



GROVE CITY COLLEGE
CHEMISTRY
eNEWSLETTER
FALL 2014



Departmental News

From Dr. Tim Homan, Chair

ACS certification for our Chemistry major

It should be no surprise to our alumni that we hold a high opinion of the quality of our programs. Your ongoing success is evidence of that quality. While we are confident of the quality of our program, the department has long held the desire to have our program certified by the American Chemical Society (ACS). ACS certification is a standard that prospective students and parents look to for confidence in the quality of a chemistry program.

In 1998, the College gave the department permission to pursue ACS certification of our program. Dr. Kriley gathered the information about our faculty, curriculum, and instrumentation that the ACS would require, and an application was completed. Our application was informally submitted to a former member of the ACS Committee for Professional Training (CPT) for their personal assessment of our chances for certification. The feedback was negative, in large measure because our faculty contact hours (the number of hours spent in the classroom and the laboratory) were significantly higher than what the ACS wanted them to be. There were also some issues regarding curriculum.

The number of faculty in the chemistry department expanded with the hiring of Susan Cramer in 2002 and Mike Falcetta in 2003 after Dr. Vince Distasi's role in the department decreased when he assumed the role of Chief Information Officer for GCC (and subsequently Vice-President CIO). The increased number of faculty allowed us to reduce our number of contact hours, and so once again Dr. Kriley put in the effort to gather the information and prepare an application. It was submitted to the ACS, and he and Dr. David Jones (department chair at that time) were invited to meet with the CPT at the ACS National Meeting in Anaheim in 2004. While the review did find that our contact hours were within their recommended guidelines, they still had issues with aspects of our curriculum. I had assumed the position of chair of the department in the intervening time. We replied with curricular changes to meet their concerns, but were told that we would need to establish a track record of having made those changes.

The department conducted a major curriculum review during the 2008-09 academic year using the ACS CPT guidelines in the process and changes to the curriculum were approved in the Fall of 2009. After completing two academic years with the new curriculum, Dr. Kriley began the preparation of a new application and the department submitted it to the ACS in the Fall of 2012. He and I were invited to meet with the CPT in New Orleans at the ACS National Meeting in March, 2013. We had a productive meeting with the committee. This time, in the Fall of 2013, we were informed that our application merited a site visit by their representatives as the next step in the process.

On March 26, 2014, two representatives of the CPT arrived in Grove City. The entire faculty had dinner with them that evening. The following day the representatives held a series of meetings. They first met with the entire department, asking us a range of questions about our program and facilities. The rest of the morning they met with the Dean of the Hopeman School, Stacy Birmingham, then the Provost, Robert Graham, and finally then-

President Richard Jewell, as they examined GCC's commitment to the chemistry program. They had lunch with some of our students, and then met with faculty individually throughout the afternoon. They submitted a written report of their visit to the CPT, who reviewed the report.

I am pleased and proud to report that I received a letter in August informing me that our chemistry program has been approved by the ACS. We can grant our graduates who meet the ACS guidelines an ACS certified degree beginning with our graduates in 2015. Grove City College is now listed on the ACS website in their list of ACS-Approved programs.

(https://portal.acs.org/portal/acs/corg/coldfusionapp?nfpb=true&pageLabel=mapp_cptasl_page)

We, the current faculty of the GCC Chemistry Department, are grateful to the faculty who have gone before us and laid the foundation we have been able to build on to reach this accomplishment. We also want to thank the support of the Administration over the last fifteen years as we have pursued this recognition of our program. And we would be remiss if we did not thank you, our alumni, who are the true measure of our program. Your continued and outstanding achievements are what really set our department apart. Thank you.

Retired Faculty Update

In September, retired faculty member Dr. Ed Naegele moved into Orchard Manor Retirement Home (the facility across Madison Avenue, East of the college). Professor Naegele celebrated his 91st birthday on September 30, and Orchard Manor kindly organized a party in his honor. Current faculty Dr. Augspurger, Dr. Conder, Dr. Homan, and Dr. Kriley, along with fellow retired faculty Dr. Sodergren, joined Dr. and Mrs. Naegele for the occasion. Mrs. Naegele continues to reside in their longtime home in Grove City.



Retired faculty Dr. Ed Naegele and Sara Naegele at Orchard Manor. Pictured below are retired faculty Dr. Arnie Sodergren and current professors Dr. Joe Augspurger and Dr. Harold Conder.



2014 Chemistry and Biochemistry Graduate News

Here is what our 2014 graduates are doing now:

Dan Ackerman (Biochemistry) – pursuing a PhD in Biological Sciences at Carnegie Mellon University.

Gabbie Ahrens (Chemistry) – Laboratory Assessor at AAshto Materials Research Laboratory.

Tommy Bloom (Biochemistry) – pursuing an MD degree at Penn St., Hershey.

Rob Brackbill (Biochemistry) – pursuing a DO degree at Lake Erie College of Medicine.

Laura DiFalco (Chemistry) – working for Solvay Chemicals.

Julia Haines (Biochemistry) – pursuing a law degree at the University of Chicago.

James Kintzing (Chemistry) – pursuing a PhD in bioengineering at Stanford, funded by an NSF Doctoral Fellowship.

Arleigh McRae (Biochemistry) – joining the Coast Guard.

A. J. Motta (Biochemistry) – pursuing a PhD in pharmacology at Duquesne University.

Sarah Schubert (Biochemistry) – working in technical sales for the Lord Corporation.

Jedediah Seltzer (Biochemistry) – pursuing a PhD in microbiology at the University of North Carolina.

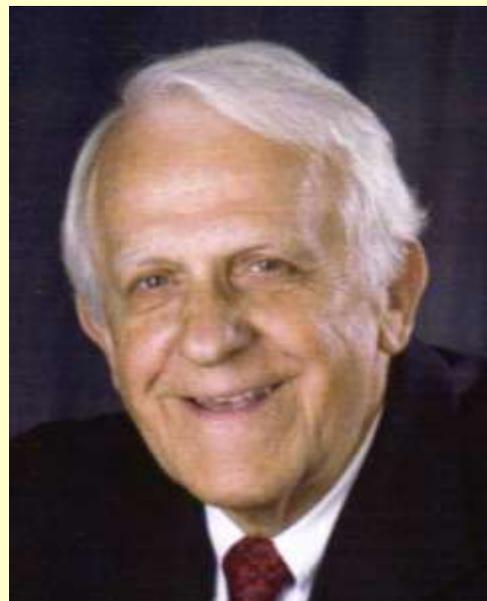
Jennifer Toth (Chemistry) – pursuing a degree in pharmacy at North East Ohio College of Medicine.

Jonathan Wood (Chemistry) – working for Cambridge Isotopes.

Congratulations to this excellent class!

Alumni Spotlight (Part I)

What do spectroscopy, analytical chemistry, and Pittsburgh have to do with each other? Every year, the largest conference and exposition of laboratory equipment in the world occurs at PittCon, the Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy. It was originated and still sponsored by the Spectroscopy Society of Pittsburgh (SSP) and the Society of Analytical Chemists of Pittsburgh (SACP), even though it has grown too large to be held in Pittsburgh. Our chemistry department has benefitted from these societies' support of education through numerous grants over the past twenty years. Through their generous grants we have been able to purchase an HP diode array, a Perkin Elmer UV-Vis spectrometer, a Perkin Elmer 1600 FTIR, an Ocean Optics UV-Vis, an ion chromatograph, a gas chromatograph, a fluorescence spectrometer and portable sensors from Vernier to create a water analysis lab for the freshman chemistry lab.



Alumnus Jerry Carlson (CHEM, '54) has enjoyed a successful career which has included significant involvement in PittCon. This edition of our "Alumni Spotlight" will be different from previous editions. It will carry on into next semester's edition, so that the history of Pittcon can be highlighted as well as Jerry's career.

Upon his graduation from GCC in 1954, at the encouragement of Dr. Creig Hoyt, Head of the Chemistry Department and Dean of the College (for whom Hoyt Hall was named), Jerry obtained a position at the Mellon Institute of Industrial Research in Pittsburgh. The Mellon Institute was the creation of Robert Kennedy Duncan, a visionary in the 1930's who saw the value of chemistry-related companies having their own research groups. The Mellon family believed in Duncan's concept and built the Mellon Institute.

This was a rare opportunity as at that time the Mellon Institute was home to the research activities of about 50 of the major chemistry-related companies in the United States, and at one time there were 4 Nobel Laureates on the staff of the Mellon Institute. World War II created a demand for quality steel products, and quality was measured by wet chemical means. Russell Sayre, a chief chemist for US Steel, initiated meetings with other chemists, and the Mellon Institute opened its facilities to the impromptu meetings. The meetings continued after the war and lead to the formation of the Analytical Division of the Pittsburgh Section of the ACS, which subsequently became the Society of Analytical Chemists of Pittsburgh (SACP).

Simultaneously, scientists from the Allegheny Observatory under the direction of J. Keiven Burns were developing spectrochemical analytical techniques. Burns developed the talent of Mary Warga, who became a Professor of Physics at the University of Pittsburgh. Warga organized meetings and discussions on emission spectroscopy, and supervised the work of hundreds of scientists and technicians in the Pittsburgh region who were training for work in this new field of analytical spectroscopy. Her efforts led to a series of meetings held at the University of Pittsburgh and at Mellon Institute and in 1946 the Spectroscopy Society of Pittsburgh (SSP) was formed. This group, like the analytical chemists, began holding annual one and two day meetings at Mellon Institute but also invited instrument manufacturers to exhibit instruments during recesses of the symposia. These meetings soon taxed the facilities available at the Mellon Institute.

In 1948, discussions began about combining the analytical chemistry and spectroscopy symposia. C. Manning Davis and Jack Anderson representing the SACP and J. Raynor Churchill representing the SSP discussed the idea of combining the analytical and spectroscopy symposia and the planning for a joint conference was

initiated. Committees were formed and plans were laid for the first meeting of The Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy to be held in downtown Pittsburgh on February 15-17, 1950. The early leaders of the Conference believed that developing the most extensive technical program they could envision would serve to attract the widest possible audience and most noteworthy speakers, but today it is accepted that the synergy between the technical program and the exhibiting instrument companies was the format that spurred the rapid growth of the fledgling Pittsburgh Conference.

In its formative years, founders of the Conference made several decisions which have contributed to the strength and durability of the endeavor. It was decided that the Conference would be staffed and run by members of the two societies and that there would be no paid employees. The officers and committee chairmen would alternate between the two societies, with the SSP being in charge one year and the SACP the next. The President and Committee Chairmen would rotate each year, using the Chair – Chair-Elect system where the Chair-elect would learn his new position by “shadowing” his Chairman throughout the year. New members appointed to the Committee were to be selected from the roles of the two Societies and generally were expected to work their way up from the more menial positions to the presidency depending on their abilities and commitment. This system insured that a pool of candidates, trained in the basics of running the Conference, would be available to continue the operations and traditions of the Conference, as older members were lost by attrition. The founders of the Conference also insisted that exhibitors of lab instruments and supplies would be welcome despite the warnings of the academic community that this would have a negative impact on attendance. Later, the conference organizers decided that the exhibits and the program rooms and other functions of the Conference must be within easy walking distance of each other and not spread out over several hotels as other larger meetings were doing.

Jerry became a member of SSP in 1954 when he began his position at the Mellon Institute. He was assigned to the Spectroscopy Laboratories working under Foil A. Miller, a prominent molecular spectroscopist. He was recruited to serve on the Pittsburgh Conference Committee as an aide at the 1955 and has participated in every Conference since except for the 2013 Conference which he missed because of a broken hip.

His position at Mellon included the opportunity to take graduate classes at Pitt, and he took advantage of this opportunity to earn an MS degree in 1957 and a PhD in Physical Chemistry in 1961. At the time he received his PhD, the Mellon Institute was undergoing a reorganization as fundamental research groups supported by government grants were replacing the industrial sponsored groups. As a result of this reorganization, he spent one year at the Alcoa Research Laboratories but was then invited to return to Mellon Institute to take a position as Head of the Spectroscopy Laboratories in the Analytical Services Division.

After nearly 10 years as serving as an Aide, he was invited in 1964 to join the Pittsburgh Conference Committee as Chairman of the Registration Committee under the Presidency of Bruce LaRue. This was followed by the Chairmanship of the Program Committee for 1967. That same year the Mellon Institute was merged with Carnegie Institute of Technology to create Carnegie-Mellon University. This resulted in another major reorganization of the Institute and he was assigned the title of Director, Analytical and Research Services at CMU.

Meanwhile, his involvement with the Pittsburgh Conference continued to grow. He was selected as President of the 1969 Conference representing the SSP. Since its inception in 1950, the Conference had been held at the William Penn (later the Penn Sheraton) Hotel in Pittsburgh and by 1968 it had grown by a factor of almost 10 to an attendance of 5400 with 380 exhibit booths. This was pushing the hotel (and the City of Pittsburgh) to its limit in the size of meeting it could accommodate, but the Committee remained very parochial and strongly resisted moving to another city with larger convention facilities. Then, in 1968, a strike by union workers at the Penn Sheraton Hotel forced the meeting to move to Cleveland where it remained until 1980. (For a time it was informally known as the Cleveburgh Conference). This move would ignite a growth spurt that culminated in a record attendance of 34,079 at the 1996 meeting in Chicago. The exhibits continued to grow beyond this high water mark in attendance to 3304 booths in New Orleans in 2000.

Putting on a convention in a larger convention city was quite different than the friendly confines of Pittsburgh. The biggest shock was dealing with the unions which essentially ran the convention halls. Where in Pittsburgh our exhibitors were accustomed to putting up their own booths, in Cleveland they soon discovered they could not do anything without contracting for union laborers, electricians, carpenters, etc. which greatly impacted their costs of exhibiting at the meeting. This caused great friction on the exhibit floor and the tone of the entire conference was affected. The business community of Cleveland was learning that Pittcon brought a lot of money to Cleveland and were startled when Jerry gave an interview to the Cleveland Plain Dealer that it was unlikely that Pittcon would return to Cleveland unless our exhibitors could get some accommodations with the union. Mid-week, he was having dinner with some friends from the Pittsburgh Convention and Visitors Bureau when the Manager of the restaurant introduced me to a short, swarthy man in a well-tailored suit whose business card said "Babe Troiano, Eastern Vice President of the Teamsters Union". He looked me in the eye and politely said, "You ain't going to have no more trouble". We shook hands and he left, and true to his word, we spent the next eleven years in Cleveland without further major incidents with the union.

Another of Jerry's contributions to The Pittsburgh Conference was the design and commissioning of the Conference logo. He feared that as they stayed away from Pittsburgh, they would lose their Pittsburgh identity, so he introduced a logo that would be a constant reminder of its Pittsburgh roots. The logo was based on the 3 rivers and golden triangle emblematic of Pittsburgh, the triangle symbolizing a prism, and an analytical balance was superimposed upon it. This logo has served for 45 years as a reminder that it is the **Pittsburgh** Conference on Analytical Chemistry and Applied Spectroscopy.

As the Conference had grown while in Pittsburgh it had generated relatively small, but increasing, amounts of profits which were returned to the SSP and SACP as the owners of the Conference. The Societies used this money for their operating expenses, but also developed programs where the excess profits could be granted to schools, colleges, and other organizations for the promotion of science and science education. From a humble beginning, these programs have grown to where each Society now distributes about \$500,000 per year to these programs. These funds have been the source of the grants the GCC Chemistry department has received to buy instrumentation over the past twenty years.

Jerry's story and this account of PittCon will be concluded in next semester's edition of the GCC Chemistry eNewsletter.

