Study finds marine plankton may have played key role in stabilizing modern climate

By Anne M. Stark

A trio of scientists, including a researcher from the Laboratory, has found that humans may owe the relative mild climate in which their ancestors evolved to tiny marine organisms with shells and skeletons made out of calcium carbonate.

Study of marine plankton, tiny marine organisms with shells and skeletons made out of calcium carbonate, found that these organisms may have played a key role in stabilizing modern climate. The research was led by UC Riverside researchers Andy Knoll and Martin Kentredy, along with LLNL climatologist Ken Caldeira. They discovered that the increased stability in modern climate may be due in part to the evolution of marine plankton living in the ocean.

Further coverage — Pages 4, 5

Newsline Staff Writer

CLIMATE, page 8

Lab to host ‘Atoms for Peace’ symposium

By Stephen Wampler

A high-profile group of experts will take a look next week at how Dwight Eisenhower’s 1953 “Atoms for Peace” speech affected the world, particularly the world of nuclear technology.

The two-day symposium, “Atoms for Peace: After 50 Years: New Challenges and Opportunities,” will be held at the Laboratory Nov. 13-14 under the sponsorship of the Center for Global Security Research (CGSR).

Laboratory employees are invited to attend any or all of the panel discussions and talks, which will be held in the Bldg. 123 auditorium (see agenda at: http://cgsr.llnl.gov/wkshp_eisenhower.html). Seating will be on a first-come, first-served basis.

Next week’s symposium culminates a series of three workshops and one conference in 2003, in which experts in science, technology and policy examined issues of defense, deterrence, nonproliferation, civilian applications and the associated governance and public confidence issues.

See ATOMS, page 8

Reflecting on Edward Teller’s life

By Don Johnston

Friends, colleagues, admirers, congressional representatives and family paid tribute to the late multidimensional man. said Director Michael Anastasi in opening the memorial ceremony, which was co-sponsored by the Laboratory, Stanford University’s Hoover Institution and the University of California.

Teller was celebrated as a man of science, a teacher, patriot, an adviser to presidents, a family man, musician and poet in a tribute that included a recital of some of Teller’s favorite compositions played by a classical trio.

See NEWSLINE STAFF WRITER

Dynes and Foley optimistic about UC’s continued role managing the national labs

University of California President Robert Dynes and UC Vice President for Laboratory Management, told Laboratory employees the University is proceeding as if it will compete for the Department of Energy’s contract to manage the national weapons labs.

Dynes and Foley addressed employees in an all-hands meeting Monday morning, Foley’s first official day on the job.

Under scoring that a final decision to compete would have to come from the UC Board of Regents, Dynes said: “I’m committed to the University competing.”

Energy Secretary Spencer Abraham announced last summer that the contract to manage Los Alamos National Laboratory would be put out for bid. The future of the contract to manage Lawrence Livermore is not clear. “There are some uncertainties for Liver more,” Dynes said.

Key to the University’s competing are the conditions in DOE’s request for proposals, he said: “The conditions must have a strong science and technology base.”

In an October press conference with UC officials, Dynes said he had been reassured by Linton Brooks, National Nuclear Security Administration administrator, that the NNSA and DOE want UC to compete for the contract (see the Friday, Oct. 10 Newsline).

On Monday he reiterated that there are still issues, such as “how we’re going to pay for competition,” to be resolved.

See NEWSLINE STAFF WRITER

extended work week policy revised

HOME email facilitates contributions

Plant Engineering Project update

See HOME PAGE, page 7
Newsline

Chains changed for extended workweek

The Laboratory is proposing changes to its extended workweek policies. If adopted, the revised policies would define an "extended workweek schedule" as one in which employees work at least a minimum of 56 hours in a week for each of five consecutive workweeks. The department head would be required to assign an alternate Work Schedule (4/6, 5/6, 5/7, or 4/4) for each employee in such a workweek.

The proposed changes would allow employees who normally do not work extended workweek pay to be assigned an alternate Work Schedule (4/6, 5/6, 5/7, or 4/4) for each employee in such a workweek.

No other changes would impact biweekly-paid employees, but monthly-paid employees would be affected in several ways. Those already approved for extended workweek pay would be considered "qualifying" for the new policy, and could receive it only for those workweeks in which a minimum of 16 "overtime" hours (a total of 56 effort hours) were worked and reported.

For more information, contact Dick Rufer, 2-6284, or Monique Cosman, 3-1647.

In honor of Veteran's Day, retired Air Force Life "The Talk is sponsored by AF Life Col. George Sakaldasis, Retired.

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Commemorating Edward Teller

Teller's four decades of leadership gave a personal account of Teller as a "friend, colleague and advisor." Evoking Teller's early days in the United States, he said, "I was a true giant with certainty his belief in science and service to mankind," McSlarrow concluded. "Edward Teller didn't just make a difference, he made a gigantic difference.

Shultz said Teller's role in the development of the Strategic Defense Initiative (SDI) "played a critical role" in bringing an end to the Cold War. Though the idea of SDI was "made up by the science community," Teller "led the charge to President Reagan's proposal."

Recalling how President Reagan leveraged SDI in arms talks with the Soviet Union, Shultz said, "It was very clear SDI caught the top of his dedication and determination," she said. "I see this as an indication of his dedication to his friends and colleagues. The fact that his friends made it possible for him to work until his last days was a source of joy to him. Your friendship was the cornerstone of my father's success and his happiness.

Paul Teller, Teller's son, spoke of his father's "incredible integrity" and said his father was not remembered as someone who was very modest. "But in measure of what I have heard today, he was incredibly modest."

He concluded by reading a poem his father had composed, recently found among some family papers (see accompanying story — photo of Paul and first of poems). To see video of the ceremony and more pictures, see the Web at http://www.lbl.gov/
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be resolved. "DOE and NNSA understand that's an issue. There are no solutions yet, but they are aware of the issue."

Foley, who now has primary responsibility for the University’s management of the three national labs and administers on behalf of DOE and NNSA, received an ovation when he said: "I’m proceeding as if we’re going to compete this thing, and we’re going to win."

Asked if the University is considering partnering with another institution to compete for the contract, Dynes said: "We’re seriously looking at partners that could bring strengths in the areas the University is seeking to improve."

Responding to a question about changes in management of the labs, Foley said he would explore options for "merging across the three labs" that would "eliminate redundancies."

In providing an overview of UC’s role in managing the national labs, Dynes emphasized the University’s historical role and the view that he is "an enormous service to the country."

"I don’t know who I would feel comfortable with except the University taking responsibility," he said: "The intellectual horsepower of the University is unmatched anywhere and it’s being brought to bear at the labs."

Acknowledging that "the past year or two have not been easy" for the labs, Dynes exhorted employees to remain focused on science and technology missions. "We should never lose sight of the mission."

Over the course of his 25-year association with the national labs, Dynes said: "I have developed a profound love of this Laboratory and this comes from its entrepreneurial spirit and ability to take on high-risk projects."

Asked if researchers can do for UC, Dynes urged them to keep pushing the boundaries of science. "Say out there. You have a distinct advantage over the academic community to move quickly on new things. Keep pushing. If everything works, you’re not pushing hard enough."

The researchers used a computer model describing the ocean, atmosphere and land surface to look at how atmospheric carbon dioxide would change as a result of glacier growth. They found that, in the distant past, as glaciers started to grow, the oceans would suck the greenhouse gas — carbon dioxide out of the atmosphere — making the Earth colder, promoting an even deeper ice age. When marine plumes with carbonate shells and skeletons are added to the model, ocean chemistry is buffered and glacial growth does not cause the ocean to absorb large amounts of carbon dioxide from the atmosphere.