


Homecoming Affinity Reunion

October 5-6, 2018

During Homecoming Weekend, various departments and affinity groups host gatherings for alumni to re-connect with one another and the campus. This fall, the Chemistry program is hosting such a gathering. Information on the full Homecoming schedule is here (link: <https://www.geneva.edu/homecoming/>). The second floor lobby of S&E Building will be open all through the weekend, with a display of historic and

current information about the program (including an array of old yearbooks). The time from 1 – 2:30 pm on Saturday, October 6 is designated as the reunion, a time to get folks together. The current faculty and some students will be present. Also, Emeritus faculty members Dr. David Badger and Dr. Ken Hartman hope to be able to attend.

If you are able to visit with us, please feel free to bring a business card or some short description of your career pathway. Our current students are always very interested to learn about the multitude of career options

and opportunities. And, if you are unable to visit, we always appreciate hearing from you by phone or email (jwstahl@geneva.edu). 



Current State of the Chemistry Program

Depending on when you attended Geneva, you may have very different memories and impressions of the Chemistry Department and science programs. In this newsletter there is also a brief timeline of key dates in the programs and personnel in our department. You may have taken chemistry labs in any one of three “versions” of the Science and Engineering Building, which was renovated in 1967 and again in 2003. You may have studied under different faculty members. The departmental website (<http://www.geneva.edu/dept/chemistry-math-physics/>) has a variety of information on our program.



Beginning in 2012, we re-organized departments, and Chemistry was combined with Physics and Mathematics as one administrative unit. This grouping is working well, with an additional five faculty members teaching in math and physics.



One of the most significant developments at Geneva in recent years has been the growing strength of the Engineering program, which was expanded to include a Chemical Engineering concentration in 2011. While this major concentration resides in the Engineering Department, we continue to help with advising, oversight, project coordination and job placement for these students. About 80% of the Chemical Engineering students also pick up a second major in Chemistry, which can help open up additional opportunities for entry-level employment. Over the past five years, we have graduated an average of 11 students per year in Biochemistry or Chemistry, of which about half also majored in Chemical Engineering.

Like all ACS-approved programs, we try to involve our students in meaningful research projects. Alumni from the Roy Adams days will recall a long string of projects related to amine-boranes. Recently, we have revived some of this work as a possible route to nanoparticle synthesis. Another area of recent activity has been in bacterial genomics and protein biochemistry, led by Dr. Rodney Austin. Two of his student projects were recognized at regional meetings over the past two years (link: <http://www.geneva.edu/news/2018/06/nr-henry-chemistry->

presentation-award). Other projects, particularly those involving chemical engineering students, tend to be more applied in nature, like biodiesel production methods, measurement of activated carbon adsorption and diffusion parameters, or polymer-composite material characterization.

Our alumni continue to gain admission to graduate and medical schools or to find employment within the field. We have been emphasizing summer research or internship opportunities more in recent years, and these continue to be very valuable experiences for our undergraduate students. Alumni help in identifying such

opportunities is much appreciated!

Under Calvin L. Troup, President, Geneva College continues to emphasize our core values in Christian education. Dr. Roy Adams had this Bible verse posted on his wall: "...and He (Jesus Christ) is before all things, and in Him all things hold together." We may read into this an assertion that Christ is holding together each covalent bond, just as He knows when each sparrow falls. But, in a larger sense, this verse captures the essence of the entire outlook of our department. Jesus Christ before all else, and all aspects of life unified in Christ. As scientists and mathematicians, we do understand that His hand is "holding together" the very stuff of the physical universe. But for today's college students, we also want to lead them in an understanding that all of life "holds together" in the marvelous gospel of Jesus Christ. ☺

The current faculty members who teach in Chemistry are:

Dr. Rodney Austin – Biochemistry and Organic Chemistry

Mrs. Kathy Austin – General Chemistry and Science Education

Dr. Anthony Comer – Chemical Engineering

Mrs. Arletta Cruzan – core science and physics laboratories

Dr. Kerry McMahon – Inorganic Chemistry, Analytical Chemistry

Dr. Melinda Stephens – Organic Chemistry

Dr. John Stahl (chair) – Physical Chemistry and Analytical Chemistry

Geneva Chemistry Department Selected Timeline

1946: Dr. Roy Adams hired.

1948: Dr. Phil Coon oversees an addition onto the east side of S&E including the first chemistry lab with a hood for ventilation.

1957: Dr. Coon retires and Dr. Adams becomes chair.

1958: Chemistry program achieves the "Approved" status of the American Chemical Society Committee on Professional Training.

1962: Dr. Richard South hired to teach Physical Chemistry (and later almost everything in physics, math and computer science!).

~1956-72: Dr. Adams active in research at Callery Chemical Company on boron fuels, including many undergraduate projects at Geneva resulting in two publications and several external grants. Gains national recognition and serves on IUPAC Inorganic Nomenclature committees.

1966-68: Extensive renovation and expansion of S&E building to the south.

1967: Geneva adopts the Foundational Concepts of Christian Education.

1968: Dr. Ken Hartman hired to teach Organic Chemistry and later Biochemistry.

1969: Dr. David Badger hired to teach Inorganic and Analytical Chemistry.

1975-93: Leanne Molnar teaches chemistry labs on a part-time basis and is a friend to many students.

1980: Geneva launches a B.S. Chemical Engineering degree under Dr. Adams leadership.

1985: Dr. Roy Adams retires, but continues part-time teaching. Dr. John Stahl hired to teach Physical and Analytical Chemistry.

1992: new core science class, SCS 110 developed, alumnus Arletta Cruzan eventually hired as part-time lab coordinator.

1994: Engineering Department achieves ABET accreditation, but not yet in Chemical Engineering.

1996-2009: Part-time adjunct faculty Curt Frank adds enthusiasm and insight to our department.

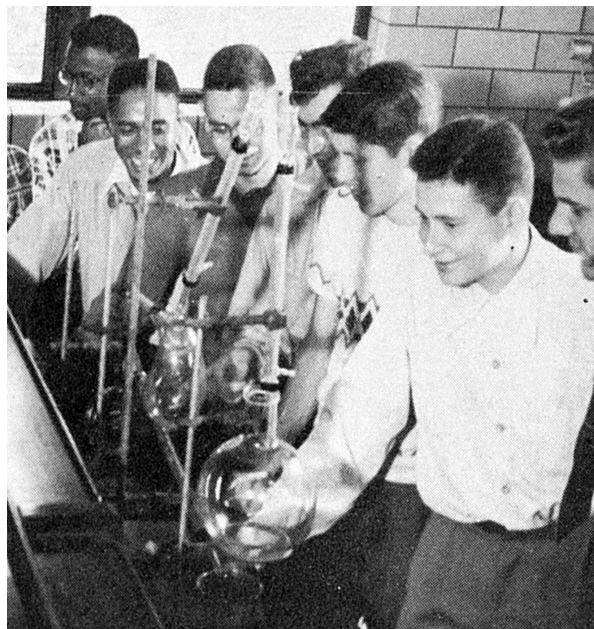
1998: Dr. Melinda (Alward) Stephens hired to teach Organic and Analytical Chemistry.

2003: S&E Building undergoes much needed complete renovation. Dr. Adams passes away and goes home to glory.

2004: Dave Badger retires to fuel testing and archeology. Dr. Kerry McMahon hired to teach Inorganic and General Chemistry.

2005: Ken Hartman retires to build Nursing ABC and Portage Learning online education for pre-nursing. Dr. Rodney Austin hired to teach Biochemistry and Organic Chemistry.

2008: Geneva launches B.S. Biochemistry major



Kathy Austin begins to teach part-time in chemistry and education.

2011: Dr. Anthony Comer hired to teach Chemical Engineering. Chemical Engineering now included as a concentration within ABET accreditation for the BSE degree.

2012: Departmental reorganization. Chemistry, Math and Physics combined as one department administratively.

2014: longtime secretary Kay Mills retires, but the pretzel barrel tradition continues.

2015: Dr. Melinda Stephens named Chief Academic Officer of Geneva, while continuing her involvement with the Chemistry Department to teach Organic Chemistry.

2018: The task of teaching the wonderful details of the chemical creation, along with responsible care for that creation continues with a new generation of Geneva students.

Musings from the Department Chair

God has used Geneva College in the lives of thousands of students for 170 years. My own experience with Geneva began when I met Roy Adams at summer orientation in 1975 as an incoming Chemistry student. Like many others, the next four years of my life were marked by great growth and love for Chemistry, but even more by great spiritual growth and love for the savior Jesus Christ. My eventual return to Geneva as a faculty member in 1985 has given me an even greater appreciation for the value of our educational community as I have worked with wonderful colleagues and students. In these 33 years here, we have watched, taught and mentored nearly 300 students going through our programs in Chemistry and Chemical Engineering. What is more, I have had the joy of meeting many alumni from earlier years.

Our department has had the privilege of working with students from a wide variety of backgrounds, students from Cyprus, Kenya, Cameroon, China, Guatemala, India, Canada and Togo, as well as from all across the US. We have taught second and third generation Geneva Chemistry students. We have watched relationships blossom in the Science library, with a number of chemistry-marriages

resulting. We have seen students go on to graduate school or directly to careers in the whole gamut of technical professional areas from research to customer service, from process engineering to laboratory analysis. We have sent students to serve Christ's kingdom in ministry, either professionally or through their local churches. While we teach the structure, properties, and reactions of molecules in our program, as part of the larger Geneva community, we value the development of the whole person in Christian maturity.

As you reflect back on your Geneva experience, whenever it may have been, we hope you will stay connected with us. Alumni stories are one of my favorite ways to explain to prospective students what sorts of careers and callings can develop from a major in Biochemistry, Chemistry or Chemical Engineering. The science of chemistry and biochemistry continues to grow and change. The students in the incoming class of 2022 have a different set of life experiences and worldviews from those of us from the class of 1979. But the maker of molecules and men does not change. "Jesus Christ... is the same yesterday, today, and forever." It is a joy to be part of the ongoing stream of Geneva science alumni, along with each of you. May God bless and guide you in all that you do.

John W. Stahl '79
Chemistry Department Chair

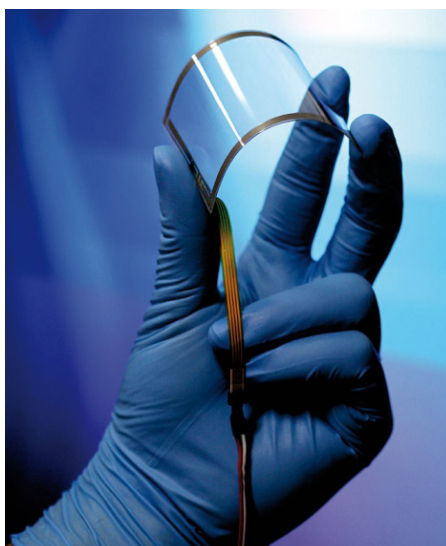


Photo: Byung Hee Hong

Graphene Anyone?

One of the highlights of the Chemistry program's week is the Friday noontime class, CHM 421 Current Topics Seminar. Each semester we choose a topic and examine a series of research papers related to that topic. We also seek to bring in a guest speaker sometime during the semester. The topic for this fall is "Graphene," the single-layer sheet form of carbon which has been the focus of much attention over the past fourteen years. If any alumnus reading this article has research or applications experience with graphene or graphene derivatives AND would be interested in giving a 30-40 minute guest lecture to our CHM 421 class on Friday, October 5, please contact John Stahl as soon as possible to discuss this (jwstahl@geneva.edu, 724-847-6705).