

## ***CURRICULUM VITA***

***Dr. Stephanie Dellis***

Senior Instructor  
Department of Biology  
College of Charleston  
DellisS@CofC.edu

58 Coming St  
Charleston SC  
29401  
(843) 953-4906

### EDUCATION:

University of Wisconsin Madison, WI	1987 - 1994	Ph. D., Bacteriology
Michigan State University East Lansing, MI	1978 - 1981	B. S., Biological Science B. A., Chemistry

### TEACHING EXPERIENCE:

1998-present	Senior Instructor. Courses taught: molecular biology lecture and laboratory, microbiology laboratory, introductory biology lecture for both major and non-major courses, genetics lecture and laboratory, virology seminar (Biology Department, College of Chas.).
1998	Visiting Asst. Prof., upper class-level biochemistry lecture and laboratory (Chemistry Department, Bowling Green State University).
1989, 1990	Teaching assistant, undergraduate-level and graduate-level bacterial genetics courses (Bacteriology Department, University of Wisconsin-Madison).
1987 - 1994	Training and mentoring of undergraduate researchers. Substitute lecturer in bacterial genetics (Bacteriology Department, University of Wisconsin-Madison).

### RESEARCH INTEREST:

Genetic regulation of fundamental cellular processes governed by nucleic acid-protein interactions:  
Regulation of plasmid DNA replication.  
Mechanism of transcriptional activation of the vaccinia virus late genes.  
Control of mRNA degradation of the *bcl-2* oncogene.

### OTHER RESEARCH EXPERIENCE:

## **Graduate Research**

1987 - 1994

Dr. Marcin Filutowicz, U. W. Madison Bacteriol.  
The role of *Escherichia coli* IHF protein  
in the replication of plasmid R6K.

## **Undergraduate Research**

1981

Dr. C. -K. Chang, Michigan State University  
Synthesis and characterization of novel  
porphyrin compounds.

1978

Dr. Barbara Burkitt, University of Miami  
Collection and identification of marine  
specimens in the Phylum Nemertina.

## **OTHER WORK EXPERIENCE:**

1996

Survey Research Laboratory,  
University of Wisconsin Extension  
Telephone interviewer for health studies.

1985 - 1987

Dr. Steven Aust, Department of Biochemistry,  
Michigan State University  
Oxygen-radical-mediated lipid peroxidation.

1981 - 1985

Dr. Emanuel Hackel, Department of Medicine,  
Michigan State University  
HLA tissue typing, screening antisera.

## **GRANTS AND OTHER FUNDING:**

### **Extramural**

EPSCoR/BRIN Collaborative  
Research Grant  
June 2003-June 2004

75,000 awarded to study protein interactions among the  
vaccinia virus late gene transcription factors. In  
collaboration with Dr. Cindy Wright, MUSC.

### **Intramural**

Biology Department  
College of Charleston

1999, 2001, 2002, 2005., 2007. Awarded small grants  
to develop new laboratory exercises for the Molecular  
Biology Laboratory. Several undergraduate researchers  
assisted with these two exercises.

Summer Undergraduate Research  
with Faculty (SURF)

2003, 2005. 2007. Award supporting  
College of Charleston undergraduates to  
conduct summer research under my  
supervision.

Major Academic Year  
Support (MAYS)

2007-2008. Award supporting  
College of Charleston undergraduate to  
conduct research under my supervision  
during the academic year.

School of Science and Math  
College of Charleston

(with Dr. Pam Gelasco, Dept. of Chemistry). Fall 2000  
Received funding to develop a shared laboratory  
exercise between the Molecular Biology and  
Biochemistry Laboratories. Two undergraduate  
researchers have assisted with this project.

Center for Effective Teaching  
and Learning, Coll. of Chas.

Summer 2000. Awarded funding to attend the Summer  
Institute on College Teaching at William and Mary  
College.  
Summer 2006. Awarded funding to attend the Faculty  
Technology Institute at the College of Charleston.

PROFESSIONAL AFFILIATIONS:

American Society for Microbiology

ACADEMIC HONORS AND AWARDS:

1994

Gamma Sigma Delta Agriculture Honor Society

1988 - 1991

National Science Foundation Predoctoral Fellowship

1987 - 1988 and  
1991 - 1992

Public Health Service Cellular and Molecular  
Biology Predoctoral Training Grant (NIH)

1981

Graduated With Honor from Michigan State Univ.

TEXTBOOK AND CHAPTER REVIEWS:

Molecular Biology of the Gene, 5<sup>th</sup> Ed., by J. D. Watson, T. A. Baker, S. P. Bell, and A.  
Gann, Pearson/Benjamin Cummings

Biology: Understanding Life, by S. Alters and B. Alters, John Wiley and Sons, Hoboken,  
NJ, 2006

Exercises for the Molecular Biology Laboratory, by P. Guilfoile, Morton Publishing Co,  
Engelwood, CO, 2000.

A Photographic Atlas for the Molecular Biology Laboratory, by P. Guilfoile, Morton  
Publishing Co, Engelwood, CO, 2000.

PUBLICATIONS:

Dellis, S., K. Strickland, W. J. McCrary, A. Patel, E. Stocum, C. F. Wright (2004) Protein  
interactions among vaccinia virus late transcription factors. *Virology*, *in press*

Wright, C. F., B. W. Oswald, and S. Dellis (2001) Vaccinia virus late transcription is activated *in vitro* by cellular heterogeneous nuclear ribonucleoproteins. *J. Biol. Chem.*, **276**, Issue 44: 40680-40686.

Dellis, S., J. Feng, and M. Filutowicz (1996). Replication of plasmid R6K  $\gamma$  origin *in vivo* and *in vitro*: Dependence on IHF binding to the *ihf1* site. *J. Molec. Biol.* **257**: 550-560.

Filutowicz, M., S. Dellis, I. Levchenko, M. Urh, F. Wu, and D. York (1994). Regulation of replication of an iteron-containing molecule. *In: Progress in Nucleic Acid Research*, San Diego, CA. Vol 48, pp. 239-273.

Dellis, S., T. Schatz, K. Rutlin, R. B. Inman, and M. Filutowicz (1992). Two alternative structures can be formed by IHF protein binding to the plasmid R6K  $\gamma$  origin. *J. Biol. Chem.* **267**: 24426-24432.

Dellis, S., and M. Filutowicz (1991). Integration host factor of *Escherichia coli* reverses the inhibition of R6K plasmid replication by  $\pi$  initiator protein. *J. Bacteriol.* **173**: 1279-1286.

Ryan, T. P., V. M. Samokyszyn, S. Dellis, and S. D. Aust (1990). Effects of (+)-1, 2-Bis (3,5-dioxopiperazin-1-yl) propane (ADR - 529) on iron-catalyzed lipid peroxidation. *Chem. Res. Toxicol.* **3**: 384-390.

#### ABSTRACTS AND MEETING PRESENTATIONS:

Dellis, S., DeBenedittis, P. A., and Wright, C. F. (2007) Deletion Analysis Of The Vaccinia Virus Late Transcription Factor A1L Reveals A Cryptic DNA Binding Activity. *In: 107<sup>th</sup> General Meeting of the American Society for Microbiology.*

Dellis, S. and L. Hoover (2002) A mobility shift assay and cloning experiment using Lambda *attP* DNA. *In: 102<sup>nd</sup> General Meeting of the American Society for Microbiology.*

Wright, C. F., B. W. Oswald, S. Dellis, and J. E. Fraylick (2002) Vaccinia virus late transcription is activated by host cell heterogeneous nuclear ribonucleoproteins. *In: 102<sup>nd</sup> General Meeting of the American Society for Microbiology.*

Dellis, S., F. Wu, I. Levchenko, and M. Filutowicz (1993). The involvement of DnaA and IHF proteins in replication of the plasmid R6K  $\gamma$  origin. *In: 22nd Steenbock Symposium on Protein - Nucleic Acids Interactions.*

Dellis, S., T. Schatz, R. B. Inman, and M. Filutowicz (1992). Cooperative binding of IHF protein to the replication origin of plasmid R6K. *In: J. Cell. Biochem. UCLA Symposia on Molecular and Cellular Biology*, Supp. 16B, p. 43.

Filutowicz, M., R. B. Inman, S. Dellis, and F. Wu (1990). Unusual DNA structures produced by IHF protein in the origin of plasmid R6K and their role in replication. *In: Promiscuous Plasmids in Gram - positive and -negative Bacteria*, Ed. Clarence I. Kado, Fallen Leaf Lake Conference, South Lake Tahoe, CA., p. 40.

Wu, F., S. Dellis, and M. Filutowicz (1990). Lack of IHF protein confers *in vivo* replication of plasmid R6K  $\gamma$  origin via DNA Polymerase I - dependent mechanisms. *In: Molecular Genetics of Bacteria and Phages*, Eds. Lucia Rothman-Denes, Miriam Susskind, and Andrew Wright. Cold Spring Harbor Laboratory, Cold Spring Harbor, N.Y., p. 4.

Dellis, S., J. Baskfield, and M. Filutowicz (1989). Inhibition of R6K plasmid replication by  $\pi$  protein is hindered by Escherichia coli integration host factor (IHF). *In: J. Cell. Biochem. UCLA Symposia on Molecular and Cellular Biology*, Supp. 13D, p. 84.

### MENTORING OF UNDERGRADUATES:

- 2007-2008. Garrick Klaybor, "The stabilization of *bcl-2* mRNA in cancer cells." Bachelor's Essay project.
- Summer 2007. Garrick Klaybor, "The stabilization of *bcl-2* mRNA in cancer cells." SURF research project.
2007. Garrick Klaybor, "Nucleolin stabilization of *bcl-2* mRNA". Tutorial.
2007. Aaron Tripp, "Analysis of sequencing primers for 16s rDNA amplification".
- Summer 2005. Lindsay Gilstap, "Analysis of functional domains in the vaccinia virus G8R protein", SURF research project.
- 2004-2005. Paige DeBenedittis, "Analysis of deletion mutants for vaccinia A1L transcription factor ." Bachelor's essay project.
- 2003-2004. A. Megan Diminich. "Identifying the functional domains of transcription factor A1L." Bachelor's Essay project.
- 2003-2004. Kyle Strickland. "Protein interactions among vaccinia virus late transcription factors." Bachelor's Essay project.
- 2003-2004. William Hartley, "Effect of antibiotics on disinfectant-resistant bacteria." Research-based tutorial.
2003. Brian Chilleli, "Purification of vaccinia virus late transcription factors." Research project.
2003. A. Megan Diminich. "Understanding vaccinia virus late transcription factors." Tutorial.
2003. Kyle Strickland. "Methods used to analyze protein-protein interactions." Tutorial.
2003. Adam Mailloux, "Expression and purification of a truncated LDL receptor." Research-based tutorial.
2003. Stephanie Wheeler. "Development of a mutagenesis laboratory exercise using PCR." Research project.
2003. Garron Wright. "Purification of IHF protein by heparin-sepharose chromatography." Research project.
2002. Steven Sand, "Development of a protocol for identification of unknown bacterial species." Research-based tutorial.
- 2001-2002. Shadi Amria, "PCR-mediated site-directed mutagenesis of a protein binding site". Tutorial and research project.
2001. Anu Yallapragada, Readings in Molecular Biology; identification of bacterial species based on 16s rDNA sequence. Tutorial.
2000. Loretta Hoover and Matt Rhett, "Development of an interdepartmental shared-lab exercise: Protein purification and activity assay". Research project.
- 2000- 2001. Jessica Rascoll, "Interaction of bacteria with home water filtration pitchers".

Bachelor's essay project.

1999-2000. Loretta Hoover, "Development of mobility shift assay of Lambda DNA and Integration Host Factor". Research project.

1998-1999. Amy Kirincich and Claire Chandler, "Determination of variance in heat shock proteins (Hsp) in east coast plant populations". Research project.

I have also supervised many projects for undergraduates who performed research outside of the Biology Department at the College of Charleston.