MOLECULAR SIEVE Andrews University

Department of Chemistry & Biochemistry

An American Chemical Society Approved Program since 1976

Fall 2024

50th Anniversary of Halenz Hall, and the Science Complex

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Faculty:

Lisa Ahlberg, PhD Ryan Hayes, PhD Judy Fe Jose-Larong, PhD Getahun Merga, PhD Desmond Murray, PhD David Randall, PhD

Staff:

Dana Johnston, MS John Rorabeck, MS

On Thursday, September 12th, alumni, students, faculty, staff, and friends of the chemistry department commemorated the 50th anniversary of the dedication of the Halenz Hall. We enjoyed the stories and perspectives of past professors, Drs. Mutch, Wong, and Nowack, as well as the input of one of our esteemed alumni. Dr. Roger Pak. Previous faculty, alumni, and friends of the department over the years joined us, including George Javor, Brent Hamstra. Robert Johnston, David Moll, Bruce Schilling, Kent Davis, Marco Allard. and others.

There were sketches and histories stretching from the first chemistry course in 1874 taught by John Harvey Kellogg, MD, to our latest faculty hire, Dr. Judy Fe Jose-Larong. Participants recalled positive ways in which their activities and interactions in the science complex impacted their lives. Presenters shared history and memories of the



Old Science Hall

department as well as perspectives for the future. While a great building is essential to "do chemistry," the recollections made clear that the personal interactions that happened in the building made the biggest impacts.

This event was part of our weekly chemistry seminar series, which you are always welcome to join live on Zoom (meeting ID: 994 5343 8146). Each seminar (Continued on page 2)

Science Complex 50th Anniversary: Chem & Biochem's Story

150 YEARS OF CHEMISTRY; 84 YEARS A DEPARTMENT; 59 YEARS OF CHEMISTRY SEMINAR



Bill Mutch

Peter Wong

David Nowack Roger Pak

50th Anniversary



October 27, 1974 dedication ceremony

can be reviewed after it is uploaded to Dr. Murray's <u>YouTube channel</u>, where the 50th anniversary is available (<u>https://tinyurl.com/y4cpz77y</u>).

Dr. Murray also arranged a second event on the 50th anniversary of the October 27th, 1974, dedication. Dr. Eric Williams, the prime minster of Trinidad and Tobago, had given the keynote address at the building's dedication. The anniversary event explored Dr. William's speech, *Religion, Science, University, and Racism,* the unpublished text of which Dr. Murray was able to obtain. Dr. Williams was a statesman and scholar whose published works include *Capitalism and Slavery,* and *Inward Hunger: The Education of a Prime Minister.*

His daughter, Mrs. Erica Williams-Connell, shared remarks and context of his speech along with members of Andrews University community, VP Donald Bedney, Prof. Desmond Murray, Prof. Emerita Meredith Gray, and Prof. Emeritus Walter B.T. Douglas. A panel discussion responded to Dr. William's address and its legacy 50 years later with thoughts from accomplished professors from Wellesley College, Howard University, Cornel University, University of the West Indies, Harvard University, and Louisiana State University. A recording of this video is on YouTube (link above).

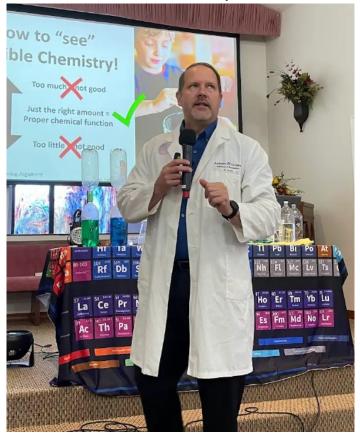


Faith & Science

What can chemistry teach us about the Earth, life's design, and our Creator? Answering that question has taken Dr. Hayes to some interesting places this past year. Churches, schools, and camps have hosted Chemical Design of Earth programs this including the following: Adventurers Family Camp in Alberta, Canada; Dickson SDA Church, TN; Rochester SDA Church, MN; Lake Orion-Oxford SDA Church, MI; and Cicero SDA Church, IN. The Hayes family put on two Week of Prayer programs: one at Village SDA Elementary, MI; and another at Niles SDA school, MI. The Hope Channel featured Dr. Hayes and Dr. James Carter, of Loma Linda University, with the episode entitled "Origin of Life" on YouTube. Dr. Hayes and Dr. Nowack contribute to the YouTube channel Long Story Short that responds to research on chemical evolution.

The channel continues to flourish and gain supporters. Eight videos have been launched with more on the way! Please support by subscribing and watching these fun and informative videos. Talks are lining up for next year, and we are thankful for the support of donors, alumni, and the chemistry department that encourages this chemical mission work. Reach out to Dr. Hayes if you think your church would appreciate hearing from a scientist about God's marvelous chemical design of Earth.

hayesr@andrews.edu



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Faculty Changes

Dr. Nowack retired from Andrews at the end of June 2024. This spring semester the chem club recognized Dr. Nowack at our annual enchilada night. Our year-end party included a good-bye for students and for Dr. Nowack, with a biochemically themed cake. This summer, the department hosted a campus-wide open house for Dr. Nowack, which was well attended by people from across the campus who had worked with Dr. Nowack over the years.

At the August 2024 graduation, Dr. Nowack received the John Nevins Andrews Medallion, which recognizes Seventh-day Adventist teachers, who exemplify the spirit and service of the pioneer SDA scholar after whom the medallion is named. Since retiring, Dr. Nowack has kept busy traveling and visiting family. We thank him again for all that he has done for the department.

Dr. Larong is our new biochemist. We praise God that our replacement search led to Dr. Judy Fe Jose-Larong. She completed her PhD in chemistry from Hokkaido University in Japan. Her research focused on synthesizing and characterizing novel materials derived from tetramethylporphyrin derivatives through advanced molecular and crystal design techniques.

Dr. Larong is a dedicated educator, with formal teacher training from the Philippine Normal University, and holds teaching licenses in the Philippines and Canada. Though she has prior college teaching experience, immediately before arriving at Andrews, Dr. Larong taught chemistry and biochemistry at Kingsway College in Canada. Some students were excited to reconnect with her.

We are delighted with the enthusiasm and new ideas Dr. Larong brings. This semester she is teaching biochemistry. We are grateful that Dr. Nowack worked closely with her to take over the curriculum and move forward with this important capstone experience for our students.

Welcome, Dr. Larong; we're glad you are here!

Lake Union Teachers

Lake Union Conference (LUC) STEM Day, September 5, 2024 at Andrews Science Complex gave K-12 Adventist educators from across LUCthe opportunity to bring hands-on activities back to their schools. Teachers participated in hands-on Chemistry, Physics, Mathematics and Coding lab activities and were trained in the engineering and design thinking program called Mission: Invent.



Dr. Ahlberg led engaging chemistry labs for the group. Each teacher left with kits to implement these lessons and activities in their own classrooms.

We are grateful for the leadership of Monica Nudd, in the program. Mrs. Nudd is a passionate champion of Adventist education who continues to serve teachers in the Lake Union by organizing workshops like these. We are also thankful that a partnership with the five LUC conferences (Illinois, Indiana, Lake Region, Michigan and Wisconsin), the LUC Office of Education, and grant funding from Versacare made this day possible.

You can see more photos from the workshop, and read some of the teacher's stories about the experience <u>here</u>, in the September 18, 2024 article in the Lake Union Herald.

lahlberg@andrews.edu



nowack@andrews.edu

joselarong@andrews.edu



Scholarships

Scholarships 2024-2025 school year

Lois K. Mutch Scholarship

David Creitz, Andrew delaRoca, Hitiel Plata, Madeline Pierre, Andrew Seo

Dwain Ford Scholarship

Hannah-Mae Gordon, Nick Zeismer, Anders Jeronimo, Timi Olatunde, Michelle Thomas,

Richard Cook Scholarship Jason Regneantu

Thomas Mullin Scholarship Ralph Gifford

Theodore Hirsch Scholarship Suvan Campbell

Minesinger Scholarship Kamillie Hernandes, Heecheon Oh

Robert Wilkins Scholarship

Nahzoni Haycock, Sam Martin, Brendaliz Moris

H. F. Halenz Scholarship Ian Neidigh

Ralph Scorpio Scholarship

Ethan Delacruz, John Roosenberg, Jordan Kim

John & Elizabeth Sangerloo Scholarship Gabriella Srikureja

Tait Family Scholarship, stackable Promising 2nd & 3rd year students

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Online at https://www.andrews.edu/cas/chemistry/

Erratum: the alumnus note on page 6 of the fall 2023 issue incorrectly listed Steve Warren's degree as BA 1971. The correct degree is BS 1971. We apologize for the mistake.

Alumni Notes

Hannah Castillo (BS Chem '22)

I am in my third year at Yale University in the lab of Caitlin Davis pursing a PhD in physical chemistry. My research focuses on studying the rates and cellular control of de novo lipogenesis and its related pathways in living systems through the use of a super-resolution form of infrared microscopy, optical photothermal infrared micro-spectroscopy (OPTIR) and isotopic vibrational probes. I really enjoy using physical chemistry methods to look at biological systems. I recently published a paper that has opened the doors to collaborations. I am also a recipient of the NSF GRFP which fully funds me for in graduate school.

I love New England and hope to start a career in

either biotech or forensics here. I enjoy my vegetable garden, improving my trivia skills with friends, and hanging out with my cat. I'm thankful for the Andrews chemistry community for shaping me to be the chemist I am today as well as their continued support and friendship. All the best!



Courtney Tait Basit (BS Biochem '12)

I remember my time in the Andrews Chemistry department fondly. I worked for Dr. Nowack and took Biochem from him. I remember Dr. Nowack's energetic teaching style, particularly him illustrating molecular movements by bouncing around the room. He was also my academic advisor and helped me discover the PA profession, which is what I ultimately chose to do. Mostly I remember his kindness, willingness to teach and mentor, and unfailing posi-

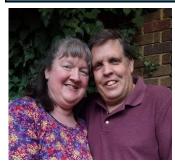


tivity. I am grateful for Dr. Nowack's service to the students at Andrews University and hope he has a wonderful retirement. Thank you for impacting and inspiring me. Happy retirement!

Carla Nelsen Belyea (BS Chem '01)

I wish Dr. Nowack well as he enters retirement. I remember biochemistry class with him. He was always one to do a science experiment for the science fairs at Battle Creek Academy where I ended up being a chemistry teacher after college from 2001-2013. I appreciated his commitment to educating the next generation of scientists.

Alumni Notes



Carla and her husband celebrate their anniversary.

Robert Johnston (BS Chem '81)

I reconnected with Lloyd Kuhn (founding analyst of Andrews' forensic lab) a year ago on John McLarty's Talking Rocks geology tour in Utah. Despite his 88 years, Dr. Kuhn was one of the fittest hikers in the group. My wife, Kathy, and I then invited him to join us on a camping trip to Big Bend National Park, including an overnight backpacking trip in the Chisos Mountains. I can attest that he is alive and well, healthy and fit for a man his age. He told us that when he was 18 years old, he promised

himself that he would not deviate more than 5 pounds from his then weight—and he hasn't! (I wish I could say the same) He lives in California near a daughter; his wife passed away a couple years ago.



I enjoyed the 50th anniversary Zoom get together in September. It was good to see some familiar faces.

Dr. Lloyd Kuhn, hiking.

Ric Wade (BS Chem '81)

I got your card asking for alumni updates. It has been a while, so let's go!

I'm divorced and have been for decades. I am very happily single and have two daughters. The oldest is a mother living in Oregon. The youngest is a lawyer living with her husband in Philadelphia. I'm proud of them both.

My chemistry degree led me to the metal finishing industry where I worked in labs for a few years (with a brief stint selling electro finishing chemicals). At one company, the owner discovered what having a chemistry major (and the inherent problem solving skills that chemistry education provides) working for him could do for his business. This and an inherent penchant for business allowed me to become his plant manager. So the next 30 years was spent being a plant manager, general manager, operations manager and new products operation manager. Being in California with all its craziness, led me to decide to concentrate on safety & quality, and I became a corporate safety & quality manager for a

maintenance services company working for the federal government. I am now the director of safety for another company working for the federal government on military bases and in federal buildings. In addition, I train fall protection, confined space and AHA development for the Navy through the AGC San Diego chapter. I love traveling for my main job and



seeing a light come on when a student "gets it."

As for hobbies, I am a "gear head." I love rebuilding and driving sports cars. My life has been varied, convoluted, and at times strange. I have wandered

away from God, but He was always there while the Holy Spirit wooed me back. We serve a great God who is AL-WAYS there for us.

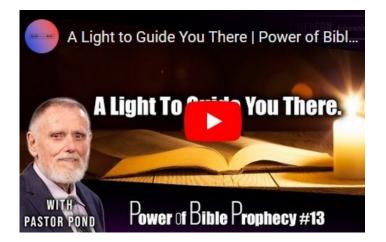
Because I travel a lot, my favorite church is the SDA church in Portsmouth, NH. I absolutely love going back to this church and its love for God!



Doug Pond (BA Chem '65)

Sorry I wasn't able to make it back to Andrews for Alumni Weekend. Just thought I'd drop a note to let you know that I'm presenting a series of lectures entitled, "The Power of Bible Prophecy."

Link: https://tinyurl.com/3tmask5s

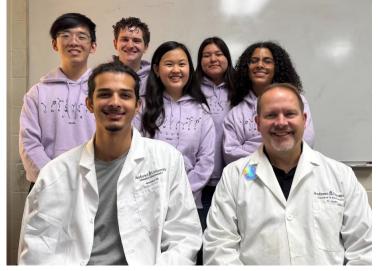


Students!





Dr. Randall welcomed a new group of analytical chemists this fall with personally embroidered quant lab coats. Pictured are: **Sam Martin**, **Ethan Delacruz, Brendaliz Moris,** and **Francine Drysdale-Brown**.



Chem Club for Chemists, Biochemists, and Friends Back: Zhiheng (Andy) Zhao, Secretary Ian Neidigh, Vice President Megan Kim, Treasurer Nahzoni Haycock, Public Relations Brendaliz Moris, Religious VP Front: Suvan Campbell, President Dr. Ryan Hayes, Sponsor Not Pictured: Anders Jeronimo, Social VP



 Chemistry Honor Society, ΓΣΕ (GSE)
Back: Heecheon Oh, Secretary Brendaliz Moris, Treasurer Anders Jeronimo, Sergeant at Arms
Front: Suvan Campbell, Vice President Ian Neidigh, President

Students!



From the Chair

Dear Alumni

As 2024, Andrews' 150th anniversary, draws to a close it is good to take a moment to reflect on God's leading. When we formed our GSE honor society chapter a few years ago, we were reminded that J.H. Kellogg was a chemistry teacher in the early days of an Andrews predecessor, Battle Creek College. So, chemistry has been part of Andrews from the outset. This year, we celebrate the 50th anniversary of the science complex's dedication. We enjoyed celebrating with many former faculty, alumni, and friends on our Sept. 12 Zoom meeting (now on YouTube).

We are delighted to add Dr. Jose-Larong to our team of dedicated, excellent Adventist chemical and biochemical educators. The search committee felt Dr. Jose-Larong had a strong commitment to Adventist education and the heart of a teacher.

While our departmental enrollment is a little lower than last year, we are grateful for the students who commit to learning chemistry and biochemistry at Andrews. Our remains the only ACS approved program in a Seventh-day Adventist university.

It is always rewarding to meet alumni who return to visit the department. Whether they graduated in 2023 or 1964, I am always impressed by how they are building diverse, rich lives enabled by the strong chemical and biochemical education they received at Andrews. Our students continue to do well after school. Over the last 10 years, seniors applying to med school have an acceptance rate of 90%. Students continue to be accepted into excellent PhD programs and excel there. Other students get great jobs in a variety of fields directly after graduating with a Bachelor's degree.

The administration continues to support our department. When the 30-year-old air purification system used by our NMR and FTIR failed in late March, they funded improved replacement systems. We are now in the early stage of preparing a proposal, at the

president's invitation, to update our second-floor labs as the 1st and 3rd floor labs were ~8 years ago.

We continue in God's blessing, and pray for your health and happiness.

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randalld@andrews.edu



Forensic Lab Report

With this year's celebration of 50 years of operation in Halenz Hall, the Berrien County Forensic Lab (BCFL), acknowledges the many advances in technology that make it difficult to remember the 1970s, when we made due with separatory funnel extractions, and subjection of steam evaporation residues to UV-Vis spectrometers and thin layer chromatography.

But aside from the hundreds of thousands of analyses and untold hours of expert court testimony, the forensic lab has produced a more vital result: graduates contributing to the life of their chosen professions. Let me illustrate this with only a few select graduates who have "given back" in some way to the success of BCFL.

Dale Gooden was a student under the first lab director, Lloyd Kuhn. After a few years in food chemistry, Dale returned to take over for Lloyd as the second director of BCFL. Within a few years the Michigan State Police lab in Grand Rapids called Dale to work for that organization where he rose to the directorship of their Chemistry Division. Another Andrews graduate, Dewey Murdick, stepped into the void and filled it admirably for 22 years, overseeing tremendous growth in caseloads, as well as advanced techniques for handling those samples. Among Dewey's students was a talented engineering major who went on to become a leader in separation science with LECO Corporation and helped install the first GC-Mass Spectrometer for Dewey's use in 2008.

Upon my arrival as the 4th director in 2010, I felt humbled by the legacy of my predecessors and yet it seemed fitting that I also had been a student under Lloyd Kuhn. My time at Andrews and my subsequent career in forensic toxicology and law enforcement prepared me well. I have also seen my graduates moving into successful teaching and research careers, drawing upon their training in the forensic lab.

Thank you for continuing to support Andrews University, a gift that keeps on giving.

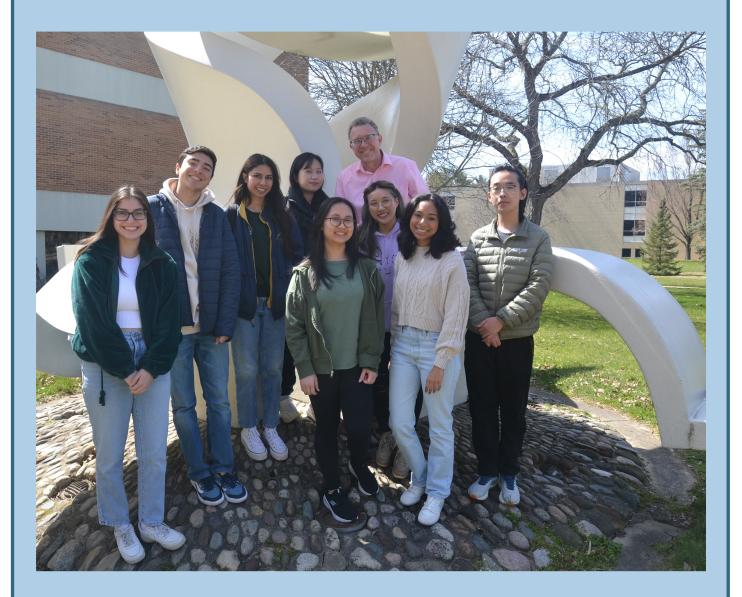
Jan a Forabeck



rorabeck@andrews.edu

E-mail alumni updates and pictures to chemistry@andrews.edu

Farewell 2024 Graduates



Pictured above from left to right (with Dr. Randall in the back):

Emily Atencio, is working in the medical field in TX, and plans on medical school and a career in emergency medicine; *Brandon Alvarez*, is earning an MBA before going to medical school in 2025;

Rekha Isaac, is studying at Loma Linda School of Medicine;

Yunji Song, is taking a gap year before medical school in 2025;

Chloe Gabon, is working as a pharm tech while applying to pharmacy schools; *Anneliese Tessalee*, is studying at Loma Linda School of Medicine;

Joya Dean, is earning a masters in biomedical science in Kansas City, MO; *Andy Zhao*, delayed graduation to stay here at Andrews a bit longer;

Not Pictured:

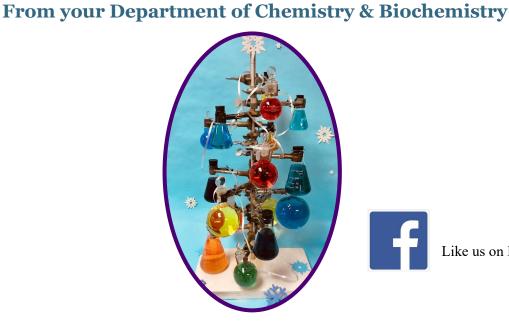
Darien Jung, is working at Loma Linda to get hours for PA school; *Daviah Smith*, is at the University of TX researching strain engineering and characterization.



Berrien Springs, MI 49104-0430 4270 Administration Dr

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Happy Holidays