



EX-Ls Retiree Newsletter

Lawrence Berkeley National Laboratory – November 2020



Join Us for a ***FREE*** and ***REMOTE*** Zoom Talk

SPEAKER: Kevin Doxzen, PhD

**TITLE: CRISPR: from Biology
to Revolutionary Technology**

Date: Thursday, November 19, 2020

Time: Speaker: 1:00 to 2:00 pm
Visiting from 12:30 to 1:00 pm

Register for this Zoom Talk using the link provided below:

<https://berkeley.zoom.us/meeting/register/tJMtceqoqDsvHdPXPcsD-WRyP8F1R0xATTbg>

Once registered you will receive an email with the zoom meeting instructions. Contact Kathy Bjornstad, Activities Coordinator with questions/ concerns at kathy.bjornstad73@gmail.com.

ABSTRACT: Bacteria are under constant attack from viruses. In order to defend themselves, these microbes have evolved an elaborate immune system called “CRISPR.” Through the process of studying this intricate immune system, scientists realized that CRISPR proteins might not only improve the health of bacteria, but also humans. In thousands of labs across the world, researchers are actively programming CRISPR proteins to precisely target and cut DNA and RNA in hundreds of different organisms. We are now in a biological revolution, changing the fields of medicine, agriculture, and conservation. From curing deadly genetic disorders to engineering drought-resistant plants, CRISPR genome editing technology will reshape modern medicine and equip us with tools to cope with a changing planet. This talk will cover the CRISPR story, from discovery to recent applications, including detecting and treating the novel SARS-CoV-2 virus. This talk will also go beyond the science and raise vital questions that individuals and society as a whole must confront as CRISPR moves from the bench to the bedside.

BIOGRAPHY: Kevin received his PhD in Biophysics from the lab of Jennifer Doudna at UC Berkeley. Transitioning away from the bench, Kevin joined the Innovative Genomics Institute (IGI) as the Science Communications Specialist. The IGI is a joint research partnership between UC Berkeley and UCSF, focused on developing genome-editing technologies to treat genetic diseases and engineer sustainable agriculture. In his role, Kevin undertakes a range of projects across education, outreach, and communications focused on the science and societal impacts of genome editing.

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Membership and Participation

EX-Ls is an organization of Lawrence Berkeley National Laboratory retirees whose purpose is to provide social, cultural, and intellectual relationships among retired and/or ex-employees, their spouses, widows, or widowers participation are important to us.

You have received this newsletter because the LBNL Retirees Association (EX-Ls) is inviting you to join us REMOTELY through ZOOM for our upcoming November quarterly speaker and to enjoy our current news. You will continue to receive further information from EX-Ls regarding other lunches and events. If you would like to change your email address, please send an email to: <http://retirement.berkeley.edu/ex-ls> with the words “Address Change” in the Subject line. Include your name and the old and new email addresses in the body of the email. Thank you and enjoy belonging to the Ex-Ls.

Address _____

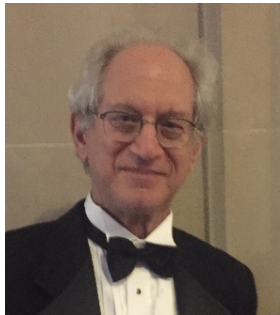
Email _____ Phone _____ Cell _____

Looking to 2021 – Save the Dates for the EX-L’s Quarterly Talks

Please hold the dates below for the Ex-Ls Talks. While we are labeling them as our “Quarterly Luncheon Meeting” in hopes we can return to our luncheon format and talk in 2021. While we do not have a crystal ball answer for moving back to “normal,” we will continue to have talks on these dates.

- February 18, 2021 Quarterly Luncheon Meeting
- May 20, 2021 Quarterly Luncheon Meeting
- August 19, 2021 Quarterly Luncheon Meeting
- November 18, 2021 Quarterly Luncheon Meeting

President's Report – Bob Cahn



Robert (Bob) Cahn

For seven months now our lives have been limited in many ways. For retirees some burdens are less onerous than they are for people who work or worse yet, those who have lost jobs. Moreover, we are not struggling directly with the consequences of schools being physically closed. However, the separation from our children and grandchildren and from our friends can weigh heavily. For many of us, communication by zoom, facetime, and the like is a godsend. Keeping in touch with family and friends is essential to keep our spirits alive.

EX-Ls wants to contribute in its own way to enlivening your days by providing activities and directing you to activities provided by others. Our upcoming quarterly “luncheon” on November 19 will be an especially exciting one: Dr. Kevin Doxzen, Science Communications Specialist at the Innovative Genomics Institute, will speak on CRISPR: from Biology to Revolutionary Technology. Dr. Doxzen received his Ph.D. at Berkeley working with Prof. Jennifer Doudna, our new Berkeley Nobel Laureate! By the time this newsletter reaches you, we will already have enjoyed a webinar presentation by Prof. Gibor Basri entitled “Farness and Affirmative Action: The UC Berkeley Experience.” Prof. Basri was the founding Vice Chancellor of Equity and Inclusion at UC Berkeley and a professor of astronomy. If you miss one of our zoom luncheons or webinars, you can generally find them on YouTube. Links are provided at <https://retirement.berkeley.edu/ex-ls/events>.

The extensive offerings of UCBRC at its website <https://retirement.berkeley.edu/home> are especially valuable at this time. There is a special section devoted to COVID-19. You will find video links to talks from the Retirement Learning Series. I am particularly fond of the opportunities provided at <https://retirement.berkeley.edu/keeping-connected-amid-sheltering-place/learning-and-enrichment>. You can find the webpage for the EX-Ls at <https://retirement.berkeley.edu/ex-ls>.

As I will be finishing my term as president of the EX-Ls at the end of the year, I want to thank all of you for the opportunity to serve in this role. Our organization is sustained by incredibly dedicated people who contribute without getting as much notice as the president's line. They are the heart of the EX-Ls. They organize our events, produce the newsletter, and carry out the real work that makes everything happen. We rely, as well, on the staff of the University of California Berkeley Retirement Center, led by Cary Sweeney. Their work and support are essential to the EX-Ls. Serving as president of the EX-Ls has led me to new friendships with all the wonderful people who are engaged in the programs of the EX-Ls. It has been a real source of satisfaction to bring to my fellow retirees' opportunities for learning and for fellowship.

I do believe that the EX-Ls has helped us all deal with the isolation brought by the pandemic luncheons. With Ben Feinberg as EX-Ls leading us as president next year, we will continue to serve the LBNL retirement community, first in our zoomic state, but we hope that by the end we will all be able to gather again in person for our marvelous luncheons.

Ex-Ls Donation Solicitation

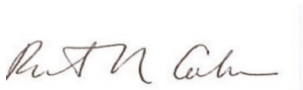
Your support is important to us. The EX-Ls provides a variety of activities for LBNL retirees and their spouses/partners. For some years now we have done this without asking anyone to pay dues. This enables us to serve the whole LBNL retirement community. We are able to do this because we do get generous gifts from members who are able to help. These funds are used to pay for the modest expenses needed for the operations of EX-Ls including participation in UC-wide retirement organization events, but also to help keep to a minimum the charges for events like the quarterly luncheons, which we hope will again be opportunities for us to gather together. At this time, we are asking those of you who can contribute to the EX-Ls by mailing a check to:

Kathy Bjornstad
4343 Arden Place
Oakland, Ca 94602

For your convenience, the EX-Ls Treasurer, Howard Matis, has recommended the use Zelle (<https://www.zellepay.com/>) to donate to the EX-Ls without cost to you. See the instructions below.

We thank those of you who find that they are able to make a contribution to sustain the EX-Ls. Please recall that since we are not a 501(c)(3) organization, your contributions are not tax-deductible.

Sincerely,



Robert Cahn, President, EX-Ls

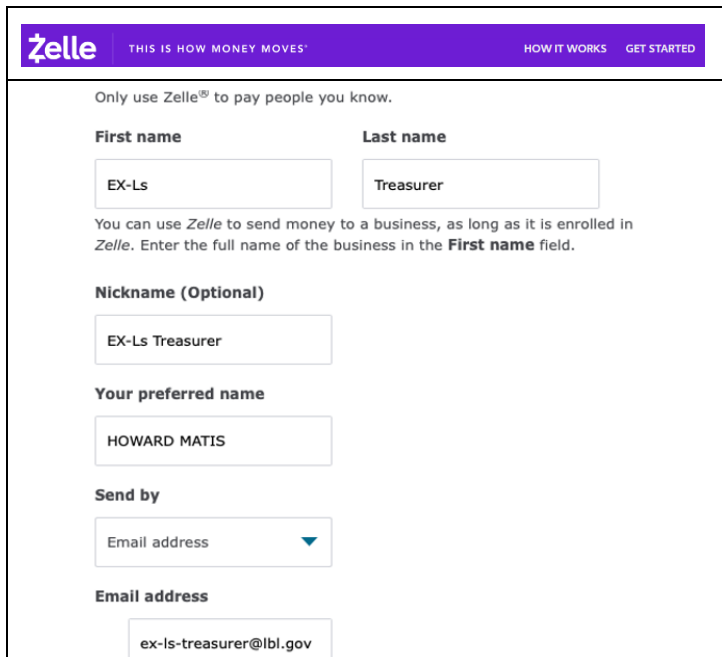
There is an easy and fee-free way to donate to the EX-Ls. Many banks, such as Wells Fargo and Bank of America, have this new feature called *Zelle*. All you need is to donate to our email address ex-ls-treasurer@lbl.gov. The money will be automatically deposited in our checking account. Below is an example of how-to setup the transfer using a Wells Fargo Account. UC Berkeley Retirement Center suggests a couple of resources to review if you are new to Zelle :

Sending and Receiving Money with Zelle®

A Zoom webinar offered by non-profit SeniorPlanet
<https://seniorplanet.org/event/sending-and-receiving-money-with-zelle-40/2020-11-30/>

Using Zelle® Safely

Educational Campaign created by Zelle and non-profit Older Adults Technology Services (OATS)
<https://www.zellepay.com/pay-it-safe/using-zelle-safely>

 <p>The screenshot shows the Zelle payment form. At the top, it says 'zelle THIS IS HOW MONEY MOVES' with links for 'HOW IT WORKS' and 'GET STARTED'. Below that, it says 'Only use Zelle® to pay people you know.' The form has two columns: 'First name' with 'EX-Ls' and 'Last name' with 'Treasurer'. A note says 'You can use Zelle to send money to a business, as long as it is enrolled in Zelle. Enter the full name of the business in the First name field.' There are fields for 'Nickname (Optional)' (EX-Ls Treasurer), 'Your preferred name' (HOWARD MATIS), 'Send by' (Email address), and 'Email address' (ex-ls-treasurer@lbl.gov).</p>	<p>Type the URL https://www.zellepay.com/ into your browser. Click on Get Started to begin to donate online</p> <p>Follow the instructions and you will be able to donate directly to the EX-Ls. Make sure you use our email address ex-ls-treasurer@lbl.gov when indicating where the funds should be deposited.</p> <p>There are YouTube instructional videos for your reference online. If you have questions on how Zelle works you're your bank, please contact the bank directly. If you have a question for the EX-Ls, please contact Howard Matis at ex-ls-treasurer@lbl.gov. Thank you!</p>
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2021 Officer Nominations and Information

According to the EX-Ls by-laws (Article VI), the EX-Ls Board has selected the following list of candidates for Officers for 2021. President Bob Cahn will present this slate for a vote at the upcoming general membership meeting on November 19, 2020. A simple majority is necessary to ratify these volunteers as your EX-Ls Officers for the coming year.

President - Ben Feinberg

Ben Feinberg worked as the last Operations Manager of the BEVALAC, before its closure, and was the first Deputy Division Director of the ALS. He retired in 2008 to get back to actual physics research, and is now working in a fundamental atomic physics research program within the ATAP division when not skiing or babysitting twin grandsons. Ben is coming up on his third year as an EX-Ls volunteer.

First Vice President - Howard Hatayama

Howard Hatayama formerly served as the EHS Director and Director of Institutional Assurance at LBNL. Prior to joining LBNL, he served as Director ES&H for UC's Laboratory Administration Office. He retired in 2015 and is enjoying grandchildren, travel, fitness and the outdoors. Howard is on his second year as an EX-Ls volunteer.

Second Vice President - Kim Williams

Kim Williams served as LBNL's Chief Financial Officer, and before that as the Deputy Director for Operations for the Environmental Energy Technologies Division (now the Energy Technology Area). She retired in 2018 and is active with professional and volunteer roles, time with family and friends, travel and lots of walks with her husband and dog. Kim starts her first year as an EX-Ls volunteer.

Secretary - Esther Schroeder

Esther Schroeder worked as a computer scientist in several different departments. It was a very interesting and constantly changing field. After retiring in 2003, she has done a lot of traveling and enjoyed the outdoors - playing golf and tennis, and skiing in the winter. She has been an EX-Ls volunteer for five years.

Treasurer - Howard Matis

Howard Matis was a member of the Nuclear Science Division. At LBL, he participated in the DLS and EOS experiment at LBL. Afterwards, he was a member of the STAR, IceCube, and LUMI (LHC) collaborations. He is a fellow of the APS and AAAS. He currently is a Scientific Advisor for Silicon Valley Associates. Howard has served as Treasurer for two years.

Activities Coordinator - Kathy Bjornstad

Kathy Bjornstad enjoyed a 38 year career in the BioMed, Life Sciences, Earth Sciences, and BSE Divisions before retiring in 2014. She was thrilled to have met John Lawrence at Donner lab in her first job. She worked for Mike Esposito in yeast genetics and Ellie Blakely in Radiation Biology. She has been involved with EX-Ls since 2014 and Activities Coordinator since 2017. She has enjoyed meeting so many people that share the unique LBNL job/connection through volunteering for the EX-Ls. She has two daughters and enjoys travel, church, family and cooking.

2021 Officer Nominations and Information (continued from 4)

Newsletter Editor - Phyllis Housel Gale (Appointed Position)

Phyllis Housel Gale is currently the EX-Ls Newsletter Editor. She retired from Berkeley Lab in 2011 after 30 years of service: 5 years on Campus and 25 years at the Lab. When she is not working on the Newsletter, she can be found researching for her "proposed" book on Berkeley Women's Suffrage and Early Civic Actions. Phyllis is going on her third year as an EX-Ls volunteer.

Wanted We need YOU to join the EX-Ls Board!

We're seeking a volunteer for the new Development/Participation Coordinator role.

The EX-Ls Board has created a new Development/Participation Coordinator position (replacing the Membership Coordinator position) that will work with the Activities Coordinator, the EX-Ls Board and UC Berkeley Retirement Center to maintain and update EX-Ls members contact information, to track participation of attendees, and to encourage retirees to attend/participate in EX-Ls activities. The Coordinator will also work with the EX-Ls President and Board to encourage donations and pursue other fundraising. These important tasks have been very ably performed by our Activities Coordinator however it has become apparent that a separate volunteer position is necessary to reach out to retirees, manage our roster of members and help raise funds to operate our retiree organization.

As you may know, membership in the EX-Ls is automatic if you are retired from LBNL or a former LBNL employee. This membership includes spouses, partners, and family members. Since there are no dues, the EX-Ls are dependent entirely on contributions for financing its activities. The luncheons when we can have them again are self-supporting through the sale of tickets. In normal times, the EX-Ls participate in laboratory events such as having a booth at the LBNL Runaround, staffing the LBNL booth at the Solano Stroll (a local community event), outings to the Oakland A's, museums, and the annual retirees' reception at the LBNL cafeteria. The Development/Participation Coordinator will play a key role in identifying new ways for EX-Ls members to get and stay connected to each other including online (e.g. virtual coffee klatches) and eventually, in-person activities.

In order to reach out to and promote the broadest participation in EX-Ls activities and sustain our association, we are looking for a volunteer to become our first Development/Participation Coordinator. If you are interested in helping, please contact Kathy Bjornstad (kathy.bjornstad73@gmail.com) and/or any of the Board members for more information. The duties of this position can be fulfilled on your own schedule. There are four board meetings a year to attend, four luncheons/zoom speaker meetings currently, and a few days a month to keep records straight. Any ideas over and above this would be welcome and appreciated.

If you have any questions or interest regarding either the EX-Ls Board nominations or our new position of ***Development/Participation Coordinator***, please contact Howard Hatayama at hkhatayama@gmail.com.

Report on the “Filling in the Blanks: Current research on measuring, managing, and co-existing with California’s Forests.”

By J. Keith Gilles. Quarterly Zoom Talk - August 20, 2020



Emeritus Dean Keith Gilles of the UCB College of Natural Resources spoke at the virtual EX-Ls August Zoom Talk (formerly our quarterly luncheon). Dean Gilles joined the faculty of the University of California, Berkeley as a professor of forest economics in 1983, and is a member of the faculty of both the Department of Environmental Science, Policy, and Management and the Department of Agricultural and Resource Economics. He served as Dean of Berkeley’s College of Natural Resources from 2007 to 2018.

He still remains active as the Secretary of the Berkeley Division of the Academic Senate. Off campus, he serves as chair of the California Board of Forestry and Fire Protection and served two terms on the US Department of Agriculture’s Forest Research Advisory Council.

Dean Gilles’ research has encompassed structure survival in large urban-wildland conflagrations, simulation modeling of fire behavior and initial attack on wildland fire, effects of climate change on fire management, public engagement in the development of Community Wildfire Protection Plans, natural hazards impacts and planning, the economic impacts of changes in USFS harvest levels, among other projects involving forest resource management.

Dean Gilles outlined current research on California's forests from his unique perspective as a researcher, administrator, regulatory, and forestry professional. His talk was titled, “Filling in the Blanks: Current research on measuring, managing, & co-existing with California’s Forest.”

Dean Gilles has been interested in the status and development of the nation’s structure for research in Forestry. He is working to organize a national summit on R&D in Forestry. He witnessed disturbing trends in R&D funding and demographics in Forestry research while he was Dean. For instance, Berkeley’s number of faculty in forest products research has declined precipitously, as well as in pathology and forest management. This shortfall became apparent when, following an historic drought, 150 million trees perished from bark beetles in the Sierra forests. It’s clear that research is needed to deal with other issues as well, such as sudden oak death and shothole borer devastation for willows. These diseases will have major impacts on bio-diversity. Dean Gilles pointed out that in forestry the research drivers are fire and carbon. Both are parts of the climate change issue. California aspires to lead the nation on carbon policy and has developed a Carbon Plan to reverse trends that enhance greenhouse warming.

He mentioned that nine of the ten largest fires in California have come after he arrived at Berkeley in 1983. Fire destructiveness, typically measured by deaths and structures lost, is not related to the size of the burned area. Over the 20-year period from 1995 to 2015 the US Forest Service budget has gone from spending 16% on fire suppression to spending 52% and is projected to go to 67% over the next 10 years. At this point major portions of the Sierra Nevada have gone from helping to sequester carbon dioxide to being sources carbon dioxide due to the size of the fires after decades of fire suppression.

He pointed out that making use of Forest Products can reduce the fuel load in the forests and using those products in buildings to replace steel can also have positive effects on carbon sequestration. Using engineered panels (mass timber), which can be made from smaller trees that are not suitable for the sawmill, is one



Figure 1



Figure 2

example. (See Figure 1.) Other potential products include liquid and gaseous transportation fuel. Dean Gilles states they've come up with a research program for the state to help develop these programs. He is also engaged in research on fire safety for structures. In some cases, the house is lost yet the plants around the house survived. Note the full-size duplex home test facility where the left side has bark mulch and combustible siding versus non-combustible siding and no mulch on the right. (See Figure 2.) It's clear that home and landscape design is critical to structure survival. Also, he pointed out that if you provide a 5 foot zone without vegetation, many structure fires could be avoided.

Dean Gilles also pointed out that in emergency management, most of the loss of life is caused by evacuation choke points. The first job of the first responders usually becomes

evacuation of the public, rather than fighting the fire. He's looking at the use of social gaming as a way to help people realize how important it is to follow evacuation orders.

Resources for homeowners, neighborhoods, and landscapers to improve home fire safety are provided in the list, below.

CAL FIRE's Ready, Set, Go website on what households need to do to prepare for wildfires:

<https://www.readyforwildfire.org/prepare-for-wildfire/ready-set-go/>

The brochure that summarizes much of the information on this website, including vegetation management:

https://www.readyforwildfire.org/wp-content/uploads/calfire_ready_brochure_LINOweb.pdf

Guidance from the State Fire Marshall on home hardening/rebuilding:

<https://osfm.fire.ca.gov/media/10748/low-cost-retrofit-list-final.pdf>

https://osfm.fire.ca.gov/media/8444/ib_16-001_rebuilding_after_a_wildfire-2.pdf

2020 EX-Ls OFFICERS, INFORMATION & CALENDARS

EX-Ls BOARD OF DIRECTORS

President: Bob Cahn
1st Vice-President: Ben Feinberg
2nd Vice-President: Howard Hatayama
Secretary: Esther Schroeder
Treasurer: Howard Matis
Membership: Open
Activities: Kathy Bjornstad
LBNL Liaison: Margaret Dick
CUCRA Representative: Nancy Brown/Bob Cahn
UCBRC Advisory Board: Bob Cahn/Ben Feinberg
Editor EX-Ls Newsletter: Phyllis Housel Gale
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: <https://retirement.berkeley.edu/ex-ls>

Webmaster: Kris Thornton, UCBRC

2020 EX-Ls Board Meeting Calendar

Thursday, January 16, 2020, 3:00 p.m.

Thursday, April 9, 2020, 3:00 p.m.

Thursday, July 9, 2020, 3:00 p.m.

Thursday, October 8, 2020, 3:00 p.m.

2020 Luncheon and Event Dates

February 20, 2020 Luncheon at the Berkeley Yacht Club, 11:30 - 2:00, Dr. Joel Parrott

May 21, 2020, Remote Zoom Meeting, Speaker 1:00 - 2:00, John Swartzberg, MD

August 20, 2020 Remote Zoom Meeting, Speaker 1:00 - 2:00, [J. Keith Gilles, PhD](#)

November 19, 2020 Remote Zoom Meeting, Speaker 1:00 - 2:00, Dr. Kevin Doxen

PAST PRESIDENTS

Nancy Brown – 2019
Henry Rutkowski -2018
Lee Schroeder – 2016-17
Cheryl Fragiadakis – 2016
Connie Grondona – 2015
Trudy Forte – 2014
Joe Jaklevic – 2012-13
Rollie Otto – 2011
Richard Sextro – 2010
Don Grether – 2009
Jose Alonso – 2008
Janis Dairiki – 2007
John Kadyk –2006
Gene Binnall – 2005
Sig Rogers – 2004
Bob Fulton – 2003

Bob Birge – 2002
Per Dahl – 2001
Tom Beales – 2000
Ken Mirk – 1999
Paul Hernandez – 1998
Clay Sealy - 1996-98
Igor Blake - 1994-96
Conway Peterson –1992-94
Howard Browne – 1990-92
Ethel Skyrdlinski – 1989
Al Amon – 1988
Ken Lou – 1987
Virginia Cherniak – 1986
Bill Bigelow – 1985
Ted Bowers – 1981-84

The Bevatron – The Movie - Howard Matis



While in my COVID boredom, I noticed an old 23-minute VCR tape, entitled “The Bevatron”. I digitized it and then watched it in amazement. This tape was made in 1993. It was created by the Lab just before the Bevalac sent its final ion from the HILAC to one of its beam lines on the concrete in Building 51.

I was shocked at the opening. It describes how our experiment, the Di-lepton Experiment was delivering ions in Beam 30. I was brought back in time 30 years.

The video, which was made by the Lab, describes the history and the amazing work that was done there. Many of my old colleagues are there and provide commentary. I listened and heard from so many associates with whom I used to work very closely. For people that used to work at the Bevalac, one can hear Jose Alonso, Fred Lothrop, Klaus Berkner, and so many others that I used to correspond and meet when the Lab had a Vax email system. The number of people who are interviewed are simply too many to mention.

The video describes how the Bevatron was born from Lawrence’s concept of an accelerator. It describes its construction, the amazing experiments, and the Nobel prizes. It then discusses how the Bevatron evolved into the Bevalac by having the accelerator marrying the HILAC – an accelerator that could send any ion from deuteron to uranium down the hill. From first being a pioneer in High Energy Physics, the movie describes how major advances were made in heavy-ion radiation oncology and the birth of Heavy-Ion Physics

Be sure that you are in the proper mood when you listen. I watched so many of my old colleagues that I have not seen in the last 20 years or even longer. I saw pictures of the site which is now so radically different. Hearing the voices of so many of my old friends and colleagues with whom I worked so closely made me quite nostalgic. So please be careful, if you were from the Bevatron or Bevalac or HILAC, you will be flooded by so many memories.

You can watch it on YouTube - <https://www.youtube.com/watch?v=awoAR4InStY>. (The video is entitled “History of the Bevatron on YouTube.”) By the way, if you want to know about all of the Berkeley Lab YouTube videos go to <https://youtube.com/berkeleylab>.

In Memoriam

We will resume this feature in the next Newsletter. *The Editor*

(Note: If you know of the recent death of a member of the EX-Ls retirement family, please send a note with an obituary of about 250 – 500 words in length and photograph to Phyllis Gale, Newsletter Editor at p2gale@gmail.com.)