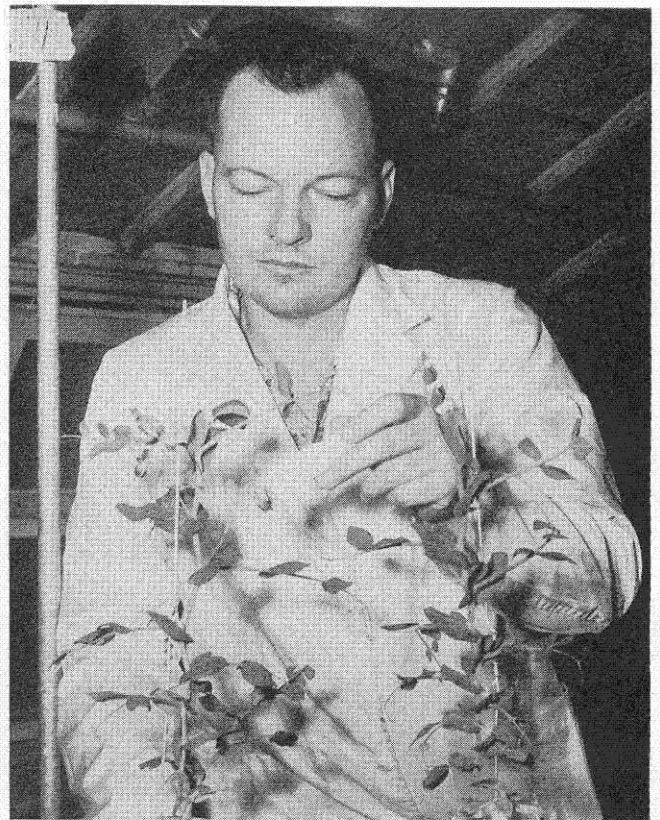




McCallum Fellow Elizabeth Betani is Caltech's first woman graduate student in biology.



James Liverman, another of Caltech's McCallum Fellows, now teaches plant biochemistry at Texas A & M.

FAMILY ALBUM

An informal report on some of the biology students whose graduate work has been financed by the Arthur McCallum Fellowship and Scholarship program.

WHEN A CANDIDATE for a PhD degree submits his doctoral thesis, he customarily includes a page of acknowledgements—to the professor who supervised his research, to other colleagues, and (if he has one) to his wife, for sitting home alone night after night while he has worked at the laboratory.

In addition to these expressions of gratitude, many PhDs in biology at Caltech also append a note of thanks “for the Arthur McCallum Fellowship, without which it would not have been possible to continue my graduate education.”

These Fellowships were established in 1950, at the suggestion of C. G. King of the Nutrition Foundation, by the late Arthur McCallum of New Brunswick, N.J., and Mrs. McCallum, who now lives in Riverside, California.

Almost a quarter of a million dollars has been contributed to the McCallum Fellowship and Scholarship Fund. From it, individual Fellows have received up to \$2500 annually—for subsistence, tuition, and research supplies.

Other graduate students have received summer scholarships of \$300 each, primarily to sustain their research during the “fourth quarter” of the year. This is the season when tuition grants and other means of support dry up, leaving a student stranded—unless he has a wife who is not only willing to sit home nights but who also

has a paying job good enough to support both of them.

To the great majority of the graduate students in biology, therefore, the McCallum scholarships make possible a full-time continuation of thesis research during the summer months.

From the outset of the McCallum Fellowship and Scholarship program, there has been a pleasant personal relationship between the McCallums and the young men who have been recipients of their help.

One of Mrs. McCallum's favorite Christmas gifts, last year, was a fat bundle of 30 letters bringing season's greetings from former McCallum Fellows or Scholars—letters bearing Australian, French, English and South American as well as U.S. postmarks.

Now back in Australia, for example, is Bruce Holloway, who came 9000 miles from his native Adelaide to study the genetics of fungi. A recent letter to Mrs. McCallum reports that he is now doing research on microbial genetics and teaching at Canberra with the Commonwealth Scientific and Industrial Research Organization.

Another regular correspondent is Ohio-born Dale Kaiser, now continuing his studies on the genetics of viruses at the Pasteur Institute in Paris. With him is his wife, the former Mary Durrell, whom he met when she was a lab assistant at Kerekhoff, and their small daughter Jennifer.

Mary writes that Dale's French is steadily improving, but that he has given up wearing a beret until he speaks the language better. It has been too embarrassing for him to try to give street directions to native Frenchmen—and, somehow, it's only when he's wearing the beret that he gets approached for advice.

Roy Sachs, whose graduate work in plant physiology concluded in June, is now in Italy with his wife, the former Marilyn Murphy, whose experience in the comptroller's office at Caltech is proving useful in handling Fulbright Fellowship grant funds.

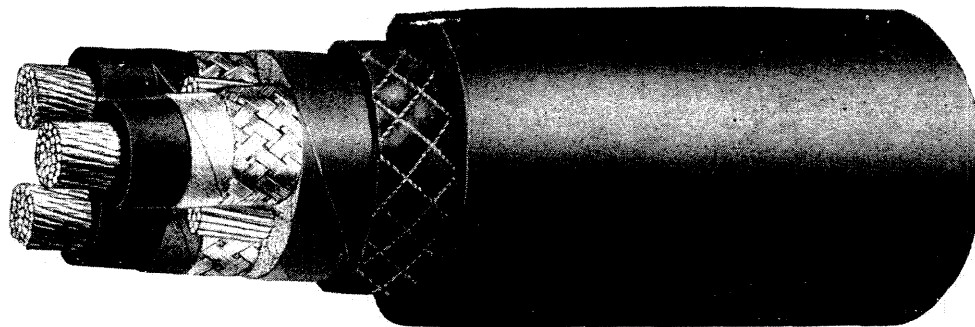
(Caltech not only educates them; it finds wives for them, too.)

Also in the McCallum "family album" are snapshots of Norman Good, who is back in Canada after two years of postdoctoral research training in England; plant physiologist Howard Burroughs, now in Hawaii; and Jose Reissig, native Argentinian, who is studying chemical genetics in Scotland.

Among the 33 PhD theses by McCallum Fellows or scholarship recipients, many have titles that might seem pretty esoteric to the uninitiated.

For example, Colorado-born Glenn Fischer, now in Puerto Rico, reported on *Genetic and Biochemical Studies of the Cysteine-Methionine Series of Mutants in Neurospora crassa*—not so academic a study as one might think, for the metabolic processes Fischer studied

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Family Album . . . CONTINUED

in bread mold are essentially the same in humans.

Harold McRae, a native of Vancouver, B.C., now working for the large drug manufacturer Rohm & Haas, was awarded his PhD degree on the basis of research which culminated in *Studies on the Kinetics of Auxin-Induced Growth*. The weed killers and other chemicals responsible for revolutionary advances in agriculture are related to plant auxins (hormones), and studies like McRae's tell us how they work.

From Africa to Arthropods

Sherman Ripley, another McCallum Fellow, journeyed 10,000 miles from his native South Africa to study the neuro-muscular physiology of arthropods at Caltech and is now back in the Union of South Africa—at the University of Natal in Durban.

In addition to remembering his records amplifying the sound of the wing beats of a house fly, the Biology Division remembers Sherman as the expert mountain climber who paced Professor Beadle at breakneck speed up the east face of Mt. Whitney and back to Pasadena in two days, travel time included.

New Yorker Henry Gershowitz is another well-remembered McCallum Fellow. His research on the heredity of blood groups culminated in *Immunogenetic Studies of the Pigeon, Columba livia*.

Henry kept as many as 200 pigeons in a large air-conditioned room in the animal annex at Kerckhoff, each bird banded to indicate his pedigree. His daily exercise consisted of chasing a swirling mass of pigeons, butterfly net held high, whenever he needed a blood sample from a particular bird.

On Henry's departure for the University of Washington, his pigeons vanished, too. Shortly thereafter, pigeon breasts, at five cents each, were discreetly offered to Kerckhoff workers. One biologist's wife, on obtaining six for a family dinner, complained that in spite of all her culinary skill, they tasted (and cut) like leather. This was due, no doubt, to Henry's vigorous daily pursuit of his thesis material.

Future Fellows

As time goes on, the work of McCallum Fellows and Scholars will be extended to cover all the biological sciences. The program is now permanently and generously endowed, and will provide for scholarships and fellowships for undergraduate and postdoctoral workers, as well as graduate students.

And although Arthur McCallum's name will be perpetuated in the McCallum Conference Room at the new Norman W. Church Laboratory of Chemical Biology, his greater memorial is in the financial assistance and encouragement given to so many promising young scientists.