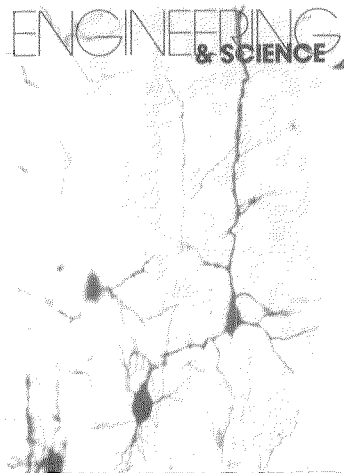


# In This Issue



## Brain Stain

On the cover — neurons of the cerebral cortex. The largest cell, in right center, is a pyramidal cell, the main type of output neuron in the cortex and hippocampus. In this photograph, taken by Edward G. Jones, chairman of the Department of Anatomy and Neurobiology at the University of California, Irvine, less than 1 percent of neurons are fully stained. The rest, whose cell bodies appear as ghostly blue circles, are partially stained.

The dendritic spines — tiny protuberances along the pyramidal cell's dendrites that are the principal sites for synaptic contacts from other neurons— show up unusually well in this photograph. Mary Kennedy is interested in the biochemical structure of these synapses and, in particular, some intriguing reactions that may be related to the biochemistry of learning. Her work is explained in "How Does the Brain Learn? A Molecular View," beginning on page 4.

Kennedy came to Caltech as an assistant professor in 1981 and has been associate professor of biology since 1984.



Her BS in chemistry is from St. Mary's College and her PhD in biochemistry from the Johns Hopkins University School of Medicine. She was a

postdoctoral fellow in the Department of Neurobiology at Harvard Medical School from 1975 to 1978 and in the Department of Pharmacology at Yale Medical School from 1978 to 1981. In 1986 she was named associate editor of the *Journal of Neuroscience*, a member of the editorial board of *Trends in Neuroscience*, and chairperson of the Scientific Advisory Board of the Hereditary Disease Foundation.

## Minority Politics

Two years ago Bruce Cain and Rod Kiewiet, both associate professors of political science, began a study of California's minority groups, a rapidly increasing proportion of the state's population. They wanted to investigate minority attitudes toward political and social issues to determine how they might affect California's political and economic future. One particular emphasis of the study was the potential for coalition politics. The results of the full study were released last March on the occasion of a conference on "Minorities in California" held in Ramo Auditorium. Three panels of the state's minority leaders discussed the Caltech findings and their own views of some of the issues.

Cain and Kiewiet are not minorities; both are blue-eyed with northern European ancestry. (Cain thinks that one of his aunts married a Greek, and that's about the closest he comes



to ethnicity.) His interest in ethnic politics comes from his experience with redistricting and issues of representation. In 1981,

on leave of absence from Caltech, he served as chief consultant to the California Assembly Committee on Reapportionment and currently still acts as a consultant to that body. Cain joined the Caltech faculty in 1976 and has been associate professor of political science since 1983. He holds a BA from Bowdoin College (1970) and PhD from Harvard (1976). As a Rhodes Scholar, he attended Trinity College at Oxford University, earning a B.Phil. in 1972.

D. Roderick Kiewiet came to Caltech in 1979 and has been



associate professor of political science since 1982. He earned his BA from the University of Iowa in 1974 and PhD from

Yale in 1980. His book "Macroeconomics and Micropolitics," published in 1983, examined the influence of the economy on voter behavior; other recent research has concerned fluctuations in party preferences. "Minorities in California," based on the Cain/Kiewiet report and the conference, begins on page 10.

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*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. © 1986 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.