

The Blue Ridge Chemist

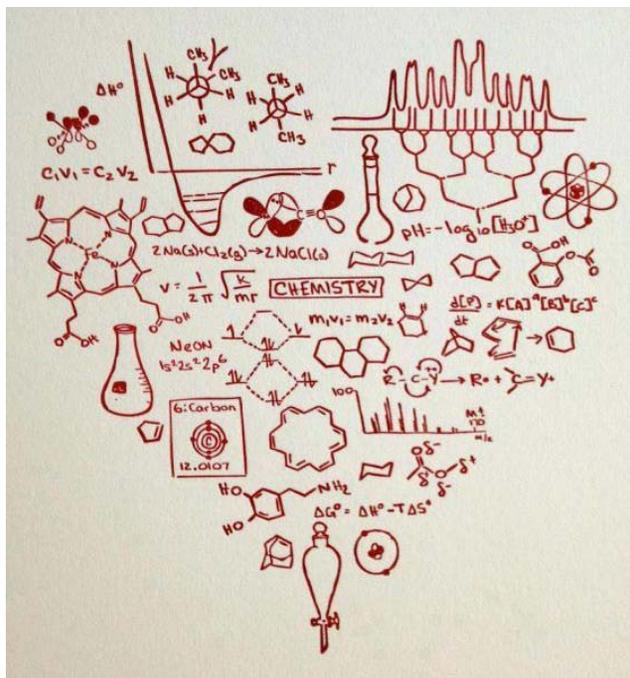
The Blue Ridge Chemist, Since 1947 the
Official Local Section Publication of the
Virginia Blue Ridge Section, American Chemical Society



VOLUME LXXI

February 21, 2018

No. 2



Roanoke College Hosts the February Meeting

<http://www.acs-vbrs.org>

VIRGINIA BLUE RIDGE SECTION AMERICAN CHEMICAL SOCIETY

691st SECTION MEETING
Roanoke College

Wednesday, February 21, 2018

PROGRAM:

5:30-6:00 Social Time, Pickle Lounge

6:00-7:00 Dinner, Pickle Lounge

7:00-8:00 Lecture, Massengill Auditorium

The dinner will take place in the Pickle Lounge of the Colket Center at Roanoke College. The talk will be in Massengill Auditorium. The speaker will be Prof. Steven Poelzing of Virginia Tech Carilion Research Institute.

For dinner we will be going through the cafeteria line bringing trays back to the Pickle Lounge. The usual menu includes two entrees, a salad bar, various sides and other items, with desserts and ice cream.

Cost for the dinner will be \$10.00 for everyone. Reservations for the dinner must be made by FRIDAY, February 16, FIVE DAYS before the meeting, by contacting Debbie Duncan at 540-375-2441, or by e-mail to duncan@roanoke.edu, or by mail to Debbie Duncan, Department of Chemistry, Roanoke College, Salem, VA 24153.

Dr. Steven Poelzing

Associate Professor of Health Sciences and Medicine
Associate Professor of Biomedical Engineering and Mechanics
Virginia Tech



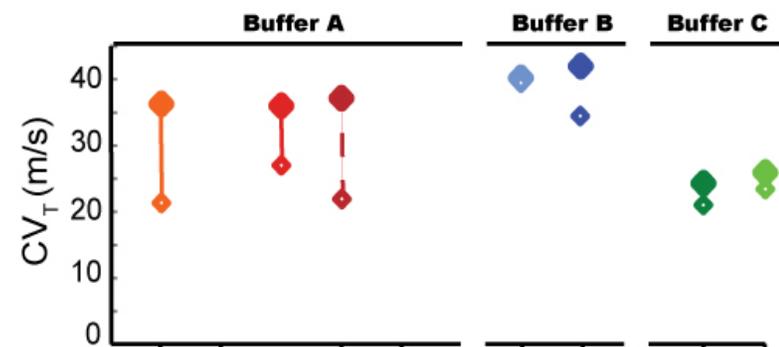
Dr. Poelzing is an Associate Professor of Biomedical Engineering and Mechanics as well as a co-director of Virginia Tech's Translational Biology, Medicine and Health graduate program. He received his bachelor's degree from Wright State University and his PhD in bioengineering at Case Western Reserve University. He has been honored as a Fellow of the American Heart Association and Heart Rhythm Society. Currently, Dr. Poelzing is a standing member of the Electrical Signaling, Ion Trafficking, and Arrhythmia study section for the National Institutes of Health. His work spans from cellular to clinical levels. Dr. Poelzing is arguably best known for resolving a long-standing controversy on whether loss of gap junction proteins, as occurs in almost every cardiac disease, are relevant to increasing a patient's risk for sudden cardiac death.

Biomedical Reproducibility: Lessons from the Heart

Transgenic animals are important tools in modern biology. We always take special note whenever (nearly) identical genetically manipulated models produce different experimental outcomes. In the eyes of the media, the public, and policymakers, biomedical irreproducibility can jeopardize our trust in science.

How can two careful and time-consuming scientific studies arrive at such different results? Statisticians might argue that biological research simply has too little data and too many variables. Cynical pundits will even insinuate data fabrication. Yet, one can reach an even more exciting perspective if one begins by *accepting both contradictory sets of data as accurate*.

In my laboratory, we found that loss of gap junction protein in the heart does and does not produce conduction-slowing, depending on a simple experimental condition that is often taken for granted: The Laboratory Buffer. Our research led us to conclude that there is an alternative form of cell-to-cell communication that is ionically sensitive. This lecture will describe how we arrived at this conclusion and review other examples of discoveries that arose by reinvestigating the origins of biomedical irreproducibility.

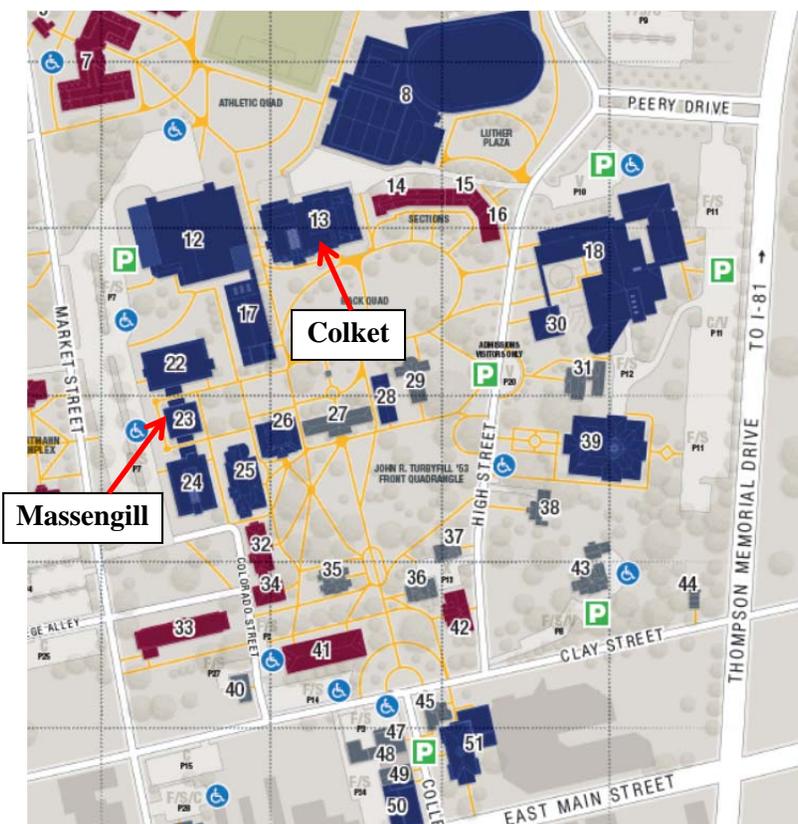


Conduction velocity (CV_T) measurements that gave different results as a function of buffer composition.

Directions to Roanoke College

From I-81 take exit 140 (Route 311) and go south into Salem, on Thompson Memorial Dr. Turn right onto Peery Dr. to enter campus. Parking is on the left. You may also find parking near Massengill along Market St. For disability routes, please contact Gary Hollis. The Dinner is in Colket Center (Pickle Lounge) and the talk is in Massengill Auditorium.

https://www.roanoke.edu/about/visit/maps_and_directions



Next Meeting at Roanoke Valley Governor's School

Thu March 15: "Undergraduate Programs in Science at VT"

Annual Poster Session

As a part of the April 20, 2018 meeting at Radford University, the Virginia Blue Ridge Section of the American Chemical Society is sponsoring the 26th Annual Undergraduate/High School Poster Session. Poster boards will be provided.

If you have a student (or students) who will be participating, submit the following information by email to Dr. Christine Hermann (chermann@radford.edu) by April 13, 2018. **This is a firm deadline. No posters will be accepted after this time.** All students and faculty will get email confirmation. If you did not get an email reply, then your submission was not received and you cannot present.

Name of Project:

Name(s) of Student(s):

Affiliation (name of high school, college, or university):

Class of Student(s) (freshman, sophomore, junior, senior): _____

Student(s) email address(es):

Advisor's Name, Address, Telephone Number, and email address:

48" by 36" poster board with tripod on table or just table will be provided. Please specify what you need.

_____ poster board with tripod on table

_____ table needed