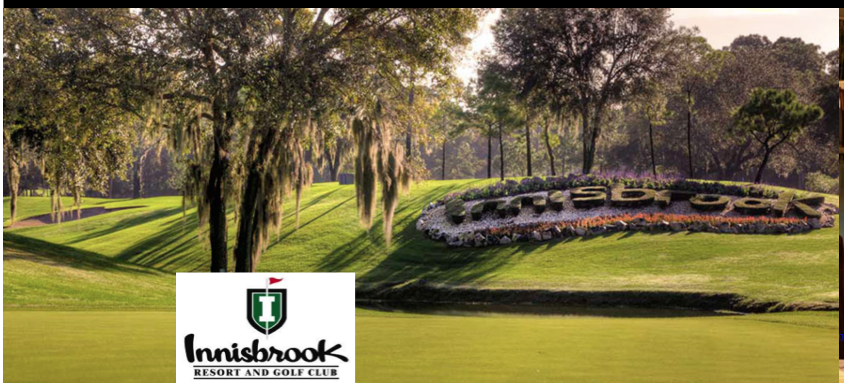
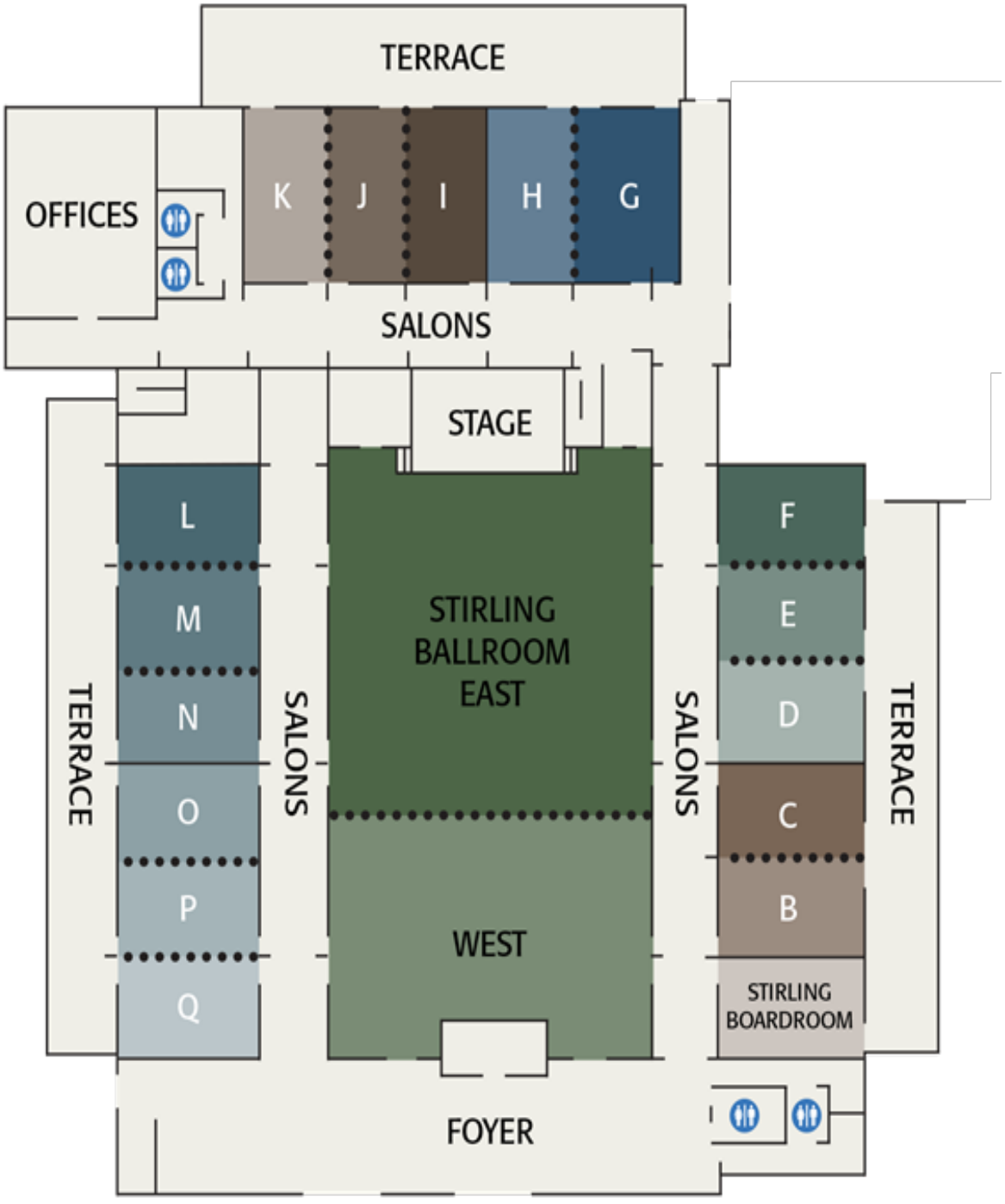
FAME 2023

99th Florida Annual Meeting and Exposition

PROGRAM OF ACTIVITIES





STIRLING HALL

FLACS
FLORIDA ANNUAL MEETING & EXPOSITION

OFFICIAL PROGRAM

FLACS (Florida Section of the ACS) Committee

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FLACS
Publication of the Florida Section of the American Chemical Society

2023 Florida Section Officers

FROM THE FLACS CHAIR

On behalf of the Florida Section of the American Chemical Society (FLACS), welcome to the 99th Florida Annual Meeting and Exposition (FAME). As the 2023 FLACS Chair, I would like to sincerely thank you for your participation and support of this year's meeting. We are still trying to get back our excellent conference to the state it was prior to COVID-19, but I think we are getting there..

I would like to acknowledge all those who were instrumental in getting us back together including our organizers and FLACS executive board members.

At this year's meeting, we are pleased to present our 2023 Florida award winner, Dr. Michael Therien from Duke University who is here and will present on Friday. He is an extraordinary Chemist in his field and excited to have him speak. I hope you will join us at his talk. Thank you to the Florida Award Selection Committee.

Students, postdoctoral scholars, faculty, companies, and researchers from over 240 academic and industrial institutions across Florida and the southeastern United States have chosen to share their work at this meeting. There are also collaborative work from across the nation represented in this work. We have over 85 talks and over 60 posters. Every year I am inspired by the work of my colleagues, students, post-docs and industry partners sharing new projects and ideas to tackle old problems. Like each year past, I am certain that this year will be no different. While this annual meeting traditionally invites participation from both professional and student members, FAME is particularly unique in the opportunity it provides for students (both graduate and undergraduate) to present their research in a relaxed and friendly environment; this year, students submitted majority of the abstracts.

In addition to attending the technical symposia, poster presentations, and exhibition, I encourage you to take advantage of the social events we have planned as a way to network, share ideas, and have fun. Social events include the Welcome Reception, which runs concurrently with Poster Sessions on Thursday and Saturday evening, and the Graduate Student and Faculty Mixers at Market Salamander Bar and Packard's Patio, respectively.

Finally, I would like to thank the FLACS executive committee for their efforts in organizing FAME this year. I would also like to thank our sponsors and exhibitors for their support. Please enjoy the conference as you learn about all of the exciting research happening in and around Florida!

Deborah Bromfield Lee
FLACS Chair

FROM THE FLACS Chair Elect- Program CHAIR

It is very exciting to be part of the 99th FAME meeting! What an accomplishment for the Florida Local Section of the ACS! As Deborah, Ralph and I have worked to put this together I get a real sense of excitement to meet again and share our work. I look forward to meeting you all and I hope you have a wonderful meeting. I am very thankful for our wonderful session chairs! It has been a pleasure to work with all of you. As I put the program together I was thinking that it would be nice to be able to attend multiple sessions at once as they all have very interesting presentations line up for us! Thank you for your support of FLACS and FAME and I hope you meet new friends and colleagues, and see exciting new science.

Kari B. Basso
FLACS Chair-Elect

We are pleased to acknowledge the following individuals, companies, and institutions that helped to sponsor Symposia AND Exhibit at FAME 2023:

UF Research

UF Liberal Arts and Sciences

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PAST FLORIDA AWARD WINNERS

1952	**Paul Gross**	Duke University	1988	**Edward K. Mellon**	Florida State University
1953	**A. E. Wood**	University of Mississippi	1989	**William R. Dolbier**	University of Florida
1954	**C. B. Pollard**	University of Florida	1990	**R. Bruce King**	University of Georgia
1955	**H. E. Skipper**	Southern Research Institute	1991	**George R. Newkome**	University of South Florida
1956	**George. K. Davis**	University of Florida	1992	**Charles E. Carraher**	Florida Atlantic University
1957	**C. R. Hauser**	Duke University	1993	**Norman L. Allinger**	University of Georgia
1958	**Karl Dittmer**	Florida State University	1994	**Albert Padwa**	Emory University
1959	**J. E. Hawkins**	University of Florida	1995	**Alan R. Katritzky**	University of Florida
1960	**H. H. Sisler**	University of Florida	1996	**Luis Echegoyen**	University of Miami
1961	**Michael Kasha**	Florida State University	1997	**N. Yngve Öhrn**	University of Florida
1962	**Jack Hine**	Georgia Institute of Technology	1998	**Jack Saltiel**	Florida State University
1963	**George Butler**	University of Florida	1999	**Mostafa El-Sayed**	Georgia Institute of Technology
1964	**C. T. Bahner**	Carson-Newman	2000	**Rodney J. Bartlett**	University of

		College			Florida
1965	**Werner Herz**	Florida State University	2001	**Thomas J. Vickers**	Florida State University
1966	**Paul Tarrant**	University of Florida	2002	**Alan G. Marshall**	Florida State University
1967	**O. K. Rice**	University of North Carolina	2003	**Kenneth B. Wagener**	University of Florida
1968	**Earl Frieden**	Florida State University	2004	**John G. Dorsey**	Florida State University
1969	**John Baxter**	University of Florida	2005	**Charles R. Martin**	University of Florida
1970	**S. P. McGlynn**	Louisiana State University	2006	**Roger M. Leblanc**	University of Miami
1971	**Ray Lawrence**	USDA Naval Stores Laboratory	2007	**Naresh Dalal**	Florida State University
1972	**James. V. Quagliano**	Florida State University	2008	**George Christou**	University of Florida
1973	**Gregory Choppin**	Florida State University	2009	**Kirk S. Schanze**	University of Florida
1974	**Sidney Fox**	University of Miami	2010	**Timothy Cross**	Florida State University
1975	**Dean F. Martin**	University of South Florida	2011	**Frank Millero**	University of Miami
1976	**William Jones**	University of Florida	2012	**Weihong Tan**	University of Florida
1977	**Cecil Criss**	University of Miami	2013	**Joseph Schlenoff**	Florida State University
1978	**Harry Walborsky**	Florida State University	2014	**Weitao Yang**	Duke University

1979	**Mary Good**	Louisiana State University	2015	**Lisa McElwee-White**	University of Florida
1980	**Raymond Sheline**	Florida State University	2016	**Richard D. Adams**	University of South Carolina
1981	**Wallace Brey**	University of Florida	2017	**David N. Beratan**	Duke University
1982	**James D. Winefordner**	University of Florida	2018	**Kevin M. Smith**	Louisiana State University
1983	**Theodore A. Ashford**	University of South Florida	2019	**John R. Reynolds**	Georgia Institute of Technology
1984	**Leo Mandelkern**	Florida State University	2020	**Brian C. Benicewicz**	University of South Carolina
1985	**Brian Stevens**	University of South Florida	2021	**Jeffrey Johnson**	University of NC Chapel Hill
1986	**Harry P. Shultz**	University of Miami	2022	**Igor V. Alabugin**	Florida State University
1987	**Delos F. DeTar**	Florida State University	2023	**Michael Therien**	Duke University

2023 FLORIDA AWARD

Michael Therien

Duke University
Durham, NC

The Florida Award selection committee recognizes Michael J. Therien, the William R. Kenan, Jr. Professor at Duke University, for his contributions to physical inorganic and physical organic chemistry, and major impact in both teaching and service to the larger chemistry community. It is our honor to present him with the 2023 Florida Award.

Prof. Therien received his undergraduate education at UCLA and St. Andrews University (Scotland). He earned his doctoral degree at UCSD under the research direction of William Trogler. Following a postdoctoral fellowship with Harry Gray at Caltech, he took a faculty appointment at the University of Pennsylvania, where he was the Alan G. MacDiarmid Professor. In 2008, his laboratory moved to Duke University, where his research program focuses on engineering novel photopysical, electro-optic, spintronic, and energy transducing function in molecular and nanoscale systems. Earlier honors include Dreyfus and Sloan Foundation Fellowships, and young investigator awards from the Beckman Foundation, the Searle Scholars Program, the Society of Porphyrins and Phthalocyanines, and the NSF. He has been recognized with the ACS Philadelphia Section Award, elected Fellow of the American Association for the Advancement of Science, and awarded the Francqui Chair in the Exact Sciences (Belgium). He is a Fellow of the John Simon Guggenheim Memorial Foundation, and was recently awarded the R. B. Woodward Career Award in Porphyrin Chemistry.

Award and Presentation (Physical and Biophysical Chemistry): June 2nd 4:30 pm

The FLACS executive committee would like to acknowledge the Symposium Organizers without whom this program would not come together without.

Computational Chemistry Dr. Shyam Kattel Florida A&M University	**Biochemistry and Chemical Biology** Dr. Yulia Gerasimova University of Central Florida
Inorganic Chemistry Dr. Keith Searles University of Florida	**Chemical Education** Dr. Erin Saitta University of Central Florida
Physical and Biophysical Chemistry Dr. Matt Eddy University of Florida	**Analytical Chemistry** Dr. Robert Lazenby Florida State University
Organic Chemistry Dr. Rebecca Black New College of Florida	**PMSE/POLY and Materials Chemistry** Rhys Hughes & Megan Lott University of Florida

MEETING AT A GLANCE

THURSDAY AFTERNOON June 1st		
	SESSION/EVENT	**LOCATION**
12:00-5:00	*Registration and check-in*	Stirling Hall Foyer
1:30-3:30	Workshop A: **ACS Career Workshop: Finding Your Pathway**	Stirling E-F
1:30-3:30	Workshop B: **Chemical Biology RCR Workshop – Intrinsic Asymmetry: Mentor/Mentee Responsibilities and Relationships**	Stirling B-C
BREAK		
5:30 – 7:30	Welcome Reception (r*efreshments served*)	Stirling Hall Foyer
5:30 – 7:30	**Poster Session I**	Stirling Ballroom E&W
8:00 PM	Graduate Student Mixer (*refreshments served*)	Stirling I-J-K

	FRIDAY MORNING June 2nd	
	SESSION/EVENT	**LOCATION**
8:00 - 8:30	*Late Registration and Continental Breakfast*	Stirling Hall Foyer
8:30-	Biochemistry and Chemical Bio A	Stirling L-M
	Analytical A	Stirling K
	Physical and Biophysical A	Stirling G-H
	PMSE/POLY A	Stirling O-P
COFFEE BREAK		
10:15-	Biochemistry and Chemical Bio A	Stirling L-M
	Analytical A	Stirling K
	Organic A	Stirling B
	Physical and Biophysical A	Stirling G-H
	PMSE/POLY A	Stirling O-P
LUNCH BREAK ON YOUR OWN		

FRIDAY AFTERNOON June 2nd

MEETING AT A GLANCE

	SESSION/EVENT	LOCATION
1:00-5:00	**Poster viewing**	Stirling Ballroom E&W
1:30-	Biochemistry and Chemical Bio B	Stirling L-M
	Computational A	Stirling I-J
	Inorganic A	Stirling E-F
	Organic B	Stirling B
	Physical and Biophysical B	Stirling G-H
COFEE BREAK		
	Computational A	Stirling I-J
	Inorganic A	Stirling E-F
	Organic B	Stirling B
	Physical and Biophysical B	Stirling G-H
4:30-5:30	2023 FL Award Winner Presentation and Award (Physical and Biophysical)	Stirling G-H
DINNER ON YOUR OWN		
9:00	Faculty Mixer *(refreshments served)*	Packard's Patio

SATURDAY MORNING June 3rd		
	SESSION/EVENT	**LOCATION**
8:00 - 8:30	*Late Registration and Continental Breakfast*	Stirling Hall Foyer
8:30 -	Biochemistry and Chemical Bio C	Stirling L-M
	Chemical Education A	Stirling K
	Computational C	Stirling I-J
	Physical and Biophysical C	Stirling G-H
	PMSE/POLY C	Stirling O-P
COFFEE BREAK		
10:15-	Biochemistry and Chemical Bio C	Stirling L-M
	Chemical Education A	Stirling K
	Computational C	Stirling I-J
	Inorganic B	Stirling E-F
	Physical and Biophysical C	Stirling G-H
	PMSE/POLY C	Stirling O-P
LUNCH BREAK ON YOUR OWN		

SATURDAY AFTERNOON June 3rd

MEETING AT A GLANCE

	SESSION/EVENT	LOCATION
1:00-5:00	**Poster viewing**	Stirling Ballroom E&W
	Chemical Education B	Stirling K
	Physical and Biophysical D	Stirling G-H
	Inorganic C	Stirling E-F
	COFEE BREAK	
	Inorganic C	Stirling E-F
	Chemical Education CER Round Table	Stirling K
	Poster Reception (r*efreshments served*)	Stirling Hall Foyer
5:30 – 7:30	**Poster Session II**	Stirling Ballroom E&W
7:30	END OF PROGRAM	
DINNER ON YOUR OWN		

TECHNICAL PROGRAM

THURSDAY, June 1st – AFTERNOON

THURSDAY AFTERNOON: **WORKSHOPS**

	SESSION/EVENT	LOCATION
1:30-5:00	Workshop A: **ACS Career Workshop: Finding Your Pathway**	Stirling E-F
1:30-5:00	Workshop B: **Chemical Biology RCR Workshop – Intrinsic Asymmetry: Mentor/Mentee Responsibilities and Relationships.**	Stirling B-C

THURSDAY AFTERNOON: **POSTER SESSION I and RECEPTION** – STIRLING BALLROOM

Time	Title
5:30-7:30	**POSTER SESSION I** (see list of posters and presenters at the end of this program) Abstracts Available on the fl-acs site: https://fame2023.fl-acs.org/view/accepted-posters/

Friday, June 2nd – MORNING SESSIONS

Abstracts available on the fl-acs site: https://fame2023.fl-acs.org/view/accepted-presentations/

FRIDAY MORNING: **BIOCHEMISTRY AND CHEMICAL BIOLOGY A** – STIRLING L-M

Time	Presenter	Title
9:00	Dmitry Kolpashchikov	DNA Cephalopod Nanostructure for Improving Hybridization Rates
COFFEE BREAK		
10:15	Alexandra Chamberlain	Kinetic analysis of a minimal RNA substrate as a tool for identification of inhibitors of bacterial Ribonuclease P; an emerging antibiotic target
10:40	Ronfu Zhang	Characterizing CwsA and CrgA interaction in a lipid bilayer with ssNMR
11:20	Ernesto Arcia	Protein Evolution using Antibiotic Resistance as a System.

FRIDAY MORNING: **ANALYTICAL A –** STIRLING K

Time	Presenter	Title
8:30	Kari B. Basso	Making normal more normal in quantitative lipidomics: using the Sulfo-phospho-vanillin assay for quantitative LC-MS/MS lipidomics
8:55	Muzammil Ahmed	A Novel Single Ionophore Single Electrolyte Configuration for Simultaneous Detection of Multiple Metal Ions via ITIES
9:15	Yusuf Muhammed	Developing nanopipettes with ion current and potentiometry response for applications in topography and pH measurement in single adenocarcinoma cells
9:35	Thomas Volta	Cation Permselectivity Through Synthetic Nanopore Membranes: The Role of Surface Charge
COFFEE BREAK		
10:15	Donald Luke and Carlos Borras	Galvanic Removal of Polyfluorinated Compounds from Water A low cost, low energy breakthrough for the removal and destruction of Polyfluorinated “Forever Chemicals”
10:40	Amanda Ritz	In-situ electrochemical transformations of high-performance iron-nickel nanocarbide electrocatalysts for the oxygen evolution reaction

11:00	Brenna Hilborn	Elemental Analysis of Masculinized Fish Collected around Fort Myers, Florida by X-ray Fluorescence (XRF) Spectroscopy
11:20	Noel Manring	Double-bore carbon fiber microelectrodes for the simultaneous detection of heavy metals and neurotransmitters via fast scancyclic voltammetry

FRIDAY MORNING: **ORGANIC A –** STIRLING B

Time	Presenter	Title
10:15	Zaafir Dulloo	Fluorinated cyclic thiosulfonates as anti-cancer agents against EGFR+ and HER2+ breast cancers: Synthesis & formulation
10:45	Xiaodong Shi	Regioselective Crossed Aldol Reactions and Alkyne Trifunctionalization via Au-Fe Catalysis

FRIDAY MORNING: **PHYSICAL AND BIOPHYSICAL A –** STIRLING G-H

Time	Presenter	Title
8:30	Robert Silvers	Structure and Function of Human La-Related Protein 1
9:15	Xiaofeng Fu	The Southeastern Center for Microscopy of Macromolecular Machines (SECM4)
COFFEE BREAK		
10:15	Mitch Gulkis	Structures of LIG1 active site mutants reveal the importance of DNA end rigidity for mismatch discrimination
10:40	Emily Peng	NMR characterization of the C-terminal domain of the *Streptococcus mutans* adhesin P1.
11:05	Arka Ray	Dual mechanisms of cholesterol-GPCR interactions that depend on membrane phospholipid composition

FRIDAY MORNING: **PMSE/POLY A –** STIRLING O-P

Time	Presenter	Title
8:30	Peng Jiang	Reconfigurable Nanooptics and Smart Chromogenic Sensors Enabled by Multi-Stimuli-Responsive Shape Memory Polymers
9:15	Rhys Hughes	Excitation Dependence in Photoiniferter Polymerization
BREAK		
10:15	Jared Bowman	Ultrafast Xanthate-Mediated Photoiniferter PISA
10:45	Megan Lott	Ultrahigh Molecular Weight Triblock Copolymers via Difunctional Photoiniferters in Inverse Miniemulsion Conditions
11:15	Yu-Hsuan Shen	Manipulating Size and Increasing Conductivity of Cyclic Polyacetylene

Friday, June 2nd – AFTERNOON SESSIONS

Abstracts available on the fl-acs site: https://fame2023.fl-acs.org/view/accepted-presentations/

FRIDAY AFTERNOON: **BIOCHEMISTRY AND CHEMICAL BIOLOGY B** – STIRLING L-M

Time	Presenter	Title
1:30	Piyush Jain	Engineered CRISPR/Cas systems as point-of-care diagnostics for infectious diseases and beyond
2:15	Sayan Kundu	Labeling cell surface glycosylphosphatidylinositol-anchored proteins through metabolic engineering using an azide-modified phosphatidylinositol

FRIDAY AFTERNOON: **COMPUTATIONAL A** – STIRLING I-J

Time	Presenter	Title
1:30	Shyam Kattel	Computations Guided Catalysts Design
2:00	Zhiyu Wang	Atomic Charge Schemes Comparison for Fe Single Atom in Graphitic carbon: Insights from Quantum Simulations and Machine Learning
2:25	Nick Terrel	Atomistic uncertainty estimation in ANAKIN-ME neural network potentials
COFFEE BREAK		
3:15	Dimuthu Kodituwakku	Effects of glycosylation on the structure of Glucose oxidase
3:40	Reza Esmaeeli	Structural predictions of protein–DNA binding: MELD-DNA
4:05	Tianming Qu	CrypWater: Detection and Characterization of Protein Cryptic Pocket through Water Density Fluctuation in Molecular Dynamics Simulation
4:30	Joao Sequeita	Extending the stochastic titration CpHMD to the AMBER14SB force field for future search of non-opioid analgesics

FRIDAY AFTERNOON: **INORGANIC A –** STIRLING E-F

Time	Presenter	Title
1:30	Pranshu Puri	On the nucleation and growth kinetics of PbSe magic-sized clusters
1:50	Samuel Adegboyega	Investigation of Effect of Hole Doping on the Magnetic and Structural Behavior of $CaCo_2As_2$

2:10	ChristiAnna Brantey	Single-Molecule Magnets on Molecular Nanoparticles of δ-Bi_2O_3
COFFEE BREAK		
3:15	Reece Johnson	Silica Supported Niobium Sites Tailored for Arene/Cyclic Olefin Conversion
3:35	Shubham Bisht	Triangular Paramagnetic Molecules as Mimics of Long-Range Phenomena in Bulk Magnets
3:55	Atul Chaudhary	Metal olefin carbonyl complexes as organometallic precursors for focused electron beam-induced deposition
4:15	Saryvoudh Mech	Synthesizing CdTe Magic-Sized Clusters with a Secondary Phosphine
4:35	Konstantin Bukhryakov	Vanadium Alkylidenes for Olefin Metathesis

FRIDAY AFTERNOON: **ORGANIC B** – STIRLING B

Time	Presenter	Title
1:30	Parag Das	Enlightening the photochemical behavior of INCN-functionalized donor-acceptor molecules.
2:00	Cole Stearns	Self-Assembling Properties of Hybrid-Deck [2.2]Paracylophanes
COFFEE BREAK		
3:20	Zhongwu Guo	Diversity-Oriented Synthesis and MS-Based Characterization of Glycosphingolipids

FRIDAY AFTERNOON: **PHYSICAL AND BIOPHYSICAL B** – STIRLING G-H

Award Symposium in Honor of Dr. Michael Therien 2023 Florida Award Recipient

Time	Presenter	Title
1:30	Josef Michl	Metalloporphenes, a new family of conjugated 2-dimensional polymers
2:10	Michael Wasielewski	Chirality-Induced Spin Selectivity (CISS) in Electron Donor-Bridge-Acceptor Systems
COFFEE BREAK		
3:15	Dave Waldeck	Adventures with Chiral Induced Spin Selectivity
3:50	David Beratan	A theory for high efficiency electron bifurcation
4:30	Florida Award and Award Lecture Michael Therien	Fundamental Excitations in Highly Conjugated Supermolecules and Nanoscale Structures

SATURDAY, June 3rd – MORNING SESSIONS

Abstracts available on the fl-acs site: https://fame2023.fl-acs.org/view/accepted-presentations/

SATURDAY MORNING: **BIOCHEMISTRY AND CHEMICAL BIOLOGY C** – STIRLING L-M

Time	Presenter	Title
8:45	Wen Zhu	Catalytic mechanism of radical SAM enzyme PqqE in pyrroloquinoline quinone biosynthesis
COFFEE BREAK		
10:15	Seth Ablordeppey	The Therapeutic Potential of Functionally Selective 5-HT_7 Receptor Ligands

SATURDAY MORNING: **CHEMICAL EDUCATION A –** STIRLING K

Time	Presenter	Title
8:55	Jessica Young	Students' familiarity, skepticism, and usage of artificial intelligence language processing tools
9:20	Jabdiel Laboy Santana	Mitigating teaching anxiety through the use of an adaptable virtual community of practice
COFFEE BREAK		
10:15	Martina Sumner	Mentoring at-risk students in large enrollment General Chemistry 1
10:40	Keila Muller	Investigating students' sense of belonging in general chemistry courses with varied instructional styles
11:05	Scott Lewis	How successful general chemistry students describe ionic compounds

SATURDAY MORNING: **COMPUTATIONAL C** – STIRLING I-J

Time	Presenter	Title
9:00	Prem Chapagain	Computer-aided exploration of novel drugs and drug targets
9:35	Bipin Lamichhane	First principles study of transition metal carbide for single atom catalyst
COFFEE BREAK		
10:15	Megan Bentley	Highly accurate thermochemical properties of the vinoxy radical
10:45	Kate Huddleston	ANAKIN-ME and Electrostatics
11:40	Michael Lynn	Density Functional Theory (DFT) Study on Bulk Properties of Transition Metal Nitrides

SATURDAY MORNING: **INORGANIC B –** STIRLING E-F

Time	Presenter	Title
10:15	Peijie Hu	Silica Supported Group IV Metal Complexes Prepared via SOMC for Arene Hydrogenation Reactions
10:35	Alexander Diodati	Covalently-linked Supramolecular Dimers of $\{Mn_2\mu\text{-}O\}^{2+}$ Complexes
10:55	Randy Larsen	Photoinduced Energy and Electron Transfer within a Mixed Guest Ru(II)(2,2'-bipyridine):M(III)tetrakis(4-sulphonatophenyl) porphyrine@HKUST-1 (M = Mn(III), Fe(III)) Metal Organic Framework

SATURDAY MORNING: **PHYSICAL AND BIOPHYSICAL C** – STIRLING G-H

Time	Presenter	Title
8:30	Ioannis Gelis	Conformational dynamics during kinase loading to the Hsp90-Cdc37 chaperone complex
9:10	Alberto Perez	Targeting BET Proteins: Advances in Understanding Intrinsically Disordered Peptide Binding
COFFEE BREAK		
10:15	Emma Mulry	Probing Site Specific Protein PEGylation to Improve Therapeutic Potential
10:40	Mario Chang	Real Time Deuterium Metabolic Imaging of Mouse Brain Metabolism by the Two-Point Dixon Method
11:05	Yudan Chen	Investigating Li microstructure formation in solid electrolytes using NMR and MRI

SATURDAY MORNING: **PMSE/POLY C** – STIRLING O-P

Time	Presenter	Title
8:30	Patricia Calvo	Synthesis and Applications of Chelating Polymers
9:15	Valentina Gomez	[2.2]Paracyclophanes as a platform to synthesize star polymers and supramolecular bottle-brushes
9:35	John Oladimeji Akintola	Zwitterglass: Anti-fouling Coatings from Glassy Polyelectrolyte Complexes
BREAK		
10:15	Joshua Moon	Versatile synthetic platform for elucidating water and ion transport in post-functionalized polymer membranes
11:00	Steven Lenhert	Supramolecualar Aptamers

Continue the conversation and Networking

Stirling D-E

SATURDAY, June 3rd – AFTERNOON SESSIONS

Abstracts available on the fl-acs site: https://fame2023.fl-acs.org/view/accepted-presentations/

SATURDAY AFTERNOON: **CHEMICAL EDUCATION B –** STIRLING K

Time	Presenter	Title
1:30	Matilynn Lam	Key Stakeholders' Interpretations of Scientific Information Literacy: A Survey of Central Florida's K-16 Educators
1:55	Deborah Bromfield Lee	Modifying an Organic Chemistry Esterification Teaching Lab to be Accessible to Blind and Visually Impaired (BVI) Students
2:20	Shailendra Singh	Development and Implementation of Hydrofluoric Acid Program at the University of Florida
BREAK		
3:15	Roundtable Event: Conversations in Chemistry Education Research	

SATURDAY AFTERNOON: **Inorganic C –** STIRLING E-F

Time	Presenter	Title
1:30	W. D. C. Bhagya Gunatilleke	WITHDRAWN Investigation of Structural Features and Their Effects on Thermal Properties of Multinary Chalcogenides for Thermoelectric Applications
1:50	Ashlyn Hale	Molecular Analogues of the Structure and Spin Vector Ordering of $LnMnO_3$ Manganite Perovskites
2:10	Chenjie Zeng	Binary Semiconductor Nanoclusters: from Magic Sizes to Atomic Precision
COFFEE BREAK		
3:15	Milo Adams	Transition-Metal Dependent Magnetic Ordering in Intercalated Vanadium Ditelluride
3:35	Zhichun Shi	A combined structural, spectroscopic, electrochemical, and magnetic study of Nickel (II) pyrazolates: dinuclear [Ni_2], linear [Ni_3 and triangular [Ni_3] incorporating five-/six-coordinate Ni^{2+} ions.
3:55	Jaihui Liu	Solvent Effects on Intercalation Reactions in $VOPO_4 \cdot 2H_2O$
4:15	Ioannis Spanopoulos	Generating Porosity to Hybrid Metal Halide Semiconductors

SATURDAY AFTERNOON: **PHYSICAL AND BIOPHYSICAL D** – STIRLING G-H

Time	Presenter	Title
1:30	Thanh Nguyen	High Accuracy Reaction Rate Coefficients from First Principles
1:55	Anna Rushin	Applying Dynamic Nuclear Polarization to Measure Pancreatic Metabolism using Hyperpolarized [^{113}C] Pyruvate
2:25	Enzo Petracco	Development of an in-situ NMR approach to identify lead compounds and map their binding epitopes with GPCRs in native cell membranes

Continue the conversation and Networking

Stirling I-J & Stirling D-E

SATURDAY AFTERNOON: **POSTER SESSION II** – STIRLING BALLROOM

Time	Title
5:30-7:30	(see list of posters and presenters at the end of this program) Abstracts available on the fl-acs site: https://fame2023.fl-acs.org/view/accepted-posters/

POSTERS

Instructions for poster presenters:

- **Posters should be no larger than 36”x48”. Poster boards, stands, and clips will be provided to mount your poster.**
- **Poster set up for SESSION I is Thursday from 2:00-5:00 pm. Each stand will have a number corresponding to your assigned number in the program. Posters from Session I must be removed on Friday between 2:00 and 4:00 pm.**
- **Poster set-up for SESSION II is Friday from 1:00-4:00 pm. Each stand will have a number corresponding to your assigned number in the program. Posters from Session II must be removed on Saturday after 7:00 pm.**

POSTER SESSION 1 THURSDAY 5:30 – 7:30 STIRLING BALLROOM			
No.	**NAME**	**Topic**	**Title**
1	Debashis Sen	Analytical	Developing aptamer-based microelectrode sensors for use in scanning electrochemical microscopy (SECM)
2	Ana Ramirez	Analytical	Functionalization of nanopipettes for the detection of biomolecules
3	Kenley Herbert	Analytical	Modifications for signal improvements within a custom-built Raman Spectrometer instrument for heterogeneous atmospheric reactions
4	Jeanpierre Fuente	Biochemistry Chemical Biology	Molecular Dynamics Simulation Reveals the Structural Basis Underlying Reverse Transcriptase Activity by Human DNA polymerase $\boldsymbol{\eta}$
5	Enzo Raymond	Biochemistry Chemical Biology	Development of an in-situ NMR approach to identify lead compounds and map their binding epitopes with GPCRs in native cell membranes
6	Sreyashi Das	Biochemistry Chemical Biology	Probing Site Specific Protein PEGylation to Improve Therapeutic Potential
7	McKenna Parker	Biochemistry Chemical Biology	Bacterial Effector Protein: From Cloning to Sample Preparation for Biophysical Studies
8	Caitlin McCadden	Biochemistry Chemical Biology	Genome Mining of Bacterial Cytochrome P450 Enzymes for Novel Biocatalysts
9	Matthew Dias	Biochemistry Chemical Biology	Discovering novel bacterial DNA gyrase poisons using unique high throughput screening assay.
10	Yisel	Martinez Noa	Elucidating the binding rates and affinities of IDP peptides towards the ET receptor
11	Bhumika Singh	Computational	Combining molecular simulations and semi-reliable data to determine protein structures
12	Justin Lee	Computational	Enhanced Free Energy Sampling of Transmembrane Permeation
13	Christine Gambino	Computational	Virtual Target Screening: A Greener Way To Screen Analog For The Prediction Of Target Binding
14	Anjali Sharma	Inorganic	Aerosol-assisted chemical vapor deposition of tungsten oxide and nitride films

15	Alex Bottorff	Inorganic	Identifying electron-induced reactions of inorganic complexes to enable mechanism-based design of new EUV resists
16	Fnu Nikita	Inorganic	Identifying Electron-Induced Reactions of Inorganic Complexes to Enable Mechanism-Based Design of New EUV Resists.
17	Erik Ferenczy	Inorganic	Aerosol-Assisted Chemical Vapor Deposition of Transition Metal Dichalcogenides
18	Rashmi Singh	Inorganic	Ruthenium carbonyl halide complexes as precursors for area selective deposition by photo-assisted chemical vapor deposition
19	Doory Dan	Inorganic	Molecular models for Ce/Co oxides: insights into atomic structures and electronic properties
20	Sarah Bennett	Inorganic	Modulating the Plasmon of Cd_2SnO_4 Nanospinels by Variation of Size and Morphology
21	Samuel Klingenberg	Inorganic	Synthesis of a Novel, High Nuclearity Ce/V Cluster with an Unusual Structure
22	Diba Allameh zadeh	Inorganic	Self-assembled double hydrophilic block copolymers mixed with paramagnetic lanthanides for use as PARACEST MRI agents
23	Andrew Link	Organic	Catalytic Akermark Cyclizations of Electron-Poor Diphenylamines
24	Osamah Alghazwat	Organic	Releasing and Capturing carbon dioxide CO_2 using Morpholine and Photo acid Solutions
25	Melisa Gonzales	Organic	Organic synthesis of candidate PKAL-1 substrates to probe the nemamide biosynthetic pathway
26	Sydney Paulin	Physical/Biophysical	How caffeine modulates actin filament assembly dynamics
27	Stephen Jones	Physical/Biophysical	Modeling Self Assembling Peptides Using MELD
28	Vinay Malut	Physical/Biophysical	*In vivo* Application of the 2-Point Dixon Method by Deuterium Metabolic Imaging and Spectroscopy
29	Alec DeCecco	Physical/Biophysical	Molecular-Weight Growth: Ozone-Assisted Low-Temperature Oxidation of Crotonaldehyde

30	Sarriah Hassoun	PMSE/POLY	Complexing Polyelectrolytes with Small Biomolecules for Underwater Adhesive Applications
31	Lauren Bishop	PMSE/POLY	Expanding the Scope of Chemiluminescence Promoted Photopolymerizations

POSTER SESSION 2 SATURDAY 5:00 – 7:00 STIRLING BALLROOM			
No.	**NAME**	**Topic**	**Title**
1	Alissa Stranberg	Biochemistry Chemical Biology	Cell RNA Structural Studies of Spliced Leader RNA Transcripts in the Red Tide Dinoflagellate Karenia brevis
2	Danielle Garzon	Biochemistry Chemical Biology	RNA Structural Studies of Wild-Type and Mutant RNA Spliced Leader Sequences of the Red Tide Dinoflagellate Karenia brevis
3	Seth Ablordeppey	Biochemistry Chemical Biology	Enantiomeric separation of selective 5-HT_7 receptor ligands.
4	Seth Ablordeppey	Biochemistry Chemical Biology	Towards the isolation and identification of the bioactive principles with potential anticancer properties from an African plant
5	Swapnil Joshi	Biochemistry Chemical Biology	Identifying Allosteric Communication Mechanism in Human Ribonucleotide Reductase
6	German Meija	Biochemistry Chemical Biology	Serum Starvation and Stringent Response in H. pylori
7	Sloan Berry	Chemistry Education	Assessing Graduate Teaching Assistants' Understanding of Inclusive Teaching through the Lens of Universal Design for Learning
8	Rebecca Black	Chemistry Education	How do organic chemists contribute sustainable solutions?: a student-driven Organic Chemistry I research project based in the UN Sustainable Development Goals
9	Esther Francom	Chemistry Education	Assessing Challenges of Organic Chemistry Education: Foundations for Faculty Action Research
10	Marjan Roshandel	Chemistry Education	Reflective practice of undergraduate learning assistants (ULAs) using the Vitruvian Model of Reflective Practice (VMRP)

11	Kaila Weflen	Computational	On the thermodynamic stability of the NF_3 molecule
12	Tianming Qu	Computational	Sampling Protein Cryptic Site Formation via Advanced Molecular Dynamics Simulation Method
13	Elizabeth Sebastian	Computational	Molecular Dynamics Analysis of ET Domain-Peptide Interactions in BET Family Proteins
14	Xin Kang	Inorganic	Ru olefin carbonyl complexes as organometallic precursors for focused electron beam-induced deposition
15	Nicole Giorgi	Inorganic	Divergent Synthesis of Bimetallic Bisdipyrromethane Complexes
16	Eduardo Hernandez Requejo	Inorganic	Investigation of High-Symmetry Lanthanide Complexes as Molecular Spin Qubits
17	Bishwaprava Das	Inorganic	Manganese Precursors for Area Selective Deposition (ASD) by Photoassisted Chemical Vapor Deposition (PACVD)
18	Krittin Poottafai	Inorganic	Influence of surrounding medium on photoluminescence and phase behavior of two-dimensional lead iodide perovskites.
19	Courtney Sever	Inorganic	Rational Design of Double Tethered Metallacyclobutane Complexes
20	Fuyan Ma	Inorganic	Synthesis of ultrasmall CdSe nanoclusters by cation exchange and subsequent growth
21	Charlotte Bailey	Inorganic	Unusual manganese-lanthanide clusters from the use of phthalic acid
22	Cody Daneluik	Inorganic	Synthesis and magnetic characterization of enneanuclear Fe_6M_3 ($M= Ca^{II}La^{III}$ clusters
23	Brianna Ariza	Physical/Biophysical	The effect of osmolytes on actin bundling and bundle mechanics by Chlamydia trachomatis Tarp
24	Blaine Gordon	Physical/Biophysical	Alternative PAM2 Motif Architecture in La-related Protein 1
25	Arden Floyd	Physical/Biophysical	Cloud condensation nuclei activity of fresh and aged submicrometer maleic acid aerosol particles.

26	Michael Lynn	Physical/Biophysical	MOVED TO ORAL
27	Blanch Khouri Sader	PMSE/POLY	Molecularly Imprinted Polymers for the Detection of Aflatoxin
28	Cabell Eades	PMSE/POLY	Lanthanide-Based Hybrid Polyion Complexes for use as ParaCEST MRI Contrast Agents
29	Parker Boeck	PMSE/POLY	Cyclic Polymers from Alkynes: Expanding the Scope

Thank you For Attending