

Vol. 31, No.5

South Florida Section American Chemical Society

Sept/Oct 2021



Virtual Section Meeting

Wednesday, October 6, 5:30 PM

Join via Zoom Meeting https://american-chemical-society.zoom.com/j/84832271399

Dr. Conrad Fischer

Barry University

PEPTIDE DRUGS – DESIGNING NATURE-INSPIRED THERAPEUTICS

Peptide drugs are on the rise, accounting for 8% of FDA drug approvals over the past five years. The advantages of peptide-based drugs like biocompatibility and – availability, easy uptake (pharmacokinetics) and generally low toxicology make them unique targets for pharmaceutical development. Challenges that need to be carefully addressed to advance these drugs from lead compounds to successful trial candidates include drug delivery, metabolic stability and solubility. This talk gives a brief introduction in the pros and cons of peptide drugs, as well as recent trends and areas of research that improve the drug-like properties of these biomolecules. Two examples of Dr. Fischer's research interests *i.e.*, cardiovascular active peptide drugs and peptidomimetic viral inhibitors of SARS-CoV-2, will be highlighted.

Dr. Fischer earned each of his chemistry degrees at the University of Freiberg, Germany (BS 2006, MS 2008, PhD 2012) and did postdoctoral research assistantship for 5 years at the University of Alberta, Edmonton, Canada. He joined Barry University Physical Sciences faculty in January 2021 as assistant professor of chemistry and biochemistry. Dr. Fischer's research involves synthesis of cardiovascular active peptides, vital protease inhibitors, nature-inspired inclusion hosts, and GPCR receptor signaling. His apelin research led to a patent and a start-up company (PAERKO Therapeutics Inc, Edmonton, Canada) developing innovative technologies to combat cardiovascular diseases. His research on SARS-CoV-2 inhibitors is currently undergoing animal and human trials as drug-based therapy against COVID-19. Results from his research have been published in 40 papers in peer-reviewed journals and presented at 13 national and international conferences and 6 invited talks. He is a member of ACS, Canadian Society of Chemistry, and German Chemical Society.

SoFL-ACS Innovative Project Grants

Active ACS student member chapters/chem clubs or SoFL-ACS members collaborating with local school science teachers are eligible to apply for innovative project grants of up to \$250 from SoFL-ACS for activities such as chem demos, community outreach to local elementary, middle, and high schools, etc. Guidelines are available at: www.soflacs.org. Proposals should be addressed to: Chair of SoFL-ACS and emailed to: jbern0309@gmail.com. Each proposal will be reviewed by the SoFL-ACS executive officers and a decision made within 2 weeks of submission. Funding will be provided from the SoFL-ACS treasurer.

Call for Nominations for 2022 SoFL-ACS Officers

Nominations and self-nominations are requested for the following executive officers: Chair-Elect; Treasurer; Councilors/ Alternate Councilors. Send nominations by Nov. 1 to: gfisher@barry.edu

2021 SoFL-ACS Officers

Chair – Jesse Bernstein, 440-821-4623, <u>Jbern0309@gmail.com</u>
Past Chair – Orlando Acevedo, University of Miami, 305-284-5662, <u>orlando.acevedo@miami.edu</u>

Chair-Elect – John Reilly, Florida Gulf Coast University, Ft. Myers 239-590-1881, johnreilly@fgcu.edu

Secretary and Councilor—Milagros Delgado, 305 919-5966, FIU-Biscayne Bay Campus, degadom@FIU.edu

Treasurer – David Riusech, driusech@aol.com, 954-292-6548

Councilor – George Fisher, 954-870-8458; Barry Univ., gfisher@barry.edu Councilor – Zaida Morales-Martinez, 305-386-3206, moralesz@fiu.edu Alternate Councilor – Jesse Bernstein, 440-821-4623, Jbern0309@gmail.com Alternate Councilor – Lisa Milenkovic, 754-321-2119,

lisa.milenkovic@browardsschools.com

Alternate Councilor – Vic Shanbhag, Nova Southeastern Univ. 954-262-3931, shanbhag@nova.edu

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Chemistry Makes It Go!





OCTOBER 17-23, 2021

SoFL-ACS Student Chapters/Clubs Video Competition

In celebration of National Chemistry Week, the SoFL-ACS local section will be hosting its 2nd Annual Video Competition. Join other ACS Student Chapters/Clubs and submit a video showcasing experiments embracing this year's NCW theme: "Fast or Slow Chemistry Makes It Go!"

Examples include catalyzed reactions, effects on rates of reaction, etc.

All demos will be put on www.soflacs.com and sent to local museums.

Guidelines:

- Experiment must fit the NCW theme
- Video must be 2-3 minutes long
- > Student groups can submit more than one video (One submission per form)
- Need to briefly explain the science behind the experiment for the general audience
- ➤ DEADLINE: Videos must be submitted by using the following form link by October 15, 2021: <u>Video Entry Form</u>

The winning student chapter will win:

- A pizza party for the group sponsored by So-FLACS
- Awarded the Travelling Award Plaque for the year with your Student Chapter Name engraved

For questions about the event, please contact the NCW Coordinator, Lorilee Valientes, at Ivalient@fiu.edu.

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We hope to see your video!







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Chemistry Makes It Go! OCTOBER 17-23, 2021



2021 NCW Illustrated Poem Contest

The South Florida Local Section of the American Chemical Society (ACS) is sponsoring an illustrated poem contest for students in Kindergarten through 12th grade.

Contest Deadline: Tuesday, October 19th, 2021 before midnight

Prizes: Gift certificates will be presented for the top winner in each category with a certificate

Contact: Milagros Delgado, delgadom@fiu.edu

Submissions will be online through form: Click here

Winners of the South Florida Local Section's Illustrated Poem Contest will advance to the National Illustrated Poem Contest for a chance to be featured on the ACS website and to win prizes!

Write and illustrate a poem using the NCW theme, "Fast or Slow ... Chemistry Makes It Go!" Your poem must be no more than 40 words and in the following styles to be considered:

HAIKU - LIMERICK - ODE - ABC POEM - FREE VERSE - END RHYME

Possible topics related to the theme include:

- Activation Energy
- Collision theory
- Pressure

- Catalysts and enzymes
- Fast vs. slow reactions
- Reaction rates

- Temperature
- Surface are

Entries will be judged based upon:

- Artistic Merit use of color, quality of drawing, design, and layout
- Poem Message fun, motivational, inspiring about yearly theme
- Originality Creativity unique, clever and/or creative design
 - Neatness free of spelling and grammatical errors
- imit of 40 words





