

BIOGRAPHICAL SKETCH

Give the following information for the key personnel and consultants and collaborators. Begin with the principal investigator/program director. Photocopy this page for each person.

| NAME Ian J. Molineux | POSITION TITLE Professor | | |
|---|-----------------------------|----------------|---------------------------|
| EDUCATION (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.) | | | |
| INSTITUTION AND LOCATION | DEGREE | YEAR CONFERRED | FIELD OF STUDY |
| Univ. of Newcastle upon Tyne, England Oxford University, Oxford, England | B. Sc. D. Phil. | 1966 1969 | Chemistry Biochemistry |

RESEARCH AND/OR PROFESSIONAL EXPERIENCE: Concluding with present position, list in chronological order previous employment, experience, and honors. Key personnel include the principal investigator and any other individuals who participate in the scientific development or execution of the project. Key personnel typically will include all individuals with doctoral or other professional degrees, but in some projects will include individuals at the masters or baccalaureate level provided they contribute in a substantive way to the scientific development or execution of the project. Include present membership on any Federal Government public advisory committee. List, in chronological order, the titles, all authors, and complete references to all publications during the past three years and to representative earlier publications pertinent to this application. DO NOT EXCEED TWO PAGES.

Professional Experience:

| | | |
|--------------|---|---|
| 1969-70 | Postdoctoral Fellow | University of Wisconsin, Madison. |
| 1970-74 | Research Associate | Massachusetts Institute of Technology. |
| 1974-78 | Scientific Officer | Imperial Cancer Research Fund, London, England. |
| 1978-84 | Assistant Professor | University of Texas at Austin. |
| 1984-89 | Associate Professor | University of Texas at Austin. |
| 1989-present | Professor | University of Texas at Austin. |
| 1979-82 | Microbial Genetics Review Group, Microbial Chemistry/Physiology Study Section NIH | |
| 1993-94 | Oral Biology and Medicine Study Section 2 NIH | (Ad hoc) |

Representative Publications

- Kleppe, K., Ohtsuka, E., Kleppe, R., Molineux, I. & Khorana, H. G., 1971. Studies on Polynucleotides. XCVI. Repair Replication of Short Synthetic DNA's as Catalyzed by DNA Polymerases. *J. Mol. Biol.* **56**, 341-361.
- Smoler, D., Molineux, I. & Baltimore, D., 1971. Direction of Polymerization by the Avian Myeloblastosis Virus Deoxyribonucleic Acid Polymerase. *J. Biol. Chem.* **246**, 7697-7700.
- Gefter, M. L., Molineux, I. J., Kornberg, T. & Khorana, H. G., 1972. Deoxyribonucleic Acid Synthesis in Cell-free Extracts. III. Catalytic Properties of Deoxyribonucleic Acid Polymerase II. *J. Biol. Chem.* **247**, 3321-3326.
- Ray, R. K., Reuben, R., Molineux, I. & Gefter, M., 1974. The Purification of Exonuclease I from *Escherichia coli* by Affinity Chromatography. *J. Biol. Chem.* **249**, 5379-5381.
- Molineux, I. J., Friedman, S. & Gefter, M. L., 1974. Purification and Properties of the *Escherichia coli* Deoxyribonucleic Acid-unwinding Protein. Effects on Deoxyribonucleic Acid Synthesis *in vitro*. *J. Biol. Chem.* **249**, 6090-6098.
- Molineux, I. J. & Gefter, M. L., 1974. Properties of the *Escherichia coli* DNA Binding (Unwinding) Protein: Interaction with DNA Polymerase and DNA. *Proc. Natl. Acad. Sci. USA.* **71**, 3858-3862.
- Molineux, I. J. & Gefter, M. L., 1975. Properties of the *Escherichia coli* DNA-binding (Unwinding) Protein: Interaction with Nucleolytic Enzymes and DNA. *J. Mol. Biol.* **98**, 811-825.
- Molineux, I. J., Pauli, A. & Gefter, M. L., 1975. Physical Studies of the Interaction Between the *Escherichia coli* DNA Binding Protein and Nucleic Acids. *Nucleic Acids Res.* **2**, 1821-1837.
- North, R. & Molineux, I. J., 1980. A Novel Mutant of Bacteriophage T7 that is Defective in Early Phage DNA Synthesis. *Mol. Gen. Genet.* **179**, 683-691.
- Mooney, P. Q., North, R., & Molineux, I. J., 1980. The Role of Bacteriophage T7 Gene 2 Protein in DNA Replication. *Nucleic Acids Res.* **8**, 3043-3053.
- Molineux, I. J., Mooney, P. Q. & Spence, J. L., 1983. Recombinants Between Bacteriophages T7 and T3 Which Productively Infect F Plasmid-containing Strains of *Escherichia coli*. *J. Virol.* **46**, 881-894.