Karin Crowhurst Hopes to Make Biochemistry ‘Really Cool’

Biochemistry Professor Is 2010 Jerome Richfield Memorial Scholar

One of assistant professor Karin Crowhurst’s pet peeves is that in today’s society an individual is considered lacking if he or she does not know certain aspects of history, literature, politics or sports, but it’s OK not to know what a molecule is and does.

“I know that organic chemistry and chemicals themselves are often considered evil,” quipped the biochemist and 2010 Jerome Richfield Memorial Scholar, “but not if one approaches it with an open mind.”

Crowhurst will discuss her research on protein motions and how they impact the way that signals are transmitted in the brain at the 18th annual Provost’s Colloquium at 4 p.m. on April 28 in the Oviatt Library’s Presentation Room. Counter to the stereotype that biochemistry is boring, however, she offers plenty of reassurance that her presentation will be “as listener-friendly as possible.” It is entitled “The Secret Lives of Molecules: a Behind-the-Scenes Glimpse at the Role of Protein Flexibility in Neurological Signal Transmission.”

“Proteins are complex organic molecules that are the workhorses of biological organisms. They catalyze reactions, carry nutrients, provide structure and transmit signals, just to name a few examples,” said Crowhurst. “Proteins allow us to think, breathe, see, feel, live.”

Crowhurst, who received her bachelor’s degree in chemistry from Queen’s University in Kingston, Canada, and her master’s in chemistry and doctorate in biochemistry from the University of Toronto, has dreamed of being a scientist since she was a young girl. Her dreams were nearly derailed when a high school math teacher announced that “statistics showed at least half the girls present will drop the class eventually because girls tend not to be very good in math.”

She proved him wrong. At the end of the year, the top three students in the class were all girls. Crowhurst was among them.

“It was a difficult class and initially I wasn’t doing that well,” she said, “but then he told my parents I probably was not cut out to do math. I was so mad, I got motivated and really kicked my efforts up a notch.”

Crowhurst encourages her students to embrace biochemistry.

“I tell them,” she said, “if they come into the field thinking it will be hard, then it will be.”

Crowhurst and her research students focus on a family of proteins called neurotrophins, which regulate the transmission of signals that influence the development and survival of cells, especially those in the nervous system. Disruptions to neurotrophin signaling have been linked to neurologically-based illnesses such as chronic pain, depression, Alzheimer’s disease and multiple sclerosis. Crowhurst’s team uses an instrument called a nuclear magnetic resonance spectrometer, which they borrow time on at other universities. It allows them to look at proteins in great detail.

“Ultimately,” said Crowhurst, “we hope that with improved understanding of these signaling mechanisms, future drugs that are designed by pharmaceutical companies will be more likely to target a single receptor and avoid undesirable interactions that cause serious side effects.”

Crowhurst said she hopes those attending the colloquium will leave with a better understanding of how chemistry and biochemistry affects their lives.

She said chemistry can be complex but “really cool.”

—Julia Venkateswaran

Chaparral Hall, New Science Building ‘Official’ Dedication

Tours of the State-of-the-Art Science Facility, Ceremony and Reception Open to Campus

Cal State Northridge officials will officially dedicate the university’s new state-of-the-art science building, Chaparral Hall, during a special ceremony on Friday, April 16. The ceremony will take place at the main entrance of the building at 4 p.m., followed at 5 p.m. by a reception in the university’s Botanic Garden. Tours of the facility and the campus will be offered starting at 2 p.m. Chaparral Hall is on East University Drive and Sierra Walk across from the bookstore and south of the Botanic Garden.

“The opening of Chaparral Hall comes at a critical point in the College of Science and Mathematics’ history,” said Jerry Stinner, dean of the college. “Since the year 2000, overall enrollment in the college has increased by 50 percent. This, coupled with rapidly changing technologies in science, has placed enormous demands upon the existing facilities. The need for state-of-the-art large classrooms and modern laboratory facilities has never been so great. The construction of Chaparral Hall provides unique opportunities to meet these challenges. I speak for all of us in the college when I say that this is one of the most exciting and special times in our history.”

The four-story, nearly 100,000-square-foot Chaparral Hall continues on page 2.
Mystery Novel Selected for 2010–11 Freshman Program
“The Curious Incident of the Dog in the Night-Time” Beat Out 21 Other Titles

“T
he Curious Incident of the Dog in the Night-Time,” by Mark Haddon, has been selected as CSU Northridge’s 2010–11 Freshman Common Reading Program book. The novel is narrated by Christopher Boone, a 15-year-old boy with autism spectrum disorder who is determined to find out who killed Wellington, his neighbor’s dog. The book follows Christopher’s adventures as he confronts the killer, solves an unexpected mystery and returns home in triumph from a completely unauthorized but necessary and harrowing trip to London.

Cheryl Sperry, director of the Academic First Year Experiences program, said the book was chosen because it is engaging and likely to encourage freshmen to read, reflect, and grow intellectually. It was selected by a committee of faculty, staff and students from a list of 22 nominated titles.

“Christopher is a wonderful hero with a terrific eye for detail. He loves dogs, Sherlock Holmes stories, prime numbers and his pet rat, Toby. The faculty and staff reading the book this spring are very eager to share it with next fall’s freshmen,” Specter said.

Academic First Year Experiences is hosting several book group workshops to generate ideas for faculty using the book in their fall classes. There are several sessions still remaining.

CSU Finds Creative Ways to Tackle Its Water Bill
Physical Plant Management Using MWD and LADWP Incentive Funds

T

hink you’ve got a big water bill? Think again. An inches-high stack of bills from the Los Angeles Department of Water and Power (LADWP) lands every month on Bill Sullivan’s desk. Manager of utilities and power for Cal State Northridge’s Physical Plant Management (PPM), Sullivan scours the bills to make sure there are no anomalies, costly meter misreads or potential leaks hidden in the mountain of numbers.

Worrying the water numbers is pro forma at PPM, but the department also is addressing the university’s water usage with the kind of creativity that has brought it national recognition for alternative energy source installations such as CSUN’s 1-megawatt fuel cell plant. Using incentive monies from the Metropolitan Water District (MWD) and the LADWP, PPM in fall 2009 completed installation of a Central Computerized Irrigation Control System.

Taking into account elements such as rainfall, temperature, humidity and wind speed, a campus weather station calculates evapo-transpiration and evaporation rates. The weather station sends messages to irrigation controllers all over the grounds, telling them how much watering the university’s plants and grass need on any given day.

As a designated large-turf area, Northridge enjoys the same special irrigation rate as golf courses and parks. Even so, during fiscal year 2008-09, its water bill was $655,000. “We’ll know in another year how much savings the campus is enjoying from this new irrigation system,” said Sullivan.

In addition, PPM is using MWD incentive funds to purchase and install 270 waterless urinals at Northridge. “This program is a great opportunity to replace some of the oldest fixtures on campus,” said Sullivan, “which can use in excess of 1.5 gallons per flush.” An analysis of CSUN’s water consumption is critical to this region’s future.

—Mechelle Best, assistant professor of recreation and tourism management

Our discoveries will be broadly shared... Water conservation is critical to this region’s future.”

Julia Vendaktsavaran

Chaparral Hall... continued from page 1.

square-foot building opened last fall and serves students from throughout the College of Science and Mathematics who have greater access to new and improved lecture halls on the first floor and computer labs throughout the building. The building is home to the Department of Biology’s offices as well as much of the department’s offerings, including teaching and research activities.

The 161-room Chaparral Hall includes 18 research labs, nine introductory teaching labs and 13 lecture rooms in addition to a DNA sequencing lab and a microscopy suite. The building has two computer labs equipped with high-speed “hard wired” and wireless connections. The building also supports fiber optic data transmission required by high-bandwidth instruments like the new confocal and electron microscopes.

Construction on the building began in July 2007, three years after passage of a state capital construction measure. In keeping with Cal State Northridge’s commitment to sustainability, the designers included many “eco-friendly” features such as water-efficient restroom fixtures and waterless urinals, energy efficient lighting and mechanical systems, and drought-tolerant landscaping. The building also incorporates as much natural daylight as is practical in a laboratory building. Outdoor and indoor spaces provide areas where students and faculty can meet.

Sinner said Chaparral Hall’s innovative design “promotes inter-disciplinary research that will increase collaborations in both teaching and scholarship. Interdisciplinary collaboration will be fostered not only through the physical location of work areas, but by providing common gathering areas for students and faculty. We recognize that, increasingly, science and mathematics are a communal affair.”

For more information about the Chaparral Hall dedication, call (818) 677-5473.

CSUN Alum Hand Cycles to Technology Conference

Cal State Northridge alumni Erik Gholson Williams ‘09 (Cinematic and Television Arts) encouraged students to attend CSUN’s International Technology and Persons with Disabilities Conference, the largest conference of its kind, at a campus rally on Tuesday, March 23. Williams, who is paralyzed from the chest down, kicked off a two-day bike ride from Northridge to the conference in San Diego (which ran from March 22-27) to raise awareness about the “wonderful” care provided by the Center of Achievement for the Physically Disabled and the Abbott and Linda Brown Western Center for Adaptive Aquatic Therapy.

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Details about the workshops are available online at www.csun.edu/afye/ Curious-incident-Book-Groups.html. In addition to the Freshman Common Reading Program, Academic First Year Experiences includes other programs that support CSUN freshmen and the faculty and staff who work with them. These include University 100 (the Freshman Seminar) as well as the annual Freshman Celebration, learning communities in the Freshman Connection, and the Freshman Faculty Series. More information about the Academic First Year Experiences is available at www.csun.edu/afye/about-afye.html. —Veronica Morris

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Events

Wednesday, April 14
Cross-Examine the Judges Night
The Department of Political Science presents “Cross-Examine the Judges Night,” an open forum with judges from the Los Angeles Superior Courts in Van Nuys, Chatsworth, and San Fernando. The event will take place from 7–9 p.m. in the Grand Salon of the University Student Union.

Thursday, April 15
5th Annual Whitsett Graduate Seminar and Lecture
The Department of Health Sciences and the Students of Health Administration will host a graduate lecture and seminar moderated by top scholars in fields related to California history. The seminar will take place from 9 a.m.–5 p.m. Lunch will be served. The lecture will feature Thomas Andrews, former CSUN professor and associate professor of history at the University of Colorado, Denver. The title of his lecture is “Toward an Environmental History of Hubert Howe’s Bankroll’s Works: The Nature and Culture of an Audacious Western Enterprise.” The lecture will start at 7:30 p.m. A reception will follow lecture. Both events will be held in Sierra Hall, Whitsett Room. fmi- www.csun.edu/history or x3566.

Tuesday, April 20
Haiti Symposium and Fundraiser
The Department of Health Sciences and the Students of Health Administration will present an event to raise funds for Haiti relief efforts. The event will take place from 7–9 p.m. in the Charles H. Noski Auditorium.

Thursday, April 22
40th Anniversary of the Earth Fair
The Associated Students Environmental Affairs Committee will host the 40th Anniversary of the Earth Fair. The event will be from 10 a.m.–2 p.m. on the Bayramian Hall Lawn and Cleary Walk West. The event includes exhibits on sustainability.

Classes

Dealing With the Workplace Violence
Has concern about your safety and/or safety of others on campus? The workshop “Dealing with Workplace Violence and Fear or Threats of Violence” will address those concerns. The workshop code is R228. The form can be accessed at www.admns.csun.edu/ohrs/benefits/forms/pledge.dot.

For Your Information

The deadline for the April 19 issue is Monday, April 12. We reserve to include, classes and deadlines. Submission deadline is noon on Monday, one week before the next issue.

Public Meetings

Educational Equity Committee
Meetings 11:30 a.m.–1 p.m. Monday, April 12 University Hall 277

Graduate Studies Committee
Meetings 2–4 p.m. Tuesday, April 13 University Hall 277

Personnel Planning and Review Committee
Meets 1:15–5 p.m. Wednesday, April 14 and 21 University Hall 277

Educational Policies Committee
Meetings 2–4 p.m. Wednesday, April 14 and 28 University Hall 211

Faculty Senate
Meets 2–4:30 p.m. Thursday, April 15 Oviatt Library Presentation Room

Research and Grants Committee
Meets 10 a.m.–12 p.m. Friday, April 16 University Hall 277

Extended Learning Committee
Meets 3:15–5 p.m. Wednesday, April 21 Bookstore Complex Conference Room

Senate Executive Committee
Meets 1–4:30 p.m. Thursday, April 22 University Hall 277

For Health

The health risks associated with alcohol and other drug abuse is available on the Office of Human Resources Web site at: http://www.admns.csun.edu/ohrs/relations/drug_free_campus.htm fmi-x5766.

Deadlines

Outstanding Graduating Senior Award
The Office of the Vice President for Student Affairs is accepting applications for the 2010 Outstanding Graduating Senior Award. Four students will receive an award of $1,000 each in recognition of academic excellence, service to the community and campus, and exceptional achievements or personal life circumstances that have been overcome. Applications are due Monday, April 12. Applications are available at http://www.csun.edu/studentaffairs/students or fmi-x2591.

Fee Waiver Deadline
The CSUN Fee Waiver and Reduction Program deadline for the fall 2010 semester is April 14. Submitting the application on time will guarantee a quicker and smoother enrollment process. Applications are available on the Human Resources Web site, www.admns.csun.edu/ohrs/development/former_enrollment.htm or call x2713.

WCAAS Announcement
The Western Conference of the Association for Asian Studies invites proposals for papers and panels on all aspects of Asian Studies for WCAAS 2010, to be held Oct. 22–24 at Cal State Northridge. The conference theme will be “Translating Asia: Past, Present and Future.” The deadline to submit a paper, a panel or roundtable forum is April 15. fmi-http://www.csun.edu/wcaas.

Correction
An error that appeared in the March 15 issue of @CSUN listed James Dacosta as one of the 2010 Staff Service honorees. That information was incorrect. Jillian Dacosta is on the list of 2010 Staff Service honorees.
In Brief

WISE Study Room Dedicated
Cal State Northridge celebrated the dedication of the Women in Science and Engineering (WISE) Study Room on March 16 at the Oviatt Library.

Among the attendees were WISE Advisory Board members Sharon Cascadden, Lilly Shrubati, Jackie Wollner, Oviatt Library Dean Susan Curzon and Bonnie Campbell. In 2009, Professor Emeritus Carmen Cascadden (Manufacturing Systems Engineering and Management) created a $500,000 endowment to "facilitate both the participation of women in science and engineering, particularly those fields in which they are insufficiently represented, and the development and preservation of knowledge about women in the science and engineering disciplines."

Campbell was the first woman in engineering at CSUN to hold a tenured faculty position and to serve as a department chair. She initiated her 35-year CSUN career by founding and building robust programs that brought national recognition to the College of Engineering and Computer Science, and quintupled the percentage of women students enrolled in its programs.

For more information or to donate to the endowment, contact Cindy Ventuleth at cindy.ventuleth@csun.edu or x2655.

Justin Weiss receives the ACU award from Debra Hammond, executive director of the University Student Union. Hammond accepted the award on behalf of CSUN at ACU’s annual conference in New York earlier this month.

CSUN’s Volunteer Program Honored for Project: Reduce Poverty
Cal State Northridge’s Unifed We Serve: The Volunteer Program received the Association of College Unions International (ACUI) Outstanding Service Project of the Year Award for its “Project: Reduce Poverty.”

CSUN was selected from among 50 other colleges and universities that submitted projects.

Last November, Unifed We Serve pulled students, faculty and staff together to focus on poverty. The campus collected thousands of canned food items and clothing for MEND, a Pacoima-based private social service agency. Judges also applauded the “Survive the Night” program, a mock homeless village and soup kitchen, organized as a teach-in on homeless issues.

“This award is reassuring. When we unify students, faculty and staff together in service, we see how much can be done throughout the community,” said Justin Weiss, coordinator of Unifed We Serve.

CSUN Hosts Inaugural Eisner Education Lecture and Colloquium
U.S. Department of Education Under Secretary of Education Martha Kanter will be the keynote speaker at the inaugural Eisner Education Lecture and Colloquium on Tuesday, May 4.

The day will include a colloquium from 1–3 p.m. in Nordhoff Hall, policy round table from 3:30–4:30 p.m. in the Campus Theater and a lecture by Kanter at 5 p.m. in the Campus Theater. A reception will follow the lecture. For more information and to RSVP, contact Bridget Sullivan at x5473.