

CHEMICAL HERITAGE FOUNDATION

**ALISON E. M. ADAMS**

The Pew Scholars Program in the Biomedical Sciences

Transcript of an Interview  
Conducted by

Steven J. Novak

at

University of Arizona  
Tucson, Arizona

on

12-14 February, 1996

From the Original Collection of the University of California, Los Angeles

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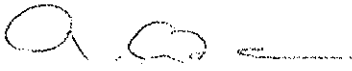
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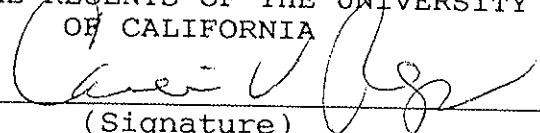
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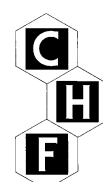
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## ALISON E. M. ADAMS

1955 Born in Penang, Malaysia on 19 November

### Education

1978 B.A., University of Dublin, Trinity College  
1984 Ph.D., University of Michigan

### Professional Experience

1985 University of Edinburgh  
Postdoctoral Fellow

1986-1989 Massachusetts Institute of Technology  
Postdoctoral Fellow

1990-1996 University of Arizona, Department of Molecular and Cellular Biology  
Assistant Professor  
1996-present Associate Professor

### Honors

1980-1984 Literature, Science, and Arts Award, University of Michigan  
1982-1983 Horace H. Rackham School of Graduate Studies  
Predoctoral Fellowship, University of Michigan  
1982-1983 Edwin H. Edwards Award, University of Michigan  
1983-1984 Cancer Research Institute Predoctoral Fellowship,  
University of Michigan  
1986-1989 Life Sciences Research Foundation Award  
1991 Junior Career Recognition Award, Women in Cell Biology  
1991-1995 Pew Scholar in the Biomedical Sciences

### Selected Publications

Sloat, B.F. et al., 1981. Roles of the *CDC24* gene product in cellular morphogenesis during the *Saccharomyces cerevisiae* cell cycle. *Journal of Cell Biology*, 89:395-405.  
Adams, A.E.M. and J.R. Pringle, 1984. Relationship of actin and tubulin distribution to bud growth in wild-type and morphogenetic-mutant *Saccharomyces cerevisiae*. *Journal of*



*Cell Biology*, 98:934-45.

- Kilmartin, J.V. and A.E.M. Adams, 1984. Structural rearrangements of tubulin and actin during the cell cycle of the yeast *Saccharomyces*. *Journal of Cell Biology*, 98: 922-33.
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- Adams, A.E.M. et al., 1989. A yeast actin-binding protein is encoded by *SAC6*, a gene found by suppression of an actin mutation. *Science*, 243:231-33.
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- Honts, J.E. et al., 1994. Actin mutations that show suppression with fimbrin mutations identify a likely fimbrin-binding site on actin. *Journal of Cell Biology*, 126:413-22.
- Adams, A.E.M. et al., 1995. Isoform-specific complementation of the yeast *sac6* null mutation by human fimbrin. *Molecular and Cellular Biology*, 15:69-75.
- Brower, S.M. et al., 1995. Genetic analysis of the fimbrin-actin binding interaction in *Saccharomyces cerevisiae*. *Genetics*, 140:91-101.

## ABSTRACT

**Alison E. M. Adams** was born in Penang, Malaysia, the third of six children. Her parents were British citizens: Her father, a British citizen, had worked for the British government for many years; her mother, also a British citizen, went from England to Malaysia after World War II; there she met and married Bill Adams. When Alison was four, the family moved to a small town, Sherborne, in England; they continued to move among small towns around the area. Although she went to smallish schools that in retrospect she thinks were not very good, Alison liked school, especially the sciences. She played field hockey, continuing into her college years. She also played other sports and took violin and piano lessons.

Her family took several trips to Ireland, which Adams loved so much she decided she wanted to attend college there. She matriculated into Trinity College, Dublin, where she began in chemistry but soon switched to genetics. She spent an undergraduate semester in John Pringle's lab at the University of Michigan. After finishing at Trinity she came back to the United States, where she again went to Pringle's lab at the University of Michigan, researching *Saccharomyces cerevisiae*. After finishing her PhD she went to the University of Edinburgh to do a postdoc, but it did not work out, and she arranged for a postdoc position in David Botstein's lab at Massachusetts Institutes of Technology; from there she went to Genentech with Botstein. While working in Botstein's lab, Adams identified the protein Sac6 by means of genetic techniques versus biochemical methods, and discovered that fimbrin isoforms can compensate for Sac 6. Adams's work on the protein Sac6 would be the basis for future research at the University of Arizona, where she established her own lab. While she was teaching at the University of Arizona, Adams's work shifted toward biochemistry through her collaboration with William R. Montfort on the crystal structure of Sac6 and her interest in applying yeast studies to human beings. Adams plans soon to take a sabbatical to pursue research for the Imperial Cancer Research Fund and possibly to teach in India. Adams concludes the interview by illuminating her thoughts about her role in science, her perspective on the future of mankind, and her desire for cooperation among scientists.

## UCLA INTERVIEW HISTORY

### INTERVIEWER:

Steven J. Novak, Senior Editor, UCLA Oral History Program. B.A., History, University of Colorado; Ph.D., History, University of California, Berkeley; M.B.A., UCLA Graduate School of Management.

### TIME AND SETTING OF INTERVIEW:

**Place:** Adams's office, University of Arizona.

**Dates, length of sessions:** February 12, 1996 (89 minutes); February 13, 1996 (99); February 14, 1996 (48).

**Total number of recorded hours:** 3.95

**Persons present during interview:** Adams and Novak.

### CONDUCT OF INTERVIEW:

This interview is one in a series with Pew scholars in the biomedical sciences conducted by the UCLA Oral History Program in conjunction with the Pew Charitable Trusts' Pew Scholars in the Biomedical Sciences Oral History and Archives Project. The Project has been designed to document the backgrounds, education, and research of biomedical scientists awarded four-year Pew scholarships since 1988.

To provide an overall framework for Project interviews, the director of the UCLA Oral History Program and three UCLA faculty consultants developed a topic outline. In preparing for this interview, Novak held a telephone preinterview conversation with Adams to obtain written background information (curriculum vitae, copies of published articles, etc.) and to agree on an interviewing schedule. He also reviewed prior Pew scholars' interviews and the documentation in Adams's file at the Pew Scholars Program office in San Francisco, including her proposal application, letters of recommendation, and reviews by Pew Scholars Program national advisory committee members.

For technical background, Novak consulted J.D. Watson et al., *Molecular Biology of the Gene*. 4th ed. Menlo Park, CA: Benjamin/Cummings, 1987 and Bruce Alberts et al., *Molecular Biology of the Cell*. 3d ed. New York: Garland, 1994.

The interview is organized chronologically, beginning with Adams's childhood in England and continuing through her education at University of Dublin and University of Michigan, her postdoc with David Botstein, and the establishment of her laboratory at the University of Arizona. Major topics discussed include Adams's innovations in immunofluorescence techniques, identification of Sac6 and its use in fimbrin studies, the future directions of actin research, managing a career as an investigator, and problems facing the biomedical research community.

### ORIGINAL EDITING:

Gregory M. Beyrer, editorial assistant, edited the interview. He checked the verbatim transcript of the interview against the original tape recordings, edited for punctuation, paragraphing, and spelling, and verified proper names. Words and phrases inserted by the editor have been bracketed.

Adams reviewed the transcript. She verified proper names and made minor corrections and additions.

Kristian London, editor, prepared the table of contents. Beyrer assembled the biographical summary and interview history. Novak compiled the index.

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