

about a year ago, when a degenerative neurological disease finally made it impossible to continue. But he faced that, too, with characteristic good nature and good sense.

"I think," says Gunn, "the most far-reaching thing I learned from Jim, who was also one of the most fearless people I have ever known, was not to be afraid of anything technical just because of ignorance of the subject or device or any preconception about the difficulty of the task. It is quite OK to deem a task impossible (and he did a very few) but not without knowing how hard it really is."

Terrile, his former graduate student, remembers many nights getting to know Westphal inside the east arm of the Hale Telescope, where "he not only taught me about astronomy and science, but also about more down-to-earth topics like self-reliance, dealing with people, and how to keep focused when things go bad. Jim had a wonderful way of reducing a problem to its most basic form. He said, "There are always two ways to deal with a problem: You can get angry and upset and then try and fix it, or you can just fix it. Which way would you rather work on it?"

Westphal is survived by his wife, Jean; a son, Andrew; two stepdaughters, Robin Stroll and Susan Stroll; and two granddaughters. A memorial service will be held December 9 at 4:00 p.m. in Dabney Lounge. □ —/JD

Faculty File

HONORS AND AWARDS

Michael Alvarez, professor of political science, has been selected by the board of editors of *Scientific American* magazine for inclusion in the third annual Scientific American 50, which honors 50 individuals, teams, companies, and other organizations, whose accomplishments in research, business, or policy making during 2003–2004 demonstrate outstanding technological leadership.

Alexei Borodin, professor of mathematics, received the Prize of the Moscow Mathematical Society for 2003, and **Vadim Kaloshin**, associate professor of mathematics, received the Prize of the Moscow Mathematical Society for 2002.

Clive Dickinson, postdoctoral scholar in astronomy, is the 2004 winner of the Michael Penston Astronomy Prize, given by The Royal Astronomical Society for the best astronomy thesis in the United Kingdom. Dickinson earned his PhD from the University of Manchester and came to Caltech this year.

Charles Elachi, professor of electrical engineering and planetary science, and director of JPL, has received the NASA Outstanding Leadership Medal for "outstanding leadership of the Jet Propulsion Laboratory, whose legacy

of excellence in planetary exploration continues with the awe-inspiring Spirit and Opportunity missions to Mars."

Ali Hajimiri, associate professor of electrical engineering, has been named to the 2004 list of the world's 100 Top Young Innovators by MIT's *Technology Review*. Nominees are recognized for their contributions in transforming the nature of technology and business in industries such as biotechnology, medicine, computing, and nanotechnology.

Babak Hassibi, associate professor of electrical engineering, has received a Presidential Early Career Award for Scientists and Engineers for his "fundamental contributions to the theory and design of data transmission and reception schemes." The award "recognizes outstanding young scientists and engineers who, early in their careers, show exceptional potential for leadership at the frontiers of knowledge," and provides five years of grant support.

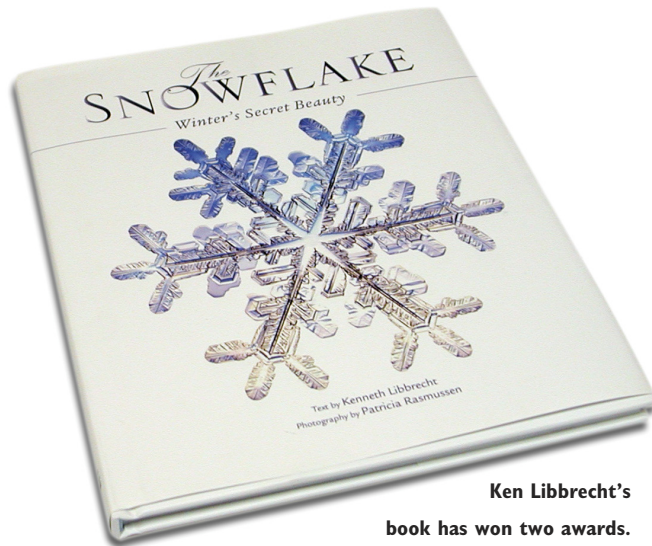
Leroy Hood, BS '60, PhD '68, visiting associate in biology, became the sixth recipient of the annual Biotechnology Heritage Award at the BIO 2004 Annual International Convention, held June 6–9 in San Francisco. Hood is the cofounder and president of

the Institute for Systems Biology, as well as the cofounder of Amgen, Applied Biosystems, and other biotechnology companies.

Ken Libbrecht, BS '80, professor of physics and executive officer for physics, has received a 2004 Benjamin Franklin Award for his book *The Snowflake: Winter's Secret Beauty*. The awards recognize excellence in independent publishing, and Libbrecht's book was honored in the Science/Environment category. The book also won the nature and environment category of the 2004 National Outdoor Book Awards.

Robert Phillips, professor of mechanical engineering and applied physics, has been named by the National Institutes of Health (NIH) as one of nine recipients of the first annual Director's Pioneer Award. The award will provide Phillips, an authority on the nanoscale mechanics of biological systems, with \$2.5 million for the next five years as part of the NIH's new "Roadmap for Medical Research" program.

Re'em Sari, associate professor of astrophysics and planetary science, has been awarded a David and Lucile Packard Fellowship for Science and Engineering. Paid over a five-year period, the



Ken Libbrecht's book has won two awards.

fellowships were established in 1988 by the David and Lucile Packard Foundation “to allow the nation’s most promising professors to pursue science and engineering research early in their careers with few funding restrictions and limited paperwork requirements.”

John Schwarz, the Brown Professor of Theoretical Physics, was selected to deliver the keynote speech for the opening ceremony of the Center for Mathematics and Theoretical Physics at the Shanghai Institute for Advanced Studies (administered by the University of Science and Technology of China), which took place July 30–31; the honor included the granting of an honorary professorship.

Mark Simons, associate professor of geophysics, and **Brian Stolz**, assistant professor of chemistry, have received Presidential Early Career Awards for Scientists and Engineers. The award “recognizes outstanding young scientists and engineers who, early in their careers, show exceptional potential for leadership at the frontiers of knowledge,” and provides five years of grant support.

Kip Thorne, the Feynman Professor of Theoretical Physics, was named in June as recipient of the 2004 GSC (Graduate Student Council)

Mentoring Award. **Wilhelm Schlag**, professor of mathematics, received the GSC Teaching Award. The award for teaching assistant went to **Francesco Ciucci**, a graduate student in mechanical engineering.

Alexander Varshavsky, the Smits Professor of Cell Biology, has been named corecipient of the Protein Society’s 2005 Stein and Moore Award. Presented annually, the award recognizes the “revolutionary work” of Varshavsky and Avram Hershko, Distinguished Professor at the Technion—Israel Institute of Technology, “in discovering the ubiquitin system of protein degradation, its mechanisms, and its significance to living cells.”

Theodore Yao-Tsu Wu, PhD ’52, professor of engineering science, emeritus, was awarded the American Society of Civil Engineers’ 2004 Theodore von Kármán Medal on June 15 at the annual Engineering Mechanics Division Conference. He also received the American Society of Mechanical Engineers’ 2004 Lifetime Achievement Award on June 22 at the International Conference on Offshore Mechanics and Arctic Engineering.

Yuk Yung, professor of planetary science, was awarded one of three NASA Exceptional Scientific Achievement Medals, given for “original thinking that has contributed to our knowledge about the Earth and the solar system through basic scientific research and developing new approaches for scientific study.” Yung studies the chemistry of planetary atmospheres. □

FARLEY NEW CHAIR OF GPS

On September 1, Kenneth Farley, the W. M. Keck Foundation Professor of Geochemistry took over as chair of the Division of Geological and Planetary Sciences after Ed Stolper’s 10-year stint. Hailed as a “young, dynamic scientist” by George Rossman, professor of mineralogy and leader of the search committee, and as someone who is highly respected by his colleagues for his integrity and conviction by provost Paul Jennings, Farley says he relishes the chance to work with the faculty to find out what their problems are and help them to succeed. He will also be overseeing some major new initiatives in the division, including a new Center for Plate Boundary Studies, a project to locate extrasolar planets, and a Computational Infrastructure for Geodynamics initiative, as well as the move of the environmental scientists to Robinson when the astronomers move to their new building in 2008.

Farley earned his BS at Yale in 1986, and his PhD at the Scripps Institute of Oceanography, UC San Diego in 1991, before joining the Caltech faculty in 1993 as an assistant professor of geochemistry. He was appointed professor of geochemistry in 1998 and received his named chair last year.



Ken Farley

His research on noble gases—gases such as helium, neon, argon, krypton, and xenon that don’t form chemical bonds with other elements—has taken him as far afield as Tibet and Robinson Crusoe Island off Chile in search of clues to the evolution of the Earth’s interior and atmosphere. Although his duties as division chair mean he will have to scale back on his research, he plans to keep his program going, and will even continue to teach. Perhaps he will also still find time to run off the frustrations of the week in running marathons and beyond (ultra-marathons). While in Tibet, he ran over the Taggalu pass, 17,000 feet above sea level. □
—BE