

CHARLES D. A. POLSON, PH.D.

Associate Professor – Biological Sciences
Florida Institute of Technology
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EDUCATION

1970 Central Michigan University B.S. (Biology/Math)
1975 Central Michigan University M.S. (Biology)
1979 Florida Institute of Technology Ph.D. (Biological Sciences)

EXPERIENCE

1999 – present Associate Professor – Biological Sciences
Florida Institute of Technology
1987 – 1999 Associate Professor – Biological Sciences
Associate Department Head – Undergraduate Programs
Florida Institute of Technology
1987 – 1988 Visiting Senior Lecturer – Biochemistry
University of Zimbabwe (Fulbright Scholar Program)
1981 – 1987 Assistant Professor – Biological Sciences
Florida Institute of Technology
1978 – 1981 Instructor – Biological Sciences
Florida Institute of Technology

GRANTS, CONTRACTS, AND CONSULTING

Reilova, J. A., J. C. Park, and C. D. Polson. A Clinical Trial in the Use of Polymerase Chain Reaction in Preneoplastic Lesions and Continuation of Electron Microscopy for the Evaluation and Diagnosis of Tumors.

Funded by: Holmes Regional Medical Center, Melbourne, FL
1992-1993, \$18,513.00

Reilova, J. A., C. D. Polson, and R. Kaufmann. Evaluation of Polymerase Chain Reaction for Detection and Diagnosis of Human Papillomavirus and Continuation of the Electron Microscopy for Evaluation and Diagnosis of Tumors.

Funded by: Holmes Regional Medical Center, Melbourne, FL
1993-1994, \$24,999.00

AWARDS

1993 Florida Tech Faculty Excellence Award for Service to University and Community
— Awarded by Florida Tech Faculty Senate
1992 – 1993 Centennial Award (Distinguished Alumnus) from Central Michigan University
1987 - 1988 Fulbright Scholar Award through Fulbright Program with Zimbabwe
1980 - 1981 Florida Tech Student Government Association Teacher of the Year

SCHOLARLY ACTIVITIES

Curriculum Development

- 1982 - present Initiated, developed, and chaired an undergraduate program in molecular biology including both lecture and laboratory courses
- 1987 - 1988 Through the Fulbright Scholar program, assisted the Department of Biochemistry, University of Zimbabwe in establishing courses and laboratories in molecular biology
- 1991 - 1992 Directed the development of seven semester system undergraduate programs in biological sciences
- 1992 Prepared quarter to semester transition curricula for the biological sciences undergraduate programs. Proposed and established a graduate program core curriculum.

Books and Lab Manuals

Polson, C. D. A. 1998. *Genetic Engineering Techniques*. A set of 8 exercises written for the BIO 4120 Genetic Engineering Techniques course at Florida Tech. REVISED, 2000

Polson, C. D. A. 1998. *Nucleic Acid Analysis*. A set of 9 exercises written for the BIO 4130 Nucleic Acid Analysis course at Florida Tech. REVISED, 1999, 2000.

Proposed CUAP Research Area: *Chemical Pollutants and Gene Mutation Rates*. Modern genetic technology such as restriction analysis, specific gene amplification, and sequencing is very useful in the analysis of gene mutation. These technologies can be applied to analyze mutations induced by various chemical pollutants in air and/or water samples from contaminated sites in Hungary. Once mutations have been detected and analyzed, the development of possible treatments and/or gene therapies can be developed.

Principal Investigator: Dr. Charles Polson, (Florida Tech; BUTE collaborator TBD).

First Year: Identification of possible pollutant sources and specific pollutants. Determination of pollutant levels. Determination of possible exposure and the levels of exposure. Preliminary experiments to determine the pollutants mutagenicity. *First year project costs:* one trip and subsistence. Remainder of project to be determined once type and amount of pollutants have been determined.