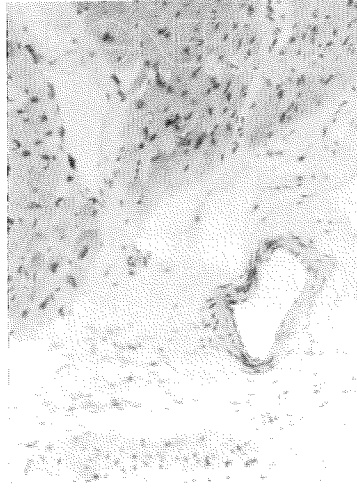


## In This Issue



### All Heart

On the cover — a section through a piece of human heart muscle. The round, dark pink blobs are muscle cells, which are surrounded by capillaries, here stained blue. A larger blood vessel can be seen (right center) in the connective tissue (lighter pink) between the bundles of muscle fibers. Blockage of such a vessel prevents oxygen from reaching the heart muscle cells, which then no longer contract in unison to function as a pump. Then — heart attack.

Much has been learned in the past few years about how and why heart attacks happen. Jean-Paul Revel, the Albert Billings Ruddock Professor of Biology, believes that these advances in research are at least as important as the transplants and artificial devices that have claimed public attention; understanding the heart's mechanisms on a cellular level will ultimately lead to better ways of preventing heart attacks and of dealing with them once they do occur. His article, "Cell Biology of Heart Disease," adapted from a Watson Lecture, begins on page 2.

Revel received his BSc from the University of Strasbourg, France, in his native city, in 1949. After earning his PhD in biochemistry from Harvard in 1957, he returned two years later



to join the faculty of the department of anatomy at Harvard Medical School. Since 1974 he has been professor of biology at Caltech, holding the Ruddock chair since 1978.

Revel's own research concerns the way cells communicate with each other, and his electron micrographs of cell structures (not to mention other, more amusing organisms, such as, recently, medflies) are internationally famous. He's also an enthusiastic and popular teacher, achieving an extraordinary 84 percent student attendance at an 8:00 a.m. class.

### Personal Diplomacy

Armand Hammer delivered the 1986 Bray Lecture October 20, the week following the Reykjavik summit meeting and Hammer's own successful intervention in the case of the refusenik David Goldfarb. Hammer, chairman of Occidental Petroleum Corporation, was introduced by Caltech President



Marvin Goldberger as "an unusual entrepreneur, diplomat, art lover, and philanthropist," whose relationship with the Soviet Union goes back 65 years. Goldberger described him as "one of the most important forces for international peace and understanding between the United States and the Soviet Union." Hammer's lecture, which described his personal experience in Moscow during the historic encounter and some speculations on the future, "Soviet-American Relations: As I See It," begins on page 10.

The Ulric B. and Evelyn Bray Visiting Lectureships were established four years ago by Mrs. Bray in honor of her husband, a local business and civic leader who had had a long and productive relationship with Caltech. The lectureships bring to campus outstanding entrepreneurs with interests in public affairs. This year's Bray Lecture was given at a dinner meeting of the Executive Forum, sponsored by the Industrial Relations Center.

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PICTURE CREDITS: Cover, 2-9 — Jean-Paul Revel; 10-12, 29 — Bob Paz; 14-15, 20 — Cathy Hill; 15-19 — Florence Helmberger

Engineering & Science (ISSN 0013-7812) is published five times a year, September, November, January, March, and May, at the California Institute of Technology, 1201 East California Boulevard, Pasadena, California 91125. Annual Subscription \$7.50 domestic, \$20.00 foreign air mail, single copies, \$1.50. Third class postage paid at Pasadena, California. All rights reserved. Reproduction of material contained herein forbidden without authorization. © 1987 Alumni Association California Institute of Technology. Published by the California Institute of Technology and the Alumni Association. Telephone: 818-356-3630.  
Postmaster: Send change of address to Caltech, 1-71, Pasadena, CA 91125.