

IAN E. BURBULIS

Virginia Tech
Department of Biology
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EDUCATION:

PH.D. Candidate in Molecular and Cellular Biology. Virginia Tech, Blacksburg, VA. 1/95-present. QCA=3.85

B.S. in Biology, minor in biochemistry (Magna cum laude). Virginia Tech, Blacksburg, VA. 8/90-12/93. QCA=3.99

General studies. Northern Virginia Community College, Annandale, VA. 8/87-5/90. QCA=3.45

PUBLICATIONS:

Burbulis, I.E., Shirley, B.W. "Flavonoid-Independent fertility in *Arabidopsis thaliana*". The Plant Cell. Vol.8, 1013-1025, June 1996.

Burbulis, I.E., Pelletier, M.K., Cain, C.C., and Shirley, B.W. "Are flavonoids synthesized by a multi-enzyme complex?". Bulletin of the Southern Association of Agricultural Scientists in Biochemistry and Biotechnology. Vol.9, 29-36, 1996.

Pelletier, M.K., Burbulis, I.E., and Shirley, B.W. "Analysis of flavonoid enzymes and end-products in *Arabidopsis thaliana* seedlings". Plant Physiology. Jan. 1999. In Press.

Burbulis, I.E. and Shirley, B.W. "*Arabidopsis thaliana* flavonoid biosynthetic enzymes form a complex". Proc. Natl. Acad. Sci. In preparation.

Burbulis, I.E. and Shirley, B.W. "Functional relevance of multienzyme complex formation in flavonoid metabolism in *Arabidopsis thaliana*". In preparation.

ORAL PRESENTATIONS:

"Analysis of flavonoid metabolism in *Arabidopsis*". 75th Annual meeting of the Virginia Academy of Sciences. 5/23/97. Virginia Tech, Blacksburg Va.

"Assembly of malate dehydrogenase and citrate synthase into a model enzyme complex". Plant Molecular Biology Group. 3/3/96. Virginia Tech, Blacksburg Va.

"Flavonoid-independent fertility in *Arabidopsis*". Botany seminar series. 9/8/95. Virginia Tech, Blacksburg Va.

"Analysis of an *Arabidopsis* chalcone synthase mutation: evidence for flavonoid-independent fertility". 6th International conference on *Arabidopsis* research. 6/7-11/95. Madison, Wisconsin.

"Analysis of the *Arabidopsis thaliana* 2YY6 chalcone synthase allele". Plant Molecular Biology Group. 12/8/94. Virginia Tech, Blacksburg Va.

POSTER PRESENTATIONS:

Burbulis, I.E. and Shirley, B.W. "Specific associations between three core enzymes of flavonoid metabolism". 8th International conference on Arabidopsis research. 6/25-29/97. Madison, Wisconsin.

Burbulis, I.E. and Shirley, B.W. "Interactions between three core enzymes of flavonoid metabolism in *Arabidopsis thaliana*". 13th Annual Graduate Research Symposium. 4/28/97. Virginia Tech, Blacksburg VA.

Burbulis, I.E. and Shirley, B.W. "Does a dynamic enzyme complex control the activity and specificity of flavonoid metabolism?". Gordon Conference: Macromolecular Structure and Cell Function. 9/1-6/96. Queens College, Oxford England.

Burbulis, I.E., Shirley, B.W. "The *tt4*(2YY6) allele provides evidence for flavonoid-independent fertility in Arabidopsis". 6th International conference on Arabidopsis research. 6/7-11/95. Madison, Wisconsin.

Pelletier, M.K., Burbulis, I.E., Cain, C.C., Iacobucci, M., and Shirley, B.W. "Protein-protein interactions between chalcone synthase and chalcone isomerase from *Arabidopsis*". 4th International Congress of Plant Molecular Biology, 6/19-24/94. Amsterdam, The Netherlands.

Johnson, C.S., Burbulis, I.E., Pelletier, M.K., Cain, C.C., and Shirley, B.W. "Protein-protein interactions between the first two enzyme of flavonoid biosynthesis". 5th International Conference on Arabidopsis Research, 8/19-22/93. Columbus, Ohio.

GRANTS:

Graduate Student Travel Fund award. \$243.00 awarded for travel to the Gordon Conference: Biological Regulatory Mechanisms. Funded on a competitive basis by the Graduate Student Association. 7/10/98. Virginia Tech, Blacksburg Va.

"Thermodynamic analysis of the flavonoid enzyme complex" Funded by Sigma Xi Grants-in-Aid-of-Research for a total of \$1,000.00. 1/21/97.

"Thermodynamic analysis of flavonoid enzyme complex assembly" Funded by the Graduate Research Development Program for a total of \$1,000.00. 12/27/96. Virginia Tech, Blacksburg Va.

Graduate Student Travel Fund award. \$205.00 awarded for travel to the Gordon Conference: Macromolecular Structure and Cell Function. Funded on a competitive basis by the Graduate Student Association. 10/5/96. Virginia Tech, Blacksburg Va.

Travel Fund award. \$300.00 awarded to cover costs associated with hosting Dr. Paul Srere. Funded on a competitive basis by the Graduate Student Association. 1/5/95. Virginia Tech, Blacksburg Va.

"Analysis of multienzyme catalytic domains involved with substrate product channeling." Funded by Sigma Xi Grants in Aid of Research for a total of \$1,000.00. 1/20/94.

AWARDS:

Awarded "Best Student Paper/Presentation" in the Biology Section at the 75th Annual meeting of the Virginia Academy of Sciences. 5/23/97. Virginia Tech, Blacksburg Va.

Phi Beta Kappa, 5/93. Mu chapter, Virginia Tech, Blacksburg, Va.

Fairfax County Medical Society Scholarship: \$1,500.00 awarded on a competitive basis for the payment of school tuition and fees. 7/91, 7/92, and 7/94.

Distinguished University honors: fall '90, fall '91, spring '92, fall '92, spring '93.

Academic deans list: spring '91, fall '93.

TEACHING EXPERIENCE:

GUEST LECTURES:

"Recombinat-DNA technology" Guest lecture in BIOL:3774 (Molecular Biology, 3 credits). 2/20/98. Virginia Tech, Blacksburg Va.

"Molecular mechanisms of neurons and neural networks". Guest lecture in BIOL:3124 (Cell Physiology, 3 credits). 4/28/97. Virginia Tech, Blacksburg Va.

"Molecular tools used to dissect cellular mechanisms". Guest lecture in BIOL:3774 (Molecular Biology, 3 credits). 3/26/97. Virginia Tech, Blacksburg Va.

"A historical and contemporary perspective of bacteriophage genetics" Guest lecture in BIOL:4634 (Microbial Genetics, 3 credits). 4/3/96. Virginia Tech, Blacksburg Va.

GRADUATE TEACHING ASSISTANTSHIPS:

BIOL:1115+1116. Freshman Biology Laboratory. 1/97-present. Responsibilities include: Prepare, organize, and present material for three 1 credit labs. (usually 25 students/class).

BIOL:4779. Molecular Biology Laboratory. 12/96-5/96. Responsibilities include: Prepare, organize, and present material for one 3 credit lab. (usually 20 students/class).

BIOL:4779. Molecular Biology Laboratory. 1/96-5/96. Responsibilities include: Prepare, organize, and present material for one 3 credit lab(usually 20 students/class).

BIOL:1115. Freshman Biology Laboratory. 8/95-12/95. Responsibilities include: Prepare, organize, and present material for three 1 credit labs. (usually 25 students/class).

Plant Molecular Biology Research Technician, 1/94-12/94. B.W. Shirley research group, Virginia Polytechnic Inst. and State Univ. Dept. of Biology, 5028 Derring Hall, Blacksburg Va.

Independent ceramic tile and marble contractor, 6/87-11/94. Dynamic Tile Co. 6220 Haskin Ct., Burke Va, 22015.

OTHER PROFESSIONAL ACTIVITIES:

Invited, organized, and hosted Dr. Paul A. Srere, distinguished guest speaker for the Molecular and Cell Biology and Biotechnology Interdepartmental Seminar series. Seminar title, "The TCA Metabolon". 2/10-13/95. Department of Biology, Virginia Tech, Blacksburg Va.

Participated in an intensive 10 week clinical preceptorship; 9/92-11/92. five weeks in diagnostic imaging, then five weeks in general surgery. Montgomery Regional Hospital, Blacksburg, Va 24060.

Wesley Student organization; 1/92-5/92. Va Tech, Blacksburg, Va 24060.

Biology Club; 8/91-12/91. Va Tech, Blacksburg, Va 24061.

COMMUNITY SERVICE:

Emergency room volunteer, 12/91-6/92. Montgomery Regional Hospital, Blacksburg Va, 24060.