

ACS GCI Green and Sustainable Chemistry Summer School

2025 ANNUAL REPORT

July 25 – August 2, 2025 | Burlington, Vermont



*Training and inspiring students to become tomorrow's leaders
in Green and Sustainable Chemistry and Engineering.*

acs.org/gscss

Foreword by David A. Laviska – Portfolio Manager for Education, ACS GCI

This report summarizes key details and statistics relevant to the Green and Sustainable Chemistry Summer School (GSCSS) program sponsored and organized by the American Chemical Society Green Chemistry Institute (ACS GCI). As we look back on another successful year, we are happy to note continued growth and evolution of the summer school. While the 2025 program brought together the largest cohort of students and faculty since the pandemic, it was also notable for increased collaboration with chemists from industry, the inclusion of international instructors from three continents, nine “new” faculty who had not participated in previous years, and several summer school alumni returning as instructors. This growth shows the breadth of the program’s impact, yet the individual impressions on graduate students and postdoctoral scholars remain deeply meaningful and influential as they prepare for careers related to green and sustainable chemistry and engineering.

As shown in post-program survey data, students were highly satisfied with the 2025 program, and student feedback showed that they emerged from the program feeling empowered to forge their own sustainable chemistry focused careers while also sharing their knowledge, experiences, and passion for green chemistry with others. Representing nine countries, five Canadian provinces, and 21 states in the U.S., the student cohort for 2025 was exceptionally diverse, talented, and motivated to work for change across the chemistry enterprise. A large majority of students rated the overall summer school experience at the highest level – “outstanding” – and their engagement with us both during and since the summer school underlines the lasting impact of the program.

As co-organizers of the 2025 program, Cecilia Smith and I want to thank the faculty – 19 colleagues representing a broad spectrum of disciplines – who gave so generously of their time and expertise. It was exciting seeing them teach, encourage, and engage with the students while inspiring them to think at a higher level about the roles chemistry and engineering play in addressing global sustainability challenges. The leadership and expertise of our volunteer faculty is at the heart of the student experience and we thank them for the critical role they played in making the program such a success.

Looking forward, we have several exciting changes planned for future summer school programs – small and large modifications we hope will make the experiences more inclusive, impactful, and far-reaching. As more students apply each year, the admission process has become increasingly selective, yet we want to provide as many opportunities as possible. Stay tuned for more information about this and other changes for 2026 to be announced in the coming months. Now that we are only five years away from completing the 15-year plan set forth by the United Nations with their Sustainable Development Goals initiative, the urgency for training our future scientists is greater than ever. We are working to ensure that the ACS GCI Summer School continues to deserve its reputation as the most sought-after program of its kind.

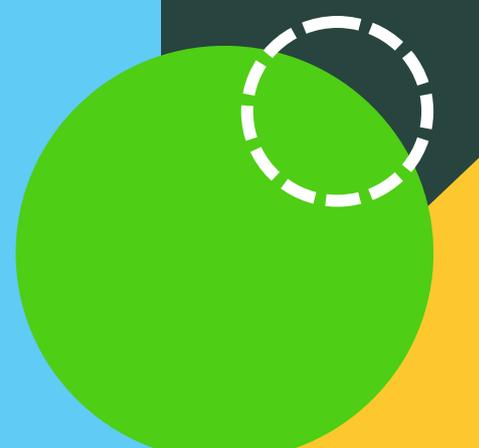
Remarks from Adelina Voutchkova – Director of the ACS GCI and Office of Sustainability

In addition to being a critical way that we empower early career chemists to tackle tough sustainability challenges and introduce them to the green chemistry community, the ACS GCI Green and Sustainable Chemistry Summer School aims to bridge the geopolitical divide between chemists across the Americas. Students and postdocs from across North, South, and Central America and the Caribbean are given the opportunity to start building a community that leads to friendships, collaborations, and enriching, impactful careers. As an alumna of the Summer School myself, I deeply appreciate this initiative and its alignment with the core mission of the GCI: “To catalyze the implementation of innovative approaches to chemistry and engineering that enable sustainable development across the globe.”

Since 2023, we have been collaborating with our colleagues in the ACS Education Division to bring additional ACS career resources to Summer School attendees. We’re also focused on continuing to evolve the Summer School program to best meet the needs of the next generation of chemists. We are grateful to everyone who has contributed to the success of the summer school over the past two decades and look forward to another 20+ years of welcoming students to this profoundly important initiative.

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Summary Overview

The 2025 ACS GCI Green and Sustainable Chemistry Summer School brought important expansions and diversification in the program's structure, faculty members, and content—changes that we believe provided a more enriching and engaging experience for participants. This report provides a detailed look at the 2025 experience, including the agenda, faculty, topics covered, statistics, and future plans.

Open to students in North, South, and Central America and the Caribbean, nearly 1500 students have participated since the first Summer School in 2003, representing more than 300 universities in 17 countries. The 2025 Summer School was held July 25 – August 2 at the University of Vermont in Burlington, VT, and brought together 74 student participants from nine countries. While the ACS Summer School has evolved over the years – including moving between various locations (Montevideo, Pittsburgh, Washington, D.C., Mexico City, and Montreal, among others) – the core program goals have remained the same: a commitment to fostering knowledge, collaboration, and leadership in green chemistry and engineering with a strong emphasis on building communities.

We are committed to ensuring that all participants leave the program with:

- Increased understanding of the central tenets of Green Chemistry and why it is critical to help us build a more sustainable future;
- Examples of how Green Chemistry and Sustainability concepts can be integrated into the work of chemists, engineers, and innovators; and
- Confidence to start reimagining every aspect of research, development, teaching, and collaborations to leverage an inclusive, systems-level mindset while tackling global sustainability challenges.

To achieve this, the 2025 program featured 24 instructional modules (lectures, group work sessions, and discussions), one 3-hour student research poster session, one 2-hour student project poster session, and continuous networking opportunities. The curriculum was expansive, with 19 distinguished experts from academia, non-profit organizations, and industry, offering topics such as toxicology, greener synthesis, solvents & catalysis, metrics, and many others. Student evaluations confirm that these objectives were exceeded, giving the instructional content an average rating of 4.73 (with 4 being “very good” and 5 being “outstanding”).



Summary Overview (Continued)



The 2025 GSCSS Cohort

Participants also gave the overall program high marks, with an average experience rating of 4.86 out of 5 (with 4 being “very good” and 5 being “outstanding”).

While the program focuses mainly on learning about new topics and skillsets, it’s also about creating a resilient network of scientists with shared values and interests. Each year, students have opportunities to build connections during social events and location-based excursions. In 2025, the opening evening featured a welcome barbecue, and midweek, participants had options for other activities including a cruise on Lake Champlain, biking along the lake’s causeway, exploring Burlington, and attending a collegiate baseball game.

We invite you to explore the full report for a deeper understanding of the overall experience and the lasting benefits provided by the ACS GCI Green and Sustainable Chemistry Summer School.

“

This experience went far beyond an academic program—it marked a turning point in my personal and professional journey. This program reinforced for me that the future we envision is only possible when science and purpose go hand in hand.

—Alannah Calazans,
Military Institute of
Engineering (IME), Brazil

”

2025

ACS GCI Green and Sustainable Chemistry Summer School

Organizers – ACS Green Chemistry Institute

Adelina Voutchkova, Director

David A. Laviska, Portfolio Manager, Green Chemistry & Sustainability in Education

Cecilia Smith, Administrative Assistant

Christiana Briddell, Portfolio Manager, Communications

Edmond Lam, Assistant Director

Isamir Martinez, Assistant Director

Sederra Ross, Program Manager

Faculty

Dan Bailey, Takeda Pharmaceuticals, Cambridge, MA

Magda Barecka, Northeastern University, Boston, MA

Amy Cannon, Beyond Benign, Wilmington, MA

Youssef Habibi, Mohammed VI Polytechnic University, Benguerir, Morocco

Philip Jessop, Queen's University, Kingston, Ontario, Canada

Jakub Kostal, George Washington University, Washington, D.C.

Raj Krishnaswamy, CJ Biomaterials, Woburn, MA

Edmond Lam, ACS Green Chemistry Institute, Washington, D.C.

David A. Laviska, ACS Green Chemistry Institute, Washington, D.C.

Audrey Moores, McGill University, Montreal, Quebec, Canada

Sederra Ross, ACS Green Chemistry Institute, Washington, D.C.

Jessica Schifano, Vermont Department of Health, Waterbury, VT

Carsten Sievers, Georgia Institute of Technology, Atlanta, GA

Lindsay Soh, Lafayette College, Easton, PA

Joel Tickner, UMass Lowell, Lowell, MA

Adelina Voutchkova, ACS Office of Sustainability, Washington, D.C.

John Warner, The Technology Greenhouse, Wilmington, MA

Rory Waterman, University of Vermont, Burlington, VT

Flavia Zacconi, Pontificia Universidad Católica de Chile, Santiago, Chile

Participants

Kirsten Aasen, University of Victoria

Hassan Adisa, University of Alabama

John Michael Aguilar, University at Buffalo

Shelinie Albert, University of the West Indies, St. Augustine

Bruna Alves Teixeira Lima, São Paulo State University

2025

ACS GCI Green and Sustainable Chemistry Summer School

Participants (Continued)

Milagros Amichetti, Universidad Nacional de Rosario
Harriet Appiah, Rowan University
Alejandro Arboleda, Universidad Nacional Abierta y a Distancia de Colombia
Ridwan Ayinla, Mississippi State University
Muyiwa Ayodele-Davis, University of Vermont
María Florencia Azcoaga Chort, Instituto de Investigaciones de Catálisis y Petroquímica
Omolola Balogun, North Carolina Agricultural and Technical State University
Daniel Barker-Rothschild, University of British Columbia
Carolina Bohórquez Martínez, Universidad Nacional Autónoma de México
Sarah Boudreau, Memorial University of Newfoundland
Guillermo Brarda, National University of Córdoba
Alannah Calazans, Military Institute of Engineering
Javiera Camus, Pontificia Universidad Católica de Chile
Andrew Champlin, Yale University
Sara Cheema, Queen's University
Abigail Clapperton, University of Toronto
Lucio Clavero, National University of Córdoba
Shaunte Cotterell, University of the West Indies, Mona
Ashish Dusunge, University of Missouri
Ifunanya Ede, Central Washington University
Elvis Enebeli, University of Houston
Jess Estrada, Santa Barbara City College
Sofia Feliciano, Texas A&M University
Lisandro Ferrari, Instituto de Investigaciones de Catálisis y Petroquímica
Diego Gomez-Maldonado, Texas Tech University
Nia Harmon, Yale University
Darrell Harry, North Carolina State University
Cristóbal Hormazábal, Pontificia Universidad Católica de Chile
Shakira Iyanda, University of Vermont
Yasmeen Jaber, McGill University
Preeti Jain, University of Kansas
Kalloom Jan, University of Massachusetts Lowell
Karina Lima, Military Institute of Engineering
San Lin Htun, Cornell University
Sergio Fabian Lugo Bueno, Tecnológico de Monterrey
Olivia Mann-Delany, University of Toronto
Joaquín Fernando Marchán García, Universidad Nacional del Sur
Laureano Marín Oliva, Universidad Nacional de Córdoba
Davi Marques de Farias, University of São Paulo
Mariano Medina, Universidad Nacional de General San Martín
Maria Molina Fabra, University of Calgary
Olajumoke Oladele, University of Kentucky
Daphne Daniela Olivan Ponce, McGill University
Modupe Omoniyi, University of Vermont
Chibuike Onyeogulu, Mississippi State University
Lynda Pavez, Pontificia Universidad Católica de Chile
Kelsey Plasse, University of Massachusetts Boston
Bishal Pokhrel, Kent State University
Karolina Rabeda, University of Toronto
Diana Milena Ramirez Gutierrez, Purdue University
Areka Rattery, University of The West Indies
Mariangeles Salas, North Carolina State University
Jan Michael Salgado, McGill University
Alan Santos, Universitat de Girona
Michele Schmidt, North Carolina State University
Chelsea Schroeder, University of Connecticut
Roman Shrestha, University of California, Irvine
Darshika Singh, Michigan State University
Hayley Smith, University of Victoria
Mingyang Song, Washington University in St. Louis
Alisha Szozda, University of Ottawa
Hrishikesh Tupkar, University of Wisconsin-Madison
Alejandro Vallejo Orrego, Universidad Nacional de Litoral
Emily Volk, Colorado School of Mines
Shannon Whitty, Queen's University
Kyle Williamson, Oak Ridge Institute for Science and Education
David Witdorich, Georgia Institute of Technology
Sodiq Yusuf, University of Idaho

Participant Statistics

Out of 180 applicants, 71 were selected to participate (three additional students from the University of Vermont joined the roster). With a 39.4% acceptance rate, gaining admittance to the GSCSS is highly competitive. Within the 9 countries that participants represented, 68.9% were from North America, 27.0% from South America, and 4.1% from Central America and the Caribbean. Gender representation included 46% male students and 54% female students. Among instructors and panelists, 58% were male and 42% female.

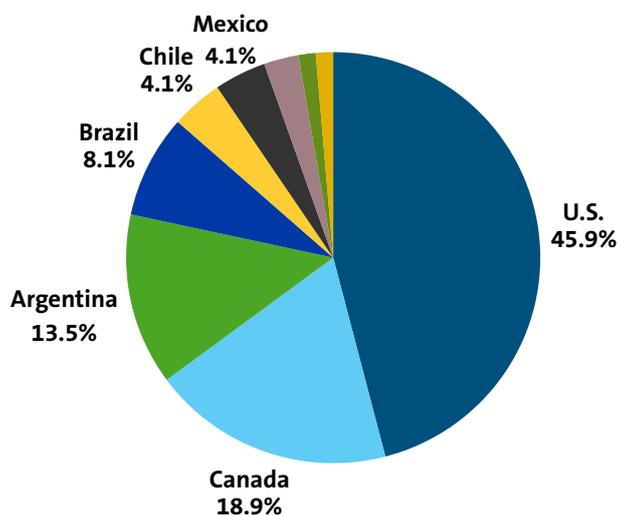


The diverse group of students and faculty reminded me that I belong in this space and helped me forge lifelong friendships with other like-minded scientists striving for a green future.

—Sofia Feliciano, Texas A&M University, U.S.



Geographic Statistics



Numbers of students: U.S. (34); Canada (14); Argentina (10); Brazil (6); Chile (3); Mexico (3); Jamaica (2); Colombia (1); Trinidad and Tobago (1)



The [ACS Summer School for Green Chemistry] is a true institution... it has helped shape and grow our community and establish green chemistry as a respected field. The way it shapes our students at this key moment in their careers is essential to ensure green chemistry is ingrained in their thought processes, whether they pick academia, private, or public sector as careers. I was lucky enough to attend as a participant, send many of my students there since, participate in the organization of the school, and finally participate as a lecturer. This school is really integral in the way the ACS has helped promote green chemistry. The ACS should continue to support it and piggyback on it to develop new initiatives.

—Audrey Moores, Professor of Sustainable Chemistry at McGill University

Survey Results

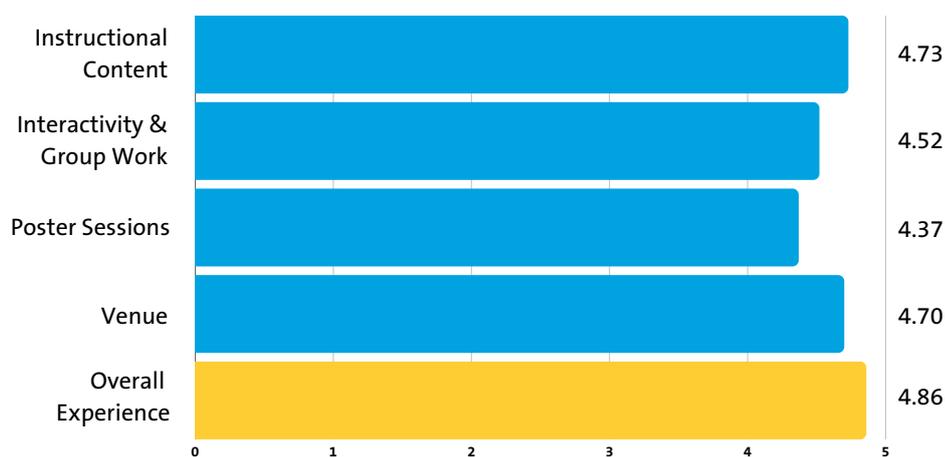
Overall, the Summer School received a 4.86 out of 5 (with five being “outstanding”) in student evaluations. Student surveys also showed that the program’s objectives were met. The learning outcomes evaluated were:

Goal 1: Did the program “increase your understanding of the central tenets of green chemistry”?

Goal 2: Did the program provide “examples of how green chemistry and sustainability concepts can be integrated into the work of chemists, engineers, and innovators”?

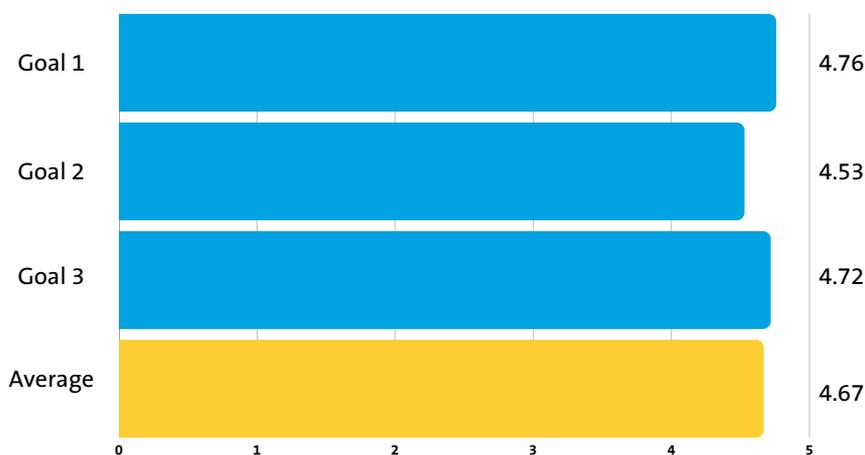
Goal 3: Did the program increase your “confidence to start reimagining research, development, teaching, and/or collaborations to leverage an inclusive, systems-level mindset and implement green chemistry and sustainability concepts”?

Student Evaluations Summary



One a scale of one to five, students gave the program an overall rating of 4.86 (4 = very good and 5 = outstanding). Note: Students rated their “overall experience” as a separate question. The results shown (4.86) is not an average of responses from other questions.

Evaluation of Learning Objectives



Students gave the GSCSS program’s efforts to achieve the three explicit Learning Goals an average rating of 4.67 (4 = “exceeded the goal,” 5 = “far exceeded the goal”).



Agenda

FRIDAY, JULY 25

- 9:00 – 18:00 **Arrival and Check-in**
Central Campus Dormitory
- 19:00 – 21:00 **OPENING DINNER/BBQ**
Davis Center Mt. Mansfield Room

SATURDAY, JULY 26

Welcome, Overview, & Expectations

- 7:00 – 8:30 BREAKFAST
- 8:30 – 10:00 **Intro & Overview** *David Laviska*
- 10:00 – 10:15 BREAK
- 10:15 – 11:45 **Green Chemistry: The Missing Elements**
John Warner
- 11:45 – 13:15 LUNCH
- 13:15 – 14:45 **Changing Chemistry Education**
Amy Cannon
- 14:45 – 15:00 BREAK
- 15:00 – 16:30 **Icebreaker & Self-Assessment**
- 17:00 – 19:00 DINNER
- 19:00 – 21:00 **Poster Session 1**
Davis Center Mt. Mansfield Room

SUNDAY, JULY 27

Thinking Green: Metrics

- 7:00 – 8:30 BREAKFAST
- 8:30 – 10:00 **Greening your Research**
- 10:00 – 10:15 BREAK
- 10:15 – 11:45 **Green Chemistry Metrics**
Dan Bailey and Adelina Voutchkova
- 11:45 – 13:15 LUNCH
- 13:15 – 14:45 **Choosing the Greenest Synthesis**
Philip Jessop
- 14:45 – 15:00 BREAK
- 15:00 – 16:30 **Group Work Session 1**
- 17:15 – 20:15 **DINNER and Poster Sessions 2 & 3**
Davis Center Mt. Mansfield Room

Agenda (Continued)

MONDAY, JULY 28

Solvents and Catalysis

- 7:00 – 8:30 BREAKFAST
- 8:30 – 10:00 **Green Solvents** *Philip Jessop*
- 10:00 – 10:15 BREAK
- 10:15 – 11:45 **Defining Greener Solvents:
Process Perspective** *Lindsay Soh*
- 11:45 – 13:15 LUNCH
- 13:15 – 14:45 **Mechanochemistry** *Audrey Moores*
- 14:45 – 15:00 BREAK
- 15:00 – 16:30 **Designing Sustainable Catalysts**
Carsten Sievers
- 17:00 – 19:00 DINNER
- 19:00 – 21:00 **Group Work Session 2**

TUESDAY, JULY 29

"DAY OFF." Multiple possible excursions. Meals available.

WEDNESDAY, JULY 30

Feedstocks and Resources

- 7:00 – 8:30 BREAKFAST
- 8:30 – 10:00 **Biomass & Circular Economy** *Audrey Moores*
- 10:00 – 10:15 BREAK
- 10:15 – 11:45 **Biomass & Renewables** *Youssef Habibi*
- 11:45 – 13:15 LUNCH
- 13:15 – 14:45 **Sustainable Solutions with Biomaterials**
Raj Krishnaswamy
- 14:45 – 15:00 BREAK
- 15:00 – 16:30 **Abundant Metal Catalysis** *Rory Waterman*
- 17:00 – 19:00 DINNER
- 19:00 – 21:00 **Group Work Session 3**

Agenda (Continued)

THURSDAY, JULY 31

Safer Chemicals for Healthy Communities

- 7:00 – 8:30 BREAKFAST
- 8:30 – 10:00 **Chemical Hazard & Environmental Justice** *Sederra Ross*
- 10:00 – 10:15 BREAK
- 10:15 – 11:45 **Design of Safer Chemicals**
Adelina Voutchkova
- 11:45 – 13:15 LUNCH
- 13:15 – 14:45 **Risk, Hazard, Toxicokinetics, & Toxicodynamics** *Jakub Kostal*
- 14:45 – 15:00 BREAK
- 15:00 – 16:30 **Group Work Session 4**
- 17:00 – 19:00 DINNER
- 19:00 – 20:30 **Fireside Chat: “Sustainability in Industry and Policy”**
Edmond Lam, Joel Tickner, Jessica Schifano
Davis Center Mt. Mansfield Room

FRIDAY, AUGUST 1

Circularity and Molecular Design

- 7:00 – 8:30 BREAKFAST
- 8:30 – 10:00 **Electrochemical Synthesis**
Magda Barecka
- 10:00 – 10:15 BREAK
- 10:15 – 11:45 **Molecular Design** *Flavia Zacconi*
- 11:45 – 13:15 LUNCH
- 13:15 – 14:45 **Group Work Reporting**
- 14:45 – 15:00 BREAK
- 15:00 – 16:30 **Summary & Program Wrap-up**
- 18:30 – 21:00 **CLOSING DINNER**
Alumni House - Silver Pavilion

SATURDAY, AUGUST 2

Check-out and Departures.

Faculty

Nineteen esteemed subject matter experts represented universities, industry, and non-profit organizations.

2025 Faculty

Dan Bailey *Takeda Pharmaceuticals*

Magda Barecka *Northeastern University*

Amy Cannon *Beyond Benign*

Youssef Habibi *Mohammed VI Polytechnic University*

Philip Jessop *Queen's University*

Jakub Kostal *George Washington University*

Raj Krishnaswamy *CJ Biomaterials*

Edmond Lam *ACS Green Chemistry Institute*

David A. Laviska *ACS Green Chemistry Institute*

Audrey Moores *McGill University*

Sederra Ross *ACS Green Chemistry Institute*

Jessica Schifano *Vermont Department of Health*

Carsten Sievers *Georgia Institute of Technology*

Lindsay Soh *Lafayette College*

Joel Tickner *UMass Lowell*

Adelina Voutchkova-Kostal *ACS Green Chemistry Institute*

John Warner *The Technology Greenhouse*

Rory Waterman *University of Vermont*

Flavia Zacconi *Pontificia Universidad Católica de Chile*

“Green and sustainable chemistry is at the vanguard of efforts to mitigate environmental impacts and promote human health, necessitating a paradigm shift in the education of chemical sciences. The key driver of this transformation is investing in human capital, empowering a new generation of scientists and professionals to champion sustainable innovation.”

Youssef Habibi
Mohammed VI Polytechnic University, GSCSS Alumnus



Dan Bailey

Takeda Pharmaceuticals, Cambridge, MA

Topics Covered:
Green Chemistry Metrics

Dan Bailey graduated from Brown University in 2009 with dual bachelor's degrees in chemistry and anthropology. He joined Takeda Pharmaceuticals in 2009, and he currently works as an Associate Scientific Fellow for Sustainability, where he leads the Pharmaceutical Sciences Sustainability by Design program. His work focuses on minimizing the environmental footprint of Takeda's products by engaging with scientists and engineers as they design new products and manufacturing processes.

Faculty (Continued)



Magda Barecka

Northeastern University, Boston, MA

Topic Covered:

Electrochemical Synthesis

Magda Barecka is an Assistant Professor at Northeastern University's Chemistry and Chemical Biology Department. She works in the intersection of CO₂ electrolysis process design, reaction optimization, integration with renewable energy sources and techno-economic analysis for CO₂-based manufacturing methods that can disrupt the carbon cycle. She holds a Ph.D. degree from TU Dortmund University (Germany), and completed postdoctoral training at the University of Cambridge, Research Centre in Singapore (CARES).



Amy Cannon

Beyond Benign, Wilmington, MA

Topics Covered:

Chemistry Education and Community

Amy received the world's first Ph.D. in Green Chemistry at the University of Massachusetts, Boston. With an undergraduate degree in chemistry from Saint Anselm College, Amy sought to use her knowledge to advance the field of sustainability. As co-founder of Beyond Benign, a non-profit solely dedicated to advancing green chemistry education, Amy is passionate about empowering educators to make transformative change in their teaching.



Youssef Habibi

Mohammed VI Polytechnic University, Benguerir, Morocco

Topics Covered:

Biomass & Renewables

Dr. Youssef Habibi holds a dual Ph.D. in Organic and Polymer Chemistry from Joseph Fourier University (Grenoble, France) and the University of Cadi Ayyad (Marrakech, Morocco). After an international career, he joined the University Mohammed VI Polytechnic in Morocco to take up a Chair in Sustainable Materials. He works across many branches of the development of sustainable materials through green chemical processes and his research interests encompass the design of new bio-derived polymers and (nano)fillers, the development of biomaterials and high-performance nanocomposites from lignocellulosic materials, biomass conversion and recycling technologies, and the application of novel analytical tools to biomass.

Faculty (Continued)



Philip Jessop

Queen's University, Kingston Ontario, Canada

Topics Covered:

"Choosing the Greenest Synthesis" Lecture and Working Session;
Greener Solvents

Dr. Philip Jessop is a professor and Canada Research Chair of Green Chemistry at the Department of Chemistry, Queen's University in Kingston, Canada. He serves as Executive Research Director at Forward Water Technologies. After his Ph.D. (British Columbia, 1991) and a postdoctoral appointment (Toronto, 1992), he was a contract researcher in Japan working for R. Noyori (Nobel Prize 2001). As a professor, he studies green solvents & the chemistry of CO₂ and H₂.



Jakub Kostal

George Washington University, Washington, D.C.

Topic Covered:

Risk, Hazard, Toxicokinetics, & Toxicodynamics

Jakub Kostal is a chemistry faculty member at the George Washington University, where his group develops computational methods for the design of safer chemicals. Dr. Kostal is also a principal at ToxFix, a developer of in silico predictive tools, which have supported the pharmaceutical and personal care industries for over 10 years. He holds a Ph.D. in Theoretical and Biophysical Chemistry from Yale University and a B.A. from Middlebury College.



Raj Krishnaswamy

CJ Biomaterials, Woburn, MA

Topic Covered:

Sustainable Solutions with Biomaterials

Raj Krishnaswamy is currently the Vice-President of Polymers R&D and New Business Development at CJ Biomaterials. He has 20+ years of polymers R&D experience at Chevron Phillips Chemical, Metabolix and Braskem prior to his current stint at CJ. Raj is a co-inventor on 50+ patents and a co-author on 40+ publications. He is a Fellow of the Society of Plastics Engineering (SPE), has also been recognized with the Research/Technology lifetime achievement award by the SPE and is an alumnus of the NAE Frontiers of Engineering. Raj also serves on the advisory boards of the Macromolecules Innovation Institute at Virginia Tech and the Chemical Engineering Department at the University of Kentucky. He was also a finalist for induction into the PLASTICS Hall of Fame in 2025.

Faculty (Continued)



Edmond Lam

ACS Green Chemistry Institute, Washington, D.C.

Topics Covered:

Sustainability in Industry & Policy

Edmond Lam is an Assistant Director of the ACS GCI and Office of Sustainable Development, leading sustainability grants and other aspects of the nexus between industry and academia. Prior to joining the ACS, Edmond was a Senior Research Officer and Team Lead within the Aquatic and Crop Resource Development research center at the National Research Council of Canada. His research interests include biomass valorization, catalysis, sustainable materials, and synthetic chemistry.



David A. Laviska

ACS Green Chemistry Institute, Washington, D.C.

Topic Covered:

Intro and Overview: Green Chemistry and Sustainability by Design; Greening Research in the Laboratory

Before joining the ACS GCI, David Laviska was an Assistant Professor at Seton Hall University, where he co-directed the Academy for Green Chemistry, Stewardship, and Sustainability. His research focused on green(er) synthesis and catalysis. Before his second career in academia, David worked as an Environmental/Analytical Specialist with the EPA and earned all of his degrees in chemistry: Ph.D. (Rutgers University), M.S. (University of Washington), and B.A. (Cornell University).



Audrey Moores

McGill University, Montreal, Quebec, Canada

Topics Covered:

Mechanochemistry, Biomass & Circular Economy

Audrey Moores is a Full Professor of Chemistry, co-lead of the Materials group of the McGill Sustainable Systems Initiative (MSSI), and associate director of the Facility for Electron Microscopy Research (FEMR) at McGill University. Her research group focuses on sustainable mechanochemical solutions for nanoparticles and biopolymer synthesis. Dr. Moores earned her Ph.D., M.Sc., and B.Sc. degrees in chemistry at the École Polytechnique in France.

Faculty (Continued)



Sederra Ross

ACS Green Chemistry Institute, Washington, D.C.

Topics Covered:

Chemical Hazard & Environmental Justice

Sederra Ross is a Program Manager at the ACS GCI. She has dedicated her career to solving environmental injustices and researching methods to remove hazardous contaminants and chemicals contributing to global heating. Her research interests include creating biodegradable composites that divert solid waste from landfills, developing programs to galvanize environmental grassroots activists, and employing molecular spectroscopy to identify and characterize climate pollutants. She holds a Ph.D. in Green Chemistry from the University of Massachusetts Boston and a B.S. in Chemistry from Clark Atlanta University.



Jessica Schifano

Vermont Department of Health, Waterbury, VT

Topic Covered:

Sustainability in Industry & Policy

Jessica Schifano, JD, MPH, currently serves as the Public Health Policy Director for the Vermont Department of Health, where she leads all legislative and regulatory activities for the Department. Jessica has worked extensively in public policy at both the federal and state levels, including the federal Occupational Safety and Health Administration, the Maine Department of Environmental Protection, and the Lowell Center for Sustainable Production. She holds a Master of Public Health degree from the Tufts University School of Medicine and a JD from Northeastern University School of Law.



Carsten Sievers

Georgia Institute of Technology, Atlanta, GA

Topics Covered:

Designing Sustainable Catalysts

Carsten Sievers obtained his Diplom and Dr. rer nat. degrees in Technical Chemistry at the Technical University of Munich, Germany. In 2007, he moved to the Georgia Institute of Technology as a postdoc and joined the faculty in 2009. His research group is developing catalytic processes for the sustainable production of fuels and chemicals. He teaches an annual class on Sustainable Chemical Industry.

Faculty (Continued)



Lindsay Soh

Lafayette College, Easton, PA

Topics Covered:

Defining Greener Solvents

Dr. Lindsay Soh is an associate professor and department head of chemical engineering at Lafayette College. She received her Ph.D. in chemical and environmental engineering at Yale University and her B.S. in environmental engineering science from UC Berkeley. Dr. Soh's research broadly focuses on the use of green engineering for the creation of more sustainable process and biomass and waste derived products. She is also deeply committed to undergraduate education; her overall teaching goal is to infuse sustainability throughout the engineering curriculum.



Joel Tickner

UMass Lowell, Lowell, MA

Topic Covered:

Sustainability in Industry & Policy

Joel Tickner is a professor of environmental health at University of Massachusetts Lowell. He leads the Sustainable Chemistry Catalyst of the Lowell Center for Sustainable Production, which works on research, analysis, and strategy to make chemistry safer for people and the planet. His research focuses on the development of innovative scientific methods, policies, and practice to accelerate the design and application of safer and more sustainable products and manufacturing processes. He is an expert on environmental health, risk assessment, green chemistry, chemicals policy, and pollution prevention.



Adelina Voutchkova

ACS Green Chemistry Institute, Washington, D.C.

Topic Covered:

Green Chemistry Metrics, Design of Safer Chemicals

Dr. Voutchkova joined ACS in June 2023 from a robust academic career at George Washington University as an Associate Professor in Chemistry, with a research focus on facilitating circular economies through catalysis and designer solvents. Prior, she served as a Research Associate at the Yale Center for Green Chemistry and Green Engineering and obtained her Ph.D. in organometallic chemistry from Yale University. She holds a B.A. in Chemistry from Middlebury College.

Faculty (Continued)



John Warner

Beyond Benign & The Technology Greenhouse

Topics Covered:

Inspiration and Innovation

John Warner is one of the founders of the field of green chemistry. He received his B.S. in Chemistry from the University of Massachusetts Boston and his Ph.D. in Chemistry from Princeton University. In 2007, he founded the Warner Babcock Institute for Green Chemistry with Jim Babcock (a research organization developing green chemistry technologies), and Beyond Benign with Amy Cannon (a non-profit dedicated to sustainability and green chemistry education). John is constantly giving keynote talks and workshops on Green Chemistry, Innovation, Circular Economy, and Biomimicry.



Rory Waterman

University of Vermont, Burlington, VT

Topic Covered:

Abundant Metal Catalysis

Rory Waterman is a Professor of Chemistry at the University of Vermont. Waterman attended the University of Rochester for his Bachelor of Science and the University of Chicago for his Ph.D. His research at UVM focuses on finding new ways to build chemical bonds, specifically in the chemical element phosphorus. Applications of the research include new catalytic bond formation (synthesis), materials, inorganic polymers, carbon dioxide activation, and hydrogen storage.



Flavia Zacconi

Pontificia Universidad Católica de Chile, Santiago, Chile

Topic Covered:

Molecular Design

Dr. Flavia Zacconi is an Associate Professor at Pontificia Universidad Católica de Chile, with joint appointments in the Faculty of Chemistry and Pharmacy and the Institute for Biological and Medical Engineering. She holds a Ph.D. in Chemistry from Universidad Nacional del Sur and is affiliated with CIEN-UC and ND3, leading centers in nanotechnology, drug development, and advanced materials. Her research group focuses on sustainable molecular design, green synthetic methodologies, and the development of bioactive nanosystems for health and environmental applications.

Group Work & Poster Sessions



Before the summer school, students were assigned to groups to research and create a poster on a greener synthesis tool.

During the first poster session of the week, students met in person with their groups for the first time and presented their work.

“ One of the most fun and rewarding parts of the program was the group project. Each team was assigned a target molecule and challenged to apply the tools and principles we had learned to redesign a greener synthesis route. My group presented our final proposal at the end of the week, and I was fortunate to work with such a passionate and supportive team. ”

—Darshika Singh, Michigan State University, U.S.



[▶ Watch the Poster Session Video!](#)



Acknowledgements

Sincere thanks to:

- The **nineteen faculty members** who shared their expertise and time so generously with the students. They set a high standard for clarity, insight, and connection with the students that will be hard to surpass in future programs. We are especially thankful to **Rory Waterman** for acting as our “local faculty host.”
- The **University of Vermont** for hosting the program since 2024.
- **Brad Zangwill Photography** for photo and video documentation.
- Our **volunteer review committee** for their expertise and assistance in choosing the outstanding participants for the 2025 GSCSS program.



“

The summer school was an incredible learning experience where I gained valuable knowledge and new perspectives. Beyond everything I learned, it also opened up paths I never imagined I could pursue.

—Lynda Pavez, Pontificia Universidad Católica de Chile

”



We Can't Wait to See You in 2026!

“

I highly encourage anyone who has the opportunity to apply to the summer school. It's a life-changing experience that I can't recommend highly enough.

”

—Andrew Champlin, Yale University, U.S.

Apply to Join the Summer School

Application Deadline:

December 15, 2025

Dates and Location:

July 2026 in Burlington, Vermont

Learn More:

acs.org/gcsummerschool



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