CORNELL Chronicle

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5 CREATED Weill Cornell Medical College establishes stem cell research center with gift.

Life science building could get its start early next year, architects say

By David Brand

Construction of Cornell's Life Science Technology Building on the most westerly precinct of Alumni Field, could begin early next year, and substantial completion of the new four-story building is expected in the summer of 2007. That is the latest word from architects at the building's design firm, Richard Meier and Partners, New York City.

After a two-day working session on campus, architects and consultants met with members of the Cornell administration and researchers from across campus on May 11 in Corson-Mudd halls to present their latest plans and ideas for the dramatic new building that will rise alongside Corson Hall and the Biotechnology Building.

The $140 million project, the most ambitious scientific facility yet planned for the campus, will be rectilinear in aspect, with a two-story extension branching from the building's west-facing side toward the Biotechnology Building. The extension will house a learning center, meeting rooms and a café. In the spaces between the extension and the Biotechnology Building will be forecourts – public open spaces.

The entire building "will be crisp and modular, reflecting the order and organization of the way it is put together," said architect Renny Logan, describing the building's cladding of flat, white metal panels. "The building will have clear glass windows to reinforce the transparency and lightness of the building – and so that everyone can see the activities inside," he said. The intent also is to have the building flooded with as much natural light as possible, a hallmark of buildings designed by Richard Meier '56, whose work includes the Getty Center in Los

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Richard Meier and Partners

An architectural impression of the planned Life Science Technology Building shows Tower Road in the foreground and a portion of Corson Hall at right. The new building's two-story extension branches from the west-facing side toward the Biotechnology Building.

Way to bee

Frank DiMeo/University Photography

The float from the Department of Biological and Environmental Engineering (BEE) moves down Tower Road during the College of Agriculture and Life Sciences' centennial parade, May 12. The float won the Dean's Award for best overall float. More photos from the day's events are on Page 7.

Second West Campus residence named for revered CU historian

By Franklin Crawford

The second of five West Campus Residential Initiative (WCRI) houses has been named in honor of Carl Becker, distinguished Cornell historian.

President Jeffrey S. Lehman announced the naming of the Carl Becker House during a ceremonial groundbreaking held on West Campus, May 17.

Becker, a prominent cultural and intellectual historian, taught in Cornell's Department of History from 1917 through 1941 and served as the university historian from 1941 until his death in 1945. While active as a faculty member, he held two named chairs: the John Stambaugh Professor of History (1922-40) and the John Wendell Anderson Professor (1940-41).

The president linked the WCRI's "faculty-led, student-run" program philosophy to Becker's famous definition of the Cornell character as combining "freedom and responsibility."

"The freedom to do what one chooses, responsibility for what it is that one chooses to do," said Lehman, quoting Becker.

The president re-emphasized the fundamental importance of the WCRI, saying it strengthens undergraduate education in two mutually reinforcing ways: by creating smaller communities and by integrating intellectual activity into the daily lives of student residents.

The entire five-house residential system, including a community center, is scheduled for completion in 2010. The

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Latest edition of *Epoch* celebrates life and artistry of poet A.R. Ammons

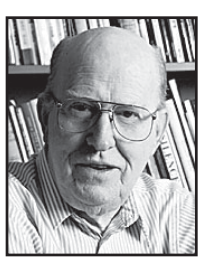
By Franklin Crawford

A.R. Ammons, Cornell's legendary bard, is celebrated in an unprecedented 480-page issue of *Epoch* magazine, Cornell's literary journal.

Fresh off the press is *Epoch* Vol. 52, No. 3, titled, *This is Just a Place: The Life and Work of A.R. Ammons* (Cornell University, $12.95).

"It's all previously unpublished," said Michael Koch, *Epoch*'s editor since 1989. "Ninety-five percent of the material in here has never appeared in print before."

The new *Epoch* volume includes 30 previously unpublished poems, prose pieces from all phases of the poet's career, entries from Ammons' Navy diary, logged while he was aboard the USS Gunason in 1945; 21 remarkable watercolors by the poet, plus letters, conversations and other Ammons ephemera.



Ammons

Ammons, Cornell's Goldwin Smith Professor of Poetry, died in February 2001 at age 75. During his career, he won virtually every major prize for poetry in the United States, including two National Book Awards – one in 1973 for *Collected Poems, 1951-1971*, and another in 1993 for *Garbage*.

With an introduction by Roger Gilbert, Cornell professor of English and recipient of a Guggenheim for his upcoming critical work on Ammons, the book-length volume is the longest issue in the 57-year history of *Epoch*. All of the prose pieces and new poems were culled from the Ammons archive in Cornell's Division of Rare and Manuscript Collections.

The book is divided into five sections: New Poems, Early Writings, Painting and Music, Exchanges and Reminiscences. The watercolors appear courtesy of Emily Wilson, a close friend of Ammons. According to Gilbert, Ammons produced hundred of paintings in the 1970s and 1980s.

The 30 new poems are accompanied by short comments from distinguished friends, colleagues and admirers of Ammons, as well as members of his family. Among the admirers is Harold Bloom, noted literary critic and Yale professor, who, in a short critical piece on "Quibbling the Colossal," writes: "I go on mourning for Archie Randolph Ammons, and I keep re-reading his poems."

Ammons was born near Whiteville, N.C., in 1926 and graduated from Wake Forest College in North Carolina, where he received a bachelor's degree in biology. He began writing poetry while serving onboard the USS Gunason during World War II. Before coming to Cornell in 1964, he attended graduate school at the University of California-Berkeley, worked as an elementary school principal in Cape Hatteras, N.C., and worked as a real estate salesman, an

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Building *continued from page 1*

Angeles and the Jubilee Church in Rome. He is the 1984 Pritzker laureate. The award is the highest honor in architecture.

Possibly the most dramatic aspect of the new building being considered by the architects is the building's north-end elevation: a stair tower with a giant glass block wall. "It would be full of light, acting as a lantern on Tower Road," said Logan.

Underground, the new building will be connected to adjacent research buildings by a series of tunnels. One will run under Tower Road to the Plant Science Building; another will connect to the Corson-Mudd/Biotech tunnel, and another will connect to the Biotechnology Building and its loading dock.

Josh Meyer, a laboratory and vivarium consultant with GPR Planners Collaborative, described how materials, from gases to chemicals, will move from the new building's loading dock via a service elevator and along dedicated corridors to the research areas, two-thirds of which will be wet labs, as differentiated from computer rooms. Each of the four laboratory floors also will have corridors that will be free of materials. "There is no reason for people to come into contact with anything that might be an issue," he said.

The central goal of the building is interaction, said Logan. "People will be fairly densely packed into an efficient working area, with corridors leading to what might be called a town piazza-like space in a sky-lit central atrium at the heart of the building. The principal point to make is that this will be a central space where everyone will mix it up."

The building will be the heart of the university's New Life Sciences Initiative, the largest single scientific effort in the university's history. The initiative involves seven colleges, several hundred faculty and up to 60 departments in an interdisciplinary research and education program. It will seek new methodologies for rapid DNA sequence detection, the computational and statistical tools to manage and analyze the data, and use Cornell's biological expertise to link sequence to function in the cell, in the organism and in the environment. The new initiative also will link genomics with such areas as neuroscience, basic ecology and environmental science.

Looking forward to graduation

Frank DiMeo/University Photography

Cornell Dean of Students Kent Hubbell, right, meets with Benjamin K. Addom, a graduate student in international agriculture and rural development from Ghana, during the annual President's Reception for Graduating International Students, May 10, in the Schoellkopf Hall of Fame Room.

Ammons *continued from page 1*

editor and as a sales executive at his father-in-law's New Jersey glass company. His first book of poetry was published in 1955.

Epoch was founded in 1947 by the late Baxter Hathaway, Goldwin Smith Professor of English at Cornell. The works of Thomas Pynchon and Don DeLillo first saw print in *Epoch,* and Philip Roth and Joyce Carol Oates also published some of their earliest stories in the award-winning magazine.

The Ammons volume can be purchased by sending $12.95 (first class postage paid) to: *Epoch*, 251 Goldwin Smith Hall, Cornell University, Ithaca, N.Y. 14853. Copies also soon will be available at the Cornell Store.

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CU Commencement weekend road and parking lot closings

The Cornell Commencement Committee has announced special road and parking lot closings on campus for Commencement weekend. Additional closings are needed because of the morning Convocation ceremonies at Schoellkopf Field on May 29.

Friday, May 28

Parking lots that will close 9 p.m. Friday, with any remaining cars towed. Lots will reopen at approximately 1 p.m. Saturday, unless otherwise noted:

- Hoy Field parking lot;
- Lynah/Teagle parking lot;
- Biotech loading dock parking;
- Lynah parking lot near Bartels Hall (closed all weekend);
- Crescent lot (closed all weekend);
- ILR parking lot (closed all weekend);
- Barton Hall east end parking spaces (closed all weekend);
- Metered parking lot between Bartels Hall and Friedman Wrestling Center;
- Big Red Barn parking lot between A.D. White House and Big Red Barn;
- Schoellkopf parking garage, except for mobility impaired permit holders and Statler guests (upper decks closed all weekend);
- Malott Hall parking lot;
- Sage Hall parking lot (closed all weekend)

Saturday, May 29

Road and sidewalk closings, 6:30-11 a.m.:

- A.D. White House driveway;
- Campus Road between Hoy Road and Tower Road;
- South sidewalk along Campus Road between Hoy Road and Portal X at Schoellkopf Field;
- Garden Avenue between Campus Road and Tower Road;
- Wing Drive between Campus Road and Tower Road;
- Judd Falls Road between Tower Road and Route 366.

Sidewalk closing, 9:30-11 a.m.:

- North sidewalk along Campus Road between Garden Avenue and the east end of Teagle Hall.

Sunday, May 30

Parking lots that will close 12:01 a.m. Sunday morning, May 30, with any remaining cars towed. Lots will reopen at approximately 3 p.m. Sunday, unless otherwise noted:

- Biotech loading dock parking;
- Lynah parking lot near Bartels Hall (closed all weekend);
- Crescent lot (closed all weekend);
- ILR parking lot (closed all weekend);
- Barton Hall east end parking spaces (closed all weekend);
- Schoellkopf parking garage, except for mobility impaired permit holders and Statler guests (upper decks closed all weekend)
- Sage Hall parking lot (closed all weekend)

Road closings, 8 a.m.-3 p.m.:

- Campus Road between Central Avenue and Tower Road
- East Avenue
- Garden Avenue between Campus Road and Tower Road
- Wing Drive between Campus Road and Tower Road
- Judd Falls Road between Tower Road and Route 366

Those with questions or concerns about the closings should contact Joe Lalley at <jml2@cornell.edu> or 227-5640.

Student athlete is dead at 19 after car crash

James H. "Jaime" McManamon, 19, a freshman at Cornell who was a defensive lineman on the varsity football team and a shot-putter on the men's track and field team, was killed in a car accident May 13 on Interstate 86 in Chautauqua County, N.Y.

McManamon

McManamon was traveling with his mother, Kerry McManamon, 41, and Kelly Smith, 41, to his home in Westlake, Ohio. According to police reports, his 2000 Chevrolet Suburban left the road and rolled over several times. He was airlifted to the Hamot Medical Center in Erie, Pa., and pronounced dead upon arrival. Kerry McManamon, who was in the rear seat, was ejected from the vehicle and suffered injuries. She remains hospitalized at Hamot Medical Center. Kelly Smith, in the front passenger seat, suffered minor injuries.

A 2003 graduate of St. Edward High School in Lakewood, Ohio, Jaime McManamon was an applied economics and management major in the College of Agriculture and Life Sciences.

"The Cornell community is heartbroken at the news of Jaime's death," said Andy Noel, director of athletics and physical education. "I initially met him during a recruiting visit to campus last spring, and he was fine young man and player this past year. He will be missed, very much, by his teammates and friends here at Cornell."

Jim Knowles, Cornell head football coach, also lamented McManamon's death. "Jaime was a very positive player who always had a smile on his face," Knowles said. "He was the strongest player on the team as a freshman, and we were expecting him to play for us in the fall on the defensive line. He was a good player, worked hard, was outgoing and easy to like. He was everything you wanted in a player."

In high school, McManamon played on both the offensive and defensive lines as a junior and senior football player. A three-year letter winner, he was the team's co-captain as a senior. He was also a member of the St. Edward's track team and was a four-year letter winner. He was the team's most valuable player as a senior and also set a school record in the shot put.

He is survived by his father, James, his mother, a sister and two brothers.

A candlelight vigil for McManamon was held May 17 on campus. A formal memorial service is being planned for the fall semester.

Chronicle schedule

The *Cornell Chronicle* publishing schedule for the rest of the semester and summer will be: May 27, June 10 and 17, July 1, 15 and 29; weekly publication resumes Aug. 19.

BRIEFS

■ **AIP address:** Cornell alumnus Taiaiake Alfred (Ph.D. '64, government) will deliver the keynote address, titled "Indigenous People and the Academy: Prospects and Challenges for the 21st Century," at a Cornell American Indian Program (AIP) symposium Wednesday, May 26, at 1:30 p.m. in the Robert Purcell Auditorium on campus. The lecture is free and open to the public.

Alfred is the University of Victoria's Indigenous Governance Program director and Canada Research Chair. His keynote address is part of a one-day symposium hosted by AIP, titled "Repatriating the Rafters: Envisioning Haudenosaunee (Iroquois) Studies in the 21st Century." The symposium's purpose is to "bring many of the prominent and emerging voices in Haudenosaunee scholarship into dialogue with Haudenosaunee peoples," said Jon Parmenter, assistant professor of history and associate director for academic development at AIP.

"We are hoping to move AIP in the direction of a greater degree of diversity and engagement with Native American communities in New York state," Parmenter said. "Cornell Cooperative Extension has done a great job in that area, and we hope to build on other areas of academic inquiry."

For more information about Alfred's talk, contact Parmenter at 255-1876 or via e-mail at <jwp35cornell.edu>.

■ **Commencement book signing:** The Cornell Store will be having its second annual Cornell authors book signing event on Commencement weekend, Saturday, May 29, on the store's lower level. Authors signing their books from noon to 2 p.m. will be: Carol Kammen – *Cornell: Glorious to View*; Michael Kammen – *A Time to Every Purpose*; Robert Morgan – *The Strange Attractor* and *Brave Enemies*; Alice Fulton – *The Cascade Experiment*; Michael Turback – *The Banana Split Book: Everything There Is to Know About America's Greatest Dessert* and *A Month of Sundaes*; Harry Littell – *Cornell Then and Now*; and Glenn Altschuler, Larry Moore and Isaac Kramnick – *The 100 Most Notable Cornellians*.

Weill Cornell establishes stem cell research center with $15 million gift

By Jonathan Weil

H. Ansary

Rafii

NEW YORK — Weill Cornell Medical College has established the Ansary Center for Stem Cell Therapeutics with a $15 million grant from Shahla and Hushang Ansary, prominent Houston philanthropists.

Shahla Ansary, who is a vice chairman of the college's board of overseers, is a former Iranian finance and economics minister, Iranian ambassador to the United States and chief executive of the National Iranian Oil Co. Currently he is chairman of Parman Capital Group, a privately held global investment firm.

The new research center will bring together a leading team of scientists to focus on stem cells, the primitive, unspecialized cells thought to have an unrivaled capacity to form all types of cells in the body. It will function in accordance with federal regulations, which allow federal funds to be used only for research on existing human embryonic stem cells lines. There are no such prohibitions on the use of adult stem cells.

"The Ansary Center will help lead the way into 21st century medicine in this extremely promising area," said Dr. Antonio M. Gotto Jr., the Stephen and Suzanne Weiss Dean of Weill Cornell. He noted that Weill Cornell scientists and physicians already are world leaders in stem cell research. Dr. Shahin Rafii, a noted authority in the field and the recently named Arthur Belfer Professor of Genetic Medicine at Weill Cornell, will direct the center.

"We are witnessing the birth of a new field of research that has tremendous potential for relieving human suffering," said Hushang Ansary. It's an exciting time, and we believe this prestigious center will have a significant impact in the field."

Added Dr. David P. Hajjar, executive vice dean for research at Weill Cornell, "This center will help position Weill Cornell at the vanguard of stem cell and developmental biology research in this country."

Stem cells are immature cells that can differentiate into all types of cells in the body, from heartbeat-generating cardiac cells to insulin-producing cells in the pancreas. Embryonic stems cells, or those that exist in the ball of cells that forms shortly after sperm and egg meet, are thought to have enormous potential when it comes to developing into different types of cells. Adult stem cells – which can be found in umbilical cord blood, bone marrow, blood and other parts of the body – have tremendous potential as well.

The Ansary Center will take a synergistic approach to stem cell research and bring together scientists from different areas of biomedical research to solve complex problems. The researchers hope to discover the wellspring of adult stem cells in the body and ways to manipulate stem cells to treat human illness. In particular, the researchers hope to understand the regulation of cells that give rise to blood vessels, to insulin-producing cells in the pancreas (which are damaged in diabetics), and to neurons of the brain and nervous system.

"Stem cells have long been known to reside in the blood and bone marrow and are responsible for churning out the massive number of red blood cells and infection-fighting white blood cells the body needs," said Rafii, who also is professor of medicine in the Division of Hematology-Oncology at Weill

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Iron supplements help certain nonanemic women, research finds

By Susan Lang

Among nonanemic women, only those with tissue-iron deficiencies can benefit from taking iron supplements, concludes a new study at Cornell.

"Supplementation makes no difference in exercise-training improvements in women with low iron storage-who are not yet tissue-iron deficient or anemic," said Thomas Brownlie, the first author of the study and a Cornell doctoral candidate in nutritional sciences.

Women with low body iron, but who are not anemic, may not experience any improvements following training if their tissues are low in iron. Whereas women who have low iron storage in their liver only, and who are not anemic, appear to have no functional impairments.

The study, published in the *American Journal of Clinical Nutrition* (2004; 79:437-43), is the first to show differences between the physical abilities of nonanemic women with low-liver vs. low-tissue iron. The researchers are also the first to show that low iron without anemia does have functional consequences in humans.

About 10 to 12 percent of U.S. women and 40 to 80 percent of women in developing countries are iron deficient but not anemic, yet most are unaware of their condition. The new study provides mounting evidence that mild to moderate iron depletion should be of greater concern.

It has long been known that iron-deficiency anemia compromises physical work capacity because of decreased oxygen delivery to the working muscles, and decreased ability to produce energy at the tissue level. In previous

Continued on page 6

Here comes the sundial

Frank DiMeo/University Photography

Cornell President Emeritus Dale Corson, left, and Richard Phelan, professor emeritus of mechanical and aerospace engineering, shake hands at the reinstallation of the Joseph N. Pew Sundial on the Engineering Quad, May 17. The sundial, an icon of the quad for more than two decades, had been stored in Upson Hall during the Duffield Hall construction project. Designed by Corson, a professor emeritus of physics, it is accurate to within 30 seconds. Phelan was responsible for the manufacture of the internal mechanism that adjusts the sundial for the current date.

In Montreal, Steve Squyres describes new adventures of the Mars rovers

By Blaine P. Friedlander Jr.

Squyres

MONTREAL — The Mars rovers, Spirit and Opportunity, are heading into two new and very different adventures in their pursuit of further geological evidence that water once flowed on the planet.

Spirit is speeding like a clipper ship toward the now not-so-distant Columbia Hills from its landing site at Gusev crater. Its twin, Opportunity, is surveying the rim along the football stadium-sized Endurance crater on the Meridiani plain for a potentially perilous pathway into the crater to investigate a huge, cantilevered bedrock outcrop.

"We are contemplating the wisdom of actually going into the crater," confirmed Steve Squyres, Cornell professor of astronomy and the principal scientific investigator for the Mars rover mission, speaking at a press conference at the American Geophysical Union Joint Assembly here May 17.

Mission scientists and engineers, said Squyres, are trying to determine the crater-slope grade before sending Opportunity into the enormous hole. After finishing the first of a three-part crater-rim survey, the rover is moving toward two new positions on the rim so that its two panoramic cameras can take images of possible routes into the crater along pathways with names Karatepe Ingress-Egress and Kalahari Ingress-Egress.

Another route receiving particular attention, said Squyres, is Larry's Leap, named for planetary scientist Larry Soderblom, the father of Cornell graduate student and mission researcher Jason Soderblom. The elder Soderblom, who works for the U.S. Geological Survey, advocates sending Opportunity down the eponymous slope.

To help in making the decision, said Squyres, an indoor slope – much like a large skateboard ramp, replete with sand and rocks – is being planned at NASA's Jet Propulsion Laboratory, Pasadena, Calif., to assess how a test rover can cope with climbing a 20-degree gradient. "This is right at the edge of what it can do," commented Squyres.

Meanwhile, on the other side of Mars, Spirit is handling the journey across the rocky landscape like an Olympic athlete. The vehicle, which is on the verge of reaching twice its guaranteed life span, was built to travel just 600 meters (656 yards). The Columbia Hills are more than 2.5 kilometers (1.5 miles) from Spirit's landing site.

On some days early in the mission, Spirit traveled 25 meters (27 yards). Now the vehicle averages about 120 meters (131 yards) a day. Squyres said that Spirit set a new one-day travel record last week when it traveled124 meters (136 yards) in a single day. Recently uploaded software "has made the rover faster and more courageous," he said. "We have really set sail."

Spirit is now less than a kilometer from Columbia Hills, and it could arrive there by mid June. "The hills are looming larger in the windshield," Squyres said. "The hills are beginning to look really, really big, and there's a lot of interesting stuff in those hills."

Squyres reminded the media that the terrain could be tricky, particularly with a semi-autonomous rover making its own driving decisions. "That's not a parking lot we're crossing. It's a hilly, rock-strewn terrain. This kind of pace bodes well for having lots of rover capability left when we get to the hills," he said.

En route to Columbia Hills, Spirit is not ignoring its scientific work. Squyres and his science team have scheduled three hours of science each sol (Martian day), in a routine now called a "sol quartet." Every sol – equal to one Earth day plus 39 minutes and 35 seconds – one of four of the rover's main scientific instruments obtains a measurement. It could be observing the Martian atmosphere with the mini-thermal emission spectrometer on one sol and using the Mössbauer spectrometer the next. Each major instrument gets a turn in the rotation every fourth sol.

The Martian winter is still several months away. But already there is less light for the solar panels, and that means less energy for the rovers. Regardless of the impending change of season, Squyres said, "The vehicles are just in outstanding health. They're better than when they first landed."

Ecologists: U.S. needs 'low-carb' energy diet

By Roger Segelken

Just as low-carbohydrate diets are trimming the American waistline, more judicious use of hydrocarbon-based fossil fuels would reduce the United States' energy consumption by 33 percent and save consumers $438 billion a year by 2014, according to an analysis by Cornell ecologists.

Pimentel

Reporting on "U.S. Energy Conservation and Efficiency: Benefits and Costs" in the the journal *Environment, Development and Sustainability* (Vol.6, Issue 3-4), David Pimentel, Cornell professor of ecology, and 11 student ecologists found the most fat for trimming – with the best potential for major energy savings – in the transportation, residential heating and cooling, industrial and food-production sectors. Energy conservation and implementation of energy-efficient technologies also would allow significant savings in the production and use of chemicals, paper and lumber, household appliances, lighting and metals, the analysis showed.

And American taxpayers could save an estimated $39 billion a year by insisting that the government kill subsidies to the energy industries, according to Pimentel, who adds: "The next time you're pumping gas or paying the heating bill, ponder this: As high as fuel prices are in this country, they would be even higher without government subsidies to prop up the industry. Instead of paying at the pump, every American family is paying about $410 in taxes each year for subsidies that keep gasoline prices and other energy product prices artificially low. This policy encourages greater consumption and importation of more oil and natural gas. Ending subsidies and pricing energy at its true cost would stimulate the use of conservation and energy efficient technologies, and result in net savings."

The analysis was performed in a yearlong, graduate-level class called Environmental Policy, in which students under Pimentel's direction investigate complex environmental issues by compiling previously published studies and drawing conclusions. Cornell students in the energy-efficiency project were Andrew Pleasant, Jason Barron, Jen Gaudioso, Noah Pollock, Elisa Chae, Yoonji Kim, Allison Lassiter, Christina Shiavoni, Alex Jackson, Melinda Lee and Andrea Eaton.

When the analysis was conducted, during the 2001-02 school year, gasoline averaged $1.50 a gallon and natural gas prices were just beginning to rise. Elevated energy prices in 2004 make the case for conservation even more compelling, the students say, and further boost the potential payback for implementation of energy-efficient technologies.

Concluding their analysis, Pimentel and his students write: "We are confident that the president and the U.S. Congress, working with the people, could reduce our energy consumption in approximately a decade by 32 quads (32,000,000,000,000,000 BTUs) per year, about 33 percent of present energy use. Saving fossil energy is fully justified because it would help reduce American dependence on foreign sources of energy and improve national security, improve the environment, reduce the threat of global climate change and save approximately $438 billion per year, which would help support the U.S. economy."

Ornithology team takes second place in birding world series

Thousands of Cornell Lab of Ornithology members and friends awoke Sunday morning, May 16, with one thing on their mind: How well did their team do, zigzagging through New Jersey in this year's World Series of Birding?

The lab's team, the Cornell/Swarovski Sapsuckers, named in part for team sponsor Swarovski Optik, placed first for best out-of-state team total, a title they've claimed for more than a half-dozen years. For that, they'll again bring home the Stearns Award.

But the most coveted prize, the Urner Stone Cup for first place in the all-states category, eluded them again this year. The Cornell team's final tally was 209 species for the event that began Friday at midnight and ended Saturday, 24 hours later – 10 species behind their friends on the Delaware Valley Ornithological Club team.

Team Sapsucker did, however, land more than $650 per species in pledges, shattering their previous record of $640 per species and yielding more than $160,000 (including sponsorship), which will go to the lab's bird conservation programs.

Details of the 2004 World Series of Birding are at: <http://www.birds.cornell.edu/wsb/>.

Stem cell research center *continued from page 5*

Cornell. "Now scientists are starting to find organ-specific stem cells nearly everywhere, which opens up novel strategies to regenerate adult organs."

Rafii has made a number of advances in stem cell research, including the discovery of vascular stem cells that are present in the adult bone marrow and can contribute to wound healing and tumor revascularization. In addition, his group has found that stem cells in bone marrow must move from one location to another before they can mature and begin regenerating new cells. He and his team also identified the growth factors that facilitate this movement, which could help cancer patients recovering from the severe blood- and immune-suppressing effects of chemotherapy.

In other innovative research on stem cells at Weill Cornell, Dr. Neeta Roy, assistant professor of neuroscience, recently isolated neural progenitor cells from fetal spinal cord tissue, which could one day be used to treat damaged nerves and brain tissue.

Ansary Center researchers particularly hope to find ways to boost the growth of adult stem cells. For example, for decades it was nearly etched in stone that certain organs – including the brain, heart, and ovaries – had a finite number of cells. It was thought these organs had no way of generating new cells that had been damaged or used up. In recent years, tantalizing new evidence has suggested that hibernating stem cells could be lurking inside these and other organs.

"If we can find a way to stimulate these cells, either in the laboratory or in the body, we could deliver large amounts of a patient's own stem cells as a treatment," said Rafii. "Such cells could be used to enhance brain recovery after stroke, accelerate wound healing in diabetics and regenerate heart muscle after a heart attack."

Low-iron study *continued from page 5*

work, the Cornell researchers had shown that mild iron deficiency also reduces endurance, the capacity for physical work and exercise performance, and that iron supplementation improves exercise training.

"Millions of women who are mildly iron deficient must work harder than necessary when exercising or working physically and they can't reap the benefits of endurance training very easily," said Jere Haas, the Meinig Professor of Maternal and Child Nutrition at Cornell and a co-author of the study. "As a result, exercise is more difficult so these women are more apt to lose their motivation to exercise." The new study shows that iron supplementation can help the nonanemic women, but only in those who have become tissue-iron deficient.

Forty-two iron-depleted (but not anemic) women, ages 18 to 33, participated in the six-week study.

A woman's tissue iron status can be assessed with a measure called serum transferrin receptor concentration, which can be given by health professionals. "It would be useful for women who test low for iron but who are not yet anemic to have this test," said Brownlie. "Women found to be tissue-iron deficient will find exercise exceedingly difficult without improving their iron status – which could be achieved by increasing consumption of iron-rich foods or iron supplementation."

Women who are physically active, dieting or are vegetarians are particularly at high risk for iron depletion, the researchers point out. "In developing countries, iron depletion can have dramatic consequences on a woman's ability to do physical work and make a living," said Haas. Iron is an essential component of hemoglobin in the blood and plays an important role in oxygen transport and utilization. When people consume iron-deficient diets, they first deplete stores of iron in the liver; at the final stage, they become anemic due to insufficient iron to produce new red blood cells.

To prevent iron depletion, the researchers recommend red meat; for vegetarians, they recommend citrus fruit and juice (vitamin C) with meals to improve absorption from iron-rich foods such as legumes, whole grains and green vegetables.

In addition to Haas, the other study co-authors are Virginia Utermohlen, M.D., professor of nutritional sciences at Cornell, and Pamela Hinton of the University of Missouri.

The study was supported, in part, by the Mead Johnson Research Fund and the National Institute of Child Health and Human Development.

Researchers earn prestigious citations *continued from page 3*

and the Humboldt Foundation Senior Scientist Award. He served a three-year term on the board of the NSF Institute for Mathematics and its Applications at the University of Minnesota.

The AAAS was founded in 1780 by John Adams, George Washington and James Bowdoin. There now are 74 fellows of the academy among Cornell faculty on the Ithaca campus and at the Weill Cornell Medical College in New York City.

Flanagan was cited by the Xanthopoulos award committee for his "broad set of contributions to gravitational physics, ranging from data analysis for gravitational wave detectors to studies of quantum gravity and cosmology." The award was set up by the Foundation for Research and Technology-Hellas in memory of the late Xanthopoulos, a Greek theoretical physicist who was shot to death by a mad student in 1990 at the University of Crete. It is given triennially to a scientist under 40 years of age who has made outstanding theoretical contributions to gravitational physics.

Flanagan's research group works on the physics of strong gravitational fields, developing quantitative models of processes involving neutron stars, black holes and the early universe.

After receiving his B.Sc. (1987) and M.Sc. (1988) at the University College Dublin and his Ph.D. (1993) from the California Institute of Technology, Flanagan was a postdoctoral fellow at the California Institute of Technology for a year and an Enrico Fermi fellow at the University of Chicago for two years before he joined the Cornell physics faculty in 1994. He was named an associate professor in 2001.

McQuade's Beckman award will further his work in creating and studying functional materials using the tools of chemistry, biology and materials science. Specifically, he is seeking to create well-defined polymeric and molecular-based assemblies that mimic the complexity and function of biological materials, from enzymes to organs. His goal is to create new methods for the synthesis of complex polymers and functional materials designed to produce sensors and catalysts.

Awards from the Arnold and Mabel Beckman Foundation are made to nonprofit institutions to promote research in chemistry and the life sciences. The Young Investigators grants are intended to provide research support to the most promising young faculty members in the early stages of academic careers in the chemical and life sciences.

McQuade joined the Cornell faculty in 1998 after earning a Ph.D. in organic chemistry at the University of Wisconsin at Madison. He received a B.S. in biology and chemistry from the University of California at Irvine in 1993.

Chirik's Cottrell award will be applied to his research and classroom programs focusing on the application of transition metal chemistry to problems in chemical synthesis. He is interested in developing metal compounds that convert unreactive molecules, such as atmospheric nitrogen, into more value-added products such as ammonia, fuels and fine chemicals. He also is interested in developing new iron-based catalysts as inexpensive and environmentally friendly alternatives to more expensive and toxic heavy metals.

Chirik, who joined the Cornell faculty in 2001, earned his B.S. at Virginia Polytechnic Institute and State University (1995) and his Ph.D. at Cal Tech in 2000. He won a NSF Faculty Early Career Development Program award in 2002 and the Herbert Newby McCoy Award in 2000.

Cottrell awards are offered by Research Corp., a Tucson-based foundation for the advancement of science. The awards are given to tenure-track assistant professors in astronomy, chemistry and physics to further their teaching and research.

The IEEE Kilby Medal was given to Parks "for fundamental contributions to digital filter design and interpolation, especially the Parks-McClellan algorithm." The award was established in1995 to recognize outstanding achievements in signal processing.

Parks earned his B.E.E. (1961), M.S. (1964) and Ph.D. (1967) at Cornell. He taught at Rice University from 1967 until 1986 when he joined Cornell's School of Electrical and Computer Engineering. He is a fellow of the IEEE and a recipient of the IEEE Third Millennium Medal, the Humboldt Foundation Senior Scientist Award and a Senior Fulbright fellowship. He has co-authored a number of books and papers on digital signal processing. His research interests are in signal theory and digital signal processing.

Mike Borzcik '05, engineering, blows his horn with the Cornell Marching Band as the CALS centennial parade passes Olin Library, May 12.

Mia Park, a graduate student in natural resources, plays the kazoo with the Natural Resources group as the parade moves down Tower Road.

Picking and grinning on the Mann Library float are employees, from left, Philip Halcomb, Michael Cooke, Director Janet McCue and Nan Hyland.

All photos by Frank DiMeo/University Photography

The Department of Entomology's float was deemed "most creative" by a reviewing panel of VIP judges. More than 43 groups from CALS participated in the parade, which included 19 floats, as well as eight antique cars.

College of Agriculture and Life Sciences celebrates its centennial with a parade and a garden dedication

To evoke the rich history of CALS, sculptor Rebecca Thompson incorporated building materials left over from the construction of buildings around the campus in the Students' Centennial Garden, which was dedicated May 12. This concrete trellis will hold the architectural element that was located atop the original Roberts Hall, designating it as a New York state building.

From left, former CALS Dean David Call, trustee emeritus John Dyson '65 and current Dean Susan A. Henry walk in a procession to the Students' Centennial Garden dedication, just prior to the centennial parade. Dyson's gift supported the construction of the garden.

Liberty Hyde Bailey (played by William Crepet, chair of the Department of Plant Biology) passes a cup presented to Bailey by students in 1904 to Dean Susan Henry during the ice cream social after the parade. June Losurdo, CALS centennial director, is in the background.

CALENDAR

May 20 through May 27

TO SUBMIT A NOTICE:

Items for the calendar should be submitted by campus mail, U.S. mail or in person to Chronicle Calendar, Cornell News Service, Surge 3, Ithaca, N.Y. 14853. Notices should be sent to arrive 10 days prior to publication and should include the name and telephone numbers of a person who can be called if there are questions.

emeritus/retired

CAPE Meeting

The Cornell Association of Professors Emeriti will hold its spring meeting today, May 20, at 1:30 p.m. in the Boyce Thompson Institute Auditorium. In addition to the meeting, Per Pinstrup Andersen, the H.E. Babcock Professor of Food, Nutrition and Public Policy, will speak on "Combining Policy and Research to Achieve the Millennium Development Goal for Hunger Alleviation: Can the Goal Be Achieved?" Spouses and friends of retired faculty are welcome. For information, contact Janice McBride, 255-6608.

exhibits

Johnson Museum of Art

The Herbert F. Johnson Museum of Art, on the corner of University and Central avenues, is open Tuesday through Sunday from 10 a.m. to 5 p.m. Admission is free. Telephone: 255-6464.

• "Allen Sisters: Pictorialist Photographs 1885-1920," through May 30.

• "Small Worlds: The Etchings of Jacques Callot and Stefano Della Bella," through June 13.

• "Contemporary Taiwanese Art in the Era of Contention," through June 13.

• "Double Takes: Transformations Through the Lens," through July 11.

Cornell Labyrinth Society

"Labyrinths for Peace," through May 22, in 3330 Carol Tatkon Center.

Entomology Library, Comstock Hall

"Beetles and Stones: Lithography 133 Meets Entomology," through July 9.

Hirshland Gallery, Kroch Library

(M-F, 9 a.m.-5 p.m.; Sat., 1-5 p.m.)

"600 Years of Urban Development and Planning in and Around Tianjin," through June 5.

films

Films listed are sponsored by Cornell Cinema and held in Willard Straight Theatre, except where noted, and are open to the public. All films are $6 ($5 for undergraduates and seniors; $4 for Cornell graduate students and kids 12 and under).

Thursday, 5/20

"Japanese Story" (2003), directed by Sue Brooks, with Toni Collette and Gotara Tsunashima, 8 p.m.

Friday, 5/21

"50 First Dates" (2004), directed by Peter Segal, with Adam Sandler, Drew Barrymore and Rob Schneider, 7:30 p.m.

"Touching the Void" (2003), directed by Kevin Macdonald, with Joe Simpson, Simon Yates and Brendan Mackey, 9:45 p.m.

Saturday, 5/22

"Touching the Void," 7:30 p.m.

"50 First Dates," 9:45 p.m.

Cornell Cinema will reopen June 16.

lecture

American Indian Program

"Indigenous People and the Academy: Prospects and Challenges for the 21st Century," Taiaiake Alfred, University of Victoria, May 26, 1:30 p.m., Robert Purcell Auditorium, 2nd Floor, Robert Purcell Community Center.

Etchings

The exhibition "Small Worlds: The Etchings of Jacques Callot and Stefano Della Bella" is on view at the Herbert F. Johnson Museum of Art through June 13. These artists were two of the most prolific chroniclers of life in the first half of the European 17th century. Callot, whose 1622 etching "Les Gueux (Beggars)" is shown here, was a great technical innovator who produced more than 1,400 etchings, often in almost microscopic detail.

music

Bound for Glory

Albums from the studio. Bound for Glory is broadcast Sundays from 8 to 11 p.m. on WVBR-FM, 93.5 and 105.5.

religion

African-American

Sundays, 5:30 p.m., Anabel Taylor Chapel.

Baptist Campus Ministry

Weekly Bible study meets Wednesdays at 8 p.m. in 314 Anabel Taylor Hall. For information contact Keith Bowman at <kcb29@cornell.edu> or 277-2283.

Buddhist

• Meditations: Monday, Wednesday and Thursday, 12:15-1 p.m., Founders Room, Anabel Taylor Hall.

• Zen Meditation practice is Mondays and Wednesdays, 5:30-6:30 p.m., Founders Room, ATH. For information, call Anne Marie at 266-7256.

Campus Crusade for Christ

Weekly large group meets Fridays at 7:30 p.m. in B14 Hollister Hall.

Catholic

• Sunday Mass schedule: 10 a.m. and 5:15 p.m., Anabel Taylor Hall Auditorium, and 9:30 p.m., Sage Chapel.

• Daily Masses: Monday-Friday, 12:20 p.m., ATH Chapel.

• Sacrament of Reconciliation: Sundays, 4 p.m., G22 ATH.

Christian Science

Testimony meetings: Thursday, 7:30 p.m., Founders Room, Anabel Taylor Hall. Church services: Sundays, 10:30 a.m., and Wednesdays, 7:30 p.m., First Church of Christ Scientist, 101 University Ave., Ithaca.

Cornell Christian Fellowship

The InterVarsity chapter meets Fridays at 7:30 p.m. in Hollis E. Cornell Auditorium, Goldwin Smith Hall. For information visit the Web site at <http://www.ccfiv.org>.

Episcopal (Anglican)

Wednesdays, worship and Eucharist, 5 p.m., Anabel Taylor Chapel. Sundays, worship and Eucharist, 9:30 a.m., ATH Chapel. For more information, call 255-4219.

Friends (Quakers)

Meeting for worship, Sunday, 11 a.m., Edwards Room, Anabel Taylor Hall. For information visit <http://www.quaker.org/ithaca/> or call 273-5421.

Grace Christian Fellowship

The InterVarsity chapter meets Fridays at 7 p.m., B11 Kimball Hall. For more information visit the Web site at <http://www.curw.cornell.edu/gcf>.

Hindu

Weekly religious service is Saturday at 4 p.m. in the Edwards Room, Anabel Taylor Hall, followed by a Gita reading at 5 p.m.

Jewish

• Conservative and Reform: Fridays, 5:15 p.m., in the lobby of Anabel Taylor Hall, followed by a community Shabbat dinner at 6:45 p.m. in the Kosher Dining Hall. Saturdays, 9:45 a.m., Conservative services in the Founders Room, ATH. Call the Hillel office at 255-4227 for more information.

• Orthodox: Friday, Center for Jewish Living, call 272-5810 for weekly times; Saturday, 9:15 a.m., Edwards Room, ATH. For daily services, call 272-5810.

Korean Church

Sundays, 11 a.m., One World Room (in English), and 1 p.m., chapel (in Korean), Anabel Taylor Hall. Call 255-2250 for more information.

Latter-Day Saints (Mormon)

Cornell student branch: Sundays, 11 a.m. until June 1, then 9 a.m. Call 257-7313 for information.

Lutheran

Campus ministry at St. Luke Church, 109 Oak Ave., in Collegetown, Sundays, 10:45 a.m. and 5 p.m. Bible study Tuesday, 7 p.m. For more information call 273-6811 or e-mail <rlb8@cornell.edu>.

Muslim

Daily congregational prayer at 218 Anabel Taylor Hall. Weekly Halaqa, Thursdays, 6:30-7:30 p.m., ATH. Weekly Juma'a Prayer, Friday, 1:20 p.m., One World Room, Anabel Taylor Hall. Weekly coffee hour Tuesdays, 4:30 p.m., Tower Café, Uris Library. For more information visit the Web site: <http://www.meca-online.org/>.

Pagan

For information about United Pagan Ministries, call Cornell United Religious Work at 255-4214.

Protestant Cooperative Ministry

Sunday service at 11 a.m. in Anabel Taylor Chapel.

seminars

Chemistry & Chemical Biology

Aggarwal Lecture: Timothy Lodge of the University of Minnesota Institute of Technology will give the following seminars: "Martensitic Transformations in Block Copolymer Solutions," May 24, 8:40 a.m., Alice Statler Auditorium; "the Viscosity of Polymer Mixtures: A Simple Explanation for a Complicated Phenomenon," May 25, 8:30 a.m., Alice Statler Auditorium; and "Design of Tryptych Polymeric Surfactants for Internally Structured Micelles," May 26, 4:40 p.m., 119 Baker Laboratory.

Mechanical & Aerospace Engineering

"Development of a Quasi-Dimensional Diesel Spray Combustion Model for the Engine Cycle Simulation and Its Application to Engine and Vehicle Systems," Dohoy Jung, University of Michigan, May 24, 10 a.m., 111 Upson Hall.

Molecular Biology & Genetics

"Mouse Models for Dissecting Molecular Mechanisms in Genome Maintenance," Robert Weiss, biomedical sciences, May 21, 4 p.m., G10 Biotechnology Building.

Plant Breeding

"How India Implements Agreement on Trade-Related Aspects of Intellectual Property Rights," V. Lakshmi Kumaran, advocate, Lakshmikumaran & Sridharan Law Firm, India, May 20, 12:20 p.m., 135 Emerson Hall.

miscellany

Alcoholics Anonymous

Meetings are open to the public and will be held Monday through Friday, 12:15 p.m., in Anabel Taylor Hall. For more information, call 273-1541.

Emotions Anonymous

Emotions Anonymous, a 12-step program for those dealing with emotional problems, meets Sundays at 7:30 p.m. and Tuesdays at 8 p.m. at St. Luke's Lutheran Church, 109 Oak Ave. For information, call Ed at 387-8257.

Food Addicts in Recovery Anonymous

A public information meeting will be held May 22 from 10 to 11:30 a.m. at Cayuga Addiction Services, on the corner of State and Plain streets. Food Addicts in Recovery Anonymous is a 12-step program for individuals recovering from food addiction. There are no dues, fees or weigh-ins. Everyone is welcome. Call 387-8329 for more information.

Walk-In Writing Service

• 178 Rockefeller, Sunday-Thursday, 3:30-5:30 p.m.

• 222 Robert Purcell, Sunday-Thursday, 7-10 p.m.

• 320 Noyes Center, Sunday-Thursday, 7-10 p.m.

• Carol Tatkon Center, 3343 Balch Hall, Sunday-Thursday, 7-10 p.m.

sports

Men's Lacrosse (9-4)

May 23, NCAA Quarterfinals vs. Navy, noon; the Syracuse-Georgetown game follows at 3 p.m.

Men's Hvwt. Rowing

May 22, Pennsylvania

May 27-29, at IRA Champs.

Men's Ltwt. Rowing

May 27-29, at IRA Champs.

Softball (39-11, 10-4 Ivy)

May 20, NCAA Regionals vs. Long Beach State at UCLA