Professor Sydney G. Kustu
Department of Plant and Microbial Biology

“The Rh Blood Group Substance: Wanderings of a Microbial Physiologist into Human Biology”
Saturday, November 5, 2005

Professor Sydney Kustu has been a professor at the University of California for 31 years. She began her career at UC Davis and was recruited to Berkeley in 1986. Throughout her career she has taught microbiology at the introductory level, as well as microbial physiology and genetics. In 1993, she was elected to the National Academy of Sciences.

At our November luncheon, Professor Kustu will discuss her lab’s work on the intestinal bacterium E. coli, particularly its capture of molecules containing nitrogen. Nitrogen is the second most required nutrient, after carbon, in living organisms, and E. coli is arguably among the simplest, best-studied organisms on the planet. Many think this simple, single-celled organism has ceased to be of interest, but we know little about the principles on which it is a self-replicating entity. Though we have a complete genome sequence of E. coli and hence a complete “parts list,” we know little about how the parts are integrated, particularly at higher levels.

Over the past few years Professor Kustu’s lab has been led to re-investigate a particular “part” of E. coli that was mischaracterized. This part was originally thought to be a membrane transport protein for ammonium, an excellent source of nitrogen. Her lab’s research showed instead that it was a channel for the gas ammonia. Ammonia (NH3) channels are very common in all groups of organisms except vertebrates. The only evolutionary relatives of NH3 channel proteins are Rh proteins, of Rh blood group substance fame. (Most people know whether they are Rh positive or negative.) Although the Rh blood group substance is one of the most abundant proteins, its function has been unknown for 65 years. She will discuss the possible roles of gas channels, particularly Rh proteins, in humans and other animals.

Professor Kustu received her undergraduate degree at Radcliffe and her Ph.D. from UC Davis. She is especially proud of her election to the National Academy of Sciences, as she was one of 60 women among 1600 men. Her time out of the lab is spent hiking in the Montana Rockies.
Attend!

On September 24, 2005, Professor Emeritus Ervin Hafter, Principal Investigator and Faculty Sponsor in the Auditory Perception Laboratory, Department of Psychology, addressed the Association on the subject “Shared Attention and Perception.”

Professor Hafter calls his field of work “psychophysics”, the study of perception in which he tries to infer what is going on in the brain as it interacts with the external world, particularly through sound.

We are hard-wired with a remarkable hearing apparatus. Sound reaches the ear as rapid temporal variations in air pressure that are separated into discrete frequencies of fixed bandwidth by auditory filters in the cochlea, a spiral shaped cavity in the inner ear. As a result we hear simultaneously the different pitches in polyphonic music as well as any accompanying noise. Utilization of this marvelous facility requires attention, something that is not organically fixed but apparently is subject to allocation by the brain. When the audiologist asks, “did you hear that?” a decision is required and there is possibility for error. Decisions are conditioned by past experience, distractions and attention required for concurrent tasks.

Professor Hafter described taking a test of writing down words where speech was mixed with noise. It required considerable effort to recognize words, and he got only about 75% of the words spoken. Then the test was repeated with the sound processed by a superb noise-suppressing program, and it seemed wonderfully easy to recognize words. He again scored about 75%! This outcome is typical and may result from the relaxation of attention on the feather bed of clean sound. Attention requires effort. It is known that hearing aids do not necessarily improve intelligibility. In any case, as we age we have increasing difficulty separating speech from noise, even when the sound is amplified.

When attention is needed for a hazardous traffic condition it is natural and prudent to turn off the car radio. Cell phone use while driving diverts attention and, therefore, is hazardous. (One can only wonder at the impairment of cognition occasioned by incessant music in public places, to say nothing of that caused by many hours a day of iPod use, a current fashion.)

Larry Waldron

They’re Back! - Satisfactory Services

Jim Stinson (115 Trinima Road, Trinidad, CA 95570, stinbiz@cox.net) is the best line editor in the non-fiction, book-making business. If you are writing a memoir or family history, try him. (Dunbar H. Ogden)

An Excellent Housekeeper recommended by Carolyn Webber (524-6208), who asks that you call her directly. You may ask Carolyn questions, and she will provide contact information for Ada.

Please submit any new listings you might have by calling the editor at 848-3368, or you can email them to emeriti@berkeley.edu. To see the full list call the Center to have one mailed or faxed, or see it online at: http://thecenter.berkeley.edu/ucbea-services.htm
Open Enrollment Sessions Announced

Open Enrollment (OE), held annually in November, offers you a chance to change medical plans. If you feel you may want to change, these suggestions should help:

- Review the OE materials that you will receive by mail in late October or early November;
- Visit http://atyourservice.ucop.edu for frequent updates;
- Attend an OE Information Session co-sponsored by the Retirement Center and the Health Care Facilitator program. The sessions are on November 16 and November 22, from 9 a.m.-11 a.m. Call the Retirement Center to register;
- East Bay annuitants can also attend the Annuitant OE Faire on November 4, from 8 a.m.-11 a.m. at the Holiday Inn, 1800 Powell Street, Emeryville. Representatives from the medical plans, as well as the Health Care Facilitator, will be available to answer your questions.

Emeriti Activity Survey

You should have received your copy of the Emeriti Activity Survey. Please fill it out and return as we believe information from the first four biennial surveys has been used to sustain University support for emeriti programs and facilities and has spurred efforts to hold down health care costs and maintain COLAs. This is the position held by the Council of UC Emeriti Associations (CUCEA), the Committe on University-Emeriti Relations of the Academic Senate and your local UCBEA.

If you never received your copy of the survey or if it somehow got mislaid before you filled it out, please call the Center for a duplicate copy.

Going Traveling? Get Fit!

The newest aid for the traveler is available on campus. There is a U.S. Passport Office located in the Cal Recreational Sports Facility at 2301 Bancroft Way. The Office hours are 11 a.m. – 6 p.m., Monday through Friday and 10 a.m. – 3 p.m. on Saturday; the telephone number is 642-7796.

A number of you have joined the e-Rec Fitness Classes at the Recreational Sports Center. Do you know that you may now register on line at http://calbears.berkeley.edu? Click on CalFIT (under Fitness); then click on “schedule”; navigate to the fitness class you’d like and click on “Enroll Online.”

The UCBEA Executive Board Has Spoken

At the regular Executive Board meeting on September 20, after a considerable discussion, it was voted to raise the yearly dues from $10 to $15. For those of you who wish to effect a one-third savings, 2006 dues paid between now and New Year’s will be only $10.

A number of you have not paid dues for several years but have received our intimate journal the Berkeley Emeriti Times. We have changed our slothful ways and plan not to extend the grace period as we have in the past.

Those of you who cannot remember to pay your dues in a timely manner will receive a communication from the Membership Chairman, a highly honored position also voted in. Through good fortune, should you wish to write a check for more than $15, please designate which is for dues, and which is for donation.

From Now ‘Til New Year’s

Special Events
Sunday, November 6 California natives: Plant & People Tour, Botanical Garden – noon
Sunday, November 6 Celebrating Native American Heritage Month, Hearst Museum – noon (on-going).
Friday, November 18 March of the Penguins, Wheeler Auditorium 7 and 9 p.m.

Noon Concerts at Hertz Hall (Wednesdays)
November 2 Solo Piano. Ivan Ilic
November 9 Contemporary Percussion
November 16 Graduate Student Composers
November 30 Javanese Gamelan
December 7 Holiday Choral Music with a French accent and Southern Twist

Women’s Volleyball at Haas Pavilion, 7 p.m.
Thursday, October 27 Cal vs Oregon State
Friday, October 28 Cal vs Oregon
Thursday, November 10 Cal vs Arizona
Friday, November 11 Cal vs Arizona State

Workshop at the Botanical Garden, 7 p.m.
Holiday Wreath Making, Materials Provided
Wednesday, December 7
Thursday, December 8
Saturday, December 10
### Pacific Film Archive

#### Holiday Menu

**Appetizers**

“Marcel Pagnol’s cinema was not about Provence but of Provence, its rough, dry textures, its flavors, its pace, its accent, its humor and gravity and pride…” (Judy Bloch) Some prints show their age, but they will soon be out of distribution, so see them now!

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<thead>
<tr>
<th>Film Title</th>
<th>Year</th>
<th>Screening Details</th>
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<tbody>
<tr>
<td><strong>Harvest (Regain)</strong></td>
<td>1937</td>
<td>Friday, November 25  7:00 p.m.</td>
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<tr>
<td><strong>The Baker’s Wife (La Femme du Boulanger)</strong></td>
<td>1938</td>
<td>Friday, November 25  9:25 p.m.</td>
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<tr>
<td><strong>Angèle</strong></td>
<td>1934</td>
<td>Sunday, November 27  2:00 p.m.</td>
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<tr>
<td><strong>The Well-Digger’s Daughter (Le Fille du Puisatier)</strong></td>
<td>1940</td>
<td>Thursday, December 8  7:30 p.m.</td>
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<tr>
<td><strong>Letters From My Windmill (Les Lettres de Mon Moulin)</strong></td>
<td>1955</td>
<td>Thursday, December 15  7:30 p.m.</td>
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**Entrée**

Meet the inhabitants of the port of Marseilles: César, the philosopher at large; Marius who dreams of a life at sea; Panisse, a kindly widower and Fanny - characters who are all at sea.

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<tr>
<td><strong>Marius</strong> (directed by Alexander Korda)</td>
<td>1931</td>
<td>Saturday, December 17  6:00 p.m.</td>
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<td><strong>Fanny</strong> (directed by Marc Allegrcet)</td>
<td>1932</td>
<td>Saturday, December 17  8:20 p.m.</td>
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<td><strong>Fanny</strong></td>
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<td>Sunday, December 18  3:00 p.m.</td>
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<td><strong>César</strong></td>
<td>1936</td>
<td>Sunday, December 18  5:30 p.m.</td>
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