the chemists club

THE UNIVERSITY OF CHICAGO

Summer 2021

UChicago chemists adapt to address global pandemic

Unique partnership leads to potential treatments for COVID-19

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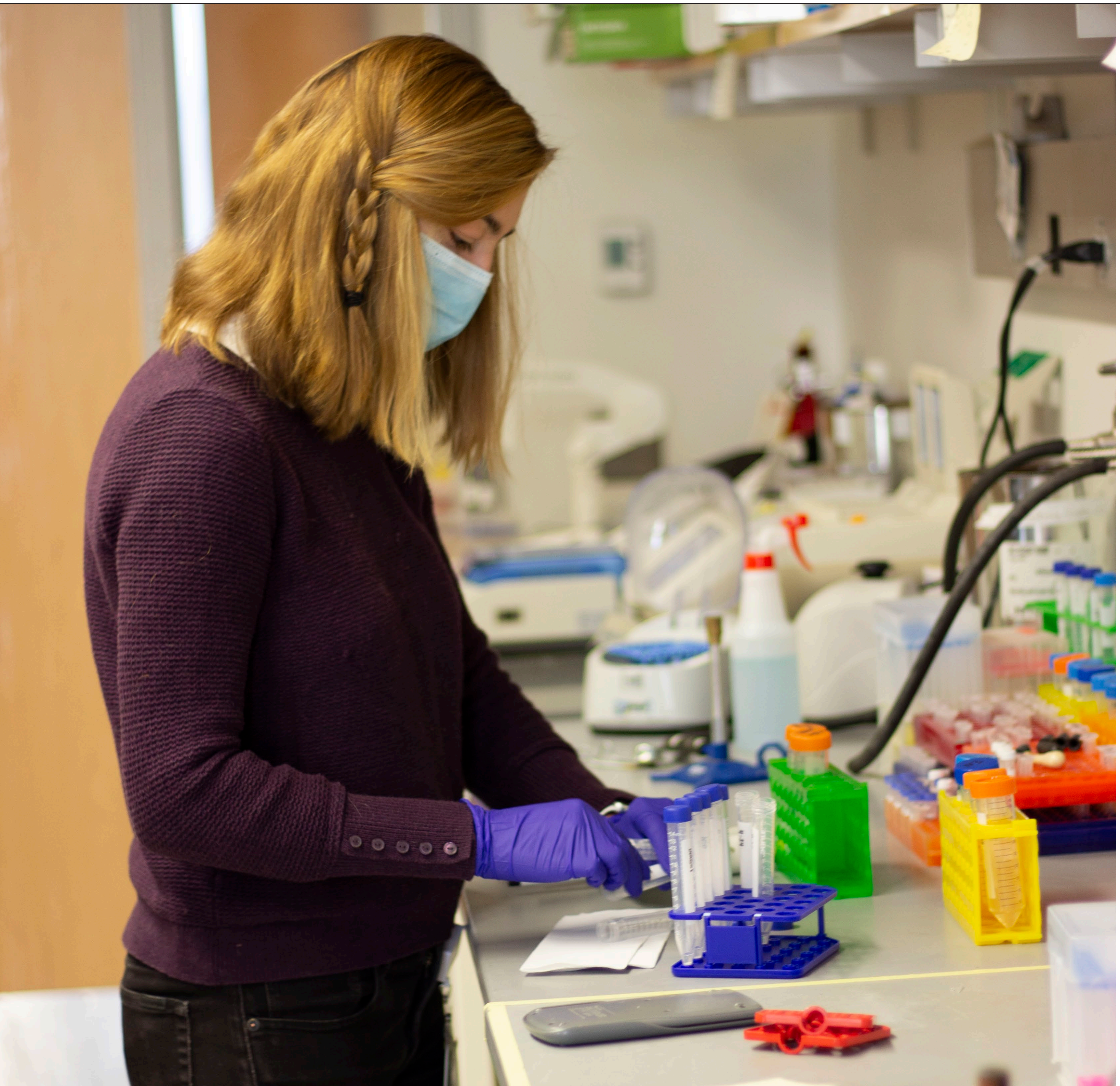
By Sheila Evans

Unique partnership leads to potential treatments for COVID-19



(Cover) UChicago chemist Cooper Taylor of the Snyder Group retrieving anhydrous solvent required for a reaction set-up as part of the effort to develop a class of small molecule inhibitors of PLPro, a critical protein involved in SARS-CoV-2.

(This page) Pritzker School of Medicine student and Chemistry PhD '21 Saara-Anne Azizi of the Dickinson group purifying a peptide-tagged fluorescent probe used to screen potential inhibitors of the SARS-CoV-2 proteases in vitro.

2020 was a year in which the typical lives of students, staff, and faculty were turned completely on its head. To maintain campus safety, there were limits placed on how many people could work in labs, and many chemistry courses pivoted to an online platform. Despite these obstacles, many research groups went to work to address the global pandemic. One promising project came out of a larger research effort between the labs of Profs. Scott Snyder, Viresh Rawal, Guangbin Dong, and Bryan Dickinson. This collaborative effort took advantage of the strengths of UChicago in organic chemistry - people who know how to make molecules - with the strength of UChicago in chemical biology - people who know how to apply molecules to biological questions.

Just a few weeks after the state lockdown, a group of UChicago chemists went to work to figure out how they could contribute to the fight against COVID-19 "Every lab offered a different skillset" said Saara-Anne Azizi, a MD/PhD student in the Dickinson group.

The lab groups came together to see how they could apply their expertise. An important part of developing potential treatments is understanding the virus' shape and structure. This shape can be found through a process called protein crystallography. A scientist has to crystallize the COVID-19 proteins, and then use enormously powerful X-rays to get an atomic-level photograph. One of the collaborators, Argonne Distinguished Fellow Andrzej Joachimiak, is a master decipherer of these crystals.

Now that the shape of the virus was known, other teams could build compounds and test if they were effective in inhibiting the virus.

This kind of crisis is why we get into science in the first place: to answer questions and progress as a society

Snyder specializes in creating new molecules and coming up with novel ways to build them. Though he had no prior experience designing molecules to fight viruses, he and his lab members threw themselves into the work—synthesizing and providing hundreds of potential molecules for Dickinson's lab to analyze and test. The best candidates then go in for further rounds of tweaking and testing.

The urgency of the situation brought about an entirely new perspective for the participating groups, "Research can be a competitive environment, so it was crazy to see how immediately people were collaborative," said Azizi.

As the pipeline of crystals to compounds to testing continued to progress, other research groups heard of the project and jumped on the opportunity. The Biological Sciences Division offered to help screen compounds and teams at other universities offered potential effective compounds to be tested.

While this past year was totally different than expected, many members learned things they intend to carry over to post-pandemic endeavors. "I learned a lot about interactions between groups. My typical research experience so far has been working on an isolated project in an isolated group," said Cooper Taylor, a graduate student doing synthetic chemistry in the Snyder group. "This was a large collaboration across different groups who work in different fields, so it was essential to learn to communicate across teams."

During this past academic year, the students, staff, and faculty associated with this project not only managed to adapt to conducting research during a pandemic but also developed a large-scale collaboration to address the ongoing emergency. "This kind of crisis is why we get into science in the first place: to answer questions and progress as a society," said Taylor "During this project the science was unfolding before our eyes."

R. Stephen Berry, 'one of the most influential chemists of his generation,' 1931-2020

By Louise Lerner

R. Stephen Berry, a pioneering University of Chicago scientist who spent his life making fundamental contributions across the fields of chemistry and energy policy, died July 26. He was 89.

Berry, the James Franck Distinguished Service Professor Emeritus of Chemistry and the James Franck Institute, was known as a "Renaissance scientist;" he made both experimental and theoretical discoveries across a wide range of areas within his discipline and beyond. Many of his research themes, including measuring electron affinities, understanding structural transitions in clusters of molecules, and creating the foundations of finite time thermodynamics, are today central pillars of the field. He was also an early pioneer in sustainable energy analysis, inspired by the pollution in 1960s-era Chicago.

"Stephen Berry's work and ideas have greatly influenced the development of chemistry and related areas of science, and have helped shaped our scientific perception," said Stuart Rice, the Frank P. Hixon Distinguished Service Professor Emeritus of Chemistry and Berry's colleague and close friend for six decades. "He stands out as being the most original person I have known. He was undoubtably one of the most broad-ranging and influential scientists in the United States, and in the entire scientific world."

Born in 1931 in Denver, Berry recalled an early fascination with science and chemistry; he and his friends scavenged through trash bins for beakers and flasks. He graduated from East High School in 1948, but it was winning a Westinghouse Talent Fellowship that pivoted the course of his life, inspiring him to attend Harvard for his undergraduate and graduate degrees in chemistry. He received his Ph.D. in 1956 and taught at Harvard and the University of Michigan, then spent four years as an assistant professor at Yale before moving to the University of Chicago in 1964, where he would spend the rest of his life.

From the beginning, Berry displayed a talent for seeing connections and exploring questions that would later become key areas of inquiry. "He had a nose for what was interesting," Rice said. In early work, Berry carried out pioneering measurements of electron affinities—how tightly bound electrons are in atoms and molecules. These numbers became a fundamental part of modern chemistry.

He also invented the concept of "pseudorotation," an odd formation of atoms that is common within some types of molecules, and important for understanding how certain processes in living organisms are carried out.

His later work led to the first observation of transient reaction intermediates of radicals, an in-between stage of chemical reactions that had previously eluded chemists. "The impact of that work was tremendously important," said Donald Levy, the Albert A. Michelson Distinguished Service Professor Emeritus of Chemistry and Berry's longtime UChicago colleague. "If you don't understand these reactions, then you don't understand some of the most interesting chemistry there is."

Another part of his legacy is central contributions to the understanding of structural transitions in molecular clusters. "Molecules are not frozen entities; electrons and atoms move around, and their motions are correlated," said Steven Sibener, the Carl William Eisendrath Distinguished Service Professor in Chemistry, who worked alongside Berry for many years. "You need this to understand everything from nanoparticles to catalysis to biochemistry. This was an extraordinarily tough problem, and he was a pioneer in realizing and elucidating those motions."

One of Berry's most seminal contributions was stimulating the development of a field now known as finite time thermodynamics, which helps describe the actions of systems in flux. Classic thermodynamics, which is more than 200 years old, uses a model system with idealized and often unrealistic assumptions; finite time thermodynamics offers a way to analyze motion, heat and power closer to the real world.

"When I was in graduate school, no one wanted to study thermodynamics because we thought all the questions had been asked and there was nothing left to be done," Berry told UChicago News in 2019. "But my own work in finite time thermodynamics shows how silly and wrong we were. Science doesn't close, and that's part of the thrill."

But in the mid-1960s, he would develop another passion: addressing pollution. In those days, Chicago was heated mainly by coal, and the results were everywhere. "Chicago was smoky and smelly, and there'd be a layer of gray dirt on your windshield each morning," he recalled in an interview last year. He wrote a letter of complaint to Mayor Richard J. Daley, which touched off a lifetime of interest in energy policy and sustainability.

Berry and scientist Margaret Fels created one of the first analyses of what came to be called life-cycle analysis—calculating the environmental and energy impact of a product all the way from the mining of its ingredients to how it's recycled or disposed of. This is now part of the canon of energy policy.

In the following decades, he would become involved in science policy on the national and international levels, eventually becoming one of the first two chemists to earn a MacArthur Fellowship. He spent many years working to improve the frameworks we use to measure energy policy and publishing both policy papers and science books accessible to the public, including Tosca, The Total Social Costs of Coal and Nuclear Power (with Linda Gaines and Thomas V. Long); Physical Chemistry (with Stuart A. Rice and John Ross); and Understanding Energy: Energy, Entropy, and Thermodynamics for Everyman. His last book, Three Laws of Nature: A Little Book on Thermodynamics, was published in 2019.

With former student Peter Salamon, he co-founded the Telluride Science Research Center in 1984. He also had a long involvement with the Aspen Center for Physics, and was a founding member of the advisory board of the School of Science and Engineering (LUMS) in Lahore, Pakistan.

He loved teaching and continued to do so long after his official retirement, co-teaching a course on energy and policy last year at the age of 88.

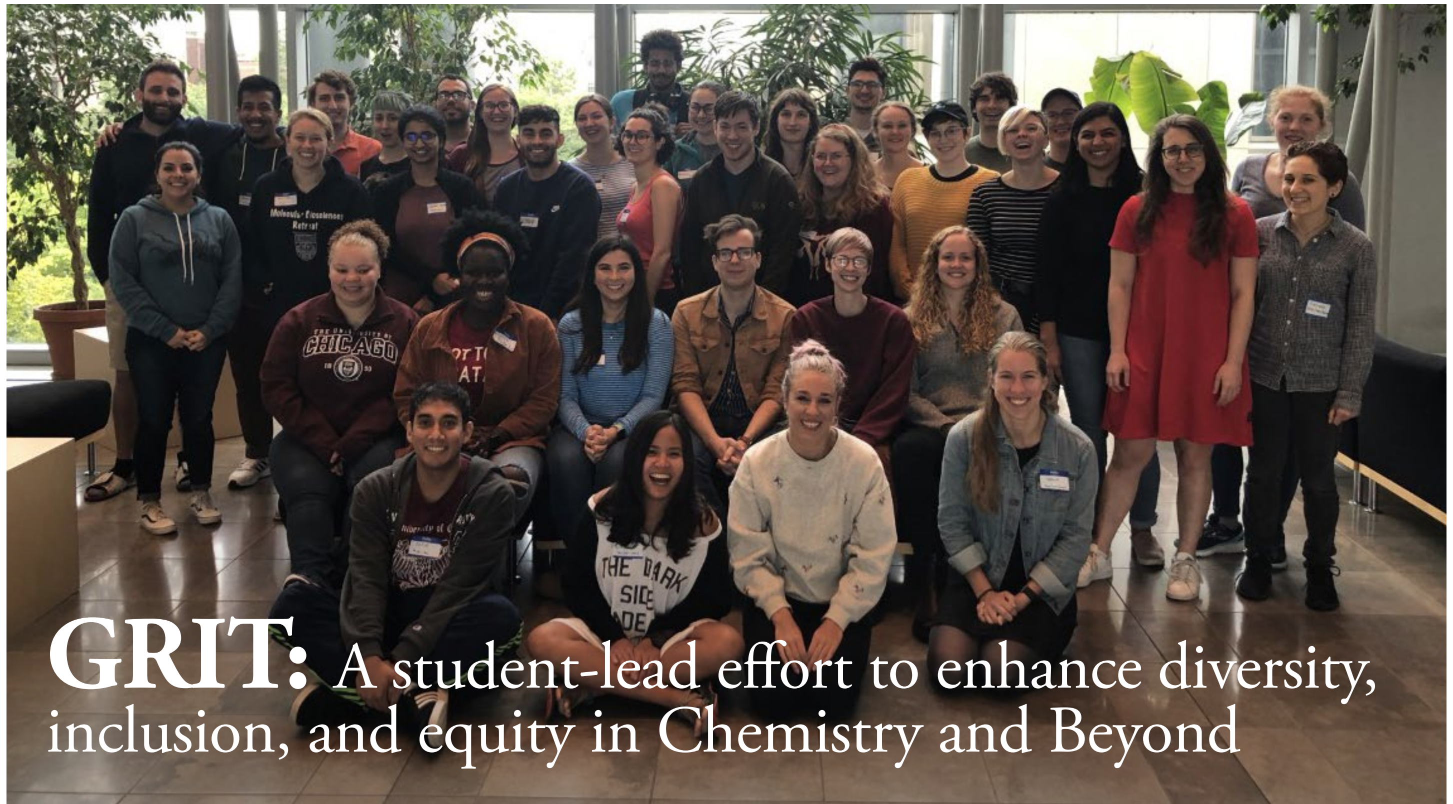
"He was widely loved around the world for his enthusiasm, gentleness, thoughtfulness, and willingness to share his time and energy," Sibener said. "Steve was one-of-a-kind. We won't see his like again for a long time."

Berry was a member of the National Academy of Sciences, for which he served as home secretary for four years, and of the American Academy of Arts and Sciences, for which he served as vice president. He was also a member of the Royal Society of Chemistry, the American Chemical Society, the American Physical Society, the American Philosophical Society and the Royal Danish Academy of Sciences. Among his awards were the J. Heyrovsky Honorary Medal for Merit in the Chemical Sciences from the Czech Republic's Academy of Sciences and Germany's Alexander von Humboldt-Stifung Senior Scientist Award.

"He wanted scientists to not just remain in ivory towers, but to change the world," said Carla Friedman Berry, his wife of 65 years. "For him, science was an instrument to better the world. That was what he encouraged in his many students, and what he was most proud of."

Outside of chemistry, he and Carla often attended musical events and held musical get-togethers in their house on Sundays; his CD collection was "enormous." He loved Colorado and returned there frequently throughout his life, enjoying skiing, fishing and mushroom hunting.

He is survived by his wife Carla, two daughters, a son and eight grandchildren.



GRIT: A student-lead effort to enhance diversity, inclusion, and equity in Chemistry and Beyond

By Sheila Evans

The Graduate Recruitment Initiative Team (GRIT) is a student organization working to increase the recruitment and retention of students from marginalized backgrounds. GRIT started as a grassroots student organization in the Biological Sciences Division over the 2016-2017 academic year to recruit underrepresented minorities (URMs) to STEM graduate programs. Since its inception, GRIT has expanded across the Pritzker School of Molecular Engineering and the Physical Sciences Division.

GRIT is exclusively led by people from underrepresented groups and focuses on three central components: recruitment, retention, and sustainability. GRIT tries to center identities often left out of current equity, diversity, and inclusion efforts – including race, disability, economic background, and the compounding impact of existing along multiple axes of marginalization. Jake Higgins is a Chemistry Graduate student and was formerly the Co-Director for recruitment. "GRIT's involvement in PSD is fairly new. We tried to take what worked for the Biological Sciences Division and adapt it for our climate," said Higgins.

A large part of the effort to recruit people from underrepresented backgrounds, particularly URM students, includes traveling to diversity conferences and speaking with prospective students. GRIT then works to connect prospective students with current grad students or faculty with relevant research interests. GRIT members also provide application assistance and connect prospective students from underrepresented backgrounds with other resources on campus.

The retention branch of GRIT puts on events throughout the academic year. The events can range from a workshop for women of color in STEM to a "Big Gay BBQ" for scientists in the Lesbian, Gay, Bisexual, Transgender and Queer community. "One of the best things about GRIT is that it spans over 20 departments, so you can make community connections across the University," said Higgins.

GRIT has made an impact in Higgins' own life, "I was able to find a queer community through GRIT. I met other scientists who are also queer because, despite what a lot of normative cultural values in STEM say, those two things don't have to be separate."

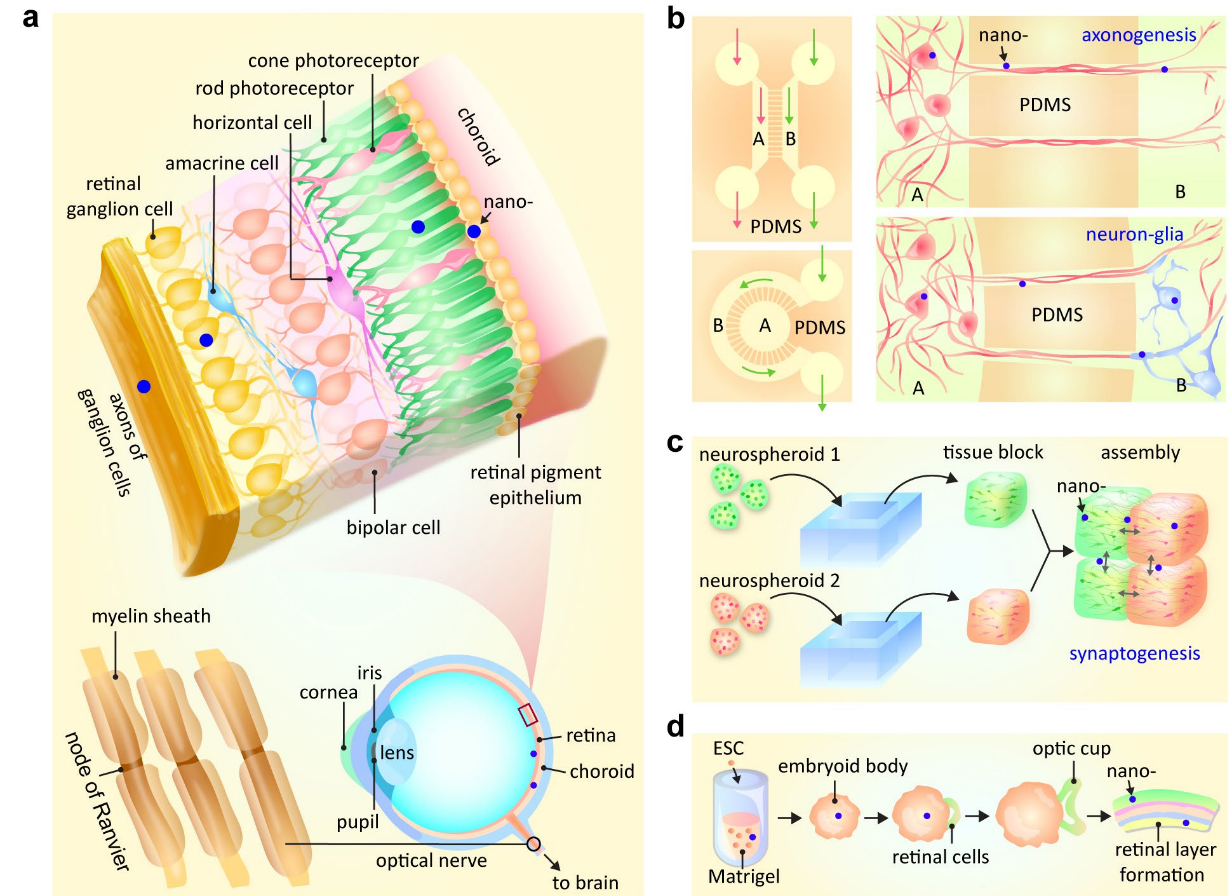
GRIT is active with Departmental leadership in advocating for faculty education on underrepresentation in STEM, creating more checkpoints for students, and making an effort to hire diverse candidates.

"GRIT is a real driving force for change and betterment in our department. As in scientific research, the students are often the thought leaders in plotting out a course and coming up with creative solutions," said Prof. John Anderson, "I've been fortunate to work with GRIT and to benefit from their drive and commitment."

"I've made lots of good friends being involved in GRIT. I'm very proud of the impact we have made both culturally and structurally." said Higgins, "Being a part of this team has made me a braver and more creative scientist."

Students from all backgrounds are welcome to attend GRIT events or join the team. For more information about GRIT's ongoing efforts, you can follow GRIT on Twitter/Instagram (@ucgrit) or visit their website (grit.uchicago.edu).

Figure 1: Schematic diagrams (a-d) used for the review paper "An atlas of nano-enabled neural interfaces".



The Art & Science of the Bozhi Tian Lab

How did you find out you enjoyed art?

My dad is an artist and does calligraphy. My Grandfather was also an artist and created paintings. I started doing calligraphy at 3 years old and by 6 years old I did more painting and drawing, eventually getting an art tutor to get formal training. In retrospect, these are the fondest memories of my childhood. Later on, I focused more on science and core studies. I still kept up with art as my hobby to help me relax and gives me inspiration I could use in science. My first time joining a research lab, I worked with materials with nanopores. These were highly ordered, very pretty self-assembled cubic or hexagonal structures. Appreciating the beauty of those nanoscale architectures helped me fall in love with science.

You use art to tell a story, do you feel like art in a research paper can do the same?

For many of my research papers, I draw the figures. For instance, for "An atlas of nano-enabled neural interfaces" published in *Nature Nanotechnology*, I spent more than 150 hours just creating the figures. I hoped to use limited figures to deliver a large amount of information about the application of nanotechnology in neural science (Figure 1). That was a strenuous time in my career and while it took a lot of time, it brought back those sweet childhood memories and boosted my mood. I also co-designed a cover for the Chemical Society Reviews with my other lab members. In this composite image (Figure 2), entitled "Dawn at the bioelectronic interface", there are many elements of exploration and positivity. Researchers have to be exploratory and bold to seek challenges and new opportunities.

What do you think activities such as a painting or pottery party do for your lab group? Do you think it's just fun bonding or does it go beyond that?

Bonding with one another is the primary goal. We want people to feel supported and let members know that life isn't *just* about doing research. Many of my lab members have artistic endeavors and I encourage them. I don't see it as a distraction, it is good to have relaxation, it's not just art

The Art & Science of the Bozhi Tian Lab (Continued)

Figure 3: The cover design used for the review paper “Nanowired bioelectric interfaces

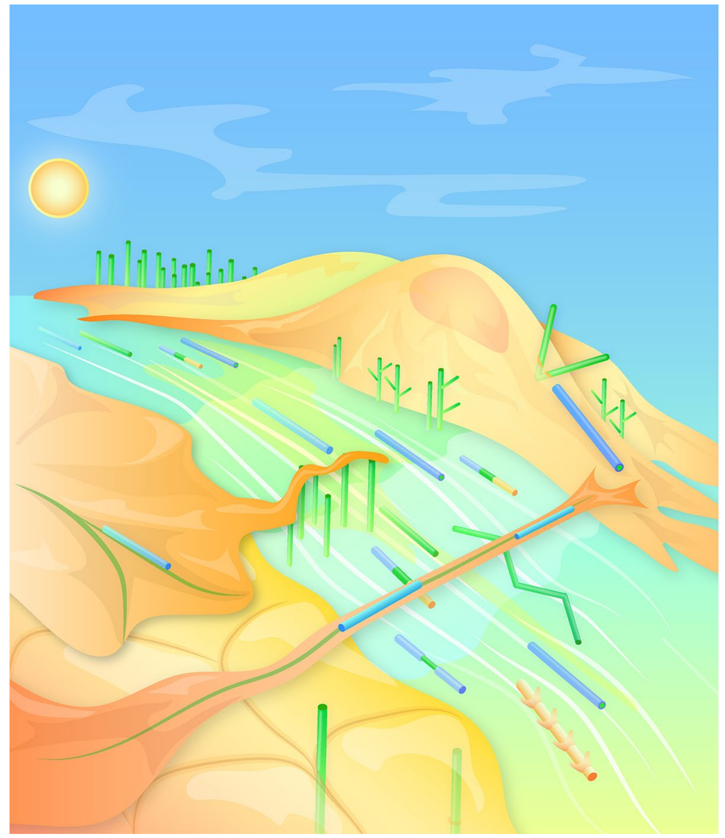


Figure 2: The cover design used for the review paper “Recent advances in bioelectronics chemistry”. The vertical projection of the bioelectronic grids (foreground) and the masts (background) imply an upward progression of the field.

and it’s not just science. I treat my lab group as my family so I care not only about their career development but also their mental and emotional well-being.

People tend to see art and science as two different and distinct things, do you think doing art or pursuing creative hobbies makes you a better scientist? Or does being a scientist make you a better artist?
As a scientist, the most important thing is to be innovative and imaginative and artists are all about that. I didn’t know the scientific meaning of self-assembled cubic structures at first but it struck me visually. Art gives us the motivation to want to understand more. When I do a presentation or research paper writing, I think about approaching it through an artistic perspective. A research paper is two- dimensional, trying to describe science in motion. I think about how movies try to convey motion. I write my papers thinking about highlighting and zooming in and out like a movie. Or, I think about it like music with low pitches and high pitches. My dream is presenting science in a manner like presenting a movie.

Do you have any artistic inspirations or artists that you enjoy?
I enjoy many artists from China and traditional Chinese art. Eastern art contains many emotions that are kind of sealed somehow and I felt this resonated with my personality. To have strong emotions but not let them show. For a similar reason, I enjoy literary films more than commercial ones.

How would you describe your art?
My primary interest is in painting, and in recent years, I started to do digital art as that takes much less time to create. Teaching and research take a lot of my time already, so digital art can be helpful. Colors are the essential component in these digital art pieces, as they express the emotions in the pictures. I hope to use each picture to tell a different story such as the evolution of the research about nanoscale wired-up cellular interfaces (Figure 3), in a way that is shown in the photographs. Many of these digital art pieces are composite photographs. Some are shown under the “Gallery” in my group webpage (tianlab.uchicago.edu/gallery).

Do you participate in showcasing the arts in the wider UChicago community?
I plan to have more involvement in the UChicago Arts community in the near future. This past year has been transformative to me through many changes. I find value in this time as an opportunity for reflection and have been able to practice art regularly.

Wenbin Lin Feature: Using Science to Address Societal Issues

By Sheila Evans

How did you originally get interested in science?
To be frank, in the area in China I grew up in, pursuing science is a way out of poverty. I knew I liked Chemistry but I didn’t know which kind. There were two chemistry departments, applied and modern, in the college I attended. I chose modern over applied and studied chemical physics in undergrad.

What aspects of your education or early career lead you to where you are today?
I conducted undergraduate research in inorganic chemistry and fell in love with the subject. At that time in China, there were very modest resources for this type of research. But, this taught me to be resourceful and is still a useful attribute of my research today in trying to get more out of less.

Do you have a certain philosophy about research or a particular approach?
My approach in applied science is using chemistry as a tool to solve problems that are important to society.

It’s really interesting that the work your group does usually seeks to address societal issues. Can you give an example of one of these projects?
One of the projects in my lab involves designing porous materials for uranium extraction from seawater since 99% of terrestrial uranium is in seawater. With the uranium in the earth’s crust, we can power nuclear energy for less than 100 years but with the amount of uranium in seawater, we could have nuclear power for several thousand years. If uranium can be extracted from seawater, we would give us some time to transition into totally renewable energy sources.

At the end of the day, we need a measure of success for research and societal problems provide a real way to measure. Real science is more complex than a single research paper and needs a real demonstration of purpose.

Is there a particular reason that you choose to work at the University of Chicago?
I moved here 8 years ago, it was a great opportunity with a great Department with a great history. I was able to switch my research direction into something I think is much more urgent and solvable. In the process, I transformed myself from a card-carrying inorganic chemist into an expert in radiation oncology and tumor immunology. The biggest difference in coming to UChicago is it’s a very integrated campus for interdisciplinary research. The environment creates a lot of intellectual engagement with people across campus.

Do you have any specific achievements that you are particularly proud of?
I’m very proud of our work on developing innovative nanomedicines for cancer therapy. We have discovered two entirely different technology platforms and by working with people in my startup company, we have already translated four candidates into human trials. I helped raise funds to pay for preclinical development and clinical trials that are testing if the interventions would help cancer patients.

If you could wave a magic wand and change something about the scientific community or our understanding of science what would you do?
I think the US scientific establishment is working pretty well and people have good intentions in doing science. I would like to see increased diversity and different ways of thinking in the lab. Personally, I couldn’t have dreamed of a better outcome after my 32 years in a foreign country.

Congratulations DEGREES AWARDED

BA/BS

AUT 20
Emily Yan Chen (B.S. in Chem)
Kahaan Shah (B.A. in Chem)
Zhuoyan Wang (B.S. in Chem)

WIN 21
Sophie Allen
(B.A. in Chem, B.S. in Biol Chem)
Caroline Kim (B.A. in Chem)
Allen Lu
(B.A. in Chem, B.S. in Biol Chem)
Lisa Smoluk (B.A. in Chem)
Lorraine Tang (B.A. in Chem)
Pablo Vicente (B.A. in Chem)
Chin Ying Wu (B.A. in Chem)
Jihyeon Yeo
(B.A. in Chem; B.S. in Biol Chem)

SPR 21
Tala Azzam (B.S. in Biol Chem)
Christopher Birch (B.S. in Chem)
Pascale Boonstra (B.S. in Chem)
Noah Brookes
(B.A. in Chem, B.S. in Biol Chem)
Emily C. Chen (B.S. in Chem)
Eric Chen (B.A. in Chem)
Woojin Choi (B.A. in Chem, B.S. in Biol Chem)
Hanna Czeladko (B.A. in Chem, B.S. in Biol Chem)
Jad Dahshan (B.A. in Chem)
Annagh Devitt (B.S. in Chem)
Dace Eaton (B.A. in Chem)
Nina Fatuzzo (B.S. in Chem)
Marcelo Fernandez de la Mora
(B.S. in Chem, B.S. in Biol Chem)
Matthew Gaughan (B.A. in Chem)
Katharine Henn (B.S. in Chem)
Kimberly Ho (B.A. in Chem, B.S. in Biol Chem)
Samuel Jacobson (B. S. in Chem)
Karen Ji (B.S. in Chem)
Michael Kaufmann (B. S. in Chem, B. S. in Biol Chem)
Maria Krunic (B.A. in Chem)
Emma Lesser (B.A. in Chem)
Xiang Li (B. S. in Chem)
Vincent Maddi (B. S. in Chem)
Vennela Mannava (B. S. in Chem)
Samantha Marglous (B. S. in Chem, B.S. in Biol Chem)
Concepcion Martin de Bustamante (B.S. in Chem)
Matthew Mason (B.S. in Chem)
Christian Metivier (B.A. in Chem)
Estelle Ndukwe
(B. S. in Biol Chem)
Yvette Ondouah Nzutchi
(B. A. in Chem, B. S. in Biol Chem)
Ariel Pan
(B. S. in Chem, B. S. in Biol Chem)
Ananth Panchamukhi
(B. S. in Chem, B. S. in Biol Chem)
Arundhati Pillai
(B. S. in Chem, B. S. in Biol Chem)
Talia Ratnavale (B. A. in Chem)
Meera Santhanam (B. A. in Chem)
Anna Savin
(B. S. in Chem, B. S. in Biol Chem)
Emily Schmitt
(B. S. in Chem, B. S. in Biol Chem)
Matthew Seebald (B. S. in Chem)
Phoebe Seltzer (B. A. in Chem)
Kahaan Shah (B. S. in Chem)
Thomas Siafa Jr. (B.A. in Chem)
Laura Sieh (B.S. in Chem)
Zoe Strong (B.A. in Chem)
Saman Tabatabaee Zevareh
(B. S. in Chem)
Sophia Tang (B. S. in Chem)
Hunter Thompson (B. S. in Chem)
Riley Trettel (B. S. in Chem)
Maya Waarts
(B. S. in Chem, B.S. in Biol Chem)
Benjamin Yoshor (B. A. in Chem)
Jeremy Yuan (B. A. in Chem)
Qianchen Zhang
(B. S. in Biol Chem)

SUM 21
Chidera Ndife (B. S. in Chem)

MS

AUT 20
Agnish Behera
Jeriann Beiter
Melissa Bodine
Allison Brink
Luis Busto de Moner
Chris Chi
Shin Young Choi
Ayesha Ejaz
Mark Esposito
Yingjie Fan
Cheng Gao
Daniel Gibney
Manish Gupta
Stephen Hansknecht
Nicholas Herringer
Allison Hohreiter
Benchen Huang
Clare Keenan
Patrick Kelly
Russell Kielawa
Youyou Li
Ramon Mendoza Uriarte
John Peterson
Patrick Sahrmann
Kathryn Segner
Nan Sheng
Joseph Sifakis
Da Teng
Miah Turke
Hien Vo
Joshua Wagner
Di Wang
Guan Wang
Sophie Whitmeyer
Rui Zhang

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Jesus Alvarez
Katherine Kloska
Julie Korsmeyer

SPR 21
Jeffrey Montgomery
Won Hee Ryu

SUM 21
Jeffrey Dewey
Xinran Lian
Sarah Litwin

PhD

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Paul Calio
Wenbo Han
He Ma
Andrew McNeece
Andriy Neshchadin
Curtis Peterson
Ruyi Wang

WIN 21
Mohammad Awais
Aleksander Durumeric
Chi-Jui Feng
Timothy Grabnic
Wenbo Han
Vladislav Lisnyak
Anand Saminathan
Sean Shangguan
Jiangbo Wei

SPR 21
Charles Cole
Tessa Lynch-Colameta
Jeffrey Montgomery
Polina Navotnaya
Alexander Rago
Bhavyashree Suresh
Fangjie Yin
Wen Zhang

SUM 21
Lingbowei Hu
Kate Jesse
Kaitlin Kentala
Renhe Li
Zhefu Li
Michael Nguyen
Yang Song
Ferdinand Taenzler
Po-Chieh Ting

COVID Projects:

- → Developed and Tested Compounds as Treatments for COVID-19 (Profs. **Scott Snyder**, **Viresh Rawal**, **Guangbin Dong**, and **Bryan Dickinson**)
- → Designed "Nanotraps" to Trap and Clear Coronavirus (Prof. **Bozhi Tian**)
- → Created First Computational Model of Entire COVID-19 Virus (Prof. **Greg Voth**)

New Faculty:

Paul Alivisatos
Jack Szostak
Anna Wuttig
Elena Shevchenko
Laura Gagliardi

Faculty/ Staff Retiring

Zbigniew Gasyna (ZG)
John Phillips

NOTABLE AWARDS 2020-2021

Guangbin Dong Wins 2021 Tetrahedron Young Investigator Award

Laura Gagliardi wins Royal Society of Chemistry Prize 2021

Laura Gagliardi Elected to the National Academy of Sciences 2021

Laura Gagliardi & **Yamuna Krishnan** named 2020 AAAS fellows

Sarah King Selected for Department of Energy's Early Career Research Program 2021

Sarah King Honored with Beckman Foundation's Young Investigator Award

Yamuna Krishnan Named "Trailblazer" Woman Entrepreneur by Chemical & Engineering News

Ka Yee C. Lee listed in *Chicago Magazine*'s The New Power 30

Weixin Tang Named a 2021 Searle Scholar

Tian Lab Paper Chosen by Matter as One of the Best of 2020

Greg Voth wins Biophysical Society Innovation Award

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DEPARTMENT OF CHEMISTRY
5735 SOUTH ELLIS AVENUE
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the chemists club

Summer 2021

Dear friends,

Since our last issue of *The Chemists Club*, COVID-19 changed the world and of course, brought on many challenges for our Department. The shutdown of research labs and facilities, the resumption of work under safe conditions, and the transition to teaching and working remotely were trying on our community, and the continuous adaptation to the new normal continues. This was possible because of many faculty and staff that immediately changed their focus and worked hard to reinvent how we work and teach, and I am happy to say this went as well as could be expected. In response to the events of last year, several of our research groups immediately initiated research projects to contribute their skills toward COVID mitigation, which you can read about in this issue.

The Department continues to grow and change with new additions to our faculty. The incoming president, Paul Alivisatos will be a part of our Department starting this fall and Nobel Prize-winning biochemist Jack Szostak is slated to join us in the fall of 2022.

Summer of 2021 brings the end of my term as Chair and the start of a second term for Viresh Rawal. I look forward to seeing the Department continue to grow.

I am proud of all the Department of Chemistry's students, staff, faculty for working hard and achieving so much during an uncertain year. While navigating moving our program online and conducting research under limiting conditions, I was continually impressed by the spirit and tenacity of our community.

Best regards,

Andrei Tokmakoff
Professor and Chair