



THE IOTAN

IOTA SIGMA PI NATIONAL HONOR SOCIETY FOR WOMEN IN CHEMISTRY



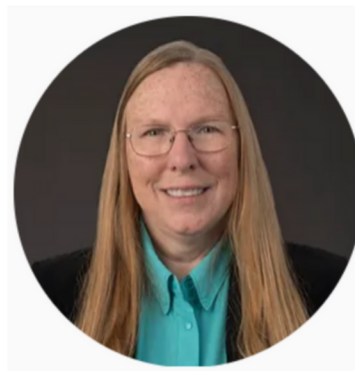
SEPTEMBER 2023

Meet Our National Council



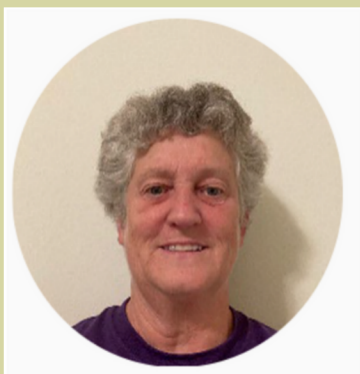
President
Joyde Selco (MAL)

As President, I want to recruit more members to Iota Sigma Pi since networking with other women chemists is invigorating, enlightening, and fun. I am encouraged that there are so many more women chemists than there were nearly 50 years ago when I was in college. We need to raise our voices and “make good trouble,” as the saying goes. One of my dreams is to network with all the women chemists throughout California and the rest of the Southwestern US. In the past, I have been the Iotan Editor and have served Iota Sigma Pi by reviewing applications for student and MAL awards. Currently, I teach General Chemistry and Physical Chemistry at California State Polytechnic University, Pomona (Southern California), where I am a Professor of Science Education and Chemistry. My research involves working with school districts to develop new hands-on science experiments, perform tasks, and work with teachers to improve science education.



Vice President
Christine Hermann (Ag)

I am the new Vice-President of Iota Sigma Pi. As Vice-President, I will handle the formation of new chapters, reactivation of inactive chapters, and deactivation of chapters. I will receive all chapter reports. I will chair the Iota Sigma Pi Triennial Convention in 2026. My past positions at Iota Sigma Pi include Director of Professional Awards (1999 – 2005) and webmaster (2005 – 2014). I am a member of the Argentum chapter in southwestern Virginia, and enjoy flying my 1947 Cessna 140 around southwestern Virginia. I have been the co-director of the Blue Ridge Highlands Regional Science fair since 2011. I was the Chair of ChemEd 2009. My book “The Systematic Identification of Organic Compounds” and Solutions Manual was just published by Wiley. As Vice-President, I hope to increase membership in the organization by contacting ACS-approved programs and department chairs to publicize the benefits of being a member of Iota Sigma Pi. I look forward to contacting chapters and seeing what each chapter involves.



Secretary
Judith (Judy) A. Schuerman (CI)

I graduated from Thomas More College with a BA in Chemistry in 1977 and Louisiana State University with a Ph.D. in Inorganic Chemistry in 1988. I was inducted into Iota Sigma Pi in 1978 and became a Life Member in 1989. I have been the Treasurer of the Chlorine Chapter of Iota Sigma Pi since 2012. I have worked as an environmental chemist at West-Paine Laboratories and Vulcan Chemicals. I retired at the end of 2021 from 23.5 years of employment with the State of Louisiana Department of Environmental Quality. There I have moved up the ranks from Environmental Scientist to Environmental Scientist Supervisor to Environmental Scientist Manager and finally to Environmental Scientist Senior in the Radiation Section. I am enjoying my retirement by attending assorted aerobic fitness classes at the YMCA, reading hundreds of novels, and adjusting to my new role as Grandma to her newborn grandson. I also volunteer for clinical trials and research studies at Pennington Biomedical Research Center and Velocity Clinical Research. I am a member of the Board of Directors at the C. B. Pennington YMCA and a finance committee member of my subdivision HOA.



Treasurer
Margaret Workman (Aul)

I am an Instructor at DePaul University in the Environmental Science and Studies Department. I am a former National President and have served as the National Treasurer, National Editor, and the Coordinator of Initiates and Supplies. This triennium, I am returning to the past role of National Treasurer. I have been a member of Iota Sigma Pi since 1993, starting in graduate school at Purdue University and the Pu Chapter and then in Chicago at the Aul chapter. My research focuses on biogeochemistry, especially in community science and global learning, through my partnership with the University of Uyo and the University of Calabar in Nigeria. My primary goal for this triennium is to set up the new Endowment fund and create a strategic investment plan.



**Director of Student Awards
Sarbjeet Kaur**

I am a Senior Research Scientist at Curia, where my research focuses on developing antibody-drug conjugates, bioactive molecules, and active pharmaceutical ingredients. I completed my Ph.D. in Chemistry from the State University of New York, Albany in 2021, and my BSc. (Physics, Chemistry, Mathematics) from Panjab University, Chandigarh, in 2014. I joined the ISP community in June 2023. As a Director of Student Awards, my main goal is to increase the outreach of Iota Sigma Pi in universities to recognize outstanding women in chemistry.



**MAL Coordinator
Gina Mancini-Samuelson (Hg)**

I earned my Ph.D. in Analytical Chemistry from the University of Minnesota. I have been teaching at St. Catherine University since 1996, where my primary teaching responsibilities are the analytical chemistry courses and the general chemistry for health sciences course. In 2008 I was recognized for outstanding teaching through the Teaching Excellence Award sponsored by the Myser Family Foundation, a great honor as a nomination for this award comes from St. Catherine University alumna. I have directed over 20 undergraduate research projects ranging from analytical chemistry and materials science to environmental science. My recent area of inquiry focuses on exploring the chemical properties of the novel nanomaterial graphene oxide and suspensions of reduced derivatives through spectroscopic and electrochemical methods. My leadership includes serving as the chair of the Department of Chemistry and Biochemistry at St. Catherine University from 2005-2011 and member or chair of the university's Curriculum and Policies Committee from 2013-2019 and then again from 2020-2023. I served as a board member of the Minnesota Academy of Science from 2009-2015, and continue to serve as the treasurer of the Mercury Chapter of the Iota Sigma Pi since 2004.

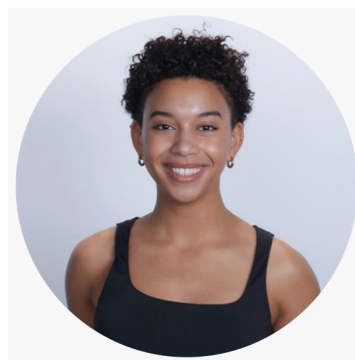




Co-Editor
Olivia Anderson (Hg)

Hello, to the great ISP community. I am Olivia Anderson, a new co-editor for the ISP community. I am part of the Mercury Chapter in the Twin Cities, joined in May of this year, and am excited to be one of your council members. I just graduated from St. Catherine University with a Biology major and Chemistry minor. Currently, I am working in the Graduate Research Education Program at Mayo Clinic in Minnesota, studying anti-cancer drugs for ovarian cancer. Some fun facts about myself: My favorite movie is Sixteen Candles; I love 70 and 80s rock music with a vinyl record collection; lastly, I love to run and bike, and swim, where I have completed multiple triathlons.

As a leader, I aim to increase membership by publishing the lotan, social media, and outreach programs. I want to emphasize the need to increase membership to keep this great community of women and non-binary chemists alive and prompt science education.



Co-Editor
Morgan Batiste-Simms (Hg)

Much like Olivia Anderson, I too am part of the Mercury Chapter in the Twin Cities and also graduated from St. Catherine University. I obtained my Bachelor of Arts degree in Chemistry with a Biochemistry concentration. I will be starting graduate school this fall at the University of York in England. My goal following my PhD in Biochemistry is to pursue a surgical specialty in medical school. Alongside my passion for science, I have also made a hobby out of language-learning. I speak Spanish, Russian, English, participated in competitive Latin competitions for four years, and am currently learning Korean.

Now being a part of national council as co-editor, I hope to work with Olivia to bring a fun and fresh approach to ISP news that makes our readers and members look forward to the next lotan issue and upcoming ISP events!

IOTA SIGMA PI NATIONAL COUNCIL



From left to right: Christine Hermann, Teresa Bixby, Sarbjeet Kaur, Reiko Simmons, Morgan Batiste-Simms, Maggie Workman, Julia Wiester, Jodye Selco, Judith Schuerman, Olivia Anderson, Tanya Hunter, Julia Vaynberg, Anne Taylor

A Note from the Past President...

Anne K. Taylor (MAL)

As National President of Iota Sigma Pi, I came into the recent Triennial Convention concerned about the continued existence of our organization. I felt that we were too rigid and old-fashioned to attract new members and form new chapters. (I can say that because I am old!) By the end of the convention, I was much more hopeful. We passed a number of motions to revise our procedures to become more welcoming and diverse. I hope to work with the President and Vice President to implement the changes. I also hope to serve as a consultant to the other National Council members.

Many years ago, I earned a BA from Gettysburg College and M.S. and Ph.D. from Cornell University. My career had four phases: full-time Mom, part-time professor, pharmaceutical analysis researcher, and technical writer (Pharmaceutical Documentation). All were interesting in different ways. After living in Ithaca, NY; Morris Plains, NJ, and Baton Rouge, LA, I am now retired and live in Petaluma, CA. I first joined ISP in Baton Rouge, and served as President and Historian of Chlorine Chapter. I became involved at the national level and served as Secretary and Director of Professional Awards before becoming President.

34TH CONVENTION; RISING FROM THE ASHES

...and a Message from the Current President

Joyde Selco (MAL)

"Rising from the Ashes" was the theme of the Iota Sigma Pi 34th Triennial Convention. This year we strategized ways to save Iota Sigma Pi from extinction. Over the past few years, the membership has dwindled. While this has occurred to many organizations (and COVID did not help), Iota Sigma Pi is a different professional organization. Iota Sigma Pi started with the Hydrogen chapter at UC Berkeley in 1902 to connect women chemists. This was a much more difficult task before the internet. Meeting, getting to know, and working with others like yourself is an experience we all need – especially those who feel isolated and/or different. If you have not attended one of the triennial conventions in the past (and even if you have), you should plan to attend one in the future. Just imagine working with a room full of women chemists for a few days and honoring some of our own. It is truly invigorating!

We are working to recruit new members – and you can help! First, you no longer need to be nominated by a chapter (or another member). Applications for membership are now accepted on the ISP website at <https://www.iotasigmapi.org/membership>. Second, we changed the qualifications for membership as directed by multiple committees at the convention. Iota Sigma Pi now honors master's and Ph.D. degrees in the same way – both earn automatic qualification for membership. Second, any female (or non-binary person) working in a chemical (or chemistry-like) position for a year after earning a baccalaureate degree qualifies. While anyone in a chemistry-like position (or with a chemistry-like degree) has qualified before, we will include a few examples (e.g., pharmacists, molecular biologists, mineralogists) on the website to let everyone know they are qualified if they do chemistry-type work. Lastly, we changed the qualification for undergraduate students; they must take at least two years of chemistry with a 3.0 GPA in those chemistry courses. If you know of young through old chemists who qualify for membership, please nominate them or ask them to join.

For most of my professional career, I have been the lone female chemist and/or the lone female in the physical sciences. My connections to Iota Sigma Pi have been via the Members-at-Large (MAL) community which has not had much activity lately. I'm working to change that. Another change coming is to have multiple geographic areas that members can associate themselves with to find others nearby.

Lastly, we will institute nationwide Iota Sigma Pi activities sponsored by the National Council. We intend to add a calendar to the website where chapters and members can advertise their talks, get-togethers, and meetings with others in the organization. You can help by sharing your activities too. If you want Iota Sigma Pi to tell others what you are doing, please contact Julia Wiester (ispncwebmaster@gmail.com).

The new National Council will work to keep Iota Sigma Pi working smoothly; please contact any of us (<https://www.iotasigmapi.org/national-council>) with suggestions, news, etc.

PROFESSIONAL AWARDS

Iota Sigma Pi gives two awards on a triennial basis and two annually. While the triennial awardees were chosen in 2022 and 2023. The awardees were invited to participate in the Triennial Convention 2023.

The 2023 National Honorary Member Award: Angela K. Wilson of Michigan State University.



Dr. Angela K. Wilson, John A. Hannah Distinguished Professor of Chemistry in the Department of Chemistry of Michigan State University, was the recipient of the 2023 National Honorary Member Award. National Honorary Member is the highest award that Iota Sigma Pi bestows triennially on outstanding women chemists for their significant achievements in chemistry.

Dr. Wilson is John A. Hannah, Distinguished Professor of Chemistry at Michigan State University (MSU), an Associate Dean for strategic initiatives in the MSU College of Natural Science, and the Director of the MSU Center for Quantum Computing, Science, and Engineering. She is also the 2022 President of the American Chemical Society (ACS), a member of the ACS board of directors, a 2016-2018 Director of the

Division of Chemistry at the U.S. National Science Foundation (NSF), and a recipient of numerous national and international honors that include International Union of Pure and Applied Chemistry (IUPAC) Distinguished Woman in Chemistry and ACS's Wilfred T. Doherty Award. The award was presented to Dr. Wilson at the Iota Sigma Pi 2023 Triennial Convention in suburban Chicago in June 2023.

Dr. Wilson has earned a Ph.D. in chemical physics from the University of Minnesota and a B.S. in chemistry from Eastern Washington University. She then was a postdoctoral fellow in theoretical physical chemistry at the Environmental Molecular Sciences Laboratory at Pacific Northwest National Laboratory.

Dr. Wilson is a leader in computational/theoretical physical chemistry. Her primary focus has been the development of ab initio approaches for accurate prediction of the thermochemical properties of molecules. Her research spans quantum mechanics, quantum dynamics method development, drug design, environmental chemistry, and catalysis. One of her most notable achievements is the successful development of a correlation-consistent Composite Approach (ccCA) to molecular thermochemistry that allows to the prediction of thermochemical properties of the main group, transitional metals, and the entire periodic table with unprecedented accuracy. She has designed complete basis set (CBS) strategies that allow it to (approximately) overcome errors in the exact description of molecular orbitals. Her methodology is used worldwide and is currently included in most computational chemistry software packages such as Gaussian, GAMESS, NWChem, ORCA, etc. To quote one of the nominators, "Professor Wilson's research has made invaluable contributions to our understanding of a broad range of challenging chemical problems." Her research resulted in over 180 publications to date with >13,600 citations. She has also edited 6 books, including "Pioneers in Quantum Chemistry." In addition to her research work, Dr. Wilson has devoted much of her time to service. She is a member of the editorial boards of multiple scientific journals such as Journals of Physical Chemistry, Journal of Physical Chemistry Letters, International Journal of Quantum Chemistry, and many others. She has been an Editor of Computational and Theoretical Chemistry. She had also served on multiple Scientific Advisory Committees for Conferences and workshops, chaired the 2018 Gordon Conference on Computational Chemistry, and organized the physical chemistry program at the 2017 IUPAC World Congress. This list is not complete. (cont'd.)

PROFESSIONAL AWARDS

Dr. Wilson has invested significantly in education, mentoring over 150 students and postdoctoral fellows, with 25 students earning Ph.D.s and five students earning M.S. degrees. Among her trainees are impressively accomplished scientists and winners of the most prestigious national scientific awards. She had been very active in science outreach activities on local, national, and international levels. Dr. Wilson participates in career and curriculum development for undergraduate students, trying to incorporate quantum science into a national interdisciplinary curriculum.

She has also been a long-time advocate for women chemists, leading an international recognition program via IUPAC and several Gordon Research Conference's Power Hours discussion groups addressing women's challenges in science.

The 2023 Violet Diller Award for Professional Excellence: Annamarie Grover Carlton, University of California Irvine.



Dr. Annmarie Grover Carlton of the University of California Irvine was the recipient of the 2023 Violet Diller Award for Professional Excellence. The Violet Diller Award is a triennial professional award recognizing a woman's outstanding contributions to chemistry and allied fields.

Dr. Carlton is a Professor of Chemistry at the University of California Irvine. She has earned her B.S., M.S., and Ph.D. in Environmental Engineering from Rutgers University. After working at the EPA as a Research Scientist, she joined Rutgers University and the University of California Irvine. She also served as a Revelle Fellow to the Office of Science and Technology Policy (OSTP) in the White House, advising policymakers on climate change and air pollution issues.

The award was presented to Dr. Carlton at the Iota Sigma Pi 2023 Triennial Convention in suburban Chicago. Dr. Carlton's research is focused on Atmospheric Chemistry and Climate. She studies the formation of organic particles, their chemistry, and their impact on human health and welfare. Her work led to a paradigm shift in understanding the particle's behavior and the way it was predicted with models. She designed and implemented several impactful field studies, such as the Southern Oxidant Aerosol Study (SOAS), the largest study of air pollution in a decade, that involved over 20 research groups and over \$20 million of funding. The studies led to remarkable results and allowed them to address existing discrepancies between model predictions and experimental observations. Recently she has also initiated a project to use machine learning to predict the particle's chemistry. She has authored over 70 publications in high-impact peer-reviewed journals, with over 6000 citations.

As a result of her achievements, she has been recognized by numerous prestigious awards like the American Geophysical Union Ascent Award and the American Chemical Society Women's Chemist Committee Rising Star Award. She has also received multiple awards from the EPA, Rutgers University, and the American Association of Women Geoscientists. Dr. Carlton is passionate about translating and delivering scientific knowledge to the general public and policymakers and is very active in science outreach. Her colleagues have enthusiastically commented on her leadership and communication skills, creativity, and mentorship. As one of her notable nominators stated: "Dr. Carlton is a force for good. She has brought science to the people through her engagement with the broader community."

PROFESSIONAL AWARDS

The 2023 Centennial Award: Dr. Michelle L. Kovarik of Trinity College

Dr. Michelle Kovarik, Professor of Trinity College (Hartford, CT) was the recipient of the 2023 Centennial Award for Excellence in Undergraduate Teaching.

Dr. Kovarik obtained her B.S. in Chemistry from Saint Louis University (St. Louis, MO) and her Ph.D. in Analytical Chemistry from Indiana University (Bloomington, IN). She is an Associate Professor of Chemistry and Co-Director of the Center for Teaching and Learning at Trinity College (Hartford, CT). She was invited to participate in the organization's Triennial Convention 2023.

From the early days of her career, Dr. Kovarik has actively promoted active learning in undergraduate chemistry education. She has directly engaged students in learning rather than practicing traditional classroom lecturing

and standard protocol-following laboratory work. She uses a number of innovative approaches that optimize students' learning experience, such as teamwork, designing and performing experiments by following data interpretation, using scientific literature, and actively involving every student. She has modified laboratory courses to include working with the most modern instrumentation. It is clear from the letters of support that she creates a unique environment of productive teacher-student collaboration.

Dr. Kovarik has also established an externally funded research program at Trinity College, allowing undergraduate students to perform original research and co-author publications. To date, she has mentored 27 undergraduate students, 13 of them have been able to publish their projects in peer-reviewed scientific journals, and many were able to present posters or talks at meetings on international, national, and regional levels.

Dr. Kovarik has been very active in promoting active learning nationally. She is a Chair of the American Chemical Society (ACS) Division of Analytical Chemistry Education Committee and an author of numerous articles on the subject of undergraduate teaching in journals such as the Journal of Chemical Education and Analytical and Bioanalytical Chemistry. She has also given a number of invited lectures on chemistry education, including several at the National Meetings of ACS. Her students commented that they felt her strong commitment to their success. They see that Dr. Kovarik prioritizes their learning and mastering of real-life scientific skills. They wrote about her ability to create a calm, encouraging, yet challenging atmosphere in the classroom and about her generosity to meet for extra time with anyone needing more help. They all say that Dr. Kovarik's classes have significantly impacted them professionally.

PROFESSIONAL AWARDS

The 2023 Agnes Fay Morgan Research Award: Dr. Prineha Narang of the University of California, Los Angeles

Dr. Prineha Narang, Howard Reiss Development Chair, University of California, Los Angeles, was the recipient of the 2023 Agnes Fay Morgan Research Award.

Dr. Narang obtained her B.S. in Material Science from Drexel University (Philadelphia, PA) and then earned Ph.D. in Applied Physics from California Institute of Technology (Pasadena, CA). As a postgraduate fellow, she has been awarded Harvard University Center for the Environment (HUCE) fellowship. She has held dual appointments as a research scholar in condensed matter theory in the Department of Physics at Massachusetts Institute of Technology and a fellow at Harvard's Department of Chemistry and Chemical Biology. In 2017 she started her independent work as an Assistant Professor of Computational Materials Science at Harvard

University and, in 2022, moved to UCLA as a Howard Reiss Development Chair at the College of Letters and Science. Dr. Narang's research is highly interdisciplinary and spans the fields of chemistry, physics, and material and computational sciences. Her work focuses on theoretical and computational quantum materials, non-equilibrium dynamics, and quantum information science. She has pioneered a number of innovative approaches to advance the current understanding of quantum matter and its behavior with the goal of designing new materials for a wide range of applications, from everyday electronics to satellites. To quote one of her nominators, she "is a unique scientist who has broken new ground in fields with fundamental consequences. She has already had an unusually strong impact on various research topics. Her outstanding achievements and scientific excellence place her at the top of her generation."

Her work has been widely recognized by numerous awards and appointments that include the 2023 Maria Goeppert Mayer Award from the American Physical Society, 2023 ONR Young Investigator Award, 2022 Outstanding Early Career Investigator Award from the Materials Research Society, Mildred Dresselhaus Prize, Bessel Research Award from the Alexander von Humboldt Foundation, a Max Planck Sabbatical Award from the Max Planck Society, and the IUPAP Young Scientist Prize in Computational Physics in 2021, NSF CAREER Award in 2020. She was named a Moore Inventor Fellow by the Gordon and Betty Moore Foundation, a Top Innovator Under 35 by MIT Tech Review, and a leading young scientist by the World Economic Forum in 2018, and in 2017 she was on Forbes Magazine's "30under30" list. Page 134 Since the beginning of her independent research career in 2017 to date, Dr. Narang has authored over 125 publications in leading scientific journals such as Nature, Science, Phys. Rev. Letters, Nano Letters, etc. She has organized and chaired meetings and workshops and is an Associate Editor at ACS Nano and Applied Physics Letters. She also has an awe-inspiring record of science outreach, mentoring, and science communication. In January 2023, she also started her work as a U.S. Science Envoy from the Department of State.

The Agnes Fay Morgan Research Award is given for research achievement to a woman chemist or biochemist not over forty years of age.



A HISTORICAL PERSPECTIVE OF NOBEL LAUREATES AND ISP



CONSIDER THIS:

How many women chemists have been awarded *NOBEL PRIZE IN CHEMISTRY*?
How many women Nobel Laureates are/were Iota Sigma Pi members?
Who are these women, and what are their achievements?








Historian Lily Ng

Our past National Historian (2017-2023), Lily Ng, was doing research on the ongoing history of ISP. She was considering our history/custom of conferring our highest professional award, the NATIONAL HONORARY MEMBER award (1921-current), to internationally prominent, brilliant women chemists, such as Priestley medalists and Nobel Laureates.

Starting from 1901 to 2022, the NOBLE PRIZE in CHEMISTRY has been awarded 114 times to 191 Nobel Prize laureates. Only eight women had been recognized, and one other in Medicine and Physiology.

Women Nobel Laureates

 Honorary ISP Members

-  **The Nobel Prize in Chemistry 2022; Carolyn R. Bertozzi:** for the development of click chemistry and bioorthogonal chemistry
- The Nobel Prize in Chemistry 2020; Emmanuelle Charpentier and Jennifer Doudna:** for the development of a method for genome editing
-  **The Nobel Prize in Chemistry 2018; Frances H. Arnold:** for the direct evolution of enzymes
- The Nobel Prize in Chemistry 2009; Ada E. Yonath:** for studies of the structure and function of the ribosome
-  **The Nobel Prize in Chemistry 1964; Dorothy Crowfoot Hodgkin:** for the determinations by X-Ray techniques of the structures of important biochemical substances
-  **The Nobel Prize in Chemistry 1947; Gerti T. Cori:** for the discovery of mechanism to break-down and resynthesize glycogen to lactic acid
- The Nobel Prize in Chemistry 1935; Joliot-Curie:** in recognition of synthesis of new radioactive elements
-  **The Nobel Prize in Chemistry 1911, and Physics 1903; Marie Skłodowska Curie:** in recognition of her services to the advancement of chemistry by the discovery of the elements; polonium and radium, using techniques invented by her for isolation radioactive elements

A HISTORY OF HONORARY MEMBERS OF ISP



Searching through various materials collected since 1902 (the Founding Year of ISP), Lily Ng discovered the following:



- 1) Originally, Honorary Members were nominated by our chapters or an officer. They were chapter honorary members first, and then they were invited to be National Honorary Members later. The women were invited internationally.
- 2) ISP began its award program with the National Honorary Member in 1921. The very first National Honorary Member was Marie Sklodowska Curie. The award was given sporadically when ISP decided that a woman chemist was worthy of being named Honorary Member of the Society. Most Nobel Laureates and Garvan/Priestley Medalists thus were named ISP Honorary Members.
- 3) In 1990, the National Council decided that the award would be given out triennially. Nominations were invited from the chapters or from ISP members who knew prominent women chemists. A jury/committee of five women chemists recruited by the Director of Professional Awards determined the winner. We continue to select brilliant women chemists, but we no longer invite prominent international chemists such as Nobel Laureates and Priestley Medalists.
- 4) In 2018, Frances H. Arnold was named the Nobel Laureate in Chemistry. She is only the fifth one in the entire Nobel Prize history! Three additional women received the Nobel Prizes to date: Emmanuelle Charpentier and Jennifer Doudna (2020) and Carolyn R. Bertozzi(2022).

MORE ON THE HONORARY MEMBERS OF ISP



MARIE SKLODOWSKA CURIE: First National Honorary Member 1921

The first National Honorary Member of ISP was the late famous Madam Curie. Her achievements are so well known to all students of science. During her brief visit to America in 1921, she accepted the ISP membership, which was conferred at New Haven, Connecticut, on June 21, 1921. Glenola Behling Rose (Oxygen) made the original contact, and Helen S. Mitchell (Ytterbium) and Zalia Jencks Gailey (Oxygen) took part in the ceremony. All chapters approved the ceremony and the award of membership. Mrs. Rose presented Mme. Curie with an ISP pin. When Mme. Curie revisited America in 1929, Sybil Woodruff (Kalium), then National President, tendered formal greetings in the name of our society.

DOROTHY CROWFOOT HODGKIN: Eleventh National Honorary Member 1966

The eleventh National Honorary Member of ISP was Dorothy Crowfoot Hodgkin. Dr. Hodgkin received world recognition when she was awarded the Nobel Prize in Chemistry in 1964. Following Marie Curie and Irene Joliet-Curie, she was the third woman and the first English woman to be so honored. Dr. Hodgkin was born in Cairo, Egypt. She received her B.S. degree from Summerville College, Oxford, in 1932 and her Ph.D. from Cambridge in 1937. She returned to Summerville College, where she became the Wolfson Research Professor of the Royal Society and a Professional Fellow.

Dr. Hodgkin was recognized as an authority in X-ray crystallography. Dorothy Crowfoot Hodgkin determined the structure of the insulin, confirmed the structure of penicillin, and was especially known for the structural determination by x-ray analysis of vitamin B1. While there were no records of how she was elected ISP Honorary Member, the ISP National Honorary Member Award was one of the only two American awards received by Hodgkin; Foreign Honorary Member of the American Academy of Arts and Sciences (1958) and ISP National Honorary Member Award (1966). While she was establishing and maintaining contacts with scientists in her field abroad during 1950-1970, she was banned in 1953 from entering the US except by waiver of the CIA because of her political views. In 2015, Hodgkin's 1949 paper "the x-ray crystallographic Investigation of the Structure of Penicillin" was honored with a citation for the Chemical Breakthrough Award from the Division of History of the American Chemical Society, presented to the University of Oxford.

FRANCES H. ARNOLD: First Invited National Honorary Member of ISP

Frances H. Arnold is the Linus Pauling Professor of Chemical Engineering, Biochemistry, and Bioengineering at the California Institute of Technology. She also serves as the Director of the Donna and Benjamin M. Rosen Bioengineering Center and the Biotechnology Leadership Predoctoral Training. Professor Arnold pioneered the field of directed evolution of enzyme research that earned her the 2018 Nobel Prize in Chemistry, making her the Fifth woman to win the award. The evolved enzymes have catalyzed important reactions in the fields of medicine (diabetic drug Januvia®), neurology (MR agents), chemical synthesis (plant sugar to jet fuel), and alternative energy (anaerobic biofuel synthesis). The widespread uses of these selectively evolved enzymes reveal not only the elegance of her directed evolution concept but also demonstrate the scalability and transition of science out of the laboratory, which is important. Professor Arnold also provides a research environment to unleash the creativity of young scientists, something that she views as a crucial and rewarding part of her career. She has mentored 250 young scientists to date! Professor Frances H. Arnold was recognized as the First ISP Invited National Honorary Member in 2020 at the 33rd Triennial Convention of ISP.

2023 - 2026 NATIONAL COUNCIL CONTACT LIST

President

Joyde Selco

ispncpresident@gmail.com

Vice President

Christine Hermann

ispncvicepresident@gmail.com

Secretary

Judith A. Schuerman

ispncsecretary@gmail.com

Treasurer

Margaret Workman

ispnctreasurer@gmail.com

Co-Editor

Morgan Batiste-Simms

mbatistesimms@gmail.com

Co-Editor

Olivia Anderson

ojanderson382@gmail.com

MAL Coordinator

Gina Samuelson

gjsamuelson@stkate.edu

Historian

Reiko Simmons

rsimmons@jcu.edu

Records Chair

Sarah Weaver

sarahweaver9@gmail.com

Director for Professional Awards

Julia Vaynberg

ispncprofessionalawards@gmail.com

Coordinator of Initiates & Supplies

Tanya Hunter

ispncinitiatesandsupplies@gmail.com

Webmaster

Julia Wiester

wiester@sxu.edu

Immediate Past President

Anne K. Taylor

isppastpres@gmail.com

Director for Student Awards

Sarbjeeet Kaur

ispncstudentawards@gmail.com

