EX-Ls
Retiree Newsletter

Lawrence Berkeley National Laboratory - January, 2018

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EX-Ls BOARD OF DIRECTORS

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Sig Rogers – 2004 Virginia Cherniak - 1986

2018 CALENDAR OF BOARD MEETINGS & LUNCHEONS

Board: Meetings:
January 11, 2018 April 12, 2018
July 12, 2018 October 11, 2018
Board Meetings start at 3:00 p.m. and end at 5:00 p.m. usually held in LBNL Conference Room (54-130B). Location is subject to change at the last minute, so check with a Board member if you plan on attending. We welcome attendance by interested members.

Luncheons:
Thursday, Feb 15, 2018, Hs Lordships
Thursday, May 17, 2018, Hs Lordships
Thursday, Aug 16, 2018, Hs Lordships
Thursday, Nov 15, 2018, Hs Lordships

OFFICE ADDRESS:

Our mailing address is: LBNL EX-Ls
101 University Hall Berkeley, CA 94720-1550

Photo Site:
https://get.google.com/albumarchive/108867583996319040696

Photo Czar: Ned Dairiki

Website: http://retirement.berkeley.edu/ex-ls

Webmaster: Kris Thornton, UCBRC

EX-LS Honorary Life Members
Shirley Ashley Patrick Cullinane, Bud Larsh

EX-Ls Group Going to the A’s Game March 29th
See Page 11 for details to participate.

Next Luncheon
February 15, 2018
President's Message

As we enter a new year, we welcome our new Second Vice President Bob Cahn and our new Treasurer Howard Matis. Many thanks go to our Past President, Lee Schroeder and Past Treasurer, Kay Bristol.

What's new for 2018? The President of UC has created an advisory committee to examine the problem of sustainably funding retiree medical coverage. The committee starts its work in January and files its report in June to the President of UC. John Meyer from UC Davis is representing CUCRA (Council of UC Retiree Associations) and Roger Anderson from UC Santa Cruz and Chair (2014-2016) of CUCEA, is representing CUCEA (Council of UC Emeriti Associations) on the committee. This study is a result of UC's concern over the rate at which medical costs are increasing and the ability of UC to fund future increases. The committee report will be part of the decision by UC on how to proceed.

CUCRA and CUCEA will be holding their October meeting here in Berkeley, at the Doubletree Hotel at the Berkeley Marina. These two organizations are the principal advocates for retirees in the UC system. Janis Dairiki and Bob Cahn are the representatives from the EX-Ls on CUCRA. Don Grether has recently stepped down after years of service. Thanks to Don for his contributions on our behalf at CUCRA.

Closer to home, we're planning a special commemoration briefly highlighting the first thirty-five years of the EX-Ls at the May Luncheon in addition to our Luncheon Speaker.

Every three years, we are required to review and revise our By Laws. A committee consisting of Trudy Forte, Joe Jaklevic, and Bob Cahn was appointed to carry out the review process. At the November luncheon, we will vote on the proposed revisions during the annual membership meeting.

The Board is also exploring ways to set up an online system for luncheon registration and payment, so that members can use their credit cards rather than mailing in checks. We are also updating our Ex-Ls brochure for distribution to new retirees.

The EX-Ls have reserved a block of 40 tickets for the Oakland A's Opener on Mar 29, at which Doug McWilliams will be signing his new book. Look for details on getting your tickets later on in this issue of the Newsletter.

Finally, together with the Lab Directorate, we are organizing the 2018 Berkeley Lab Retirees Reception That will take place at the Cafeteria sometime during the first two weeks of October.

Henry Rutkowski, EX-Ls President 2018
August Luncheon Recap

Induced Seismicity: History, Concerns, Causes, and Status

The speaker for the November 2017 luncheon was Dr. Ernest Majer, formerly acting director of the LBNL Earth Sciences Division. He spoke on the subject of induced seismicity from human activities such as oil and gas drilling and geothermal energy production. Induced seismicity results when fluids are pumped into fault regions thus accelerating the process of stress relief. For instance, wastewater from oil fields is injected into the rock below the oil-bearing rock. Initially there is more water than oil in the field so large quantities of waste water must be separated from the oil and disposed of.

Historically induced seismicity goes back 80 years, first occurring in mining operations. Most of the earthquakes resulting from oil and gas exploration and geothermal power generation are moderate (Magnitude ≤3) although a few earthquakes in the Magnitude 5-6.5 regions have occurred. In general, the larger and deeper the fault into which fluid is injected, the greater the energy released. Brittle failure produces larger events than plastic failure.

Mapping the location of faults and controlling fluid injection helps to mitigate the problem and reduce the probability of events. In cases of shear stress, higher fluid pressure can reduce the resistance to shearing in the fault itself and thus decrease the buildup of shear stress. Earthquakes with Magnitude <5 are extremely unlikely to trigger larger quakes even in nearby larger faults. Even though induced earthquakes look like natural ones, normal prediction techniques don't work. The processes involved are well understood and operations can be planned to minimize seismic risk. Most of the earthquakes resulting from fluid injection are annoyances rather than a serious danger.
However in some locations seismic annoyances are becoming a cause for lawsuits. If underground carbon sequestration becomes more popular, the techniques for controlling induced seismicity will have to be applied to that field also. Hydraulic fracking allowed enhanced oil recovery and voided the earlier prediction of peak oil production.

Successfully managing induced seismicity is essential for successfully extracting energy while preserving quality of life in areas where energy extraction occurs. The problem is to get policies developed to the same level as the technology has been. To see more details view the full 52 slide presentation on the EX-Ls website. Simply go to retirement.berkeley.edu/ex-ls and click on “Link to Presentations.”
Report from CUCRA and CUCEA 2017 Fall Meetings

As usual, CUCRA (Council of UC Retiree Associations) and CUCEA (Council of UC Emeriti Associations) met separately the first afternoon and then jointly with representatives from the Office of the President (UCOP) the second morning. I attended the meetings on October 25-26, hosted by UC San Francisco and UCOP, at the Oakland Airport. The following briefly addresses the items that were the most interesting and important from both meetings.

**UCSF Welcome to joint meeting**
At the joint meeting UCSF Chancellor Hawgood welcomed attendees and then began by outlining three major political issues that have impacted UC in recent months. The first issue was the “skinny budget” proposed earlier this year by the Trump administration. That has been attenuated somewhat by the UC advocacy effort led by President Napolitano and “heartening support” from the Legislature. The second issue related to health insurance. The “repeal and replace” movement of the Affordable Care Act and the proposed cut to Medicaid (Medical in California) was a huge threat since one-third of UCSF patients are Medical patients and Medical payments only cover 60% of costs. The third political issue has been the immigration debate, particularly as it relates to undocumented students whose numbers are approximately 4000 in UC (approximately 15-20 at UCSF). Chancellor Hawgood expressed concern for the “anxiety” caused among these students.

Chancellor Hawgood noted that UCSF is relatively small with approximately 4500 students (all enrolled in professional and graduate programs). While UCSF is an integral part of UC, the state currently provides only 2% of its funding, with tuition providing less than 1%. But science is advancing. Chancellor Hawgood believes that we are in an “accelerating” phase in our understanding of life, due to the convergence of the biological sciences with technology (software) and big data. This convergence now allows disease to be defined at the molecular level, with precision targeting at the individual level. The Chancellor is actively promoting transformational partnerships with private enterprises. One example is the Parker Institute for Cancer Immunotherapy, a research consortium of six institutions (led by UCSF). Another example is Accelerating Therapeutics for Opportunities in Medicine (ATOM) that includes private pharmaceutical companies and the Lawrence Livermore Laboratory. On October 27, UCSF kicked off a $5 billion fund raising campaign (the largest in UCSF history). Chancellor Hawgood concluded his remarks by acknowledging the positive involvement of emeriti.

**CUCRA Retiree Activity Survey**
One exciting announcement is the publication of the CUCRA retiree activity survey report. The full report is available on the CUCRA website at [http://cucra.ucsd.edu/survey/RetireeSurveyReport.pdf](http://cucra.ucsd.edu/survey/RetireeSurveyReport.pdf) and I encourage you to read it. There are many interesting findings in the report. For example, 63% of the 4478 respondents volunteered in their communities during the last 3 years; the average figure for US adults aged 55 and over is 25%. However, only 20% of the UC retirees volunteered for UC. The survey also showed that staff retirees remain engaged professionally, including many who have part-time employment. This suggests that UC could perhaps more fully engage retirees. The survey
team also developed a press package to help in spreading the survey results and provided 20 hard copies of the report to the representatives at the meeting. EX-Ls has taken this as an action item – to spread the word about the survey, especially to Laboratory Management.

**CUCRA dues**
EX-Ls is a member of CUCRA and pays annual dues to CUCRA. Like the EX-Ls, CUCRA has now moved to a universal membership of all staff retirees. So the dues of each campus are based on one of three different tiers defined by the number of total retirees. We are in the lowest tier (<3000) so our dues this year are $100, slightly less than last year. However, these will ramp up over five years to totally pay for CUCRA’s general operating expenses. CUCRA has been very fortunate to benefit from the UC Travel Group Program in the past but there is no assurance that those funds will continue. That revenue will only be used for supplementary activities, not base operations. For your next travel, check out all of Collette tours at [www.gocollette.com](http://www.gocollette.com) and mention promotions code U001.AX1.918 and University of California Retirees Association when calling their office at 1-800-437-0235, so that CUCRA will receive the agent fees.

**Retiree Health Benefits Work Group**
As mentioned in the July EX-Ls newsletter, you will remember that the topic of rescinding the 70% floor that UC pays for retiree medical benefits was scheduled for discussion at the July 2017 Regents’ meeting. In response to calls for more extensive consultation on the part of the Academic Senate, UC staff, CUCEA, CUCRA, and individual emeriti and retirees, the item was taken off the Regents’ agenda. The UC Office of the President decided to convene an advisory work group with representatives from a wide range of groups to explore potential strategies and develop options for UC leaders to consider. In formulating its recommendations, the work group is charged with considering plan and program design strategies to sustain the benefits, benefits offered by peer institutions, and the implications to both UC and retirees of different options. The work group is expected to begin its work this month (January) and deliver its recommendations by June 2018. I am happy to note that CUCRA and CUCEA each have a representative on this advisory group anticipated to include 10-12 members.

**The next CUCRA and CUCEA meetings will be held in Riverside at the historic Mission Inn April 25-26, 2018.**

I refer you to the CUCRA website for more information - [www.cucra.org](http://www.cucra.org).

Janis Dairiki, EX-Ls CUCRA representative
Questions? Email me at [jmdairiki@lbl.gov](mailto:jmdairiki@lbl.gov)
In Memoriam - Ralph H. Thomas

The EX-Ls were saddened to learn of the death of Ralph H. Thomas one of the pioneers in the field of accelerator health physics, on October 21, at the age of 84.

Ralph was born November 27, 1932 in Reading Berkshire, England. He spent much of his early life in the vicinity of London and never fully lost his British accent and maintained his British wit. Ralph earned a BSc in physics and a PHD in nuclear physics at the University College London. Always a scholar, he received a number of other degrees in the US and UK and was a Certified Health Physicist and a Registered Engineer in California.

Dr. Thomas worked for a number of years at Harrell in the Rutherford Laboratory (1960-68). He was involved with the shield design and skyshine studies for the 50 MeV proton linear accelerator and the 7GeV proton synchrotron (Nimrod) while there. Ralph moved to the US in 1968 and in 1970 became Head of the Health Physics Department at Lawrence Berkeley National Laboratory and held progressive higher positions at LBNL, as well as a stint as Head of Hazard Controls Department at Lawrence Livermore National Lab, until his retirement from the University in 1993. During this period, he participated in the first acceleration of heavy ions at the Bevatron in 1970, which was a pioneering facility in research for the treatment of cancer in humans using proton and heavy ions. He also authored many scientific publications, more than 250 papers and a dozen books, including the book “Accelerator Health Physics” written jointly with his close colleague at LBNL H. Wade Patterson.

Ralph continued to lecture, consult, write and edit until 2010. He was an active member of the EX-Ls and a member and leader of many Health Physics organization.

Ralph was preceded in death by his wife Mavis in 2005, whom he "home-cared" for the last 10 years of their marriage. He is survived by his three children and nine grand children.
The 40th Annual Laboratory Run Around

Berkeley Lab’s hilly, 3-kilometer (1.86-mile) race took place on a sunny but chilly day on Friday, November 17, 2017. Participants started at the Fire House, (noon sharp), biked, ran or walked to the finish line at the Cafeteria parking lot. Special foods were provided by the Cafeteria, representatives from Farmers’ Markets, Fitness Vendors, Lab Clubs and our EX-Ls booth were set up to hand out snacks and information to the several hundred participants. Jennifer Ariel Doyle with a time of 11:21.2 and Harmen Jan Hoek with a time of 9:21.3 were the runner winners. Norman Edelstein was the only over-80-year-old finisher (way to go Norm!). Brian Bonner, Jorgen Randrup, and Michael Barnett were top runners in the age 70-79 bracket (nice going!).

EX-Ls, represented by Patti Powers-Risius and Vicky and Richard Jared set up a booth near the finish line and passed out oranges and peanut snack packs. EX-Ls Brochures were given to those considering retirement and who may be interested in attending EX-Ls lunches and other activities. Once again, Steve Derenzo (organizer/runner) and Tom Budinger (time keeper) provided expertise to the success of the Lab’s Race. A good day all in all.
Phyllis Gale, an LBNL retiree, fills part of her “free time” by volunteering with the Berkeley Historical Society. Recently she worked on the committee that brought the "Soundtrack to the 60s: The Berkeley Music Scene" exhibit to the BHS History Center. It opened to a concert by Country Joe McDonald and The Joy of Cooking. Bands that both have roots in the 1960’s music scene. It continues until March 31, 2018. Contact her at 510-508-4389 or at p2gale@gmail.com if you would like join BHS and/or volunteer.

**Soundtrack to the 60s: The Berkeley Music Scene - October 8, 2017 - March 31, 2018**

While Berkeley did not have the large ballrooms of San Francisco, it had a variety of small clubs and medium-sized venues that saw many legendary performances during the decade of the 1960s – and our own Summer of 1967 of Love! The current exhibit of the Berkeley Historical Society focuses on these venues and the unique contribution of Berkeley musicians to 1960s music.

The exhibit draws upon the extensive archives of Country Joe McDonald, as well as little-known photographs from the Historical Society and several private collections. From small folk singer gatherings in private homes to public stages, Berkeley provided a rich milieu of opportunity for cross-genre inspiration and creativity. Country Joe and the Fish, the Joy of Cooking, and Creedence Clearwater Revival all had their start in Berkeley.

A timeline of major national and international events provides context for local musical developments. Other parts of the exhibit focus on local recording studios, the Berkeley Folk Festival, the rock scene, rhythm and blues, the role of music in the protest movement, and the career of Country Joe McDonald. Clothing and other artifacts of the period are also on display.

The exhibit will run through March 31, 2018. Additional programming during the course of the exhibit will include panel discussions and interviews with people who were active in the 1960s music scene.

The next exhibit events include:

**Saturday, January 27:** Would you like to see Country Joe and the Fish as they were in the sixties? Joe McDonald has arranged for the Pacific Film Archive to show the documentary film Woodstock, along with a short called A Day in the Life of Country Joe and the Fish, on Saturday, January 27, at 6:30 p.m. We will keep the Berkeley History Center open an extra hour that day, to 5 pm, for those who would like to see the exhibit, have dinner downtown, and then see the Film Archive presentation up Center Street at BAMPFA.

**Sunday, February 4 at 2 p.m.:** Join us at the Berkeley History Center for a program on Berkeley rock posters of the sixties. The panel will include Dennis King of D. King Gallery, poster designer Tom Weller, and Country Joe McDonald.

The Berkeley History Center hours are 1-4 PM, Thursday through Saturday. Admission free, donations welcome; wheelchair accessible. Berkeleyhistoricalsociety.org / email: info@berkeleyhistoricalsociety.org

Berkeley Historical Society and Berkeley History Center
1931 Center Street, Berkeley
Telephone: 510-848-0181
Doug McWilliams and the Oakland Athletics

The Oakland A’s will be celebrating their 50th anniversary this year. Our very own Doug McWilliams was contacted along with two other photographers, Michael Zagaris, and Ron Ziesterer, to help with a 50th Anniversary book with their lifetime pictures. Doug was honored to throw out the 1st Pitch at an A’s game last August, to announce that the "Coffee Table Book" was going to be published. The book will be available at the fanfest on Jan 27th, at Jack London Square ($45), and also starting March 29th, home opener and April 1. Doug is planning to be at these events and signing books.

A “Blog” written by Brad Mangin (who shot for Sports Illustrated ) about the three photographers who did the pictures for the A’s 50th Anniversary Book link is below.

http://manginphotography.net/2017/08/baseball-legends-honored-in-oakland/

Join us:  EX-Ls Group Going to the A’s Game

Join the EX-Ls at the Oakland A’s baseball home opener Thursday, March 29th, 1:05 start.  The A’s will be celebrating their 50th Anniversary and our own Doug McWilliams will be honored as a contributor to their 50th Anniversary “Coffee Table Book”.  Books will be on sale for $45 and he will be available to sign purchased books.  Transportation to and from the game will be on your own.  There are parking and BART options.  Section will be ADA compliant.  Able to accommodate wheelchairs.

Tickets on sale now.  $41/ticket.
Contact Kathy Bjornstad, kathy.bjornstad73@gmail.com for tickets or if you have questions.

If tickets are still available, they will be for sale at the February 15th luncheon.

Go A’s!
EX-Ls Board Tour of the Lab’s new computing facility

Rich Sextro

Prior to its Jan 11 meeting, many members of the EX-Ls Board of Directors toured the new computing facility at the lab. One of the newest buildings at the Lab – and certainly the most visible looking up at the hill from campus or downtown Berkeley – Wang Hall houses the Lab’s supercomputers, collectively known as the National Energy Research Scientific Computing Center (NERSC). NERSC – originally started in 1974 at Lawrence Livermore National Lab – moved to LBNL in 1996 and from 2000 until November 2015 was housed in the Oakland Scientific Facility in downtown Oakland. NERSC is the primary computing resource for the Department of Energy’s Office of Science and supports the research and computing needs of more than 7000 researchers worldwide. The computing resource is linked to the DOE National Labs and other sites by the Energy Science network (ESnet), the world’s fastest scientific computing network.

Our tour of the machine floor, hosted by NERSC staff Brian Friesen and Cary Whitney – and arranged by Jennifer Tang of the Lab’s community relations office – started with gathering in front of Cori, the Lab’s newest and fastest supercomputer (30 petaflops – a million billion floating point operations per second for those of you keeping score). Cori is named after biochemist Gerty Cori, the first American woman to win a science Nobel prize. Cori is currently the 8th fastest computer in the world.

Caption: Standing in front of Cori are – left to right: Vicky Jared, Patti Powers-Risius, Howard Matis, Trudy Forte, Rich Sextro, Esther Schroeder, Connie Grondona, Kathy Bjornstad, Joe Jaklevic, Henry Rutkowski (current board president), Linda Rutkowski, Kay Bristol and Bob Cahn
In addition to Cori, the tour included a smaller (2.6 petaflops) and older supercomputer – named Edison after the inventor – which is also part of NERSC. And preparations are already being made for the next generation supercomputer, with space set aside on the machine floor to accommodate the newest machine, expected in the early 2020s.

In addition to the long rows of cabinets housing the computers, several innovative features of Wang Hall were pointed out by Brian and Cary. Wang Hall – named for Shyh Wang, a long-time professor at UC Berkeley who studied solid state electronics, semiconductors and optical networks – was financed by the University of California, unique among Lab buildings. The building was designed to be much more energy efficient than typical data centers – taking advantage of the Berkeley climate to be able to use outdoor air for a large fraction of the cooling demand. The computer-heated air is reused to heat the offices on the upper two floors of the building. In fact, the sound of the air being driven through the cabinets full of computing processors (almost 800,000 processor cores) is the dominant sound on the floor. Because the Hayward fault runs at the bottom of the hill, the machine room floor is seismically isolated, designed to withstand a magnitude 7.5 earthquake.
LUNCHEON SPEAKER: **Glenn D. Kubiak**, Deputy Director for Operations, and Chief Operating Officer, Lawrence Berkeley National Lab

DOE’s national laboratories have evolved greatly since their inception in the 1940’s, providing foundational technical capabilities in the four mission areas of the Department: national security, science, applied energy, and environmental management. Over this time, as urgent national needs evolved, the national laboratory system grew to an enterprise of 17 labs in 14 states with aggregate DOE funding of ~$14B (labs only, FY 2016). By any reasonable standard, the laboratory enterprise has been an outstanding success over its first ~75 years, undergirding the nation’s nuclear, economic and energy security. Over the most recent 20-30 years, as DOE mission priorities changed and budgets grew, so too did expectations for increased public transparency and management accountability. Looking to the future, the laboratories and their Management and Operating contractors today face many difficult challenges, including aging infrastructure, workforce recruitment and retention, managing indirect costs as program diversity and administrative requirements have increased, and providing effective stewardship of federal resources, employee welfare and the environment in the conduct of our work. In this presentation, I will use examples from a 34-year career in the national labs to examine some of the key reasons these laboratories have been so successful, summarize key challenges specific to Berkeley Lab, and describe efforts to address these challenges to ensure the ongoing success and vitality of Berkeley Lab, and the wider DOE national laboratory system.

**TITLE OF TALK:** An Exceptional Opportunity to Serve: Reflections on a Career in Science, Technology and Operations in the Department of Energy (DOE) National Labs

**BIOGRAPHY:** Glenn D. Kubiak, Berkeley Lab’s Deputy Director for Operations/Chief Operating Officer oversees many of the Laboratory’s operations and mission support organizations and programs, including Environment, Health and Safety, Facilities Management, Financial Services, Human Resources, Information Technology, Project and Construction Management, Institutional Assurance and Integrity, and Project Management.

Glenn D. Kubiak, who started at the Lab in July of 2012, earned his undergraduate degree in chemistry at Brown University and Ph.D. in physical chemistry from Stanford University. During his 28 years based at the Sandia/California site, he conducted research on the electronic structure of solid surfaces, laser-driven plasma sources, extreme ultraviolet science and technology, and biological microsystems, attaining the level of Distinguished Member of Technical Staff. He also served in successive roles as Manager, Senior Manager, and Center Director for several R&D organizations and large programs, including Chief Operating Officer of the industry-funded national program in Extreme Ultraviolet Lithography, and Center Director of the Biological and Materials Sciences Center.
Where: Hs Lordships Restaurant, 199 Seawall Drive, Berkeley Marina

Time: 11:30 AM no host bar open - Lunch Served at 12:00 – Concludes at 2:00 PM

Location: Georgian Ballroom – Upstairs – elevator available  NOTE: room change
No-Host Bar Service: Opens at 11:30 – No Host Bar Service located in the ballroom

Lunch Service - Buffet: Garden Salad with two dressings, Sliced Seasonal Fruit, Sliced Roast Beef, Grilled Fresh Atlantic Salmon, Portobello Mushroom Ravioli, Fresh Seasonal Vegetables, Assorted Desserts. Rolls, butter, water, coffee, (hot tea on request) and iced tea. **Cost: $30 per person (prepaid)**

REGISTRATION FORM: See you at the February 15th luncheon at Hs Lordships Restaurant. Be sure to make reservations by **Saturday, February 10th, 2018.**

Please mail form and check made out to EX-Ls to: Kathy Bjornstad, Activities Chair
4343 Arden Place, Oakland, CA. 94602

Call, text or email if you have questions: (510) 220-1273  kathy.bjornstad73@gmail.com

I Plan to Attend (Name): ____________________________________________________________

EX-Ls Board Member?: Current _______________________  Retired ______
First time attending? _______    LBNL Retiree? ______   UC Retiree? ______

<table>
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<th>Name of Guest(s)</th>
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Buffet Service - Advance choice is not required $30 per person – Check payable to: **EX-Ls**

$30 x _______ = __________

EX-Ls Voluntary $15.00 Contribution: $___________

Total Enclosed: $___________

Willing to carpool: As Rider? _____   As Driver? _____

Contact Info (your email or phone number so Kathy can contact you to arrange for carpool)

Need to Sit Closer to the Screen? ___  Buffet Assistance? ___  Other Needs? ____________

We welcome new members to the LBNL Retirement Association the EX-Ls. To be added to the LBNL EX-Ls Roster, please provide the following contact or updated information.

Address ____________________________________________

Email ___________________________ Phone ____________  Cell ____________