



In Conjunction with the American Chemical Society
Student Affiliates at the University of Pittsburgh



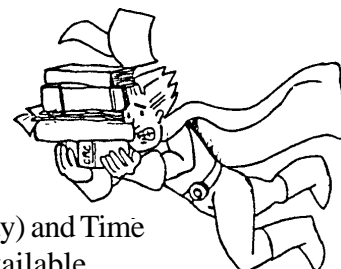
Volume 14, Issue 2

October 3, 2004

REGISTRATION

SET DATES:

- October 28:** Registration begins for Spring Term 2005-2 for **Seniors Only**.
- October 28:** Add/drop begins for Spring Term 2005-2.
- October 31:** Happy Halloween--Standard Time Begins--Set your clocks **BACK!**
- November 1:** Registration begins for Spring Term 2005-2 for all **other degree seeking** students.
- November 8:** Registration for non-degree students.
- November 19:** April 2005 (05-2) graduation applications due in 140 Thackeray Hall.
- November 24-
November 28:** Thanksgiving Recess. **NO CLASSES!!
Have a great Holiday!**



NOT SO SET DATE:

- October 25:** Spring Course Descriptions (140 Thackeray) and Time Schedules (G-3 Thackeray) should be available.

WHEN SHOULD YOU SEE YOUR ADVISOR?

Advisees who already **have a permanent advisor** should make their registration appointments with that advisor on or after October 27. Remember records will not be available before October 21.

Advisees who (via a letter to be sent October 11) were asked to select their permanent advisors should do so after October 18. See George Bandik or Regina Mahouski in 107 Chevron Science Center.

New advisees (those who have **NOT** registered with the Chemistry Department before) should make an appointment with George (Room 107 Chevron) or Dr. Huston after October 25.

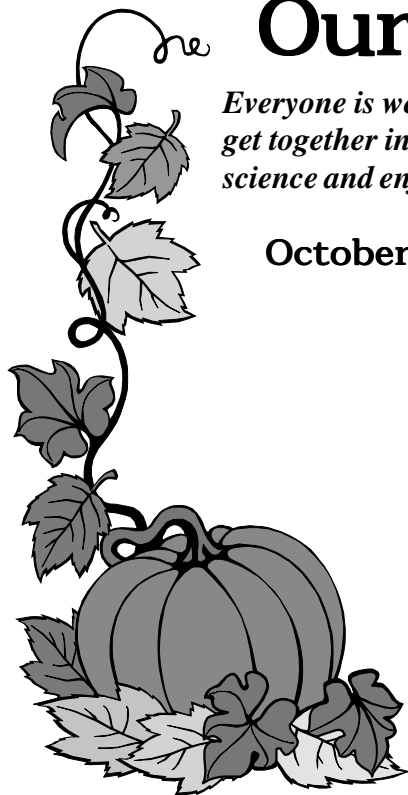
Derek Miller-Newsletter Editor, Sarah Bell, Joan Fletcher,
Chris LaRocca, Lilly Roy, Aaron Kessler, Justin Chalker, Christina Pampena, Michelle
Morgan, David Schoppy, Josh Pierce and Regina Mahouski

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Our October Schedule

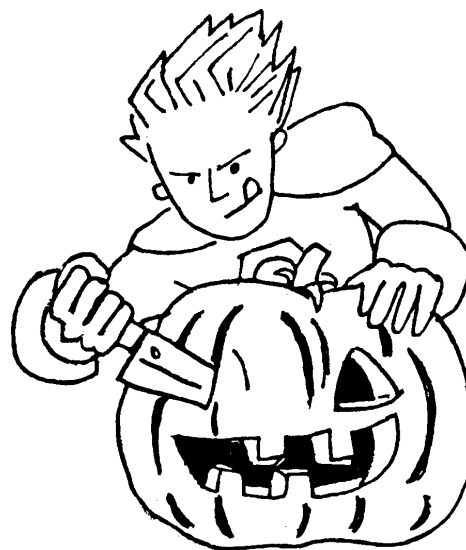
Everyone is welcome to attend our weekly ACS-SA meetings. Every Friday at noon we get together in 132 Chevron Science Center to hear interesting talks, learn more about science and enjoy each other's company. Come join us for all of the following meetings.

- October**
- 01** The Preprofessional Timeline
Ms. Jenn Cwiklinski, Preprofessional Advising
 - 08** Preparing for National Chemistry Week 2004
Health and Wellness with Justin
 - 15** Registration Time with George
and our Fall Birthday Celebration
 - 22** Halloween Extravaganza with Pumpkin Painting
on the Front Patio
 - 29** Green Chemistry at Sunoco
with Dr. Jeff Salek



Halloween Pumpkin Fest

Come join the fun this October 22nd as we drink apple cider and paint pumpkins on the patio in front of Chevron. Bring candles, dress up or do other Fall like things as the mood strikes you. BYOB (bring your own **blankets**...preferably flannel since we have a theme going and all). Come to a meeting or see George with suggestions or for more details. **Also if you have any other useful suggestions e-mail us at dmm132@pitt.edu.**



Who's This BEN Guy, Anyway???

Benzoyl Peroxide the Free Radical Man (affectionately known as Ben) is our ACS-SA mascot. You have probably seen him around the chemistry department and on our yearly ACS-SA T-shirt. From now on when you see Ben, think of the ACS-SA. Why not come to a meeting to learn more about what we are all about. Fridays at Noon in 132 CHVRN.



Once again, we decided to challenge your minds. In honor of Halloween, our October sweepstakes entails questions about goblins and ghouls. Please turn in your completed form at any ACS meeting during October to win this months prize.

Thanks, and Good Luck! Derek Miller, Co-Editor

OCTOBER 2004 QUESTIONS

- Every Halloween, Charlie Brown helps his friend Linus wait for what character to appear?
A. *The Grinch* B. *The Great Pumpkin* C. *Godot* D. *Pigpen* E. *St. Swithin*
- What do folk traditionally “bob” for at Halloween parties?
A. *Skulls* B. *Rodents* C. *Apples* D. *Oranges* E. *Pumpkins*
- Which country celebrates “The Day of the Dead” instead of Halloween?
A. *Norway* B. *England* C. *Mexico* D. *Uganda* E. *Israel*
- Pumpkins grow on...
A. *A tree* B. *A stalk* C. *A bush* D. *A vine* E. *An underground stem*
- What are male witches called?
A. *Morlocks* B. *Manwitches* C. *Warlocks* D. *Sorcerors* E. *Gingriches*

Answers to our September Sweepstakes

- Sarah Bell and Joan Fletcher
- Sir Humphry Davy
- 107 Chevron Science Center
- 4.1×10^{22} N atoms
- Benzoyl Peroxide, the Free Radical Man
- 99% pure gamma isomer of hexachlorocyclohexane and is used for lice control
- Your choice here
- Chris LaRocca
- Come to meetings
- Volunteer for outreach programs and other possibilities



A Few Important Reminders:

Chem 1140-Preparative Inorganic Chemistry is our advanced inorganic laboratory course offered each Spring Term. **Chem 1130**-Inorganic Chemistry is a pre or co-requisite for this course. If you are working towards an ACS-Certified degree, this course is a degree requirement.

If you have wondered about what goes on the upper floors of our building you might want to consider registering for **Chem 1700**. This one credit seminar course allows two different faculty members each week to speak on their own research interests. Over 70% of our graduating seniors in Chemistry participate in our undergraduate research program and this course is a great way to learn more about your options and your department.

Finally, if you are interested in pursuing an honors degree in Chemistry the requirements students must have are:

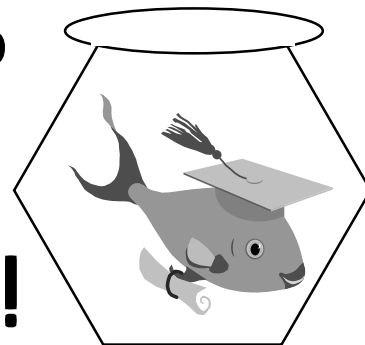
- (a) an overall QPA of 3.00 or better
- (b) a chemistry QPA of 3.25 or better
- (c) have completed at least 2 credits of Chem 1710-Undergraduate Research
- (d) completed Chem 1711-Undergraduate Research Writing.

Good luck as you strive towards academic excellence!

Uncle Sam's Hoagies!!



STOP AND GAIN!



The fishbowl is a great place to gain information about internships, job opportunities and other things of interest to science majors. Stop and check the bulletin boards for the latest information. Things are added on a regular basis.

COMEDY CORNER....

Great events in Chemistry...



1865: Kekulé, moments before his brilliant insight into the structure of benzene.



Candy Corn: Just Where Did It Come From....

with an introduction by Derek Miller, Editor

Anyone who has gone to George's Office over the last few weeks must have seen the candy corn on his desk. You might have grabbed a handful on your way out. I did and as I ate it I was wondering about the origin of these tasty morsels. Read on to learn what I found out about the history of these little yellow, orange, and white kernels at:

<http://www.hauntedbay.com/history/candycorn.shtml>

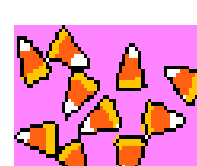
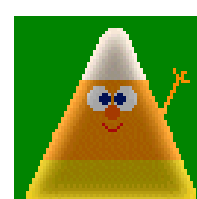
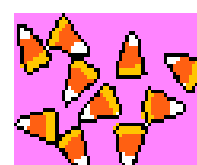
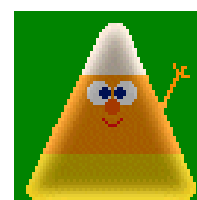
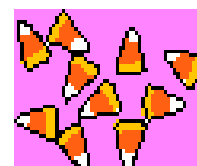
Who the first person to make these tasty treats was is unknown but the Wunderle Candy Company of Philadelphia was the first to go into commercial production. However, the company most closely associated with this wonderful confection is the Goelitz Confectionery Company. Founder Gustav Goelitz, a German immigrant, began commercial production of the treat in 1898 in Cincinnati and is today the oldest manufacturer of the Halloween icon.

Making candy at the turn of the last century wasn't the highly mechanized, year-round activity it is today. Candy was manufactured seasonally from March through November. Large kettles were used to cook the basic ingredients of candy corn, sugar, water, and corn syrup into a slurry. Fondant for smooth texture and marshmallow for a soft bite would be whipped in. When the right consistency was reached the hot candy would be poured into hand-held buckets called runners. Each runner held 45 pounds of the hot mixture.

Next, men called stringers would walk backward pouring the steaming candy into trays of cornstarch imprinted with kernel-shaped molds. Three passes were made, one for each color: white, orange, and yellow. A strenuous job at best before the days of air-conditioning and electric fans.

All this strenuous labor wasn't lost on the tiny candy. It's tricolor design was considered revolutionary for its time and people flocked to buy them. Their shape was also a big selling point for the mostly agrarian population of the early 1900's. So popular was candy corn that companies tried other vegetable shapes including turnips. The Goelitz Candy Company even had to turn orders down for lack of production capacity.

Candy corn was originally sold in bulk containers like most foods products of the time. They were packed in wooden buckets, tubs, and cartons to be delivered by wagon and train over relatively short distances. Perishability prevented widespread distribution.



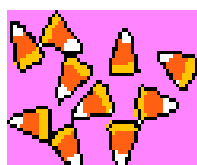
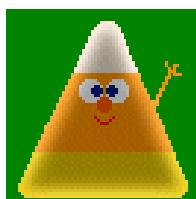
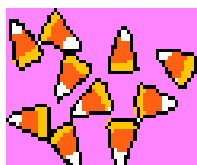
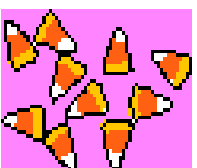
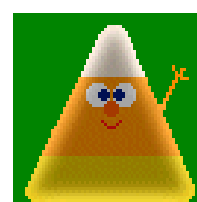
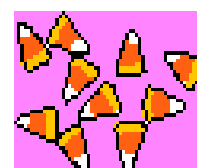
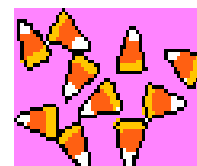
During WWI, Herman Goelitz, son of Gustav, moved to Fairfield, California to start his own company, the Herman Goelitz Candy Company. Their product? Candy Corn! The fortune of the Halloween treat would rise and fall many times as recession and boom, war and peace, affected the humble confection. Throughout the hard times it was the sale of candy corn that kept the companies afloat. In the sugar crisis of the mid 1970s when the price of raw sugar skyrocketed the company had to borrow heavily to buy sugar to keep production up. After the crisis the market plummeted. Many companies went out of business. It was demand for the candy corn that kept Goelitz from bankruptcy.

Today you won't have to look very hard to find candy corn. Computer and machine aided production have made them a plentiful staple no matter what time of year. So plentiful in fact that according to the National Confectioners Association, in 2001 candy manufacturers sold more than 20 million pounds of candy corn. Roughly 8.3 billion kernels! Very impressive for a product that has remained virtually unchanged for well over 100 years.

Perhaps best of all, everyone can feel comfortable about enjoying tasty kernel or two. According to the American Academy of Pediatric Dentistry, candy is no different than a slice of bread, bowl of cereal or a cracker when it comes to causing tooth decay. Any food that contains sugar or starch can cause tooth decay – especially if one doesn't brush and floss daily. So grab a bag of candy corn and enjoy. Just remember to brush your teeth after.

Candy Corn Quick Facts

- * *Candy corn has 3.57 calories per kernel*
- * *Halloween accounts for 75% of the annual candy corn production*
- * *Candy corn isn't just for Halloween there is also:*
- * *Reindeer corn for Christmas (red, green, and white)*
- * *Indian corn (it's chocolate and vanilla flavored)*
- * *Cupid corn for Valentine's Day (red, pink, and white)*
- * *Bunny corn for Easter (pastel-colored)*



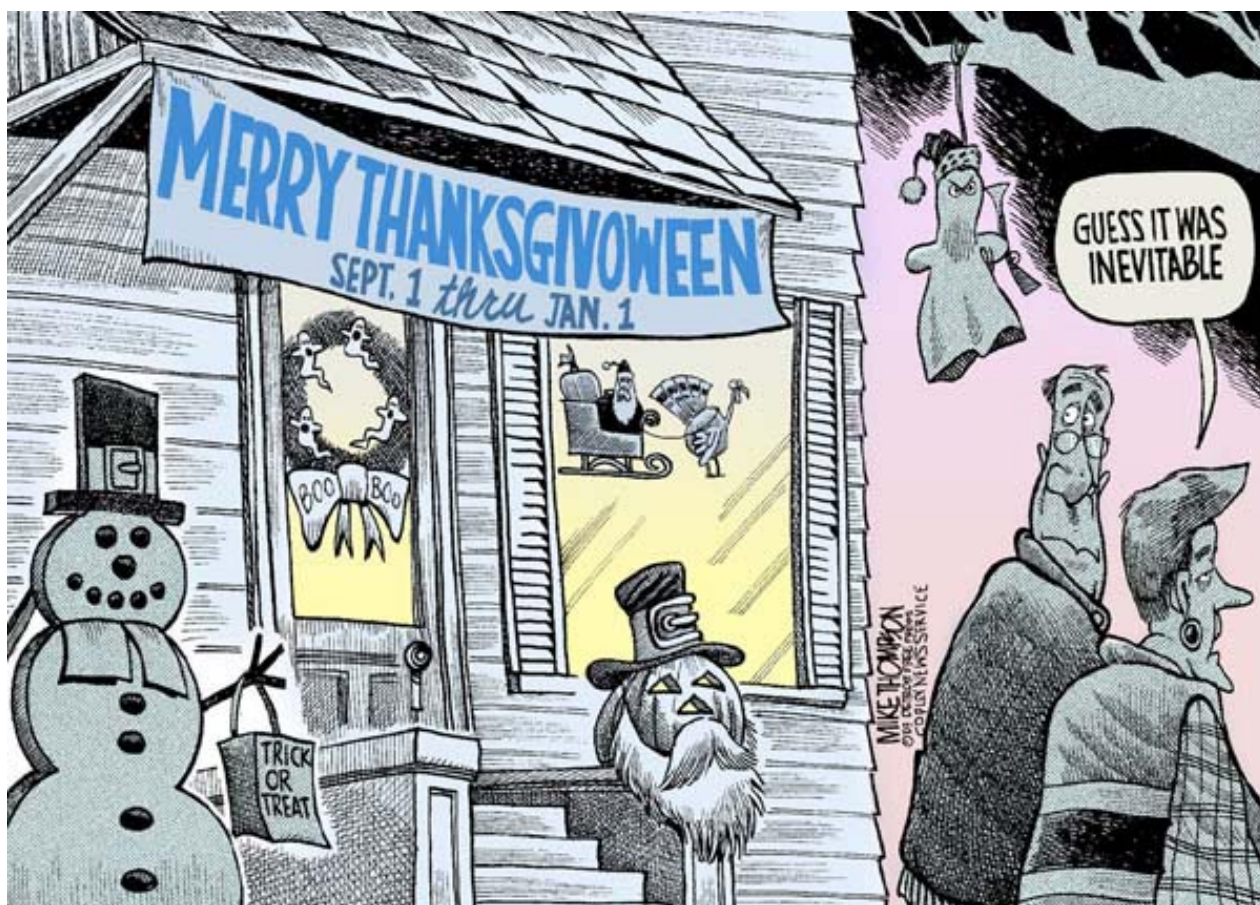
So Far this year...

What event features George, hundreds of naïve freshmen, and gallons of potentially dangerous chemicals? You got it, the 2004-2005 Annual Freshmen Activities Fair. This year the Activities fair was held on Sunday August 29th and an army of volunteers from the American Chemical Society showed up to help make slime and recruit new members. It was a great time for all as members handed out flyers and applications to all who were within arms reach. Freshmen and upperclassmen alike learned how to make slime.

Basically, slime is nothing more than 4 parts polyvinyl alcohol (4% w/v H₂O) to 1 part sodium borate (4% w/v H₂O). “When the PVA is dissolved in water, a thick, syrupy solution results. When borax is added to the PVA solution, the chains of PVA cross - link to form a *viscoelastic* gel. The cross linking is weak, so the links continually form and break under the weight of the gel, or with handling. Leave a ball of the slime on a flat surface, and it slowly flattens out as the molecular chains slide over each other, rearrange themselves and reconnect. But if you pull suddenly on the material, it snaps.” [<http://www.west.net/~science/slime.htm>]

Right now, some of you may be saying: “That sounds really cool” and “How can I get involved?” The ACS at the University of Pittsburgh does just about everything. You can tutor students in the fishbowl, you can sell hoagies, you can help teach high school students about the wonders of bonding, and you can even write for the newsletter and that’s just scraping the surface. There’s something for everyone in Chevron, all you have to do is show up and lend a hand.

COMEDY
CORNER





CSI – Crime Scene Intern

by: David Freehling

In honor of Halloween our feature article this month takes us to the Allegheny County Coroner's Office and crime scene investigations. Read on as David Freehling shares his summer intern experience with us.

This summer I had an opportunity to intern at the Allegheny County Coroner's Office under Coroner Cyril H. Wecht M.D., J.D. The primary function of the Coroner's Office is to investigate the circumstances surrounding unexpected, suspicious, or violent deaths. As an intern I was exposed to every facet of the Coroner's Office, from investigating deaths with experienced deputy coroners to assisting pathologists and technicians during autopsies. The experience was very "hands on"; being an intern didn't mean that I had to stand in the background and watch what everyone else was doing. I was treated like any other employee, and if I felt comfortable in doing something then I would be given the opportunity to do it. I worked two days a week, a 3 to 11 pm shift on Thursday evenings followed by a 7 am to 3 pm shift Friday mornings. Our shifts were set up this way (nearly back-to-back) so that if we brought in any cases on Thursday night we could follow-up on them or assist in the autopsy the next morning.

I primarily worked in the Deputy Coroner's Office investigating deaths. If a suspicious or violent death was reported to the office we were dispatched to the scene. Upon arrival, we would receive all of our information from police or paramedics and our investigation would begin. I performed various duties at a scene: taking a liver temperature to determine how long the victim had been dead as well as whether there might be any uncommon diseases or illnesses present, gathering evidence (needles, drugs, rope, etc..) and taking photographs of the scene and the victim. This is an invasive procedure and is best done if family members of the victim are not present. Once the scene had been deemed safe, the body was placed into a body bag and removed from the site. The body was taken back to the Coroner's Office and autopsy was performed early the next morning.

Working at the Coroner's Office this summer was an experience like no other and I highly recommend it to anyone interested in pursuing a career in forensic science. Going to work each week was exciting because I never knew what I was going to see next. While you never get used to handling scenes involving gunshot victims with spattered brain or maggot infested bodies, you do begin to realize that this is part of every day life for a forensic scientist. I really believe my experience this summer will have a major impact on my undergraduate performance as I prepare for a career in forensic science.

For information on obtaining an internship with the Allegheny County Coroner's Office go to:

<http://www.county.allegheny.pa.us/coroner/intern.asp>

or e-mail them at

webmaster.coroner@county.allegheny.pa.us

INTERNSHIP OPPORTUNITIES FOR SUMMER 2005

The Bettis Laboratory is looking for candidates in engineering, science, and business disciplines who are seeking opportunity and challenge. We are interested in undergraduate and graduate students majoring in metallurgical, electrical, mechanical, chemical, computer, welding and nuclear engineering. Students majoring in material science, numerical analysis, computer science, chemistry, physics, mathematics, welding environmental health and business management (accounting, human resources and finance) will also be considered. Employment at the Laboratory will offer students a unique opportunity to participate in the important work that we do for the nation and to work with some of the finest technical people in the country. We plan to have 30 students for the Summer of 2005.

Bettis Laboratory (formerly Westinghouse Bettis), is a research and development facility operated by Bechtel Bettis, Inc. for the Department of Energy. The Laboratory is located near Pittsburgh, Pennsylvania. Design, development and operational follow of nuclear reactor power plants for propulsion of naval vessels is the primary focus of the work being conducted. The Laboratory employs approximately 2,060 people, predominately engineers and scientists. All candidates must be U.S. citizens. Applicants selected will be subject to a Federal background investigation and must meet eligibility requirements for access to classified matter.

Internship positions are hourly paid positions with flexible beginning and ending dates. Because the work being conducted is of a highly sophisticated nature, the Laboratory is seeking applicants who have a record of high academic achievement. To qualify, candidates must have completed their sophomore year before beginning to work, and have a grade point average of at least 3.20 on a 4.00 scale. For additional information, visit our website at www.bettis.gov.

Interested students need to submit a resume, cover letter and an unofficial copy of their transcript to the Summer Intern Program Coordinator, Bechtel Bettis, Inc., P.O. Box 79, West Mifflin, PA 15122, by **October 8, 2004**. This information may also be faxed to 412-476-5363 or e-mailed to interns@bettis.gov.

Any questions should be directed to the Chairman of the Summer Intern Committee at 1-800-296-5002 extension 5897 or the Program Coordinator at extension 6574.

Nikki P. Konyk

Senior Human Resources Representative/Intern Coordinator

Staffing and Employee Services

Bechtel Bettis, Inc.

Bettis Atomic Power Laboratory

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