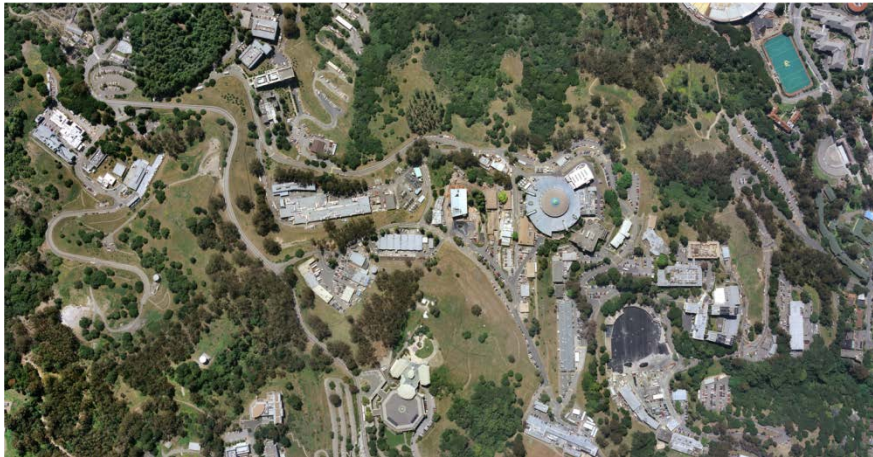




## The UC Retirement Center Annual Fund

Through more than 70 services and programs, the UC Retirement Center enables Lab retirees stay connected to the benefits of the University, including lifelong learning, opportunities to mentor, campus discounts, library and parking access, and more! The Retirement Center also advocates on behalf of retiree benefits. Gifts to the Retirement Center support these services and programs by helping to fill the gap between institutional funding and programmatic needs. To make a donation online go [here](#). Checks can also be made out to "The UC Berkeley Foundation" with "Fund H0103" in the memo line and mailed to: UC Berkeley Gift Services, 1995 University Ave, Ste 400, Berkeley, CA 94704-1070. The envelope must be postmarked by Sunday, December 31, 2023 to qualify for a 2023 tax deduction. You can also phone "Gift Services" at (510) 642-6791.

# Elements – News for the Berkeley Lab Community



“Welcome to Elements, where Berkeley Lab employees can find the news and tools they need,” the home page greets you. When the Lab launched its new Website this past fall, it included a news and resources site designed to meet the needs of internal audiences. Accessible at [elements.lbl.gov](https://elements.lbl.gov), EX-Ls members can quickly find the top stories on science at the Lab as well as stories on people, activities and events. Here are a few select science stories featured this month in Elements.

## **Newly Released Roadmap for Particle Physics Includes Support for Berkeley Lab Projects**



The much-anticipated [2023 Particle Physics Project Prioritization Panel](#)

[\(P5\) Report](#), which outlines particle physicists' recommendations for the next decade, was accepted on December 8 by the [High Energy Physics Advisory Panel](#) (HEPAP). "Berkeley Lab's research program is well-positioned to support this roadmap, which recommends the CMB-S4 project and future dark energy and dark matter experiments, as well as the expansion of support for accelerator R&D to enable future high energy colliders," said Natalie Roe, Berkeley Lab's Associate Laboratory Director for Physical Sciences. Read the full story [here](#).

## **Funding Awards Advance Strategic Areas of Research at Berkeley Lab**

Berkeley Lab has been fortunate to receive numerous awards over the years, funding new and interesting work that aligns with national priorities, ranging from clean energy to biopreparedness. This year has been especially notable, with many funding awards being announced in the late summer and fall. Three Lab scientists received DOE's prestigious Early Career Research Program award - Sam Barber, Accelerator Technology & Applied Physics Division (ATAP), for developing next-generation light sources using laser-plasma accelerators (LPAs); Lucas Brouwer, also with ATAP, for optimizing and testing a novel superconducting magnet tailored for next-generation particle accelerators; and Jin Qian, Chemical Sciences Division, for studying how chemical dynamics affects energy harvesting in renewable energy applications. The Lab also received awards aimed at increasing the research capacity at underrepresented institutions, including projects to develop machine learning, computational tools for scientific discovery, and energy storage-related research. The full story can be read [here](#).



## **ETA: 50 Years and Going Strong**



This month, Berkeley Lab's Energy Technologies Area (ETA) celebrated its 50th anniversary. From early discovery to exciting SLAM talks on current initiatives to the impact of ETA's work outside of Berkeley Lab and a look toward the future, ETA researchers and staff from past and present came together with industry leaders to celebrate. To learn more about ETA's impacts and its history go [here](#).

## **An Unexpected Discovery at the Interface Between Air and Water**



Ocean acidification, mammal respiration, and aerosol formation all depend on the chemistry that occurs at air-water interfaces. In new research, scientists from the Berkeley Lab have discovered which pathway carbon dioxide (CO<sub>2</sub>) molecules follow on their way from the atmosphere into water – and it’s not the one that they expected. Read the story [here](#).

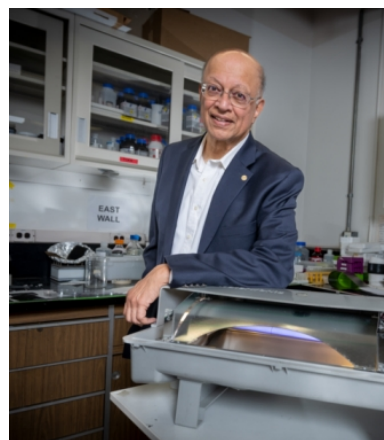
### In Memoriam

Eugene Paul Binnall, who served as EX-Ls president in 2005, passed away this past October at the age of 89. Known to his colleagues as “Gene,” he began his career at the Lab in 1960 and worked here for nearly 50 years, including 10 as a “rehired retiree” in the Accelerator and Fusion Research Division. Among his many achievements, he started the Field Systems Group in the Earth Sciences Divisions for solar and geothermal research. A celebration of Gene’s life will be held on January 21st, 2024 at the El Cerrito Community Center, 7007 Moeser Lane, from 2 pm to 5 pm.

## A Year to Remember for Ashok Gadgil

The year 2023 will be one to remember for Ashok Gadgil, a retired faculty senior scientist in the Energy Technologies Area, whose transformative inventions have helped more than 100 million people around the world. In October, President Biden awarded Ashok the National Medal of Technology and Innovation, the nation’s highest honor for technological achievement. The citation for the award read:

“For providing life-sustaining resources to communities around the world. His innovative, inexpensive technologies help meet profound needs from drinking water to fuel efficient cook-stoves. His work is



inspired by a belief in the dignity of all people and in our power to solve the great challenges of our time.” This month, Ashok was one of the 162 new Fellows elected into the National Academy of Inventors (NAI) for 2023. His many inventions include low-cost, life-sustaining solutions such as safe drinking water and fuel-efficient cook-stoves for the most vulnerable communities in the developing world. An excellent interview with Ashok can be read [here](#).

### 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 EX-Ls@berkeley.edu. 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: <https://retirement.berkeley.edu/ex-ls>

### 2023 EX-Ls OFFICERS & 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