CSUNIUM

Department Of Chemistry & Biochemistry | California State University, Northridge

Welcome!

Welcome to another edition of the newsletter of the Department of Chemistry & Biochemistry at CSUN. Our goal is to provide news and information about the Department, its students, staff, faculty and alumni. If you have relevant news to share, please e-mail chemistry@csun.edu.

About Us

The Department offers baccalaureate and master's degrees in Chemistry and Biochemistry. Our B.S. degrees are accredited by the American Chemical Society (ACS) as meeting national standards for academic breadth and rigor. Learn more at https://www.csun.edu/science-mathematics/chemistry-biochemistry.

Contact Us

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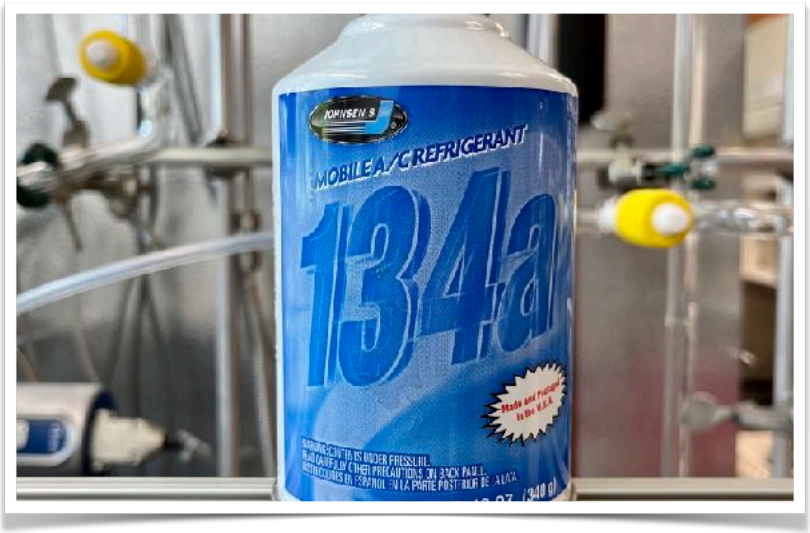
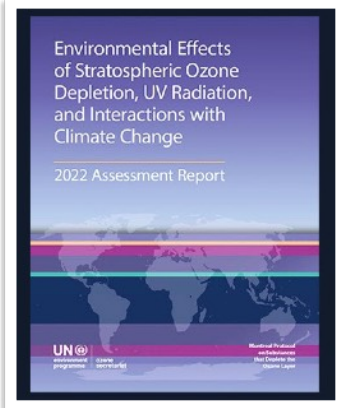


It's summer already and the season of the great San Fernando Valley heat that smothers campus for three or four months 🥵. Time to think about all that wonderful physical chemistry going on in your air conditioner as it whirs away in your car or home. The enthalpy of vaporization… entropy changes… those tiny intermolecular forces that lead to condensation… the relentless cycle of expansion and compression of refrigerant gases! And of course the great laws of thermodynamics that govern it all. Brrr… time for a sweater. Whatever you are up to this summer, we hope you stay cool and perhaps find time to say a little thank you for the marvels of modern chemistry.

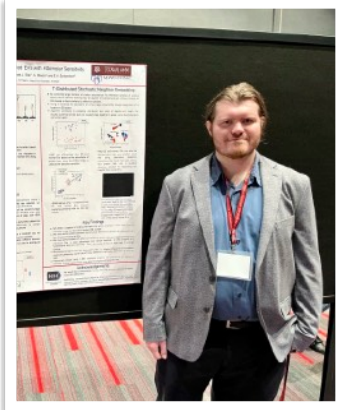
CSUN | DEPARTMENT OF CHEMISTRY AND BIOCHEMISTRY

News

May 26, 2023: Dr. Andersen and collaborators publish "Environmental Effects of Stratospheric Ozone Depletion, UV Radiation, and Interactions with Climate Change: 2022 Assessment Report" as part of the work of the United Nations Environment Program (UNEP).



May 19, 2023: Congratulations to all of our students who received their BA Chemistry, BS Chemistry, BS Biochemistry, MS Chemistry or MS Biochemistry degrees at the commencement ceremony this evening! Your hard work and perseverance has paid off!



May 5, 2023: Graduate student Michael Shaw → (Eller lab) is awarded first place in the Graduate Session at the 23rd Sigma Xi Student Research Symposium on campus.

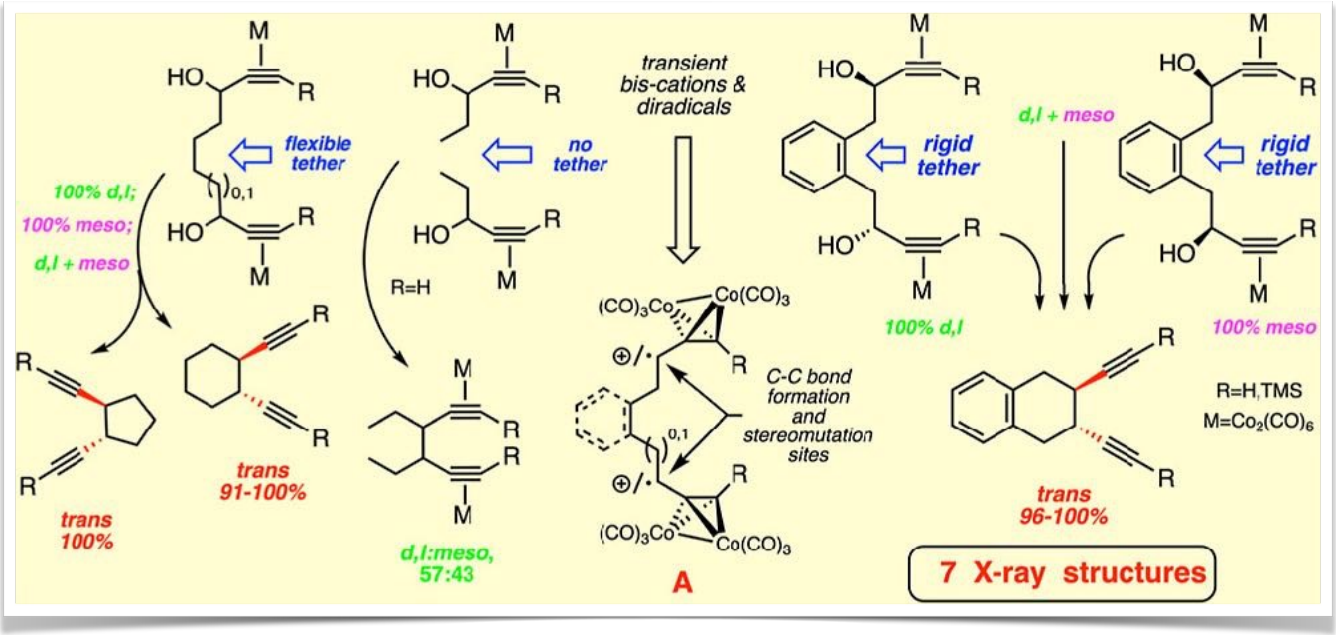
May 5, 2023: In the spring semester, undergraduate Erika Shirvanian (Melikyan lab) was one of only 29 students in the CSU to be awarded a $2,500 Edison STEM-NET Student Research Fellowship Award from the CSU Chancellor's Office. She presented the results of her work, along with the other awardees, at the 2023 Edison STEM NET Research Fellowship Symposium. Congratulations to Erika.

April 28-29, 2023: Jander Cruz (Eller lab) presented his research at the California State University Systemwide Student Research Competition hosted at San Diego State University, one of 10 students representing CSUN this year. Jander is shown presenting his talk →

April 21, 2023: Many of our research students presented posters or gave short talks at CSUNposium this year, and several won awards for their work. Janelli Pineda (Fischhaber lab) earned 1st place in her session of 3-minute oral presentations given by graduate students. Jesus Hernandez (Teprovich lab) was awarded 2nd place in his session of 10-minute oral presentations by graduate students. And Donnie Ca (Minehan lab) won 2nd place in his undergraduate poster group. Congratulations to everyone!

April 19, 2023: The Department was quite successful in CSUN's Research, Scholarly and Creative Activity (RSCA) award competition this year! Awardees include Drs. Andersen, Vey and Ye, who received 6 units of release time from teaching, Dr Kelson, who received 3 units release time and a $6,000 mini-grant for his research, and Dr. Minehan, who received a $12,000 mini-grant. Congratulations all!

March 30, 2023: At the Spring ACS meeting in Indiana graduate student Nicole Babayans (Melikyan lab) gave an oral presentation about her research. The talk, titled "Organometallic rectangles and organic octagons: New paradigms in developing ionic-ionic, carbon-carbon bond-forming reactions", was her first presentation at a national conference. Undergraduate students Julyssa Renteria and Alique Tokatlian also presented a poster of their research at the meeting. Congratulations to the presenters!



March 29, 2023: The Melikyan lab published its latest (and largest) research article, titled "Cobalt-mediated radical cyclizations: Stereoselective synthesis of cyclopentanes, cyclohexanes, and tetralins" (graphical abstract ↑). It was published in the journal *Organometallics* with coauthors (former) graduate student Vahe Darabidian, postdoc Anurag Mishra and undergraduates Elen Artashyan, Nicole Babayans, Shannen Guarina and Masis Parunyan. The publication includes seven crystal structures, which allowed the researchers to unambiguously assign the stereochemistry of the carbocycles.

March 28, 2023: B.S. Biochemistry major Dulce Hernandez (Fischhaber lab) won an Honorable Mention in the category of 'Microbiology, Membranes, and Glycans' in the undergraduate poster

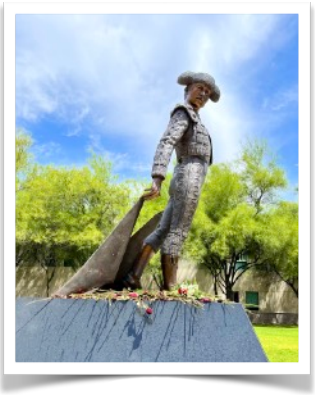
competition at the annual ASBMB meeting in Seattle. Her poster, titled, "Quantification of functional antibody titers in a mouse model of SARS-CoV-2 infection" was based on work she did during her summer 2022 internship at the University of Washington as part of CSUN's BUILD PODER program.

March 20, 2023: The Department has been awarded a critical infrastructure grant from the NSF! The grant, titled "Helium Recovery Equipment: Critical Helium Recycling System for CSUN to Preserve NMR Access for Research and Teaching", worth over $165,000, will allow us to recycle our liquid helium, ensuring we do our small part in decreasing the amount of helium used in the world. As a non-renewable resource, helium has become increasingly expensive (reaching $150/L) and hard to procure. Thank you NSF!

March 2, 2023: Congratulations to Jander Cruz (Eller lab) who has been awarded the 2022 Hiroshi Ito Memorial Award for the Best Student Paper at the recent SPIE Advanced Lithography + Patterning conference held recently in San Jose, California. The award consisted of a certificate and a cash honorarium ($1,000).

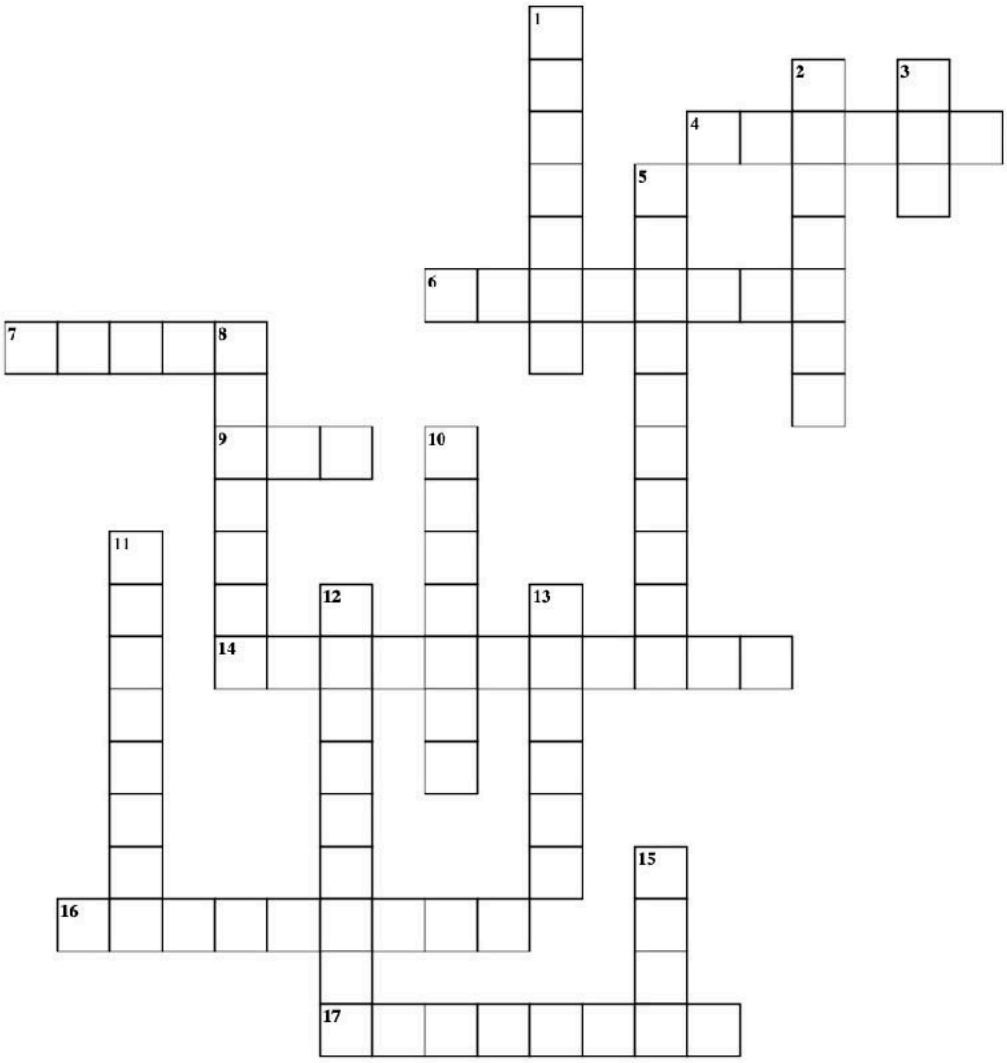
February 14, 2023: Professor Maosheng Miao and collaborators have published a research article titled “Chemical interactions that govern the structures of metals” in *PNAS*. They resolve the puzzle of why metals take specific structures such as FCC, HCP, and BCC. It turns out that the local chemical interactions between quasi-atoms are the driving force that controls the structures of the simple metals.

February 1, 2023: Congratulations to Dr. Ye, who has been awarded an IUSE: EDU (Improving Undergraduate STEM Education: Directorate for STEM Education) award from the NSF! The award is worth almost $300k over three years in collaborative research with Drs. Chan and Villafane-Garcia at CSU, Fullerton. Dr. Ye and her collaborators will investigate the synergistic effects of modules for improving students’ mindsets, learning skills, academic success and retention in gateway chemistry courses. Well done, Dr. Ye!



CHEM-X

Test your chemistry knowledge with a (slightly) CSUN-themed crossword.



Across

[4] Phenyl alcohol

[6] Often misspelled, but not the bread element!

[7] Generic name for halocarbon refrigerants and propellants

[9] The button element that allegedly ended Napoleon's Russian campaign

[14] Left- and right-handed paired molecules

[16] Russian elemental organizer

[17] The C nucleobase in DNA and RNA

Down

[1] British spelling of Z=16

[2] A play on Edwin Southern's DNA detection method

[3] Water

[5] Our hometown

[8] Nitrate with less O

[10] A specific amount of energy

[11] An allotrope of carbon

[12] Precursor and metabolite of aspirin, ___ acid

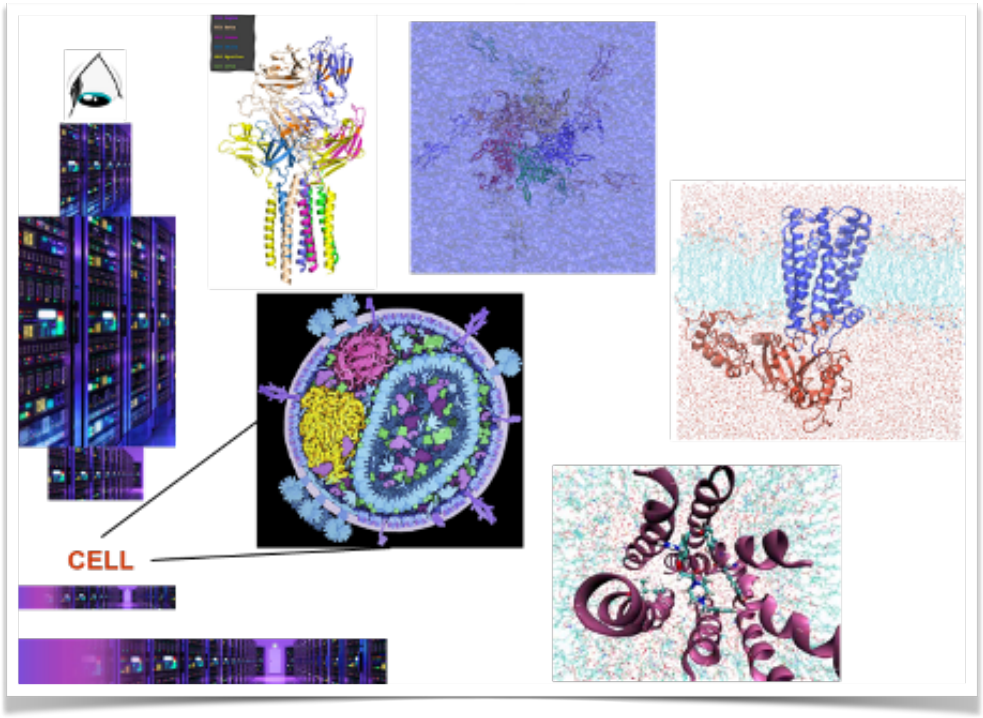
[13] Reddish metallic element

[15] San Fernando Valley State College name change in 1972

Research In Focus: Professor Ravinder (Ravi) Abrol

In each issue of CSUNIUM, we plan to feature the exciting research work of one of our faculty. We'll begin with computational biochemist and biophysicist, Dr. Ravinder Abrol. If you are interested in the research of this or any of our other faculty, please see (https://www.csun.edu/science-mathematics/chemistry-biochemistry/faculty-staff).

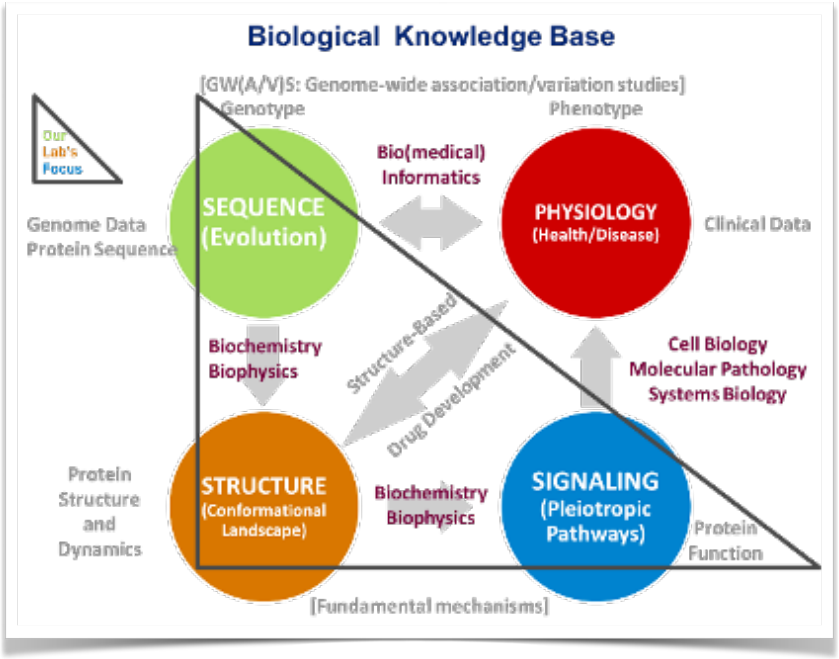
The Abrol lab is developing computational biochemical methods to understand the structural basis of protein function. The methods utilize the principles of biochemistry as well as molecular biophysics to serve as a computational microscope for looking at the role of protein structure and dynamics in cellular signaling, to elucidate the molecular basis of specific diseases, and to rationally design the next generation of therapeutic molecules. We are expanding the molecular dynamics (MD) toolbox, used for looking at protein dynamics, with enhanced conformational sampling methods to look at protein structure in different physiological environments and to simulate protein dynamics at functionally important timescales. We are also creating a conceptual stereochemical framework to describe protein-ligand interactions that will enable a rigorous sampling of the gargantuan chemical space of drug-like molecules.



A major focus of research in the lab are G protein coupled receptors (GPCRs), that are integral membrane proteins and form the largest superfamily in the human genome. The activation of these receptors by a variety of bioactive molecules regulates key physiological processes (e.g., neurotransmission, cellular metabolism, secretion, cell growth, immunity, differentiation), through a balance of G protein-coupled and arrestin-coupled signaling pathways. This has made them

targets for ~40% drugs in the clinic. A molecular and structural understanding of these GPCR signaling pathways will have a broad impact on our understanding of cellular signaling and on the rational design of drugs with minimal side-effects.

Another research focus in the lab is the structure and dynamics-based design of therapeutic bioparticles for actively targeting chemo-resistant and metastatic cells in breast cancer. The bioparticles are being developed to target a receptor that is overexpressed on such cancer cells and to deliver cell-killing cargo (siRNA, drugs, etc.) into those cells, while leaving healthy cells alone. The second generation of these bioparticles, designed with insight from protein dynamics, is currently being tested at Cedars-Sinai Medical Center. Mechanistic insight into the structures of cargo-bound bioparticles and the subsequent release of that cargo will lead to the development of effective therapeutics with reduced side-effects.



The research in the lab is carried out by a great group of undergraduate and graduate students. We are always looking for highly motivated and curious students who would like to gain experiences in the research areas mentioned above. The students are trained in cellular signaling, computational methods, programming, protein visualization/analysis tools, problem solving, and communication skills. Students are not required to have any programming experience; however, they should be open to learning new tools and methods. Students in the lab present their results at both local and international conferences. Research is done on a high-performance computing cluster of servers and workstations that students have named after scientists: *bernal*, *boltzmann*, *crick*, *fauci*, *haldane*, *linda*, *marie*, *mcclintock*, and *rosalind*.

The research program in the lab is currently funded by the NIH and the Department of Defense. More details on the projects, publications, and the research group can be found at: http://abrollab.org.

Elementally Speaking…

Everyone knows what **sulfur** (S) looks like; a lemon yellow solid, usually in the form of a powder or small crystals. A chalcogen element (group VI/16), it is below gaseous oxygen and above semiconductor selenium in the periodic table. As an element, it is sometimes seen as a yellow crust around the edges of volcanic craters, steam vents or fumaroles. Sulfur is the 16th most abundant element in Earth's crust, but is usually locked up in mineral sulfides, like pyrite ("fools gold" FeS_2), and sulfates, like gypsum ($CaSO_4$). Most sulfur extracted goes to make sulfuric acid, H_2SO_4, a critical industrial chemical used in fertilizer production mostly.

Sulfur exists in many allotropes or polymorphs - at least 30 of them and more than any other element - the most common of which is a "crown" of eight S atoms in a ring, S_8. Monatomic gaseous sulfur atoms predominate only above ~1800 °C.

When sulfur burns in air (the brimstone in the Biblical "fire and brimstone") it is with an electric blue flame, likely from emission by excited $SO_2(g)^*$ or $SO_3(g)^*$ products. This is responsible for "blue lava" sometimes seen at night when sulfur-rich hot lava is exposed to air and combusts, most famously on Indonesia's Kawah Ijen volcano on the island of Java as shown in this photo →

When sulfur melts at 187 °C it becomes a transparent yellow liquid. As the temperature rises, it forms a blood red liquid, then turns almost black at ~250 °C. Unusually, viscosity decreases to a minimum about 30 °C below the melting point then *increases* rapidly up to the melting point. It decreases again up to the boiling point at 445 °C. The color and viscosity changes are all thought to be related to the breaking of the S_8 rings and formation of other structures, including entangled chains thousands of S atoms long.

The surface of Io, one of Jovian (Jupiter) moons shown →, is canary yellow because it is covered by extensive deposits of sulfur compounds produced by violent volcanic activity. Io is about the size of Earth's moon and is the most geologically active place in the Solar System. If humans lived there, would they be called Iowans?

Student Spotlight

All of our students are amazing, with unique life-stories and complex academic journeys. Here we highlight just one of those stories.

Duyen Pham (MS Biochemistry, '23) is an immigrant from Vietnam who came to the U.S. with her family when she was eighteen years old. She spoke only a little English. Her first stop was an adult school to learn some more English before enrolling at Riverside Community College, and then transferring to UC Riverside to obtain her bachelor's degree in Biology. She became the first person in her immediate family to receive a four-year college degree.

Duyen joined the Chemistry & Biochemistry Department's graduate program in Fall 2019, just in time for the COVID-19 pandemic to bite a semester later. That meant she spent more than a year taking classes online and trying to advance her research from home. When she was finally allowed to come back to campus, there was an 80-mile each way commute from the family home in Riverside to CSUN with which to do battle.

Despite the significant obstacles, Duyen successfully completed and defended her MS thesis on April 4, 2023. Her research was on chemistry education, investigating how Supplemental Instruction classes impact student success in Introductory Chemistry. During her time at CSUN she also became a very effective and much-liked Teaching Assistant, teaching several laboratory classes for us and winning the Department's Outstanding Teaching Assistant Award this semester.

Duyen is passionate about teaching, dedicated to her research project, and wants to contribute more to improve academic programs in STEM education, and especially of first-generation students like herself.

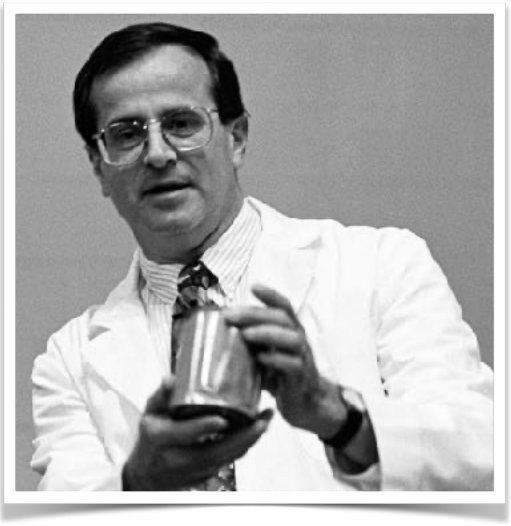
Congratulations Duyen!

A Fond Farewell To Professor Susan Collins

Professor Susan Collins, after 37 years as a physical chemist in the Department, will move on to new pursuits in Summer 2023. She has been an integral part of the research and teaching we do and has always had the best interests of CSUN students at heart. We will miss her and her contributions tremendously; we wish her all our best wishes. In this article, she looks back at her distinguished career at CSUN.

By Susan Collins

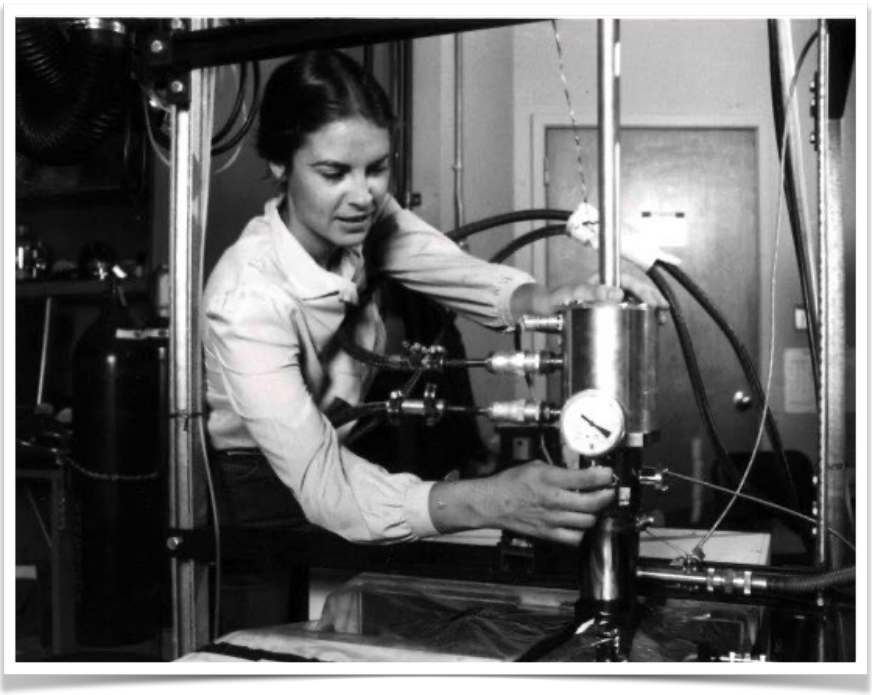
I became enthralled in the subject of Chemistry during my years at Rhode Island College. That first summer, my general-chemistry professor, Dr. Charles Marzzacco, invited me to study the electronic properties of indoles using a fluorescence technique in his research lab. I gave a summary of my research as a poster presentation at the Farleigh-Dickenson University Undergraduate Research Symposium. I was greatly influenced to continue in research after that. I went on to earn my Ph.D. in Physical Chemistry at Florida State University under the direction of Professor Michael Kasha. Two post-doctoral research positions followed, one at UC Berkeley/Lawrence Berkeley Lab under the direction of Professor George Pimentel and the other at Max-Planck Institut in Munich, Germany under the direction of Professor Karl Kompa.



Dr. Charles Marzzacco of Rhode Island College.

I joined the CSUN Chemistry Department in 1986. I was the fourth woman hired for a tenure-track position in the Department. Professors Lydia Savedoff, Meg Holzer, and Sandra Jewett already were integral members of the department. At that time, the department was transitioning from a straight teaching mode to a teaching/research mode. I was the first member of the department to receive start-up money to buy equipment and materials for my new research lab. I am grateful to the women who came before me. They helped me learn survival skills as I broke new ground developing a research group of graduate and undergraduate students. I'm forever grateful to all of my colleagues in the department at that time, including Professors Omar Zahir, Ed Rosenberg, Ken Hardcastle, David Miller, LeRoy Nyquist, Inan Hsu, Sandor Reichman, Frank Harris, Rick Silva, Henry Abrash, Dean Skovlin, Joe Hajdu, Sandra Jewett, and others, and our wonderful staff, including Lorna Hughes, Don Kurihara, Marcia, Edwin, and William Lee. For many years, I was the new kid in the department. Now 37 years later, Don, Professor Jeff Charonnat and I remain as the

last employees to remember those wonderful days of friendship, collegiality, program development, joint research projects, and daily lunches where the USC and UCLA football and basketball rivalries were constantly debated.

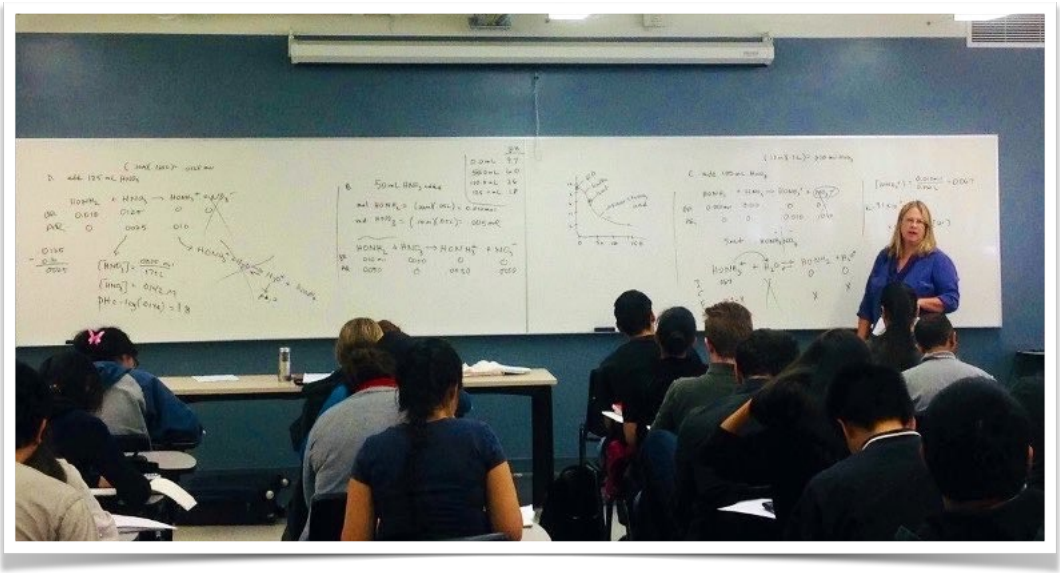


Doing my thing in the research laboratory…

In my lab, I supervised 5 graduate students, 20 undergraduates, a visiting professor (Mahboob Mohammad, University of Karachi), and Dr. Ezekiel Freed, M.D. (Former Director of Diagnostic Radiology, Northridge Hospital). I want to acknowledge my four Physical Chemistry Master's Degree Students: Walter Lauderdale (currently Director of Space Systems Command's Chief of Falcon Systems and Operations and US Space Force – 44 Mission), Anita Lavin (formerly of Amgen, currently Senior Director Regulatory Affairs, GSK), Will Moran (Network Engineering Lead, CSUN), and Janet Petroski (Professor, Mount Saint Mary College, NY).

My research interests include electronic (UV-vis) and vibrational spectroscopies (FTIR) to probe molecules cryogenically frozen at 10 K in a rare-gas matrix. We irradiated frozen molecules, induced chemical reactions, identified reaction intermediates and new product molecules and used kinetic modeling to determine reaction mechanisms. Also, we studied fluorescence, phosphorescence and excited-state proton transfer processes of reactants, intermediates and products at 10 K. Will Moran and I did a joint project with an Edwards Air Force Base Physical Chemistry research lab. Walter Lauderdale, at that time, was a second lieutenant of the Air Force and he was part of the Edwards research group. Will, Walter and I helped build their first matrix-isolation cryogenics laboratory.

In 1991, I became a divorced-single mom with my three-month old son Peter. I had already earned tenure and promotion to Associate Professor by then. The requirements for tenure and



Doing my thing in the classroom… General Chemistry in this case.

promotion at that time were two publications with another two to get promoted to Full Professor. Early promotion could be granted if all of the conditions had been fulfilled. I exceeded the minimum requirements and was able to pull it all together. I earned promotion to Full Professor in 1993, just seven years after my hire in 1986. All was well until Jan. 17, 1994 when the Northridge Earthquake struck. All of my research equipment was destroyed, and it took several years to replace everything and get back in the lab. In the meantime, I had discovered the love and the rewards of teaching. Finally, I gained confidence as a teacher.

I've always had the sense of wonder that a girl from Rhode Island could unexpectedly end up in a career path that involved research, publications, conferences, travel, teaching, prestige, living in Florida, Berkeley, Germany and southern California, and the privilege of serving as Full Professor for 25 years, Associate Chair of the Chemistry Department for two years, and CHEM 101 Coordinator for eight years. I have always felt a special connection to the undergrads at CSUN. My students in the classroom and in my research lab have gone on to become doctors, dentists, physical therapists, engineers, college professors, etc. Many students have told me that I influenced their career choices. Many young women in my classes knew of my story, and I guess they figured, if I could do it, they could

Faculty Susan Collins, Katsu Ogawa, Tom Minehan, Eric Kelson and Simon Garrett, at commencement celebrations, 2011.

With newest granddaughter Jacqueline, 2023.

too. I was mentored by many people over the years, and I owe special thanks to Dr. Sandra Jewett and Dr. Jeff Charonnat. What greater accomplishment is there when one can pay it forward and play a role in other people's lives and career choices?

With granddaughter Charlotte .

Today, my son Peter is married to Alexandra, the girl of his dreams. As a result, I have two beautiful granddaughters, Charlotte (age 2 years) and Jacqueline (age 2 months). I plan to babysit them as long as I can. My boyfriend James is teaching me the love of golf. I'm planning to develop myself as a watercolor artist. From now on, it's all about breathing, relaxing, and enjoying the moments.

Susan Collins retirement celebration dinner, with many friends, old and new, May 2023.

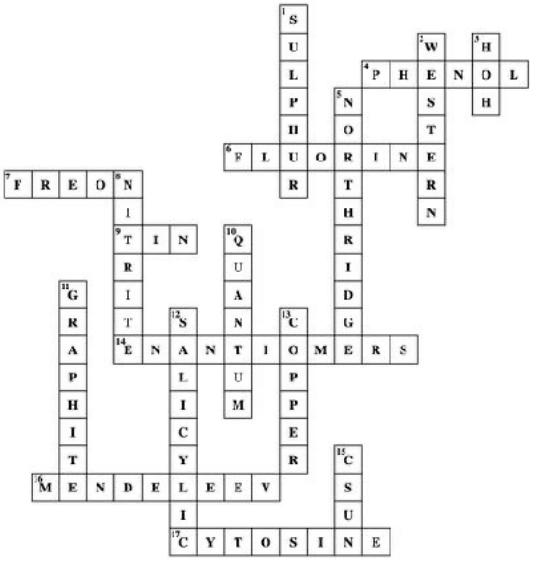
Welcome

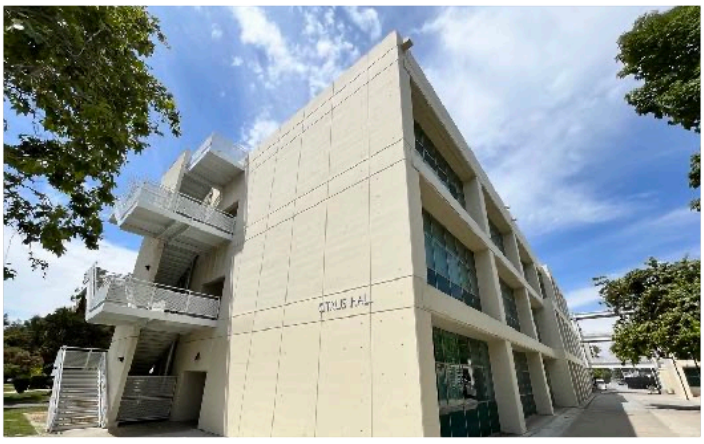
Welcome New Colleague!

This semester we welcome new staff member, Sofia Echeverria, who comes to us from a testing technician position at Element Technology Materials in Santa Fe Springs, CA. Sofia has a B.S. degree in Chemistry from UC Santa Cruz (Go 🐌!) in 2018. Sofia becomes an Instructional Support Technician I in our stockroom and already is making a positive difference there. A very warm welcome Sofia! We're pleased you're here.

CHEM-X Solution →

How many did you solve? Are you a chemistry genius? Or not-so-much?





← The Biochemistry faculty (Drs. Abrol, Crowhurst, Fischhaber, Medh, Tamae and Vey) of the Department are exclusively housed on the first floor of Citrus Hall.

Alumni News

We welcome news from our alumnus. If you are a former student, staff or faculty member of the Department, we'd love to hear your latest news. E-mail us at chemistry@csun.edu with "Alumni News" in the subject line of your e-mail.

Francis (Frank) L. Harris (Emeritus Professor). We received sad news that Professor Frank Harris passed away in December 2022. Frank received his BS in Chemistry from the University of Texas in 1961 and his PhD from UCLA in 1966. He worked for two Nobel Prize winners: Donald Cram at UCLA and R.B. Woodward at Harvard. Long-time Department supporter Charles Spivak → was his first MS student. When Charles knew him, in addition to chemistry, his big interests were basketball, bridge and the movies of W.C. Fields. After retiring near Austin, TX, golf was one of his biggest passions, 'though in recent years he complained that the fairways were getting longer.

Charles E. Spivak (MS 1971), Emeritus Professor Ricardo (Rick) Silva, Walter B. Avila (MS 1971) in 2022.

Jonathan Hakimian (Chemistry BS 2022, Fischhaber lab) has accepted a place in the Cellular and Molecular Biosciences Ph.D. Program at UC Irvine. Jonathan, last year's Klostergaard Award winner, will be entering the laboratory of Dr. Nick Pannunzio, where he has been working as a research technician since November 2022.

Sayuri Pacheco (Biochemistry BS 2018, Abrol lab) who is currently in the Medical Biophysics PhD program at USC's Keck School of Medicine was awarded NIH's Ruth L. Kirschstein Predoctoral Individual National Research Service Fellowship Award (F31) for her project titled "Identifying differences in dynamics and residual structure of intrinsically disordered domains between monomer and fibers: using alpha-synuclein as a model". This fellowship award supports her PhD studies for 4 years.

Yehan Zhang (Chemistry MS 2015, Garrett lab) has been hired by Promega Corp. in San Luis Obispo after completing his PhD at UC Merced.

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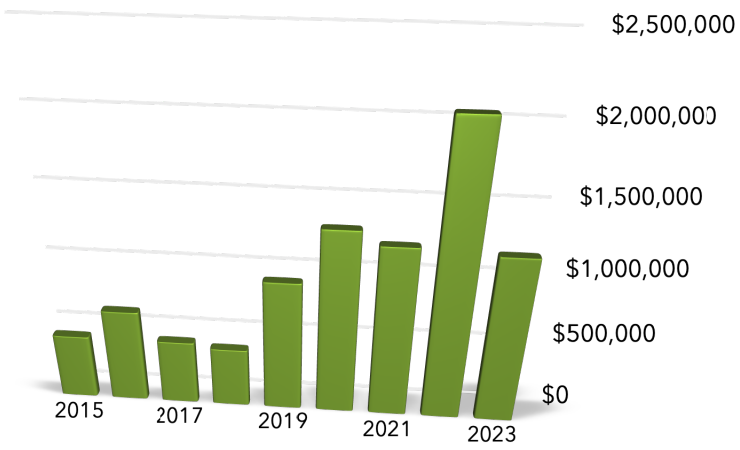
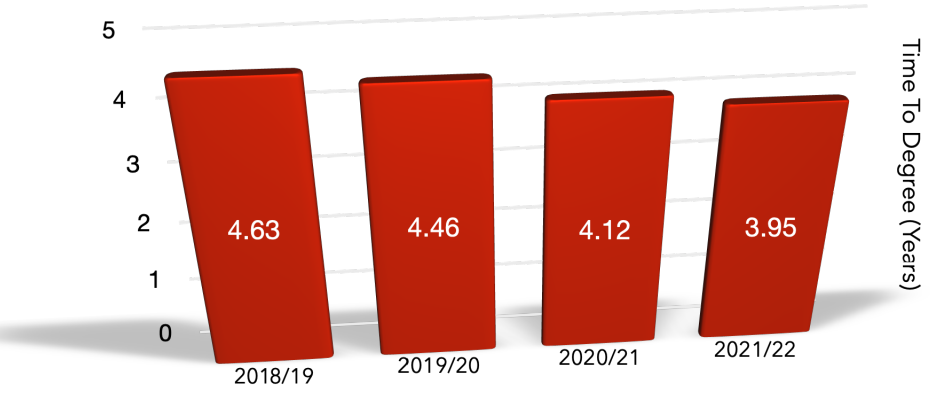
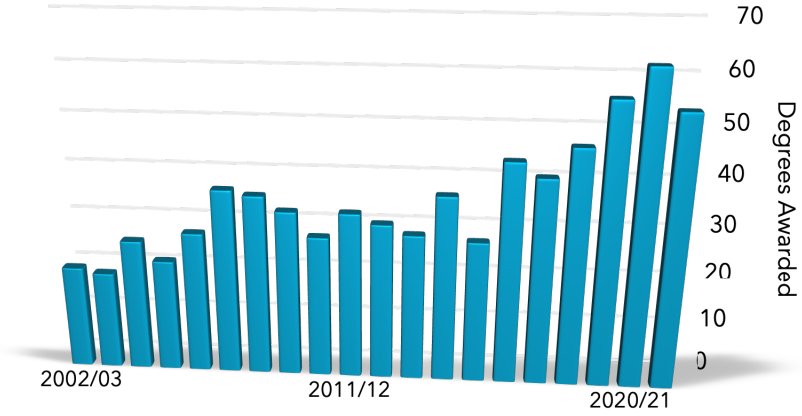
Noteworthy Northridge Numbers



←**$2.1m** - Over the last decade, both the number of research grant proposals funded and their total value to the Department's faculty have increased significantly. In 2022, grants to the Department totaled nearly $2.1m, the highest amount ever! And 2023 looks on track to meet or better that number.



←**3.95 years** - The average number of years to a baccalaureate degree in the Department in the 2021/22 academic year (latest data available). The number has decreased steadily over the last four years.



←**344% increase** - The trajectory in undergraduate degree recipients in Chemistry or Biochemistry over the last 20 years, from 2001/2 (16 degrees awarded) to 2021/2 (55 degrees awarded).

Meet Our New Graduates...

The Department heartily congratulates our 62 graduating students in 2022-2023 (Fall 2022, Spring 2023 and expected Summer 2023). This year includes one of the largest group of graduating MS students we've ever had. Your hard work was worth it; well done everyone! We're proud of you.

MS Chemistry

Steven Ayoub Nicole Babayans Jander Cruz Fredrick Farrar Matthew Green
Andrea Hernandez Jesus Hernandez Emily Mallory James Nguyen Mathias Perone

MS Biochemistry

Ryan Boggess Isabella Crisostomo Michael Khoury
Aren Mirzakhanian Duyen Pham Leticia Reque

BA Chemistry

Luciano Antinoro Alyssa Fortaleza Brandon Jellinek Ruben Maximo Yasamin Nayeri
Bao-Tran Nguyen Brian Park Christian Preciado Jose Alberto Ramirez
Shailja Rani Rex Tan Ana Vieyra Rachel Wiley

BS Chemistry

John Awujo Saul Diaz Gabriela Guzman Luis Lopez Luis Merida-Ayala
Christopher Pakhanyan Isabel Partida Brian Rankin Savannah Servera
Paulina Tadeo Wendy Tlatenchi Nataly Tonoyan Katelyn Wood

BS Biochemistry

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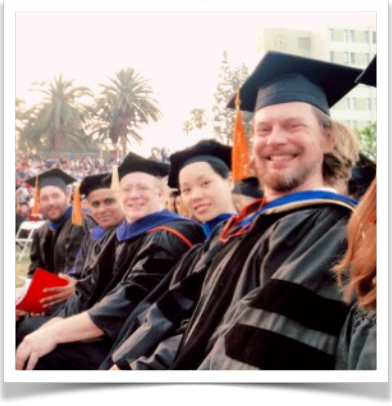

Meet Our New Department Award Winners... 🏆

A number of students distinguished themselves by earning Department awards for the 2022-2023 academic year. A very big congratulations to all our award winners… you rock!

ACS Undergraduate Award in Analytical Chemistry

Christopher Pakhanyan

ACS Undergraduate Award in Organic Chemistry

Samantha Scott

ACS Undergraduate Award in Physical Chemistry

Saul Diaz

American Institute of Chemists Student Award

Vanessa Estrada

David A. Miller Award for Excellence in Analytical Chemistry

Rachel Lindvall

Dr. Lan K. Wong Undergraduate Research Scholarship

Cameel Juman Samantha Scott

Henry Klostergaard Award For Outstanding Graduating Chemistry or Biochemistry Major

Christi Thomas

Outstanding Freshman Chemistry Award

Spencer Hobi

Outstanding Graduate Student Teaching Award

Duyen Pham

Patrica A. Maloney Student Travel Fund Award

Cameel Juman

Sandra L. Jewett Scholarship in Biochemistry

Janelli Pineda

Weigand-Jewett Award for Outstanding Graduating Senior in Biochemistry

Alisha Holden

Meet Our New College Award Winners... 🏆

Several of our majors distinguished themselves by earning College of Science and Mathematics awards for the 2022-2023 academic year. These prestigious awards are indicative of the high quality and dedication of our students.

College of Science and Mathematics Edison STEM Scholarships

Marine Barsegyan

Michael Peterson

Hovnan Simonyan

Joshua Vazquez

Donald E. Bianchi Outstanding Undergraduate Student Award

Christi Thomas

Gilbert and Jacki Cisneros Foundation Scholarship in Science and Mathematics

Matthew Alvarez

Prospective students and parents visit Explore CSUN in April 2023 and get a tour of Dr. Tamae's cancer biochemistry laboratory.

Commencement celebrations in front of the iconic University Library!

Thanks For Your Support!

The Department would like to extend its special thanks to our wonderful supporters who have contributed during the last fiscal year…

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