EX-Ls Retiree Newsletter

Lawrence Berkeley National Laboratory – July/August 2021

Join Us for the EX-Ls FREE ZOOM Speaker

TITLE: Keeping Honey Bees with Jerry Przybylski

Date: August 19, 2021

Speaker: Jerry Przybylski

Location: Virtual ZOOM Meeting

Time: Speaker: 1:00 to 2:00 pm

Practice Connecting: 12:30 to 1:00 pm

Registration Online:

https://berkeley.zoom.us/meeting/register/tJwsdOioqDkoH9GpySAMMtSWQ3LqRRocg6W7

For help, please contact Kathy Bjornstad, EX-Ls Activities Coordinator, at kathy.bjornstad73@gmail.com

SPEAKER: Gerald (Jerry) Przybylski's father kept bees on a dairy farm in Wisconsin from the 1930's until 1960 when the family moved to the city. Jerry's work career spanned a stint in the Navy, two-way radio repair, an engineering degree from UC Berkeley, and finally an engineering job at Lawrence Berkeley Lab for thirty years supporting the Physics division. The first Lab job was working for the PEP-4 Time Projection Chamber; the last big project was for the IceCube kilometer-scale particle astrophysics detector at the south pole. Upon retiring, with encouragement from his biologist daughter, Jerry and his spouse Laurel, after her career teaching in the Oakland Public Schools, took up urban beekeeping at their home in east Oakland starting 10 years ago. From two hives the first year, the yard has had from five to ten hives every year since, exclusively from colonies collected locally. For eight years, Jerry has been one of the volunteers answering the Alameda County Beekeeper Association's swarm-hotline, VP of the club for several years, mentor coordinator for the club, and writer of the "Beekeeper's Corner" article in monthly newsletters.

ABSTRACT/BIO: Beekeepers with a few hives in urban backyards, and in orchards with thousands of hives, practice a craft specialty rooted in aboriginal practices documented in cave paintings. Egyptians 4500 years ago first documented big-time beekeeping. Movable frame beekeeping revolutionized the art about 150 years ago. Modern equipment facilitated an explosion in basic research as well as development of efficient business models. Evolving parasites, and pathogens present new challenges. This program will touch on the high spots of a rich topic.

IN THIS ISSUE:

A Look Back – The Lab's 75th Anniversary in 2006 – Part II

By Don Grether

The May 2021 edition of the Newsletter included Part I of this topic. Part I gave the background to a video the covered the Lab's history over 75 years with 123 photos presented in 15 minutes. However, the Newsletter did not include the link to the video because the Newsletter editor was not able to open it. I was perplexed since I was able to open the link from a Word file, a PDF file, and using Open Location on Chrome. I asked my wife to try opening the link, but she could not.

Here is the link: https://drive.google.com/file/d/1rRDdvqYsuAdxN-qM2kaa86a7Sb-EJR16/view?ts=607a1016

I know full well that many of you may not be able to open it. If you can, great! I think you will enjoy it. If you can't, my apologies for having brought it up in the first place. Any advice or wisdom is welcome at dfgrether@yahoo.com.

The Lab's 75th Anniversary archive can be accessed here: https://www2.lbl.gov/Publications/75th/ .

Berkeley Lab Celebrates Its 90th Anniversary in 2021

"Berkeley Lab: The Next 90" invites the community to celebrate our past and imagine our future. The 90th anniversary campaign recognizes the diverse contributions of the Lab community as well as our commitment to the discovery of science and how it can lead to solutions for the nation and world.

There are numerous ways you can connect with Berkeley Lab's 90th anniversary celebrations:

- Attend a virtual talk, watch videos, or listen to podcasts that highlight the Lab's scientific legacy and research that's on the horizon.
- Hear from scientists and take a peek inside the facilities they use by taking a virtual tour.
- Check out a timeline that chronicles some of the Lab's key milestones.

Learn more about these and other activities — including a charitable giving campaign, social media posts, and a "90 Breakthroughs" collection — by visiting the 90th anniversary websites:

https://berkeleylabnext90.lbl.gov/

Excerpted in part from LBNL Elements February 2021

President's Report – by Ben Feinberg

Well, here we are three months later still in the midst of the pandemic. I hope all of you are faring well during this extremely challenging time. The approved vaccines provide protection, but the virus has mutated and become more contagious. Once again, I urge all our members who are medically able to take the COVID-19 vaccines to do so. The vaccines have shown themselves to be remarkably effective at preventing severe illness and hospitalization.

In the spirit of getting somewhat back to normal, we are working on easing into a low-key EX-Ls gathering. We hope to hold an outdoor event, without a speaker, where we can gather in small groups with tables and chairs for us to sit and chat (with masks, of course). Stay tuned for an email with more information, as we firm up plans.

We continue to use Zoom for our Virtual Luncheons, and plan to do so for the next luncheon in August. I hope all can join us for the next Virtual Luncheon on August 19, where Gerald Przybylski, Vice President of the Alameda County Beekeepers Association, will be sharing his beekeeping knowledge (see page 1).

Our last Virtual Luncheon with Peggy Norris describing how a gold mine was transformed into a cutting-edge physics laboratory, changing the Science, Technology, Engineering, and Mathematics (STEM) educational landscape in South Dakota. A summary of the presentation is on page 5.

We are still looking for volunteers to help out the EX-Ls. Recruiting has been difficult due to the lack of personal contact during the pandemic. At this point we expect to need a new Secretary for the Board, as well as a new Activities Coordinator. These are critical positions since the primary activities of the EX-Ls are the Luncheons and the Board Meetings. Please volunteer or suggest a fellow retiree with the right skills for these important positions. All suggestions will be appreciated and can be kept anonymous, if desired. Please send a note to b_feinberg@lbl.gov .

Once again, I want to remind everybody to make use of the UC Berkeley Retirement Center (UCBRC) website for keeping connected: https://retirement.berkeley.edu/keeping-connected-during-covid-19 . The list of lectures, museum collections, and performances is impressive.

Last but not least, I'd like to welcome the new retirees this year. We hope to arrange a virtual reception for the new retirees this Fall. Membership in the EX-Ls is automatic, but we need to get your email to stay in touch. Here's a link to the UCBRC Center-Express, that will allow us to keep in touch: https://retirement.berkeley.edu/Signup-CenterExpress . You will get invitations to the EX-Ls Luncheons and other events, as we start to open up once again.

I hope to see many of you at the Virtual Luncheon on August 19. Please stay healthy.

Summary of Our May ZOOM Talk by Peggy Norris - SURF and its Connections to California and LBNL through History, Science and Education – by Howard Hatayama

On Thursday, May 20, 2021, Peggy Norris, formerly of LBNL and now Deputy Director for Education and Outreach at the Sanford Underground Research Facility in Lead, South Dakota gave a presentation to the ExLs via ZOOM about the strings that connect California, home of LBNL, and South Dakota, home of the Sanford Underground Research Facility (SURF). She covered the varied and rich history of this relationship including the roles of key figures with familiar names like Hearst, Lawrence, and Davis.

She spoke of SURF and its connections to California and LBNL through three lenses – history, science, and education. She traced the transformation of SURF from a gold mine to a major science laboratory including an exciting virtual tour underground, reviewed the science experiments of SURF, focusing on three with ties to Berkeley Lab: the search for mysterious and elusive dark matter, understanding the nuclear reactions that happen in the core of stars and working towards enhanced geothermal energy. Finally, she delved into how the history, science, and many other facets of a scientific facility in rural South Dakota are changing the educational landscape of the state and region in STEM, and how the pandemic has led to challenges but also new opportunities to give all students access to high-quality, engaging, relevant, equitable and rigorous science education. She cited the particular challenges of reaching out to and providing relevant and appropriate resources for the Native American students in local schools. She also mentioned the key role that the SURF Foundation plays in creating these opportunities.

--Courtesy of SURF Facility

The Bevatron/Bevalac Becomes an American Physical Society Historic Site – by Howard Matis

Lawrence Berkeley National Laboratory
Bevatron/Bevalac

"*On this site in 1955, a year after completion of the Bevatron, Chamberlain, Segre, Wiegand, and Ypsilantis reported the discovery of the anti-proton. In the 1960s bubble chambers here revealed many new particles, evidence for SU(3) symmetry, now known to be the sign of the three lightest quarks. Later, Ghiorso conceived and Grunder built the Bevalac by merging the Bevatron and the SuperHILAC into the world's first relativistic heavy-ion accelerator. It accelerated ions from protons to uranium, launching high-energy heavy-ion physics and clinical radiotherapy with heavy-ion beams.*"

As a scientist, a historical plaques always made my research relevant. While a student at The University of Chicago, I remember the Henry Moore sculpture commemorating the first nuclear reactor and the plaque where our own Glenn Seaborg and his team produced the first microscopic amount of plutonium. At LBNL, I passed in awe of the historical mementos in building 50 and the bubble chamber in front of building 70A. I became inspired whenever I passed these historic places.

Several years ago, I noticed a request from the American Physical Society (APS) to nominate APS' list of historical sites. I browsed the existing historical sites and noticed that there was nothing listed for LBNL. We discussed this at an EX-Ls meeting, and Robert Cahn reported that he submitted a request to the APS for the Bevatron several years ago, but the nomination was not accepted. As a Heavy-Ion physicist, I felt that the Bevalac, where the field of Relativistic Heavy Ion Physics was born, was of sufficient importance that it should be recognized. At that meeting, the EX-Ls decided that I should submit a separate Bevalac nomination.

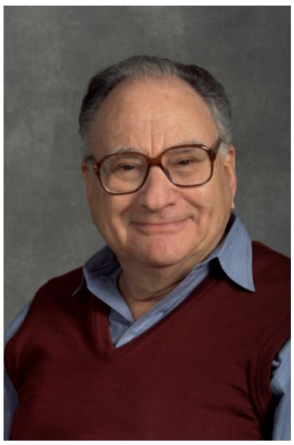
A year ago, I received word that Bevalac's nomination was delayed another year. In March of this year, Robert Cahn and I finally received this notification: the Bevatron and Bevalac nominations were combined, and the Bevatron/Bevalac was selected as a historic site. The next challenge was to summarize the Bevatron's and Bevalac's achievements in less than 300 characters. We consulted several LBL scientists to achieve this almost impossible task as so much incredible physics was done there. One of our consultants was Art Poskanzer, who died shortly after helping with this text.

In the next few months, an official dedication will be done. The Bevatron/Bevalac will join historical places such as Millikan's famous Oil Drop experiment or where the positron was discovered. The future recognition of the Bevatron/Bevalac will be ready for anyone who passes by its old location.

In Memoriam

Art Poskanzer, Distinguished Senior Scientist Emeritus, Nuclear Science Division

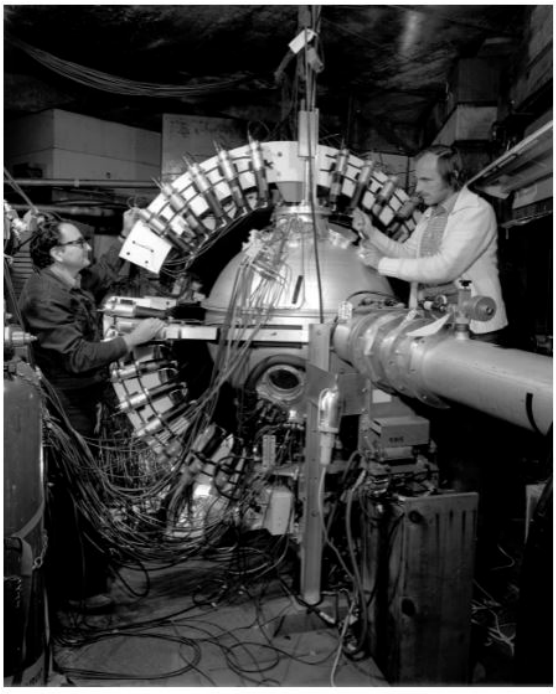
June 28, 1931 – June 30, 2021



Art Poskanzer, Distinguished Senior Scientist Emeritus in the Nuclear Science Division at LBNL, died peacefully at home on June 30 two days after his 90th birthday. Art's scientific career spanned over sixty years, including almost fifteen years as a lab retiree. After obtaining his PhD from MIT (undergrad at Harvard), Art started his career at Brookhaven National Lab as a postdoc where one of his first projects was using solvent extraction to measure the yields of actinides from high energy protons on uranium.

After nine years at BNL, Art moved to LBNL in 1966, joining Earl Hyde's group (later the Poskanzer-Hyde group) in the Nuclear Chemistry Division. That research group was one of the first to use high energy proton beams at the Bevatron for nuclear physics, leading to the discovery of many neutron-rich or proton-rich light nuclei. When Al Ghiorso proposed using the HILAC (heavy ion linear accelerator) as an injector for the Bevatron, the Bevalac was born and Art was one of the first to recognize the benefit of using the relativistic heavy ion beams from the (then) new facility to explore nuclear reaction mechanisms at high nuclear densities. One of the results was a long-term international collaboration with German scientists from GSI in Darmstadt. Based on work at the Bevalac and then at the Relativistic Heavy Ion Collider (RHIC) at BNL (after the closure of the Bevalac), Art and his group discovered collective and elliptical nuclear flow, which provided experimental evidence for the existence of the quark-gluon plasma.

Art became the first scientific director of the Bevalac and played key roles in organizing relativistic heavy ion research at RHIC (as co-founder of the STAR collaboration) and at CERN. He was one of the few scientists to have been awarded both the Seaborg Award from the American Chemical Society (1980) and the Bonner Prize from the American Physical Society (2008). In April 2021, he participated in an oral history project for the American Institute of Physics – the transcript of that interview is here: https://www.aip.org/history-programs/niels-bohr-library/oral-histories/45457



Art and his wife Lucille were married for 67 years and had three children and four grandchildren. Among their many interests, Art and Lucille enjoyed the many Berkeley restaurants, and in 1978 they produced the first of many reviews called "Restaurants in the Berkeley Area – stimulated in part by the many international visitors Art hosted. The last edition, produced in 2020, can be found here: http://restguide.lbl.gov/.

Photos Lawrence Berkeley National Laboratory Archive. *Submitted by Rich Sextro*

Gertrude "Trudy" Maria Forte, Ph.D., Life Sciences Division

February 25, 1937 – June 9, 2021

Gertrude "Trudy" Maria Forte, 84, returned to her heavenly home on June 9, 2021, comforted by family and friends in her Berkeley home. Trudy is preceded in death by her beloved husband, John, and her three brothers, Martin, Engelber, and Joseph, and her parents Leonhard and Susanna. She is survived by her three children and their spouses, Michele (Marcelio), John (Nicole), Susan (Andrew), and her seven grandchildren, Marcel, Gaetano, Giovanna, Fiona, Peter, Rafael, and Stuart.

Trudy was born in Wayne, Pennsylvania. Growing up in the countryside allowed her to learn the ways of plants and animals from her parents, the caretakers of the Paul's estate. Trudy loved the sciences, which is echoed in her education and experience. She graduated magna cum laude from Immaculata College with a Bachelor of Arts in Biology in 1958. Trudy received a National Science Foundation Pre-Doctoral Fellowship Award to attend the University of Pennsylvania for her Ph.D. in Zoology. Family folklore has it that future husband John, while he attended Valley Forge Military Academy, first set eyes on Trudy during mass at Saint Katherine Catholic Church. Trudy and John would actually meet while attending graduate school at the U of P. Trudy and John married in 1961. Two children and three years later, Trudy was awarded her Ph.D. from U of P in 1964. From there, Trudy and John came to California to start new chapters in their careers and family; their third child added soon after.

In California Trudy gained her postdoctoral training at the University of California, Berkeley. Here Dr. Trudy Forte served as a Senior Scientist at the Lawrence Berkeley Laboratory, Life Sciences Division, 1978 to 2004, researching lipid and protein roles in cardiovascular disease as the Principal Investigator within her National Institute of Health research grants. She then followed a new direction in research as a Scientist at the Children's Hospital Oakland Research Institute, 2004-2017. Throughout her career in science, Trudy has held numerous distinguished roles, including Editor-in-Chief of The Journal of Lipid Research (1999- 2003), leadership roles within the American Heart Association (AHA), and Director of research, Lypro Biosciences, Inc (2008-2017). Trudy's honors and awards over her career include the Lawrence Berkeley Laboratory Outstanding Performance Award (1992), the Associated Western Universities honor of Distinguished Lecturer (1994), the AHA Special Recognition Award (1999), and the first annual AHA Mentor of Women Award (2001), and Jack Oram HDL Award (2018).

Trudy was a devoted mother and active member of the Saint Mary Magdalen Parish in Berkeley. A supporter of local performing arts and a music enthusiast, she enjoyed playing piano, singing with the Magdalen choir.

Trudy was a member of the LBNL EX-Ls Retirement Association for many years serving on the Board of Directors in 2012 as second vice president, 2013 as first vice president and president in 2014. After stepping down as president, Trudy worked side-by-side with the UC Retirement Center Director on the renewal of the

LBNL contract with the Retirement Center and participated on the UCBRC Advisory Board. Trudy continued her interest with the EX-Ls by attending lunches, volunteering her time on various activities with the EX-Ls and UC Retirement Center. The Laboratory's EX-Ls retirement association members admired Trudy as an accomplished woman scientist and her thoughtful and efficient leadership during her term as an Officer on the LBNL/EX-Ls Retirement Association Board.

A Memorial Mass/Celebration of Life will be held August 21, 2021 at 11:00 AM at Saint Mary Magdalen Catholic Church, Berkeley, CA.

In lieu of flowers, contributions can be made to The Michael J. Fox Foundation for Parkinson's Research - advancing research and improving care for people with Parkinson's disease (https://www.michaeljfox.org/).

SF Chronicle Obituary: https://www.legacy.com/us/obituaries/sfgate/name/gertrude-forte-obituary?pid=199464931

Photos from the Lawrence Berkeley National Laboratory Archives --*Submitted by Patti Powers-Risius*

2021 EX-Ls OFFICERS, INFORMATION & CALENDARS

EX-Ls BOARD OF DIRECTOR

President: Ben Feinberg
1st Vice-President: Howard Hatayama
2nd Vice-President: Kim Williams
Secretary: Esther Schroeder
Treasurer: Howard Matis
Development/Participation Coordinator: 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
AROHE: Howard Hatayama

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: Camille Koue, UCBRC

2020 EX-Ls Board Meeting Calendar

January 14, 3:00 - EX-Ls Board Meeting
April 8, 3:00 - EX-Ls Board Meeting
July 8, 3:00 - EX-Ls Board Meeting
October 14, 3:00 - EX-Ls Board Meeting

*2021 Virtual Luncheon Meetings & Events

February 18, 1:00 - EX-Ls Virtual Luncheon
May 20, 1:00 - EX-Ls Virtual Luncheon
August 19, 1:00 - EX-Ls Virtual Luncheon
November 18, 1:00 - EX-Ls Virtual Luncheon

2021 Newsletter Deadlines

January 28 - Newsletter Deadline
April 29 - Newsletter Deadline
July 29 - Newsletter Deadline
October 28 - Newsletter Deadline

*Association of Retirement in Higher Education

PAST PRESIDENTS

Bob Cahn - 2020
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

About the EX-Ls

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

If you enjoy the newsletter and would like to contribute an article or provide a remembrance of an employee, please contact our Newsletter Editor, Phyllis Gale via p2gale@gmail.com.

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.