

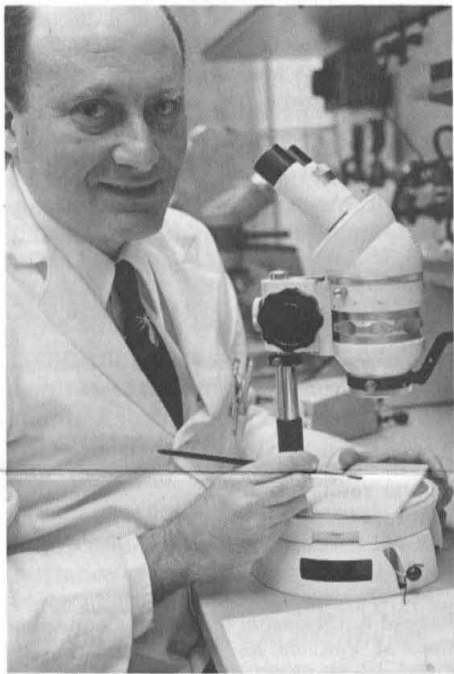
PUBLISHED FOR ALUMNI AND FRIENDS OF THE CALIFORNIA INSTITUTE OF TECHNOLOGY

Benzer named first Boswell Professor of Neuroscience

Seymour Benzer, internationally known for his work in the genetics of behavior, has been named the first James G. Boswell Professor of Neuroscience at Caltech.

As he announced the appointment, President Harold Brown praised Benzer's work in the neurosciences as the source of valuable contributions to our understanding of the biological bases of behavior.

"Establishment of the Boswell chair assures a measure of permanent support for his research," Brown said.



Seymour Benzer

In stressing the importance of the new professorship, Brown emphasized that man's attempts to understand the biological foundations of his own mind and behavior have only just begun.

"No other efforts hold more significance for future progress and for the welfare of the human race," he said. "Our knowledge of behavior eventually can make enormous contributions to our ability to meet continuing human and societal needs — needs such as those having to do with education, human motivation, and aggression."

Brown noted that before Benzer turned to research in behavioral biology, his work had contributed to defining the structure and functioning of the genes, the units of heredity that govern the structure and development of the individual. The research in which he has participated has helped to form a major basis for molecular genetics—the exploration of heredity at the basic chemical levels.

Benzer received a 1971 Albert Lasker Medical Award for research on splitting the gene and mapping its parts in relation to the underlying DNA molecular structure. This work has led to a better understanding of cell function and of such hereditary defects as hemophilia and sickle cell anemia.

Benzer began his scientific career as a physicist. He received his PhD degree at Purdue University in 1947 and he joined the faculty there. Soon he became interested in applying physical concepts to biological problems, and used viruses as model systems for studies of gene replication. To learn the work in this field, he spent two years with Max Delbrück, Nobel laureate and Albert Billings Ruddock Professor of Biology at Caltech.

In the mid-1960's, his interest in the genetic bases of behavior led him to shift his research emphasis to behavioral biology. He joined the Caltech faculty in 1967 as professor of biology. At the Institute, he and his group have been studying the genetics of behavior through the development and behavior of mutant species of the fruit fly, *Drosophila*.

The Boswell chair is named for James Griffin Boswell, who served in the U.S. Army from 1903 to 1920. After he left the service, he founded the company named for him. Through it, he played a major role in the establishment of the cotton industry in the Pacific Southwest.

Boswell joined The Associates of Caltech a year after the organization was founded and later became a contributing life member. In 1946 he was elected to the Caltech Board of Trustees and he served in that role until his death in 1952.

Mathematics prize donated by J.V. Cassady

A new \$2,500 mathematics award has been given to Caltech sophomore mathematics major Albert L. Wells, Jr. The prize was donated by businessman Jeremy V. Cassady of Long Beach, to be awarded to an outstanding student selected by the Caltech department of mathematics.

Dr. W. A. J. Luxemburg, professor of mathematics and executive officer for mathematics in Caltech's Division of Physics, Mathematics and Astronomy, commented, "We are enormously pleased that Mr. Cassady has established this award. Mathematics is in some ways the basis for the other sciences, but often the field doesn't receive as much support as some of the other scientific areas that are more in the news."

"We're proud to present Mr. Cassady's award to a student who promises to be a truly outstanding mathematician. Albert Wells did excellent work in his freshman year, and conducted a fine summer research program. At the end of the last academic year he received the Morgan Ward Award presented for the best problems and solutions on mathematics submitted by a freshman or sophomore. Mr. Cassady's gift will go toward paying Wells's tuition."



The polished surface of Caltech's new 34-foot radio telescope mirror creates surrealistic images of the hand and arm of Michael L. Norman, BS '75. The dish is to be installed at the Owens Valley Radio Observatory where it will be used primarily for studying the distribution of molecules in interstellar dust clouds.

Advisory Councils vital asset in "leading edge" campaign

Caltech's Regional Advisory Councils have increased in membership from 40 to 158 members throughout the United States in the past year and are proving to be an invaluable resource and help in the Caltech's *at the leading edge...* fund-raising campaign, according to W.H. Corcoran, vice president for Institute relations.

Caltech's first advisory council was set up for the Southwestern region of the U.S. in October 1973. Since then, an Eastern Regional Advisory Council has been established, along with a council for northern California, two councils in southern California, and a Midwestern council.

The advisory council system, as designed by Caltech, has some unique aspects. Caltech does not require council members to solicit gifts, but rather asks them to give guidance and information to the development staff by providing information on key prospects for the Caltech Trustees or development staff. One organizational meeting was held in each region, after which communication has continued on an individual basis between development staff members and advisory council members.

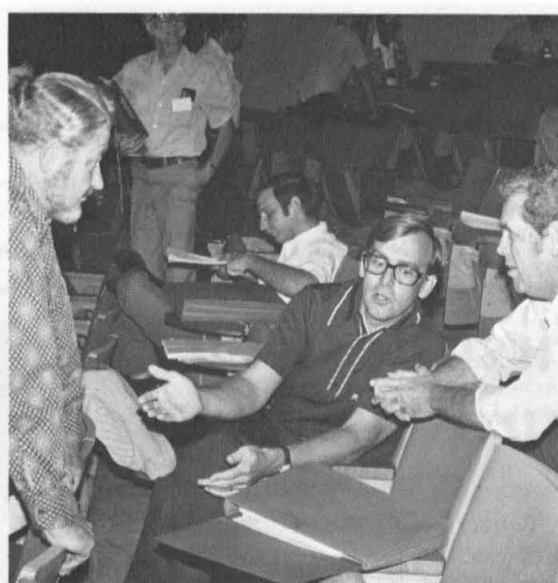
"So far, the council members have provided even more valuable advice and contacts than we had hoped," Corcoran noted. "Their main role is to give us knowledge, and they have been doing this so effectively that we face the problem of not having a staff big enough to be able to follow up all their suggestions. We have to aim our efforts at the most likely prospects

first. These council members are really doing a great job for us."

Some of the ways in which the council members are proving their value are illustrated by these examples: An East Coast member offered to open the door to several national corporations with which he is affiliated. He introduced Caltech staff members to key executives of the corporations, some of whom are visiting Caltech to observe work under way on campus. As a result of the council member's advice and introductions, gifts are being developed from previously untapped sources.

Other council members have discussed Caltech's programs and needs with foundation managers who had not previously supported the Institute staff. Because of these discussions, and with follow-up information provided by the Institute staff, several of these foundations have now begun to support Caltech.

"Since the council members act as ambassadors for Caltech by telling their peers about the Institute's programs, it is also our responsibility to keep them up to date on what's happening at Caltech," noted Truman Clawson, director of development. "To further this goal, a quarterly newsletter to members is published, and we also use campus publications and news releases to keep our council members informed about the important new research under way on the campus. The advisory councils are definitely proving to be a major force in the campaign."



Among those recognized at the Alumni Fund Leadership Conference for their superb efforts were, left to right: Wilton A. Stewart, Martin J. Poggi, Raymond G. Richards, Charles F. Thomas, Frederick J. Groat, Donald S. Remer, Reuben B. Moulton. In the picture at right, Alumni Fund leaders Herbert A. Lassen, Jack R. McInturff, and Wilton A. Stewart discuss plans for the year.

At Leadership Conference

Brown stresses importance of alumni gifts

Alumni giving is important not only of itself but in encouraging gifts to Caltech from foundations, corporations, and individuals, President Harold Brown told 50 Alumni Fund area chairmen and their wives at the annual Alumni Fund Leadership Conference.

The one-day meeting officially launched Caltech's 1975-76 Alumni Fund, led by Charles F. Thomas, BS '35, national chairman.

"I'm happy to be able to tell prospective contributors that 30 percent of our alumni now support Caltech, financially," Brown said at the dinner meeting. "This percentage has increased substantially since the Alumni Fund was reactivated and now compares very well with that of many other institutions."

Brown outlined two Caltech programs for the alumni: one now under way and one that the Institute hopes to initiate if funds from the private sector can be obtained. The first program concerns energy research now being conducted because of a \$500,000 grant from the Ford Motor Company.

"Several faculty members have initiated research programs through use of funds from this grant," he said. "Once they are under way, we expect their programs to be supplemented by funding from other sources."

Medical research impact

The second program described by Brown related to the applications of science to medicine. It would involve the appointment of three new faculty members in the Division of Biology in one of three areas: somatic cell genetics, animal virology, or immunology.

"By concentrating on one of these fields, we believe Caltech can make an important impact on medical research," Brown said. But he stressed that support from the private sector will be necessary before this goal can be accomplished.

At a luncheon meeting, David W. Morrisroe, vice president for financial affairs and treasurer, described Caltech's financial situation. He noted that the impact of inflation on higher education is especially severe because inflation suppresses gifts and endowment income—both vital sources of income for private colleges and universities.

Stressing the value of general operating funds, he pointed out that two-thirds of Caltech's income is allo-

cated for specific purposes. "It is the general operating funds that give us the freedom to undertake important new projects," he said.

During a morning session, the alumni heard reports concerning research and education programs from the chairmen of Caltech's six divisions.

Outstanding workers

In the award ceremony held after dinner, Alumni Fund chairmen were recognized for their superb work in obtaining workers and gifts during last year's program.

John E. Meskill, BS '33, San Marino, received a "Rookie of the Year" award as the new Alumni Fund chairman who had obtained the largest percentage of participation in his area—63 percent. Don E. McFaddin, BS '28, Alhambra-South Pasadena, was honored as runner-up with 55 percent participation.

Recognized as "Pro of the Year" was Harry J. Moore, Jr., BS '48, Westchester County, New York, the experienced Alumni Fund chairman with the largest percentage participation—47 percent. A close runner-up was Lothrop Mittenenthal, BS '48, North Carolina, 46 percent.

Donald S. Remer, MS '66, PhD '70, received a new award for increasing the percentage of improvement in participation between 1973-74 and 1974-75. Remer increased participation in his area, Louisiana, from 13 to 31 percent, a 138 percent increase.

Four other chairmen, who were not present to receive their awards, were recognized for participation increases of more than 100 percent: Leo L. Baggerly, BS '51, MS '52, PhD '56, Bakersfield, 143 percent; P. Claude Mahieux, BS '56, France, 125 percent; Fred W. Dorr, Jr., BS '64, New Mexico, 124 percent; and Lothrop Mittenenthal, BS '48, North Carolina, 109 percent.

Workers cited for recruiting 12 or more workers were Warren E. Danielson, BS '49, MS '50, PhD '52, New Jersey, 18; Hubert E. Dubb, BS '56, Los Altos, 16; Robert W. Wayman, BS '40, Michigan, 14; and Wilton A. Stewart, BS '41, Santa Monica, 12.

Chairmen who had obtained more than \$10,000 in their areas were recognized; these included Raymond G. Richards, BS '40, the San Fernando Valley, \$55,000; Stanley T. Wolfberg, BS '38, Caltech, \$21,000; Richard Dickinson, BS '52, Connecticut, \$19,000; Bruce E. Kirstein, PhD '72, San Diego,

\$13,000; Sidney Schafer, MS '36, Houston, \$13,000; and Ernest B. Wright, PhD '45, Florida, \$11,000.

Honored for consistent service to the Alumni Fund since the Science for Mankind fund was launched in 1967 were: Frederick J. Groat, BS '24; Martin J. Poggi, BS '37; Charles F. Thomas BS '35; Sidney Schafer, MS '36, Houston; Robert M. Kieckhefer, BS '45, Chicago; Ernest B. Wright, PhD '45, Palm Beach, Florida; and Harry J. Moore, BS '48, Westchester County, New York.

Alumni serving as area chairmen in their regions this year include:

Bruce E. Kirstein, PhD '72	San Diego
Frederick M. Trapnell, Jr., BS '56, MS '57	San Diego
Allan M. Goldberg, BS '57, MS '58	Laguna Beach
Richard K. Smyth, BS '51	Newport — Corona del Mar
Walter R. Larson, BS '40	Anaheim — Fullerton
Boude C. Moore, BS '48, MS '49	Long Beach
Jesse B. Graner, BS '43	Palos Verdes
Thomas W. Cooper, BS '57	Torrance
Herbert A. Lassen, BS '43, MS '47, PhD '51	Redondo Beach — Marina del Rey
James M. Fox, MS '36	Downey — Whittier
Wilton A. Stewart, BS '41	Santa Monica — Malibu
Raymond K. deLong, MS '65, PhD '68	Los Angeles — Airport
William I. Rumer, BS '49, MS '50	Los Angeles — Brentwood
Robert Goldstein, MS '60, PhD '64	Los Angeles — Beverly Hills
Glen H. Mitchel, Jr., BS '48	Los Angeles — Hollywood
Jack R. McInturff, MS '62	Los Angeles — Downtown
Don E. McFaddin, BS '28	Alhambra — South Pasadena
Andrew B. Campbell, BS '46	San Marino
Keirn Zebb, BS '41, MS '42, Eng '43	JPL
Phillip E. Saurenman, BS '38	Pasadena
Vern Edwards, BS '50	Pasadena
Stanley T. Wolfberg, BS '38	Caltech
Albert C. Whittlesey, BS '62	La Canada — Altadena
Walter D. Biggers, BS '55	El Monte — Covina
Roland C. Hawes, BS '30	Arcadia — Sierra Madre
Donald Stewart, Jr., BS '47	Pomona — Claremont
Robert D. Boche, BS '34, PhD '38	Riverside — San Bernardino
Raymond G. Richards, BS '40	East San Fernando Valley
A. Dale Scarbrough, BS '45, MS '47, PhD '55	Central San Fernando Valley
Irwin L. Markowitz, BS '48	West San Fernando Valley
L. Willard Richards, BS '54	Ventura — Thousand Oaks
Robert G. Rinker, MS '55, PhD '59	Santa Barbara

C. James Blom, BS '50	Bakersfield
Ronald G. Findlay, BS '64	South Peninsula — San Jose
Walter A. Specht, Jr., BS '57, MS '61, PhD '65	Los Altos
C. Richard McEwen, BS '46	Stanford — Palo Alto
Michael R. Beaver, BS '69	Atherton — Menlo Park
Neville S. Long, BS '44, MS '48	North Peninsula — San Francisco
Chandos A. Rypinski, BS '48	Marin County
Elvin B. Lien, BS '34	Orinda — Moraga
Frederick H. Allardt, BS '35, MS '36, MS '37	San Luis Obispo
Frederick J. Groat, BS '24	Sacramento
Robert T. Jenkins, BS '65, MS '66	Livermore
Paul R. Moore, MS '43	Hawaii
Douglas C. Strain, BS '48	Oregon
Martin J. Poggi, BS '37	Washington
Lowell E. Clark, BS '60	Phoenix
Donald C. Stinson, MS '49	Tucson
Fred W. Dorr, Jr., BS '64	New Mexico
David B. MacKenzie, BS '50	Colorado
Richard W. Flygare, MS '53, ME '55	Utah
Morton E. Jones, PhD '53	Dallas
Theodore S. Webb, Jr., PhD '55	Fort Worth
Sidney Schafer, MS '36	Houston
Paul B. Harris, BS '49, MS '50	Oklahoma
Peter A. Howell, BS '50	Minnesota
Robert J. Kieckhefer, BS '45	Northern Illinois — Wisconsin
William E. Lockwood, Jr., BS '44	Northern Illinois — Wisconsin
Robert W. Wayman, BS '40	Michigan
Samuel M. Savin, PhD '67	Cleveland
Charles F. Carstarphen, BS '39, MS '40	Cincinnati
Charles R. Penquite, BS '58, MS '59	Missouri — Southern Illinois
Davenport Browne, Jr., BS '49	Oakland — Berkeley
Thomas A. Cole, PhD '63	Indiana
John C. Porter, MS '63	Tennessee
Ernest B. Wright, PhD '45	Florida
Col. Lothrop Mittenenthal, BS '48	North Carolina
Josiah E. Smith, BS '39, BS '40, Eng '48	Metropolitan D. C.
Richard A. Wallace, Eng '49	Eastern Pennsylvania — Delaware
Ulrich Merten, BS '51	Western Pennsylvania
Elliot R. Nagleberg, PhD '64	Northern New Jersey
Carl A. Price, BS '49	Princeton, New Jersey
John E. Young, BS '56	Manhattan
Harry J. Moore, Jr., BS '48	Westchester County
Duane D. Erway, BS '57, MS '58	Upstate New York
Richard R. Dickinson, BS '52	Connecticut
Carol M. Veronda, BS '42	Massachusetts
C. Warren Hunt, BS '45	Canada
Lanny L. Lewyn, BS '59	West Germany
Lawrence Shirley, BS '69	Africa

Alumni, students assured of access to their records

Recent federal regulations (Part 99 of Title 45) deriving from the passage of the "Buckley Amendment" last year require that the Institute inform its students and alumni of their rights of access to the records kept by the Institute regarding them.

Caltech complies fully with all the provisions of these regulations; if you wish to receive a complete statement of your rights of access to your records, please write the registrar, 101-40, Caltech, Pasadena, California 91125, and ask for it. We will send you the statement and try to answer any questions you have about the effects of these new regulations.

ALUMNI ACTIVITIES

November 10

Alumni Dinner—Earnest C. Watson Caltech Lecture. Social Hour, 6 p.m., followed by dinner at 6:30 p.m., the Athenaeum, and lecture at 8 p.m., Beckman Auditorium. Speaker: Cary Lu, PhD '72, film producer, the Educational Development Center, Newton, Massachusetts, "The Contributions of Progressive Myopia to the Rise of Impressionism."

Donald S. Clark honored at 1938 class reunion

by Charles W. Clarke, BS '38
Class Secretary

The year 1975 brought the retirement of our good friend, Donald S. Clark, BS '29, MS '30, PhD '34, professor of physical metallurgy, emeritus, and a Caltech Associate. As a resident of Dabney House, Clark established a warm friendship with the members of our class when we were on the campus. During his years of service on the Caltech faculty he provided support for the Alumni Association, but most of all, we admired him for doing his very best to make good engineers and scientists of us.

For these reasons, the class of 1938 made him an honorary member at our 30th reunion. so we felt it was fitting that we honor him at a special dinner to wish him the best during his retirement.

With the able organization of Robert J. Barry, BS '38, Ralph W. Jones, BS '38, William F. Nash, Jr., BS '38—all members of The Associates—and some help from the class secretary, a July dinner party was arranged at the Huntington-Sheraton Hotel in Pasadena. To start the program, a plaque was presented to Clark, and then guest faculty and class members offered their comments.

As M.C., Bob Barry controlled the comments about *crystallizing* fatigue failure, and Clark's definition of cement. Ralph Jones was responsible for table decorations featuring examples of metal failures gathered from the companies we all represent. Clark followed with remarks about the importance of continuing education. Bill Nash followed by assuring us that we had enough money to pay the bill.

Those class members who were present included: Robert J. Barry, BS '38; Charles W. Clarke, BS '38; Paul A. Dennis, BS '38; Munson W. Dowd, BS '38, MS '46; Armand F. DuFresne, BS '38; Bruce C. Elliott, BS '38; Richard B. Forward, BS '38; Carl F. Friend, BS '38; Peter C. Goff, BS '38; George B. Holmes, Jr., BS '38; Donald E. Hudson, BS '38, MS '39, PhD '42; Ralph W. Jones, BS '38; Samuel H. Keller, BS '38.

John T. McGraw, BS '38; Cal Mueller; William F. Nash, Jr., BS '38, MS '39, PhD '42; Harold W. Sharp, BS '38, MS '39; Philip F. Shepherd, BS '38; Paul Siechert, BS '38; William E.

Twiss, BS '38; J. L. Velazquez, BS '38, MS '39; George G. Wald, Jr., BS '38, MS '39; Gardner P. Wilson, BS '38; R. N. Wimpers, BS '38; Stanley T. Wolfberg, BS '38.

Faculty members present included William H. Corcoran, BS '41, MS '42, PhD '48, vice president for Institute relations and professor of chemical engineering; Pol Duwez, professor of applied physics and materials science; Rolf H. Sabersky, BS '42, MS '43, PhD '49, professor of mechanical engineering; Ernest E. Sechler, BS '28, MS '30, PhD '34, professor of aeronautics; David S. Wood, BS '41, MS '46, PhD '49, professor of materials science.

Besides a marvelous get-together with Clark and members of the faculty, the evening provided an opportunity for us to see old friends. I know those who were not able to attend were there in spirit to wish our professor, alumni supporter, and personnel friend the best during his retirement. Dr. Clark, we expect you to be our guest at our 40th reunion.

Cannon elected member of NAE governing body

Robert H. Cannon, Jr., professor of engineering and chairman of the Division of Engineering and Applied Science, has been elected a member of the council of the National Academy of Engineering, the governing body of that organization.

Before coming to Caltech in 1974, Cannon had been U. S. assistant secretary of transportation for systems development and technology. In that post he was on leave from Stanford University where he was professor of aeronautics and astronautics and department vice chairman. He is well known as a research engineer, inventor, and administrator.

A private organization established in 1964, the NAE examines questions of science and technology at the request of the federal government, sponsors engineering programs aimed at meeting national needs, encourages engineering research, and recognizes distinguished engineers.



Derek Fender demonstrates the use of a new diagnostic technique for detecting diseases of the retina; his subject is graduate student, Arthur Koblasz, who has worked with him in this research. Fender is working in collaboration with the Doheny Eye Foundation of Los Angeles in testing persons with pathological eye problems such as retinitis pigmentosa and glaucoma. He also has begun testing persons with pathological eye conditions: for example, an albino with little pigment in his receptors, who is like a person continually coming into a lighted room from the dark.

Method for detecting retinal disease discovered by Fender

A new diagnostic technique designed to save the eyesight of people with a wide variety of incipient diseases of the retina has been developed at Caltech by Derek Fender, professor of biology and applied science.

The goal of his work is to make a forty-year-old technique sensitive enough to detect retinal diseases long before any symptoms appear so that there is time for them to be successfully treated.

"If they're caught early enough, many retinal diseases can be reversed," Fender explained. "But usually they are not detected until too late."

Fender's diagnostic method involves the use of an electroretinograph, a device that records electrical waves generated by the retina as it is stimulated by light, much as an electroencephalograph records brain waves. And just as the brain waves (EEG's) can be used in diagnosing brain ailments, so can the retinal waves (ERG's) be examined to reveal incipient retinal illnesses.

Detected on the surface of the eye, the ERG's are generated by layers of cells in the retina as they transmit electrical signals to the optic nerve.

The electroretinograph was first introduced in the 1930's but it had several limitations as a diagnostic tool. Because they are so weak—only 50 millionths of a volt in intensity—retinal waves are difficult to measure. They are easily drowned out by stronger electrical signals from contracting muscles of the face or eye.

Another major problem was the discomfort experienced by the patient because of the devices used to detect and measure the waves. Measurements were obtained by putting an electrode, usually supported by a large contact lens, directly on the eyeball. Retinal waves were generated by flashing bright lights into the eye.

In improving the electroretinograph, Fender and graduate student Arthur Koblasz have eliminated the discomfort of the large contact lenses. They have amplified the retinal waves, tuned out the unwanted signals, and adapted a mathematical method for analyzing the waves that is sensitive and powerful. Their work is supported by the National Eye In-

stitute of the U.S. Public Health Service.

To magnify the waves so that differences in their patterns can be detected, the scientists devised larger electrodes that can be fitted outside the eyelids. Goggles are used with eye cups that surround the entire eyes and lids. The cups are filled with artificial tears of the same acidity as those of the patient's own tears.

The transparent fluid conducts electrical signals to a silver electrode mounted in the eye cup. The eye looks out through the fluid to a screen on which light scintillates gently. The eye is so comfortable that it rarely blinks, and this reduces the unwanted waves generated by contraction of the muscles of the eye and eyelids.

Placement Assistance To Caltech Alumni

The Caltech Placement Service may be of assistance to you in one of the following ways:

(1) Help you when you become unemployed or need to change employment.

(2) Inform you of possible opportunities from time to time.

This service is provided to alumni by the Institute. A fee or charge is not involved.

If you wish to avail yourself of this service, fill in and mail the following form to:

Caltech Placement Service
California Institute of Technology
Pasadena, California 91125

Please send me: (Check one)

- ☐ An application for placement assistance.
☐ A form indicating a desire to keep watch for opportunities although I am not contemplating a change.

Name

Degree(s) Year(s)

Address

CALTECH NEWS

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GOURMET/WINE TASTING DINNER DECEMBER 12, 1975

The Alumni Association, in cooperation with Professor J. Harold Wayland, will host a Gourmet Dinner on Friday evening, December 12, in the Athenaeum. Because attendance is limited to 48 couples, there will be no general mailing to the alumni. This is your opportunity to make your reservations for this gala event. Cost is \$35 per couple, and the event is only open to alumni and their spouses or dates.

If you wish to attend, please return the enclosed form with your check made payable to the Caltech Alumni Association.

NAME YEAR

SPOUSE/GUEST

ADDRESS

TELEPHONE /
Area Code Number

PERSONALS

1918

NEVIN R. SHADE writes that he has been retired from Mobil Oil Corporation for 24 years and is in good health.

1924

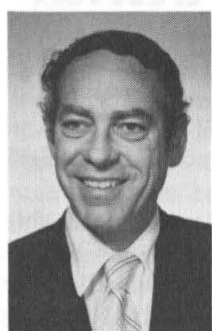
FREDERICK J. GROAT is in his second two-year term as director of Sacramento Regional Transit District and is representing Regional Transit on the County Energy Planning and Conservation Council.

DAVID WOLOCHOW was recently elected chairman of James Bay Community Resources Board, Victoria, British Columbia.

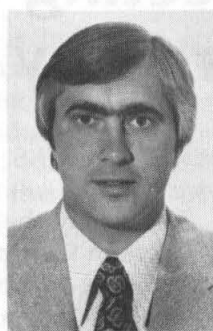
1925

NORRIS F. BRAVENDER and Mrs. Bravender celebrated their 50th wedding anniversary with a reception at the Huntington-Sheraton Hotel in Pasadena on June 29.

MICHAEL BRUNNER has been elected to the board of the Golden Rain Foundation in Laguna Hills, California. Brunner was an oil company executive for 32 years and is a retired Air Force colonel.



C. Burton Crumley



Erno S. Daniel

EDWARD W. HART, who retired last year, writes that he's doing occasional consulting with manufacturers in the development of their drawback programs and their preparation of claims for the refund of import duties.

1927

ROBERT CREVELING writes that he's been retired from the Sandia Corporation for seven years.

1928

JOHN W. THATCHER, MS '30, has been elected IEEE Region 6 vice chairman for 1975-76.

1929

CHARLES A. BOSSERMAN says he now is a free-lance inventor and the promoter of an aerial cableway, the Issaquah Indian Incline, near Seattle, Washington.

1930

WARREN N. ARNQUIST, PhD, has been a research associate in the department of astronomy at UCLA since his retirement from McDonnell Douglas Corporation in 1971.

ERNEST C. HILLMAN, JR., president of Hillman, Biddison & Loevinger, Los Angeles structural engineers, was named Engineer of the Year by the Institute for the Advancement of Engineering. He is vice president of the Applied Technology Council of the Structural Engineers Association of California, involved in studying high-rise structural and earthquake engineering.

1936

T. E. BROWNE, JR., PhD, retired from Westinghouse Research Laboratory in July 1973 and is now a self-employed engineering consultant.

A. M. O. SMITH, MS '37, MS '38, retired from Douglas Aircraft Company in May as chief aerodynamics engineer for research. In 1974, he was the 37th Wright Brothers Lecturer of the American Institute of Aeronautics and Astronautics and this past May was awarded an honorary D.Sc. degree by the University of Colorado. He writes that his future plans include consulting, some research at UCLA, and gentleman farming.

VICTOR V. VEYSEY has been appointed assistant secretary of the Army in the civil works department.

1938

RICHARD ROSENCRAZ, JR., was part of the team of engineers, technicians, and support personnel for the joint Apollo-Soyuz Test Pro-

ject. His assignment was the search for extreme ultraviolet radiation from celestial objects.

1939

LAWRENCE G. BORGESON, MS '40, retired in November 1974 from the RCA Corporation.

PAUL L. SMITH has been appointed vice president-marketing for the McDonnell Douglas Astronautics Company in Huntington Beach, California.

1940

SABIH A. USTEL, MS, is principal project engineer with Kaiser Engineers.

1941

ALEX E. S. GREEN, MS, has been awarded the Outstanding Scientist of Florida medal by the Florida Academy of Sciences. He is graduate research professor of physics, electrical engineering, and aerospace engineering, and director of the Interdisciplinary Center for Aeronomy and Atmospheric Sciences at the University of Florida.

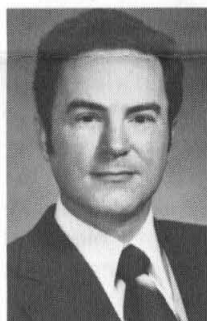
1942

GEORGE P. SUTTON, MS '43, is vice president of Johnston Pump Company in Glendora, California. Previously, he had spent three and a half years in Japan as executive vice president of an American-Japanese joint venture company engaged in the design, development, manufacture, and marketing of industrial process equipment and sewage treatment systems.

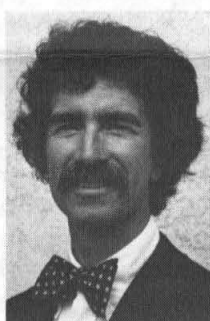
1943

EDWARD I. BROWN has returned to California to join the Aerojet General Corporation as group vice president after 21 years at Sperry Rand.

LEON KATZ, PhD, has been appointed director of science policy and secretary of the new Saskatchewan Science Council, Regina, Saskatchewan, Canada.



Edward M. Davis



Bernard B. Lopez

1944

DON S. MARTIN, PhD, was honored in June with a faculty citation by the Iowa State University Alumni Association. Martin is professor of chemistry at ISU. The citations recognize faculty members who have been inspiring educators and have given long and outstanding service to the university.

1946

DONALD R. LINDSAY is staff geological engineer for Shell Oil Company, Houston, and coordinator of Shell's geothermal energy project in northern California.

EDWARD G. NEALE, JR., president of Neale Advertising Associates of Los Angeles, has been elected president of the Rotary Club of Hollywood.

1947

C. BURTON CRUMLEY, MS '49, is senior staff research scientist at Applied Technology, a division of Itek Corporation.

DONNELL H. GOULD, MS, is retired from the National Weather Service, where he was the leading tropical analyst.

1948

RUPERT M. BAYLEY has retired after 39 years at the Los Angeles Department of Water and Power, where he was an electrical engineer. He plans to travel extensively throughout the Far East.

NIELS J. BECK, MS, is chairman and founder of BKM, Inc., a business development company involved in management consulting, executive search, and launching new business enterprises.

JOHN O. RASMUSSEN won the American Chemical Society's 1976 award for nuclear application in chemistry. He is professor of chemistry at UC Berkeley.

1949

FRED H. NICOLAI has been appointed assistant to the senior vice president for western hemisphere producing and worldwide exploration at Texaco, Inc.

STANLEY C. PACE, MS, is first vice chairperson of the board of trustees at Denison University. Pace is executive vice president of TRW, Inc.



Edward G. Neale, Jr.



Don S. Martin

E. DALE WEST has retired from the National Bureau of Standards at Boulder, Colorado, and he and his wife, Doree, have formed a company, Calorimetrics, Inc., specializing in accurate radiometric and calorimetric measurements with emphasis on laser radiation.

1950

DEAN A. RAINS, MS '51, PhD '54, is director of advanced engineering programs at Ineaus Shipbuilding, Pascagoula, Mississippi.

1951

DAVID T. MANNING, PhD '55, has been promoted to senior research scientist in Union Carbide's research and development department.

SANFORD S. SWEET is the newly appointed pastor at Valencia United Methodist Church in Placentia, California.

1952

GEORGE L. ELLMAN, PhD, is mayor of Tiburon in Marin County, California.

RICHARD E. KENNON is project manager in the Transmission and Distribution Division of the Electric Power Research Institute in Palo Alto, California.

JAMES K. LA FLEUR has been appointed chairman and chief executive officer of GTI, a diversified maker of electronic equipment in Pittsburgh, Pennsylvania.

1954

NEALE E. SMITH is technical director of Macromex, S.A., which manufactures single side band SSB/HF and FM/VHF two-way radio equipment for sale in Mexico and Latin America.



Paul L. Smith

GEORGE WALLERSTEIN, MS, PhD '58, chairman of the astronomy department at the University of Washington, has been elected a trustee of the Brown University Corporation.

1955

ALLEN E. FUHS, MS, PhD '58, is chairman of the Naval Postgraduate School's department of mechanical engineering.

GORDON W. WHITAKER, MS, was promoted to senior development engineer for the ALZA

Corporation. His is the highest engineering and scientific rank within the organization.

1956

FREDERIC N. BENNING has relocated and now works for Hughes Aircraft in Culver City, California, as a senior project engineer.

EDWARD M. DAVIS, MS, is vice president of the System Products Division of International Business Machines Corporation at the corporate headquarters in White Plains, New York.

EASTMAN N. HATCH, PhD, is dean of the school of graduate studies at Utah State University.

WILLIAM H. HILDEMAN, PhD, after 18 years at UCLA, is now dean and professor of biology at Hilo College, the University of Hawaii.

1957

BERNARD B. LOPEZ, a professional photographer, has been named executive director of the New Mexico Arts Commission.

1958

THEODORE C. OAKBERG was promoted to associate professor of physics at Pacific University in Oregon. He is also a licensed senior reactor operator for the TRIGA research reactor at Reed College in Portland.

1959

PAUL P. CRAIG, PhD, is the director of the Energy and Resources Council of UC Berkeley.

KARL K. KNAPP, MS '60, PhD '65, has joined Astro Research Corporation in Carpinteria, California, as product manager of portable geostrophes.

ROBERT M. SCHMIDT, MS, and Mrs. Schmidt are the parents of a son, Peter Max, born July 20, 1974.

1960

DONALD J. KROTZER is a geophysicist with the U.S. Geological Survey.

JERALD V. PARKER, PhD '64, is a member of the staff at the Los Alamos Scientific Laboratory in New Mexico.

1962

JAMES BROWN IFFT, PhD, is dean of the Division of Natural Sciences at the University of Redlands, California.

MICHAEL J. TOWNSEND is a senior product planner with TRW Data Systems, specializing in computers and data communications.

1963

WILLIAM J. ANDERSON, PhD, has been promoted to professor of aerospace engineering at the University of Michigan.

1964

TOM LUBENSKY was promoted to associate professor in physics at the University of Pennsylvania and was also awarded a Sloan Foundation fellowship.

1968

ERNO S. DANIEL received his doctor of medicine degree from UCLA and has accepted a position as intern in the department of medicine at the UCLA Medical Center.

Air pollution control subject of conference

A conference on "Strategies for Air Pollution Control in the South Coast Air Basin" will be held at Caltech on December 2-3. Supported in part by the Ford Foundation, the conference will be cosponsored by the Environmental Quality Laboratory and the Industrial Associates office. Its program will include a critical assessment of progress on air pollution control in California's South Coast Air Basin, and an appraisal of opportunities for additional abatement in the future. Interested alumni are welcome to participate.