

ACADEMIC VITA FOR

WILLETTA TOOLE-SIMMS

ADDRESS

Department of Biology
Azusa Pacific University
Azusa, CA 92557
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EDUCATIONAL BACKGROUND

- 1991-1992 Postdoctoral Training
Chancellor's Postdoctoral Fellow
University of California, Riverside
Division of Biology,
Advisor: Dr. Katherine Atkinson

Topic: Role of Sphingolipids in Signal Transduction
- 1988-1990 Postdoctoral Training
Wesley Postdoctoral Scholar
Kansas State University
Division of Biology
Advisor: Dr. Terry Johnson

Topic: Negative Regulation of Cell Proliferation
- 1982-1988 Ph. D. (cell biology)
Purdue University
Division of Biology
Advisor: Dr. Frederick Crane

Topic: Positive Regulation of Cell Proliferation
- 1978-1982 B. S. degree

Stillman College
Department of Biology
Honor Thesis Advisor: Dr. Jarnail Singh

RESEARCH INTEREST

Dr. Simms' research interests are in the regulation of cell growth, especially in cancer cells, and immunology.

HONORS

Stillman College

President of Gamma Iota Sigma Honor Society
Alpha Kappa Mu National Honor Society
MBRS Fellow
Basilus of Alpha Kappa Alpha Sorority
Who's Who Among College Students

Fisk University

Academic honors in the United Negro College Fund Pre-medical Program

Purdue University

Recipient of Purdue Minority Fellowship
Member of Black Graduate Association
Recipient of MARC Travel Award

Kansas State University

Wesley Postdoctoral Scholar

University of California, Riverside

Chancellor's Postdoctoral Scholar

Azusa Pacific University

Recipient of Promega Training Grant (2000-2001, 2002-2003)
Recognition of Service (5 and 10 years)
Who's Who Among American Teachers (2004, 2005, 2006)
Recipient of Faculty Research Grant "Effects of Cayenne Pepper and Green Tea on the Reversal of Uncontrolled Cellular Growth" (2000-2001)
Recipient of creative teaching grant "A Model to Teach the Transition from Genotype to Phenotype(2005-2006)

RECENT PUBLICATIONS AND REVIEWS

“From Genotype to Phenotype”,
Willetta Toole-Simms, Designing, Implementing and Sustaining a Research-Supportive

Undergraduate Curriculum: A Compendium of Successful Curricular Practices from Faculty and Institutions Engaged in Undergraduate Research, New CUR Publication-Research Supportive UG Curriculum, Washington, D. C, (2007)

PUBLICATIONS

STILLMAN COLLEGE

“The Effects of Ochratoxin A on Fetuses of White Mice” W. Toole, MBRS Honor Thesis

PURDUE UNIVERSITY

“Retinoic Acid Inhibition of Transplasmalemma Diferric Reductase”, I. L. Sun, W. Toole-Simms, F. L. Crane, E. S. Golub, T. Diaz de Pagan, D. J. Morre’ and H. Low, Biochemical and Biophysical Research Communication 146:976-982, 1987

“Diferric Transferrin Reduction Stimulates the Na⁺/H⁺ Antiport of HeLa Cells”, I. L. Sun, r. Garcia-Canero, W. Liu, W. Toole-Simms, and F. L. Crane, Biochemical and Biophysical Research Communication 145: 467-473, 1987

“Regulation of Hydrogen Release from HeLa Cells by Diferric Transferrin” W. Toole-Simms, Journal of Bioenergetics and Biomembranes 20: 257-264.

“Reduction of Diferric Transferrin by SV40 Transformed Pineal Cells Stimulate Na⁺/H⁺ Antiport Activity” I. L. Sun, W Toole-Simms, F. L. Crane and D. J. Morre’ Biochimica et Biophysica Acta 938:17-23, 1988

“Transformation With SV40 Virus Prevents Retinoic Acid Inhibition of Plasma Membrane NADH Diferric Transferrin Reductase in Rat Liver Cells, I. L. Sun, W. Toole-Simms, and F. L. Crane, Journal of Bioenergetics and Biomembranes, 20:383-391, 1988

“Transplasma Membrane Electron and Proton Transport is Inhibited by Chloroquine”, W. Simms and D. J. Morre’, Biochemistry International 21: 761-769, 1990

“Inhibition of Transplasma Membrane Electron Transport by Monoclonal Antibodies to the Transferrin Receptor”, W. Toole-Simms, H. Low, and W. P. Faulk, Biochemical and Biophysical Research Communication 176:1437-1442.

KANSAS STATE UNIVERSITY

“The Effects of a Sialoglycopeptide on Early Events Associated with Signal Transduction”, W. Toole-Simms, D. K. Lodger, H. K Fattaey, and T. C. Johnson, J. Cell Physiology 147: 292-297, 1991

“Identification of a Cell Surface Component of Swiss 3T3 Cells Associated with and Inhibition of Cell Division. S. S. Lakshmannarao, W. Toole-Simms, H. K. Fattaey, R. J. Leach and T. C. Johnson, *Experimental Cell Research* 195:421-425, 1991

ABSTRACTS

PURDUE UNIVERSITY

“Diferric Transferrin Reductase in the Plasma Membrane Activates the Na⁺/H⁺ Antiport and is Inhibited by Retinoic Acid”, *American Society of Cell Biology*, 1987

KANSAS STATE UNIVERSITY

“Binding of a Sialoglycopeptide to a Specific Cell Surface Receptor Inhibits Cell Division in G₁” *Western Central State Biochemistry*

AZUSA PACIFIC UNIVERSITY

“Isolation of Sphingolipid Bacteria Mutants”, *West Coast Undergraduate Research Conference* San Francisco, CA May, 1993

“Effects of Cayenne Pepper and Green Tea on the Reversal of Uncontrolled Cellular Growth”, *West Coast Undergraduate Research Conference*, Santa Clarita, CA, May, 2002

PRESENTATIONS

AZUSA PACIFIC UNIVERSITY

“A Doll Model for Gene Conversion to Phenotype”, *Association of Christian School International*, Anaheim, CA 2002

“How To Teach Cancer Biology,” *Association of Christian School International*, Anaheim, CA 2003

“How To Teach About Immunology”, *Association of Christian School International*, Anaheim, CA 2005

“Expensive Experiments on a Simple Budget”, *Association of Christian School International*, Anaheim, CA 2006

OTHER SCHOLARLY AND SERVICE ACTIVITIES

REVIEWS

INQUIRY INTO LIFE LABORATORY MANUAL by Sylvia Mader, (labs #1,2,3 and 4), 10th edition, 2003

BIOLOGY: CONCEPTS AND CONNECTIONS by Peter Campbell (chapter 11) 4th edition, 2003

CONCEPTS AND CONNECTIONS: INTRODUCTION TO BIOLOGY by Presson and Jenner (chapters 9, 11 12), 1st edition,

CONCEPTS IN BIOLOGY by Enger/Ross/Bailey 11th edition,

MADER, BIOLOGY LABORATORY MANUAL, by Sylvia Mader, 8th edition

BIOLOGY: CONCEPTS AND APPLICATIONS by Cecil Starr, 7th edition