

GSU CHEMISTRY NEWSLETTER

COMMITTED TO KEEPING YOU
INFORMED AND INSPIRED



February 2025

Volume 1 Issue 1



Top News

Dr. Bingchen Yu launches new
Seminar Series
[Bonding Beyond the Bench:
Bridging Education and
Careers](#)



Dr. Hamed Laroui TEDx event
titled "Inspiring Youth for a
Brighter Future." [WATCH HERE](#)



GRAD STUDENT
HANDBOOK



CHEMISTRY
WEBSITE

DEPARTMENT OF
CHEMISTRY

GRADUATE PROGRAM
AND RESEARCH BOOKLET
2025

[CLICK HERE](#)

CHEMISTRY

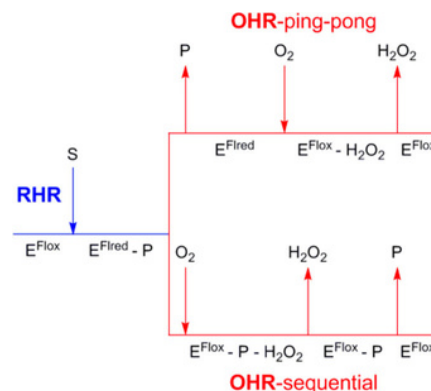
[VISIT US](#)



Dr. Giovanni Gadda
Chair of Chemistry

The Chairs Corner

The research interest of my group is in the general area of the mechanistic enzymology of redox enzymes, with a specific interest in flavin-dependent enzymes.



Chair's message

Hello Chemistry Enthusiasts,

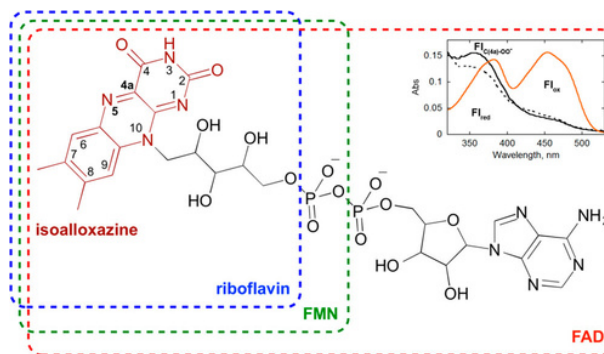
Welcome to the latest edition of the Chemistry Department newsletter at Georgia State University. We are thrilled to share the most recent updates, research accomplishments, and exceptional opportunities within our esteemed chemistry community.

This newsletter features a diverse range of content, including groundbreaking discoveries and remarkable achievements by both students and faculty. It serves as your gateway to the exciting developments happening within our department.

We are honored to have you join us on this remarkable journey as we continue to push the boundaries of scientific innovation and excellence. Your presence is greatly appreciated as we strive to create a vibrant and collaborative chemistry community.

Sincerely,

Giovanni Gadda
Chair of Chemistry



Do you want to contribute to CHEMISTRY News?

Email your stories, special announcements, recent publications or simply your ideas to Eduardo Roque Diaz (eroquediaz@gsu.edu)

Q&A with new Faculty Dr. Jin

1. What attracted you to this department or institution?

Chemistry education and research have always been my passion. Georgia State University, a prestigious public university, stood out because of its strong, research-driven education in chemistry, particularly for undergraduates, many of whom are minorities. The department's cutting-edge research for graduate students, especially in areas that focus on improving human health, greatly aligns with my goals. Its collaborative platforms, core facilities, and research programs—like the Center for Diagnostic Technology and the Molecular Basis of Disease—perfectly complement my interest in developing materials for healthcare. The faculty here is incredibly supportive, diverse, and dedicated. On a personal note, I also love Atlanta for its vibrant culture, great weather, and amazing food.



2. What are your current research interests, and how do you see them evolving in the next few years?

My research focuses on material chemistry and bioanalytical chemistry. I am particularly interested in understanding and optimizing the bio-nano interface and developing smart biomaterials for measuring peptides, proteins, and enzymes, ultimately to advance theranostic solutions for various diseases. Specifically, my team is working on (i) developing in vitro diagnostics to improve human health and (ii) creating surface coatings to enhance medical devices. Over the next few years, my goal is to become a recognized expert in designing smart materials, with the potential for commercialization, contributing significantly to human health.



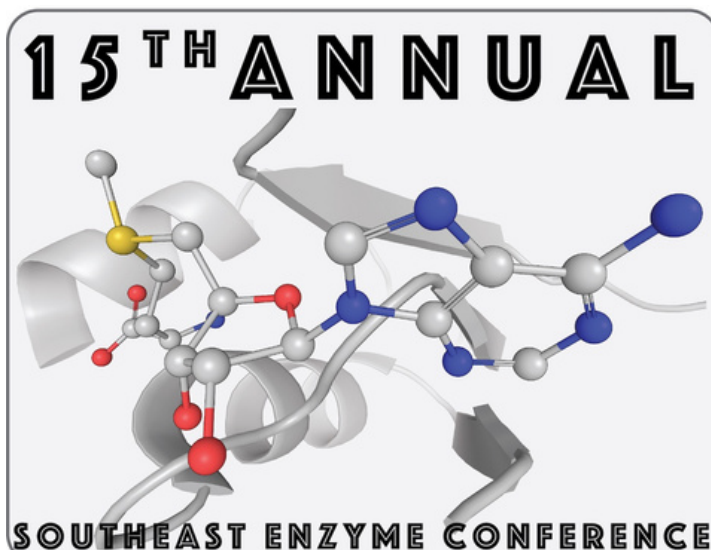
COLLEGE OF
ARTS & SCIENCES

COAS BUSINESS SERVICES

COAS RESOURCES

Our Senior Business Affairs Coordinator, Ewa Steinberg, shares a very important update for the COAS resources page. This site provides access to all documents and procedures.

[ACCESS HERE](#)



15th Southeast Enzyme Conference

Date: April 26th, 2025!

**Early Registration is open until
29th March!**

Registration Rates:

Undergraduate Student: \$10

Graduate Student: \$30

Postdoctoral Associate: \$40

Academic/Non-Academic Professional/ Research Scientist: \$60

Post-conference mixer: \$20

DR. JIN CONTINUED...**3. Can you describe your teaching philosophy?**

THE NEWS

I believe that good teaching is an exciting dialogue between people passionate about a common subject, using real-life examples to make key concepts clear. My teaching model draws inspiration from my advisors at UC San Diego and Florida State University. Coach Fisher's method, for instance, was a blend of 20% laboratory work, 25% in-class problem solving, and 55% lectures. His approach, especially the peer problem-solving sessions, was the most effective way for me to grasp nanoscience fundamentals. While such an approach can be challenging to implement in larger classes, it remains the cornerstone of my teaching philosophy, especially for introductory courses.

4. What role do you see yourself playing in shaping the future of the department?

In the short term, during my first two years, my focus will be to excel as a faculty member by immersing myself in the department's culture, recruiting and mentoring students, setting up my lab, teaching courses, and contributing to departmental services like faculty meetings and seminars. I will also work with my team to gather preliminary data for my proposed projects using startup funding and enhancing the department program strength in biomedical research.

Long term, within three to five years, I aim to take on more leadership roles, such as serving on departmental committees or leading/co-leading research initiatives. I will also continue to improve my teaching, mentor junior faculty and students, and foster collaborations by inviting guest researchers to our seminars. I see myself growing both as a faculty member and a mentor, contributing to the department's and the university's long-term success.

DO YOU WANT TO MAKE A CONTRIBUTION TO GSU CHEMISTRY?



 DONATE

SUPPORT A CAUSE

- Chemistry Department Endowment Operating Fund
- Al Baumstark Undergraduate Research Award in Chemistry
- Bradford Scott Beerman Memorial Scholarship
- Al Baumstark Award in Chemistry
- David W. Boykin Graduate Fellowship in Medicinal Chemistry
- Ambrose H. Pendergrast Fellowship
- Robert "Pete" Pullen, Jr. Scholarship in Analytical Chemistry
- Al Baumstark Chemistry Ph.D. Fellowship
- Harry P. Hopkins, Jr. Fellowship in Physical Chemistry

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TRIVIA QUIZ

"CHEMISTRY"

First proposed by J.J. Thomson in 1904, a model of the atom in which electrons were embedded in a large positively-charged mass, with no nucleus, was popularly known by what alliterative food nickname?

What 6-letter C-word is the name of the polysaccharide substance that makes up the hard outer armor of many insects, arachnids, and crustaceans?

A joint experiment between Dubna and Oak Ridge scientists produced what 117-proton element named for what U.S. state?

Five people have won two Nobel Prizes, but Linus Pauling is the only one to have won two that were not shared with anyone else. He won the first for Chemistry, but for what other field did he win his second?

What 19th-century "P" French chemist discovered the enzyme diastase and the carbohydrate cellulose, leading to further exploration of chemical processes that happened at the cellular level?



GSU CHEMISTRY ALIGNS WITH PRESIDENT BLAKE "FOUR PILLARS" THROUGH NEW SEMINAR SERIES.

COLLEGE TO CAREER AND PLACEMAKING

GSU Chemistry Career Development Seminar Series

BONDING BEYOND THE BENCH: BRIDGING EDUCATION AND CAREERS

"From Molecules to Models: My Journey in AI-Powered Healthcare Innovation"



February 26, 2025
1:30 PM - 2:30 PM
PSC ROOM 124

Dr. Manjusha Roy Choudhury
R&D Data Scientist at
Aspira Women's Health



GSU CHEMISTRY IN HISTORY

Kell Hall, which Georgia State acquired in 1945, was the birthplace of science at the university. A former parking garage, it housed labs full of bubbling chemical reactions, subatomic machinery, even cadavers. But by the 2000s, Kell's 180,000 square feet — plus the 170,000-square-foot Natural Science Center, which opened in 1992 — wasn't enough to accommodate the university's growing research portfolio. Georgia State began planning for a new research park that would be a hub for scientific discovery.

The opening of Petit Science Center (PSC) in 2010 and the Research Science Center (RSC) in 2016 more than doubled the university's research space and marked a new era for research at the university. With vastly improved lab space and the most advanced core facilities, the buildings gave the university a major advantage in recruiting top faculty in the life sciences. Today, PSC and RSC serve as home for Georgia State's Institute for Biomedical Sciences, the Neuroscience Institute, the Biology and Chemistry departments, and numerous research centers.

"These are the things that are really key to building a strong research enterprise: critical facilities and specialized cores with equipment that faculty want to use," says Robin Morris, former vice president for research at Georgia State.



Science Olympiad Regional Tournament 2025

by Dr. Nilmi Fernando

I want to let you know that the 2025 Science Olympiad Division B Regional Tournament was held successfully at GSU on Saturday, February 22nd. Most importantly, I would like to express my sincere gratitude to the following Chemistry faculty, graduate students, lead student assistants and the lab coordinators for their assistance in numerous ways to run this event.

- Dr. Tom Robilotto -event coordinator, Chem lab facilities coordinator and help with registration
- Chem faculty - Dr. Danzhu Wang, Dr. Doyle Barrow, Dr. Jessica Siemer, Dr. Nour Mansour and Dr. Jina Yu –event coordination and supervision
- Graduate students - Guliz Ozmen (PI: Dr. Maged Henary), Diyali Sil (PI: Dr. Chayan Dutta) and Ryan Tran (PI: Dr. Kostiantyn Marichev) – event coordination and supervision
- Chem lab coordinators -Dunay Busto, Kelsey Sellers, Stefanie Casa and Johnathan Jones– for letting us use their laboratories and help event conductors prepare for the events
- Lead student assistants - Marvin Center, Tyler Vernon and Anmariely Montano – organizing and helping with the logistics of the tournament, event scoring and ranking, volunteer coordination
- Assistant Tournament Directors – Dr. Jie Jiang and Dr. Hamed Laroui – organizing the tournament, help with registration, event coordination and organizing and coordinating the award ceremony

The event coordinators volunteered to set up, make tests and have everything ready for their events, not only on Chemistry but Biology and Geosciences events as well. One Biology event and all Geosciences events were run by Chem faculty and graduate students. They were an amazing team who were ready to adapt to the challenges and do their best even with a short notice. It is an honor to have people of such caliber in our Department.

Last but not least, thank you, Dr. Gadda for your support and willingness to contribute to this endeavor.

Best,
Nilmi Fernando

Recent publications:

- [PUBLICATION: "Alternative Approach to Sequence-Specific Recognition of DNA: Cooperative Stacking of Dication Dimers—Sensitivity to Compound Curvature, Aromatic Structure, and DNA Sequence"](#)
- [PUBLICATION: "Coupled Heterogeneity to Dimeric Site-Specific Binding by the POU-Family Transcription Factor OCT2"](#)
- [PUBLICATION: "Carbon monoxide potentiates the effect of corticosteroids in suppressing inflammatory responses in cell culture"](#)
- [PUBLICATION: "Roadmap for Designing Donor- \$\pi\$ -Acceptor Fluorophores in UV-Vis and NIR Regions: Synthesis, Optical Properties and Applications"](#)
- [PUBLICATION: "SMAC-armed oncolytic virotherapy enhances the anticancer activity of PD1 blockade by modulating PANoptosis"](#)