

Obituaries

Raymond W. Barratt 1920-2002

Raymond Barratt, who died of cancer in December, 2002, was a prominent player in the early development of fungal genetics. After early work with fungal plant pathogens at the Connecticut Agricultural Experiment Station, he switched to *Neurospora* and became Ed Tatum's first graduate student at Yale. When the Tatum lab moved to Stanford in 1948, Ray continued as a Research Fellow, conducting his own research, supervising the laboratory, and becoming a teacher, helper, and friend to all the new students and postdocs. During this period he took the initiative in assigning gene names and formulating rules of genetic nomenclature for *Neurospora* (1) and in bringing together genetic and phenotypic information on all the known genes into what might be called the first *Neurospora* compendium, which included the first comprehensive maps (2). In 1954 he went to Dartmouth as a faculty member. He organized the Fungal Genetics Stock Center (FGSC), gathering *Neurospora* mutant and wild-type strains, obtaining funding from NSF, perfecting preservation methods, and periodically publishing stock lists in the *Neurospora* Newsletter (now Fungal Genetics Newsletter). The Newsletter, produced and distributed by FGSC, was founded with Ray's help in 1961 following the first *Neurospora* Information Conference (now Fungal Genetics Conference), of which he was a co-organizer. He continued to direct the stock center for 25 years, during which it was expanded to include other filamentous fungi. In 1970 he resigned as chair of the Biology Department at Dartmouth and became Professor of Biology and Dean of Sciences at California State University, Humboldt, taking the stock center with him.

Ray's research, though limited, contributed significantly to progress at the time. From studies of morphological mutants (3) and chemical mutagens, he turned to gene-enzyme relations. He was fascinated with mutants having complex metabolic effects; for example, *phe-1* (4), *ilv* (5), and *am* (6). He was attracted to *am* mutants because their growth requirement could be satisfied by any of numerous amino acids, and his most extensive studies were of the *am* gene, which specifies NADP-specific glutamate dehydrogenase. (Studies of *am* were begun independently and carried to culmination by John Fincham and his colleagues.)

After his move to Dartmouth, Ray's experimental contributions were limited by other responsibilities. He was a superb organizer, and the choice to direct the stock center and to assume various academic obligations at the expense of his research was no doubt made deliberately. The stock center was set up and run fastidiously, with help of the curator, Bill Ogata, who followed Ray from Stanford to Dartmouth and later returned with him to California. FGSC proved to be a major asset, consolidating the fungal genetics community and setting an example of quality control, genetic sophistication, and economical management. Ray reminisced in 1985 that his contribution to the field of fungal genetics through the stock center may well have been equal to what he would have accomplished had he continued in full time research.

All those who work with *Neurospora* and other filamentous fungi owe Raymond Barratt a debt of gratitude, and those of us fortunate enough to have known him personally remember him with affection as a genial, enthusiastic, and always helpful colleague.

Dorothy Newmeyer and David Perkins

1. Barratt, R. W. 1954. *Neurospora* nomenclature in use at Stanford University. *Microbial Genet. Bull.* 9: 20-23.
2. Barratt, R. W., D. Newmeyer, D. D. Perkins, and L. Garnjobst. 1954. Map construction in *Neurospora crassa*. *Advan. Genet.* 6: 1-93.
3. Barratt, R. W., and L. Garnjobst. 1949. Genetics of a colonial microconidiating mutant strain of *Neurospora crassa*. *Genetics* 34: 351-369.
4. Barratt, R. W., R. C. Fuller, and S. W. Tanenbaum. 1956. Amino acid interrelationships in certain leucine- and aromatic-requiring strains of *Neurospora crassa*. *J. Bacteriol.* 71: 108-114.
5. Adelberg, E. A., C. A. Coughlin, and R. W. Barratt. 1955. The biosynthesis of isoleucine and valine. II. Independence of the biosynthetic pathways in *Neurospora*. *J. Biol. Chem.* 216: 425-430.
6. Barratt, R. W. 1961. Studies on gene-protein relations with glutamic dehydrogenase in *Neurospora crassa*. *Genetics.* 46: 849-850. -- 1962. Altered proteins produced by mutation at the amination (*am*) locus in *Neurospora*. *Genetics.* 47: 941-942. -- 1963. Effect of environmental conditions on the NADP-specific glutamic acid dehydrogenase in *Neurospora crassa*. *J. Gen. Microbiol.* 33: 33-42.