

The Legacy of a Jesuit Chemistry Professor

On January 18, 2022 Professor Emeritus, Father Paul McCarthy, S.J., passed away at the age of 97. Father McCarthy, a Jesuit priest and exceptional chemist, devoted his adult life to doing God's work by educating young men and women. He inspired hundreds of students, in the classroom and laboratories, while exemplifying the Jesuit principal of *Ad maiorem Dei gloriam*.

Paul McCarthy was born, and had his early education, in Rochester, NY. He entered the Society of Jesus, the Roman Catholic religious order of Jesuits, in 1944. After graduate studies in chemistry and theology, he taught chemistry courses at Canisius College from 1960 until his retirement from teaching in 1994.

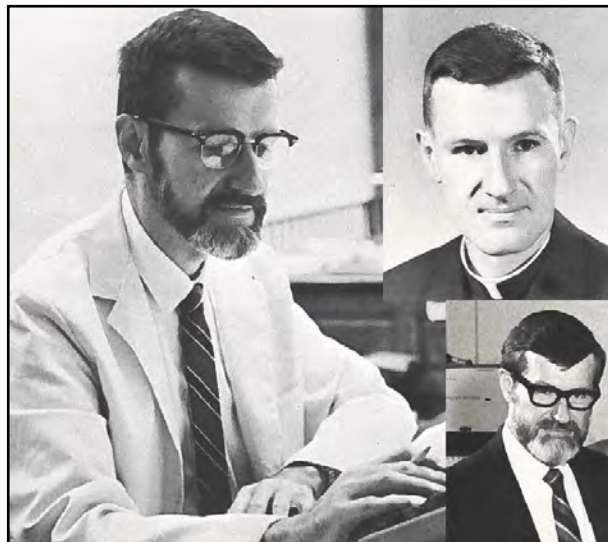
In a quiet and humble manner, Father McCarthy brought international recognition to the Department with his research in infrared and ultraviolet spectroscopy. He was a co-author of over 50 articles in peer-reviewed journals. He was an expert in the spectroscopy of coordination compounds and co-authored an influential book in the field, "Spectroscopy and Structure of Metal Chelate Compounds." He was an outstanding teacher to thousands of science students over many years in the freshman general chemistry courses. Fr. McCarthy was selected as the first recipient of the Canisius College Kenneth L. Koessler Distinguished Faculty Award in 1977.

Beyond teaching and conducting research, Fr. McCarthy was a pianist, skier, geologist, mass celebrant, nature photographer, devoted Jesuit priest, and most of all, kind-hearted friend to all. He moved to Salt Lake City after his retirement from Canisius and performed pastoral work at St. Thomas More Parish. His final residence was the Jesuit retirement community at Fordham University.

"Paul was much more than a teacher and a priest," commented Professor Emeritus Joseph Bieron. "He was a talented pianist and could identify any composer when he heard me playing classical music in my office. He was a downhill skier who made countless friends during the years when he said mass at Kissing Bridge Ski Club.... To describe Paul as multitasking is an understatement." Rev. Patrick Lynch, S.J., Professor Emeritus of Religious Studies wrote, "Up to the mid 1990's he helped out at the Canisius College German Christmas Mass by providing the music and the printed program. A true Renaissance Man!"

In his retirement years, Fr. McCarthy also collaborated with J. Bieron on a book of illustrated Buffalo history, "Postcard Views: A Walk Down Main Street Buffalo, New York, circa 1910", which was published in 2007.

To memorialize the legacy of Fr. Paul J. McCarthy, S.J., the Department has begun a campaign to raise the \$50,000 required to establish an endowed fund in his name. Please consider helping us reach this goal (see insert)!



A Message from the Chair

Greetings to all Griffin Chemists and Biochemists!

I hope this newsletter finds each of you and your families healthy and well.

The Fall semester of 2021 marked a return to as close as possible pre-pandemic college-life. Chemistry and Biochemistry courses returned to only in-person instruction and the hybrid format for offering laboratory classes finally came to an end. SCACS began organizing and hosting more in-person events, with the return of traditional favorites such as the Christmas party and bowling. Mid-way through the Spring semester of 2022 the mask mandate ended and we quickly readjusted to seeing each other's smiling faces again. The end-of-year banquet celebrated our newest chemistry and biochemistry graduates and the 2020 retirement of Mary O'Sullivan. It was wonderful to see so many alumni at the banquet.

Change continues to occur in the Department. Notably, Chemistry and Biochemistry will no longer be moving to Science Hall. The Department will continue to call Horan O'Donnell its' official home, as it has been for the past 80 years. Also, we are currently engaged in a search to hire a biochemistry/organic chemistry tenure-track faculty member. The search is ongoing, but we hope to fill this position for the fall semester of 2023.

For the first time since the pandemic began, we will be travelling to the Spring National Meeting of the American Chemical Society. Our students are eager to present the latest results of their research. If you will be at the meeting in Indianapolis in March, please let us know so that we can get together!

As always, please stay an active part of the Canisius Chemistry and Biochemistry family by letting us know how you are doing. Always know that we are proud of everything you have accomplished.

Thank you for your continued support of the Department.

A handwritten signature in black ink that reads "Phillip Sheridan".

Phil Sheridan, Professor and Department Chair



Faculty & Staff

Phillip Sheridan, Ph.D.
Chair, Physical Chemistry

Allyson Backstrom, Ph.D.
Organic Chemistry

Zeenat Bashir, Ph.D.
Biochemistry

Joseph Bieron, Ph.D.
Professor Emeritus

Timothy Gregg, Ph.D.
Organic Chemistry

Mariusz Kozik, Ph.D.
Inorganic Chemistry

Kristina Marohn, M.S.
General Chemistry Laboratory

Mary O'Sullivan, Ph.D.
Professor Emeritus

Peter Schaber, Ph.D.
Analytical Chemistry

Jaime Sheridan, Ph.D.
Director of Chemistry Laboratories

Steven Szczepankiewicz, Ph.D.
Analytical Chemistry

Contact the Department at:
sheridap@canisius.edu
or visit us at:
canisius.edu/chemistry

Kaszuba Research Endowment Established

In December 2021, Anne Kaszuba Duggan established, with a generous financial gift, the Sigmund T. (CHM '41) and Rose M. Kaszuba Chemistry and Biochemistry Research Endowment. This endowment, named in honor of her parents, will be used to provide funds for research activities in the Department, primarily in support of first generation college students.

Sigmund Kaszuba was born in 1917 in the Black Rock neighborhood of Buffalo. His father had emigrated from Poland ten years earlier and worked as a machinist. His mother was born in Buffalo; her parents had also emigrated from Poland. Sigmund's father died when he was 13 years old, and his mother redoubled her efforts as sole parent. Perseverance and mutual support to achieve big dreams were the hallmarks of family life.

Sigmund graduated from Riverside High School in 1936. He had poor health as a child and could not attend school for extended periods of time, delaying his start of high school.

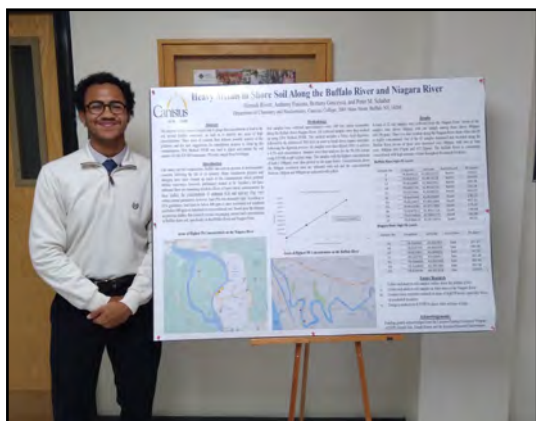


Sigmund Kaszuba (CHM '41)

While at Riverside, Sigmund became a member of the school's golf team and the team placed first in his senior year. His love of golf stayed with him his entire life and led to work as a caddy at local country clubs. Sigmund was able to finance tuition at Canisius College using earnings from caddying and elsewhere. He was the first person in his generation of the Kaszuba family to complete college, which was a very rare accomplishment in his community at that time and a source of enormous pride for his family. He graduated from Canisius in June 1941 with a BS degree in chemistry. As in high school, he played on the Canisius golf team.

Sigmund began working as a chemist at Durez Plastics and Chemicals, Inc. in October 1941. He continued there until enlisting in the Navy in late 1942. His college education qualified him for officer training at the Naval Academy and Cornell University as part of the war effort. He served in both the European and Pacific theaters in World War II.

Upon his military discharge in 1946, Sigmund returned to Durez Plastics and Chemicals and remained employed there until his death in 1980. During his tenure, Durez grew considerably. It merged with Hooker Electrochemical Company in 1955, which was acquired by Occidental Petroleum Corporation in 1968, which became known as Occidental Chemical Corporation.



Anthony Fuszara (CHM HT '24) is the first Kaszuba Research Scholar. Anthony is a first generation college student majoring in chemistry. He plans to attend medical school.

Rose was born in 1920 in Buffalo to immigrant parents from Poland. Her family moved to Colden, NY to start a farm when she was a child, and she earned her high school degree at Springville Institute in 1938. Before marrying Sigmund in 1948, she worked first as a housekeeper and then in administrative positions at the Buffalo Arms Corporation and the Pennsylvania Railroad. Rose worked at Trico Corporation from 1955 until her retirement in 1985. She died in 2012.

According to Anne, it is hard to overstate the benefits of her father's education at Canisius College for the quality of his life and that of their family. It made possible a career he truly loved in a field that prized continued learning. He exemplified the adage, "Choose a job you love, and you will never have to work a day in your life." He relished going to work each day. He delighted in scientific advancements and in having a job that promoted his continued professional development. His degree in chemistry from Canisius made that career possible.

Class of 2022

Hope Balling (CHM BUS): MBA Program Canisius College
Mary Banks (CHM/MSED)
Hailey Brenner (CHM HT): Medical School, LECOM
John Bressette (CHM/MSED): Science Teacher, Mount St. Mary Academy, Kenmore, NY
Halle Dueringer (CHM HT): Accelerated Bachelor of Science in Nursing Program, University at Buffalo
Andrew Erdman (BCH ACS): St. Mark's Seminary, Erie, PA
Grace Gibson (BCH)
Griffin Gill (CHM HT): Medical School, LECOM
Nathan Kohler (CHM ACS): Chemist, Niacet Corporation, Niagara Falls, NY
Dylan Lis (CHM HT): Medical School, University at Buffalo
Grace Marren (CHM HT)
Vanessa Mason (CHM): Chemist, Fresenius Kabi, Buffalo, NY
Benjamin Oreskovic (CHM ACS): Chemistry Ph.D. Program, Wayne State University
Ian Szegowski (BCH): Biochemistry M.S. Program, University at Buffalo
Alexander Yunke (BCH)



Donors

We would like to express our sincere gratitude to all those listed here who have made a recent financial contribution to the Department:

John Federice ('23); Joseph Malinowski ('21); Sean P. Gibson ('20); Peter Krickovich ('20); Joshua Canavan ('19); Filippo Gentile ('19); James Macholl ('19); Matthew Smardz ('19); Peter Weimer ('19); Livia Chase ('18); Katherine Hobika ('18); Erika Mackie ('18); Joseph Lesh ('17); W. Benton Swanson ('17); Jenna Wallace ('17); Nicole Fusco ('16); Danielle Puglisi ('16); Jonathan ('15) & Nicole Binns ('15); Adam Dannenhoffer, Ph.D. ('14); John Heck ('14); Jesse Fodero, M.D. ('13); David

Fortman, Ph.D. ('13); Elisabeth Geyer, Ph.D. ('13); Jamie Hitro ('13); Elora I. Supersad ('13); David J. Szczur ('13); Jessica Stachowski, Ph.D. ('12); Sean Balkin, J.D. ('11); Robert Stewart, Ph.D. ('11); Ryan Campagna, M.D. ('10); Stephanie Krull ('10); Christopher R. Mekelburg ('10); Kristina B. Garcia ('08); Andrew Minkel ('08); Kathryn E. Leach, Ph.D. ('03); Thomas Marinello ('03); Jeffrey, Ph.D. ('03) & Lindsay Rose, Ph.D.; Muris Kobaslija, Ph.D. ('02); Veronica Maher ('02); Stephanie Soehnlein, M.D. ('02); Michael W. Fennie, Ph.D. (01); Aaron & Dr. Amy Godert ('01); Laura Sellitto ('01); Shalabh Singhal, M.D. ('99); Ronald Szumigala ('98);

Thomas Kermis, M.D. ('96); Steven H. Szczepankiewicz, Ph.D. ('96); Lingyun Chen ('95); Maureen Kane, Ph.D. ('95); Leah Cunningham, M.D. ('92); Mark Nowak ('92) and Carolyn Dudek, Ph.D. ('93); Brian Riegel, M.D. ('92); Christopher D. Kane, Ph.D. ('90); Kristen Kulinowski, Ph.D. ('90); Gregory Agoston, Ph.D. ('89); Domenico, D.D.S. ('89) & Maria Berardi ('89); Michael R. ('88) & Colleen Becht; Carolyn K. Weinreb, Ph.D. ('88); Michael F. Inglisa ('85); Michael Sullivan, M.D. ('85); Joanne Huber ('82); John, M.D. ('82) & Gail Zvijac ('82); Dr. Ronald & Mary Spohn ('78); Jonathan Stoberl ('78); Edward ('75) & Mary Bogdan ('77);

Hangauer Awarded Schoellkopf Medal



David G. Hangauer
(CHM '74), Ph.D.

David G. Hangauer (CHM '74), Ph.D. was the 2021 recipient of the Jacob F. Schoellkopf Medal from the Western New York Section of the American Chemical Society (WNY ACS). The Schoellkopf Medal, named in honor of chemical industry entrepreneur Jacob F. Schoellkopf, is the oldest ACS local section award in the nation. The award recognizes a member of the WNY ACS for their accomplishments and their continuing achievements in the chemical sciences. Dave is the 91st recipient of the Schoellkopf Medal, awarded to him "in recognition of his visionary work on the discovery of cancer therapies and his entrepreneurial impact of the advancement of the pharmaceutical industry in the region." The award was presented on April 12, 2022, following a dinner at the Hotel Lafayette in Buffalo.

Dave completed his Ph.D. in natural product synthesis at the University at Buffalo in 1980. After, he worked as a medicinal chemist at Merck in Rahway, NJ. In 1989, he accepted a position at the University at Buffalo as Associate Professor of Medicinal Chemistry. At UB, his laboratory developed a new technology for the discovery of

protein kinase inhibitors. Also while at UB, Dave started three biotech companies: Arpida, Hypnion, and Athenex, where he invented two of Athenex's oncology drugs, KX01 and KX02. He is an inventor on 80 patents and the author of 60 peer reviewed publications. He has received numerous awards, including the Canisius College Department of Chemistry and Biochemistry James H. Crowdle Award for Distinction in Chemistry (2006). Dave provides support for the undergraduate summer research Program in chemistry at Canisius with his annual funding of the Frank Dinan Research Scholars, in honor of Professor Emeritus Frank Dinan.

Mary Theresa A. Colson ('77); Michael J. Cubera ('75); Michael F. Herman, Ph.D. ('75); Peter Schaber, Ph.D. ('75); David G. Hangauer, Ph.D. ('74); David Nalewajek, Ph.D. ('74); Daniel E. Rega ('74); Frederick Wiatrowski ('73); Teresa M. Amabile, Ph.D. ('72); Michael V. Darby, Ph.D. ('72); Paul A. Hojnacki ('72); Paul ('72) & Marjorie Inderbitzen ('72); Chris Josef ('72); Michael R. Krajewski ('72); Robert J. Lynch ('72); Paul L. Piciulo, Ph.D. ('72); Stanley Zak, D.D.S. ('72); William C. Bogdan ('71); Joseph F. Ginett ('71); Edmund D'Orazio, M.D. ('71); Steven P. Driska, Ph.D. ('70); Gregory R. Krawczyk ('70); Carlton H. Jewitt ('69); Martin Besant ('68); Robert D. Inderbitzen ('68); Patrick J. Mudd ('68); Paul M. Nagel, Ph.D. ('68); Joseph Rozak ('68); Peter J. Schirmann, Ph.D. ('68); Stanley A. Sojka, Ph.D. ('68); Thomas R. Stabler ('68); Gerald Wilemski, Ph.D. ('68); Simon W. Ulmer, Jr., Ph.D. ('67); John, Ph.D. ('67) and Lynn ('70) Wieser; Gerald Zon, Ph.D. ('67); Angelo M. Fatta, Ph.D. ('66); Dennis P. Bakalik, Ph.D. ('65); Joseph P. Lafornera, Ph.D. ('64); Joseph A. Kuczkowski, Ph.D. ('63); David J. Manzo, Ph.D. ('63); Kenneth F. Pompei, Ph.D. ('63); William N. Knopka, Ph.D. ('61); Raymond J. Lange, Ph.D. ('61); David W. Teloh ('61); James Maul, Ph.D. ('60); Robert, Ph.D. ('60) and Anne Kuczkowski; David Skelly, Ph.D. ('60); Joseph F. Bieron, Ph.D. ('59); James J. Duffy, Ph.D. ('59); Anthony Marzullo ('59); Robert F. Czaja, Ph.D. ('58); Daniel Jaszka ('52); Daniel & Lisa Canavan; Drs. Raymond & Mary Anne Dannenhoffer; Frank Dinan, Ph.D.; Anne Duggan, Ph.D.; Kristen Fodero, Pharm.D.; Gerda Gassman; Timothy M. Gregg, Ph.D.; Mariusz Kozik, Ph.D.; James A. Leone, Ph.D.; Kristina Marohn; Mary O'Sullivan, Ph.D.; Jaime Sheridan, Ph.D.; Phillip Sheridan, Ph.D.; Richard E. Stanton, Ph.D.; Jeremy L. Steinbacher, Ph.D.; Alice F. Steltermann, George Vasiliadis

Alumni Notes

Hannah Kralles (CHM HT '20) is a coauthor on the article, "Implementing a Low-Threshold Audio-Only Telehealth Model for Medication-Assisted Treatment of Opioid Use Disorder at a Community-Based Non-Profit Organization in Washington, D.C." in *Harm Reduction Journal*.

James Macholl (BCH '19) is employed as Research Technician in the Discovery Department at Honeywell Buffalo Research Labs.

Jacob Iannuzzelli, Ph.D. (BCH ACS '17) received his Ph.D. degree in chemistry from the University of Rochester.

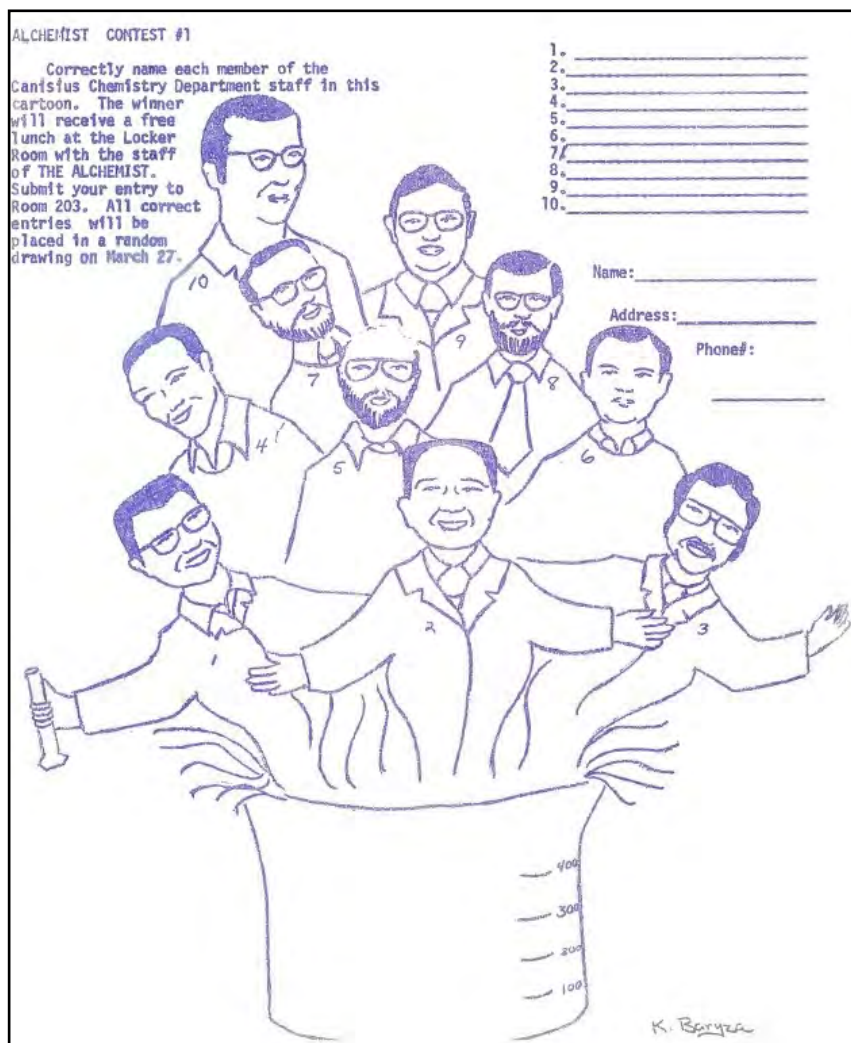
Gabrielle Budziszewski, Ph.D. (BCH '16) received her Ph.D. degree in biochemistry and biophysics from the University of North Carolina. She recently accepted a position as an Operations Manager in the High-Throughput Crystallography Center at Hauptman-Woodward Medical Research.

Melanie Nguyen, Pharm.D. (CHM HT '16) started a new position with Seagen, a biotechnology firm in Seattle.

John Heck (CHM ACS '14) started a new position as a QC Raw Materials Administrator at Regeneron in Albany.

Kyle M Westerholt, M.D. (BCH '10), senior physician at UBMD Emergency Medicine, received a 2021 New York ACEP Unsung Heroes of Emergency Medicine Award.

Leah Doherty (CHM & ENG '80) retired from the University at Buffalo after 42 years as an academic advisor.



From the Alchemist, March 1980...

How many can you identify?

Senior Awards

V.A. Ruskiewicz ('21) Award: Recognition of superlative academic achievement demonstrated by the highest GPA.

Western New York Chapter of the American Chemical Society Student General Excellence Award: Highest award given by the Department; the recipient is acknowledged for outstanding achievement and significant research accomplishments.

American Institute of Chemists Award: Recognition on the basis of a demonstrated record in leadership, ability, character, scholastic achievement, and advancement potential in the chemical professions.

Gerald Zon ('67) Undergraduate Research Award: Recognizes significant research accomplishments.

American Chemical Society Division of Analytical Chemistry Undergraduate Award: Recognizes an outstanding senior, undergraduate analytical chemistry student.



Andrew Erdman

V.A. Ruskiewicz Award
WNY ACS General Excellence Award in Biochemistry
Gerald Zon Research Award

Grace Gibson

American Institute of Chemists Biochemistry Award
Gerald Zon Research Award

Nathan Kohler

American Institute of Chemists Chemistry Award
ACS Analytical Chemistry Undergraduate Award
Gerald Zon Research Award

Dylan Lis

WNY ACS General Excellence Award in Chemistry
Gerald Zon Research Award

Benjamin Oreskovic

Gerald Zon Research Award

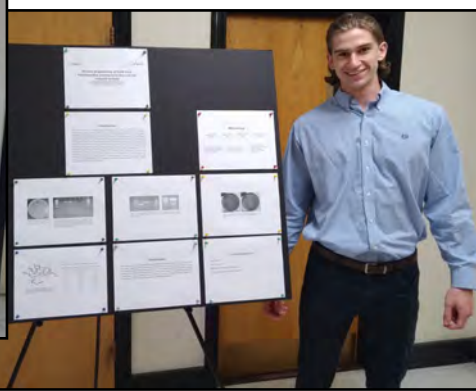
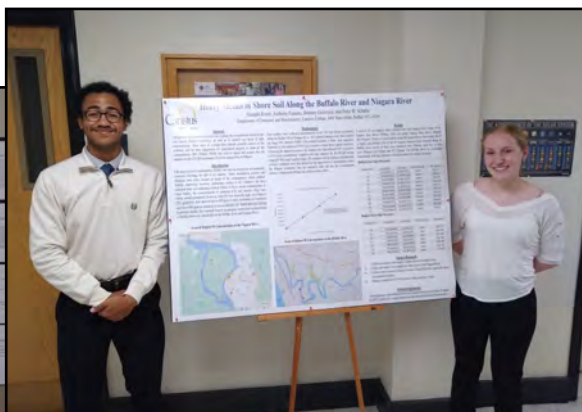
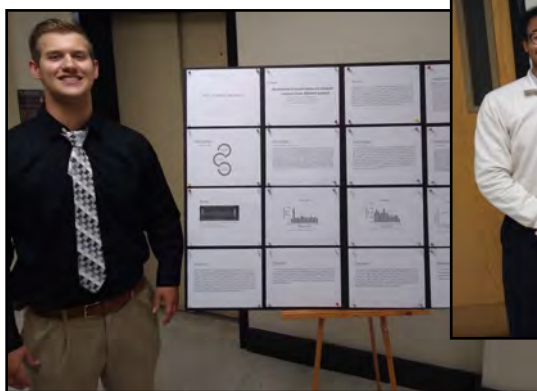
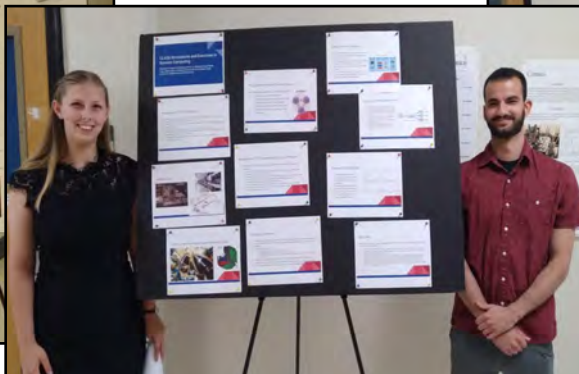
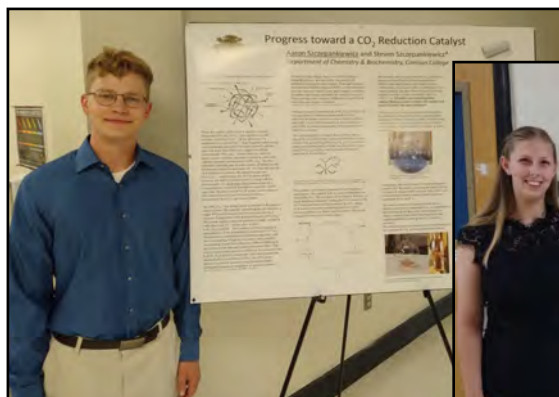
Frank Dinan Research Scholars



John Federice (CHM ACS '23) and Daniel Vela (CHM HT '24) were selected as this year's Frank Dinan Research Scholars. The Frank Dinan Research Scholars are supported by a continued generous financial gift from David Hangauer (CHM '74) in honor of Professor Emeritus Frank Dinan. This summer John and Dan worked in the research laboratory of Tim Gregg on two separate aspects of the total synthesis of an isocoumarin natural product recently isolated from a novel *Penicillium* fungal strain.

Summer Research Symposium

After a two year delay, on July 8, 2022 the Department once again hosted its Summer Research Symposium. Nine Chemistry and Biochemistry majors presented posters describing the results of their summer research work. More than 50 students, faculty, alumni, family members, and guests attended and celebrated with a picnic dinner in the quad. We hope to see you at next year's event on Friday, July 14, 2023.



A. Szczepankiewicz (S. Szczepankiewicz) "Progress toward a CO₂ Reduction Catalyst"

J. Federice and D. Vela (T. Gregg) "Progress Towards the Synthesis of Isocoumarin E"

B. Davie (Z. Bashir) "Biochemical Characterization of Cellulase Enzymes from Different Bacteria"

S. Sullivan (Z. Bashir) "Protein Engineering of CelA from *Paenibacillus polymyxa* to Improve the Enzyme Activity"

A. Grassl and N. Soluri (M. Wood) "CLAS6 Simulations and Exercise in Remote Computing"

A. Grassl (M. Wood) "Subatomic Analysis via Distributed High Throughput Computing"

H. Rivett and A. Fuszara (P. Schaber) "Heavy Metals in Shore Soil Along the Buffalo River and Niagara River"

A. Au II (P. Sheridan) "Computational Chemistry Study of Alkaline Earth Monothiocyanates [M, N, C, S]"

A. Au II (P. Sheridan) "Introducing a Laser Induced Fluorescence of I₂ Experiment into Physical Chemistry Lab"

Student Researchers



Zeenat Bashir:

Brendan Davie (CHM ACS '24)
Shane Sullivan (CHM ACS '23)

Timothy Gregg:

John Federice (CHM ACS '23)
Daniel Vela (CHM HT '24)

Peter Schaber ('75):

Anthony Fuszara (CHM HT '24)

Phillip Sheridan:

Alann Au II (CHM ACS '23)

Steven Szczepankiewicz ('96):

Aaron Szczepankiewicz (CHM ACS '24)

Michael Wood:

Alexis Grassl (BCH & PHY '24)

Peer Reviewed Publications

M. A. Burton, P. M. Sheridan, and L. M. Ziurys, "The Millimeter-Wave Spectrum of the SiP Radical ($X^2\Pi_i$): Rotational Perturbations and Hyperfine Structure," *J. Chem. Phys.*, **2022**, 157. DOI 10.1063/5.0118939

Meeting Presentations*

A. P. Au and P. M. Sheridan, "Computational Chemistry Study of Alkaline Earth Metal Thiocyanates," 13th ACS Western New York Section Undergraduate Research Symposium, SUNY Buffalo State, NY, 2022.

*Canisius Undergraduates in Bold

A Blast from the Past...



2008



2006



2016



2010

Department Scholarships

Joseph F. Bieron, Ph.D. ('59) Scholarship
Alann Au (CHM ACS '23)

James G. Colson, Ph.D. ('58) Scholarship
Benjamin Oreskovic (CHM ACS '22)

Austin V. & Lillian J. Signeur Scholarship
Andrew Erdman (BCH ACS/MAT '22)
Nathan Kohler (CHM ACS '22)

Eileen Hogenkamp Klubek ('90) Scholarship
Olivia Merolle (CHM ACS '23)

Emil R. Inderbitzen ('40) Memorial Scholarship
Shane Sullivan (CHM ACS '23)

Gerald Zon, Ph.D. ('67) Scholarship
Hannah Rivett (BCH '23)

The Student Chapter of the ACS

The Canisius SCACS continued its post-pandemic comeback with a series of well-attended events! SCACS members started the year by showing their support at a concert featuring our very own Nathan Kohler (CHM ACS '22) in the band BP and the Oil Spills. The Christmas party, with the usual gift exchange shenanigans also made a triumphant return! A Halloween party, game night, bowling, ice skating, tour of Honeywell Inc., end-of-year banquet, and summer research picnic rounded out the year's activities.

President: Grace Gibson (BCH '22)

Vice President: Dylan Lis (BCH '22)

Treasurer: Alann Au (CHM ACS '23)

Secretary: John Federice (CHM ACS '23)

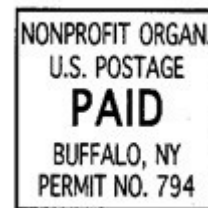
Historian: Shane Sullivan (CHM ACS '23)

Faculty Advisor: Tim Gregg





Department of Chemistry & Biochemistry
Canisius College
2001 Main Street
Buffalo, New York 14208-1035



Return Service Requested

Support the Father McCarthy Endowment

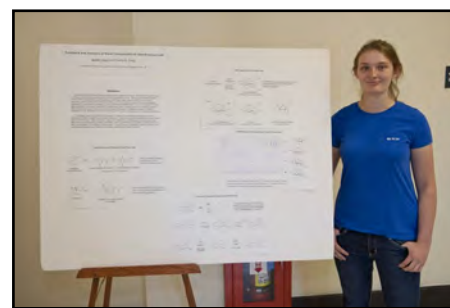
As a Jesuit educator, Father McCarthy not only taught chemistry to legions of students at Canisius, he also provided mentorship, inspiration, and friendship. Please consider honoring his legacy (see inside for details) with a financial contribution to the Rev. Paul J. McCarthy, S.J., Chemistry and Biochemistry Endowment. In addition to supporting the summer research program, the endowment will offer scholarships to Chemistry and Biochemistry majors and support Department initiated activities associated with recruiting students interested in majoring in Chemistry or Biochemistry at Canisius.



*Samantha Caico (BCH '19)
Michigan State University
D.O./Ph.D. Program*



*Sean Gibson (CHM HT '20)
University at Buffalo
Medical School*



*Jennifer Sescil (BCH ACS '21)
University of Michigan
Biochemistry Ph.D. Program*