



American Chemical Society

How to Run a Successful Student Chapter

TIPS FOR

- Getting and Keeping Members**
- Providing Successful Chapter Activities**
- Funding Chapter Activities**
- Working with ACS**



ACS
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A Guide to Successful Membership Recruitment

Chapter Officers and Faculty Advisors Share Their Best Ideas for Obtaining New Members

BY LORI BETSOCK

People are the heart of any ACS student chapter. Without new members to take on active roles, chapters can languish as older members graduate and move on. New members infuse vitality, skills, and experience that can benefit the chapter itself, the institution, and the broader community.

While recruiting new members for your ACS student chapter can sometimes seem like a daunting challenge on a college campus, having an active recruitment program is vital for your chapter's success. For many successful chapters, the first step is to form a membership committee charged with creating a recruitment strategy (sometimes, this same committee is also responsible for carrying out the planned recruitment activities). These activities are as varied as the chapters themselves, and this article explores some of the many ways chapters are successfully recruiting new members.

Target freshmen

Consider recruiting incoming freshmen as chapter members.

While many upperclassmen are overextended with activities, freshmen are often an eager, but untapped, resource with few extracurricular commitments.

Some chapters begin recruiting freshmen during the summer, weeks before the fall term begins. Recruitment activities at the University of St. Thomas in Houston, TX, begin in July during the Science and Mathematics Summer Institute for entering freshmen. The chapter also has a booth at the freshman orientation fair in August, before



COURTESY OF XAVIER UNIVERSITY OF LOUISIANA

The student chapter at Xavier University of Louisiana begins its recruiting efforts before the fall term begins, targeting incoming freshmen.

classes start. At both events, prospective members receive a brochure describing the advantages of becoming a chapter member and a listing of past activities and planned activities for the upcoming year.

The student chapter at Xavier University of Louisiana in New Orleans also extends the welcome mat to freshmen before classes begin, sending invitations to all incoming chemistry majors to join the ACS student chapter and participate in the university's mentoring program for first-year students.



Membership recruitment is an ongoing process at South Texas College.

Veteran chapter members at the University of Detroit Mercy (UDM) in Michigan add a personal touch to encourage freshmen majoring in chemistry and biochemistry to join the chapter by contacting them through Facebook or by e-mail. The members introduce themselves and attach their photo. If the freshmen later attend a meeting, they will see at least one familiar face and feel welcome. The chapter also teams up veteran members with new members during magic shows and other events. This also helps to break down the “age barrier” between freshmen and upperclassmen.

Believe it or not, *sugar* can also be used to attract freshmen to your chapter. At the University of Maryland Baltimore County (UMBC), freshmen are invited to attend the student chapter’s Saccharide Social. This fall event gives freshmen an opportunity to check out the chapter in an informal setting while enjoying sweet treats. Members set up a small fire pit so guests can make s’mores. They also provide caramel apples, apple cider, and a few other treats for prospective members to enjoy.

The UMBC chapter also pairs potential members with experienced members and takes advantage of the ACS Member-Get-a-Member program. Not only do the students enjoy receiving the periodic table of elements blanket throws and backpacks; it’s also a way for members to interact with one another as well as meet some of the chemistry faculty.

Visit chemistry classes

The ACS student chapter at South Texas College in McAllen begins its membership recruitment activities on the first day of classes each semester. Members visit the general chemistry and organic chemistry classes and talk to the students about the chapter and the benefits of becoming a member. They distribute

ACS membership applications and copies of *C&EN* and *inChemistry* to the students and pass around sign-up sheets so they can later contact interested students. Because the South Texas College ACS student chapter is at a two-year college, there is a greater student attrition rate than at a four-year institution — making member recruitment an ongoing necessity.

Participate in student involvement fairs

Involvement fairs also provide wonderful member recruiting opportunities. Each fall, the Campbell University student chapter in Buies Creek, NC, participates in a campus street fair organized by the university. All university clubs and many organizations and companies from the surrounding area participate. The fair primarily serves as a way to introduce incoming students to the various clubs and opportunities around the campus. Chapter members pass out informational flyers and talk with students about joining the chapter. Participating in this event helps to bring in new members and increase the chapter’s visibility among students, faculty, and the community.

Provide incentives to join

Extra credit in chemistry class and food can also lure new members. At UDM, the ACS student chapter holds an annual fall recruitment barbecue,





Prospective members at UDM sign up for chapter activities.



The UDM chapter members refurbished their chapter meeting space to make it more comfortable for members and to attract new recruits.

PHOTOS COURTESY OF UNIVERSITY OF DETROIT MERCY

providing free hot dogs, soda, and other treats to passersby. To encourage science majors to attend, students from freshman- and sophomore-level courses have the opportunity to participate in a drawing to get one to three bonus points for attending the barbecue, signing up on the chapter list server, and having a short meet-and-greet with a veteran club member.

Create good buzz

When potential members hear good things about a chapter from a trusted source, they are very likely to join. East Stroudsburg University in Pennsylvania uses word of mouth to spread the word to potential members about the chapter. Chapter members invite their friends to become members, and instructors of junior- and senior-level courses encourage their students to join the chapter. The East Stroudsburg University student chapter also holds its meetings in a public space, and it has recruited several passersby to join.

Begin chapter activities right away

It also pays to recruit members before they commit themselves to other campus activities. At the start of the fall term, the Xavier University of Louisiana chapter begins its first fundraising activity: visiting all of the general chemistry lectures and lab courses to sell periodic tables and rulers to students. Mem-

bers introduce themselves to the students and invite them to attend the first chapter meeting. Adding to the momentum, the first meeting takes place the first week of school. Last fall, more than 100 students attended the meeting.

Create a welcoming atmosphere

Providing a comfortable, inviting space for chapter members to meet and hang out has been a boon for attracting new members to the UDM chapter. Last year, members completely remodeled their meeting space. They added five coats of paint and new decals, laid new flooring, and replaced some of the furniture, and a bright, fresh space emerged. Members also purchased new furniture and added an old, out-of-tune piano. Everyone has enjoyed using the refurbished space, and it has evolved into a popular gathering place. Many members hang out in the room studying, chatting, and just having fun.

Veteran members at the University of Arizona in Tucson actively strive to create a friendly atmosphere for incoming new members. The veterans realize that devising a membership strategy that brings new members into their chapter is just the first step of an ongoing membership process. Every officer is encouraged to “meet and greet” new faces after each meeting is adjourned. This goes a long way toward retaining new and old members alike and keeping the chapter strong and active.

Whether you use some or all of these recruitment activities — or come up with effective ones all your own — it’s important to the health of your chapter to keep attracting new members. Not only will they make the activities you undertake this year more fun and rewarding... they’ll also be there to carry on the momentum you created after you move on to the next phase of your career path! **IC**

Contributing to this article were Michael R. Adams (Xavier University of Louisiana), Ludivina Avila (South Texas College), Tara Carpenter (UMBC), Ben Dyer (Campbell University), Thomas B. Malloy, Jr. (University of St. Thomas), Matthew J. Mio (UDM), and Brett Stoll (University of Arizona).



Students on the Move

Keeping Commuter and Off-Campus Students Engaged in ACS Chapter Activities

BY BLAKE ARONSON

Keeping members actively engaged in chapter activities is challenging for many ACS student chapters, but especially so for those at community colleges (CCs) and other academic institutions with a high percentage of students who commute from home or live off campus.

While individual situations vary, as a group commuter students tend to be less engaged in campus activities than students who live on campus. Since nearly three-quarters of undergraduates either commute to campus from home or live off campus, ACS student chapters are finding some very creative ways to attract these students and keep them actively involved as members.

Know your members' needs

Tyler Jenish, recent president of the Anne Arundel CC (Arnold, MD) chapter, had a 45-minute commute to campus, which gave him a personal stake in making chapter activities matter to members living off campus. In general, Jenish observes, members "are attentive to their interests" — so it makes sense to select and plan events based on what is most likely to attract attendance and participation. For example, if a large number of chapter members are nursing students, the chapter could invite a nurse to be a guest speaker, or if members are curious about forensic science, the chapter could arrange for a tour of a forensics laboratory.

At Cincinnati State Technical and CC (OH), a large number of students in introductory chemistry courses plan to take higher-level chemistry courses. According to chapter president Kinshasha (Kat) Azariah, these students find opportunities for informal chemistry education provided by an ACS student chapter particularly appealing. "Our hook is that chemistry is a challenge for everybody, so join us and get free tutoring!" she says.

The chapter at Los Angeles City College (CA) focuses on student-driven activities to engage members. One of the first activities chapter members do each year is design their own chemistry show. As faculty advisor Terry Boan jokingly

puts it, "No one ever complains about blowing up a pumpkin." The chapter's president, Ikenna

Onyia, refers to the chapter as a family. The group is tight-knit, and members participate in activities in between semesters. Get-togethers, bike rides, and similar activities help keep the chapter members interacting even when class is out.

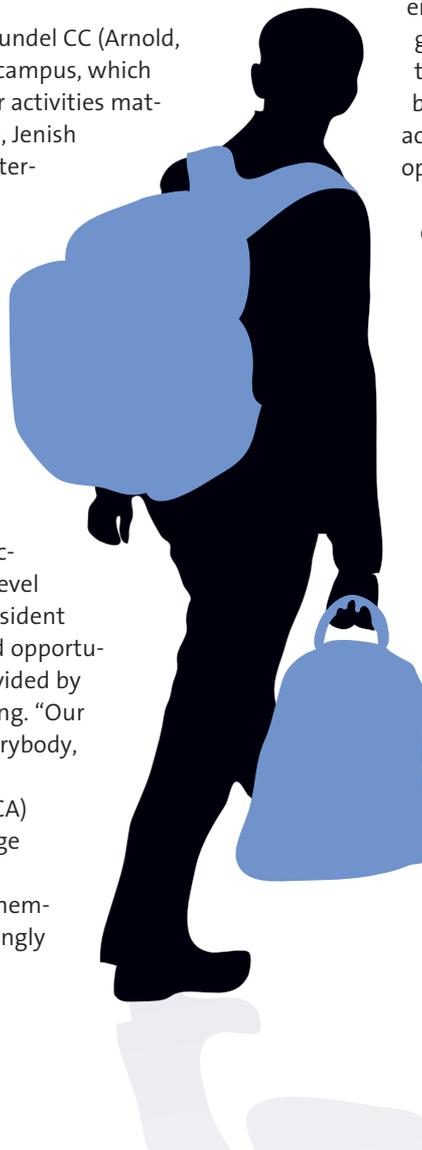
At Saint Louis CC (MO), students frequently go straight into the workplace after graduation, so the chapter activities focus on professional development opportunities. To help members build relationships with potential colleagues and employers, the chapter lines up field trips and guest speakers by working with local businesses that hire program graduates. Chapter members also participate in ACS local section activities, providing valuable networking opportunities.

Recent chapter president Jordan Aach credits faculty advisor Donna Friedman with helping new officers connect their work in the chapter with skills they will one day need in the workplace. For her part, Friedman is effusive regarding the students' skills, noting that by the time they graduate, officers can take minutes, run a meeting, keep records, manage a budget, and set and follow an agenda. "I'm really proud of them," she says.

Be flexible

Commuter and off-campus students are only on campus for a limited part of the day. Transportation issues, inclement weather, jobs, and family obligations can make return trips to campus difficult to impossible.

For these students, convenience and flexibility are essential. Some chapters find that an easy solution is to vary the times of chapter meetings and activities, so





COURTESY OF LOS ANGELES CITY COLLEGE

LA City College chapter activities are student-driven, and members have become very tight-knit. Each year they plan a chemistry show and arrange get-togethers during school breaks so members can stay in touch with one another.

that as many members as possible have the opportunity to participate at least some of the time. Popular times include immediately after large lecture classes, during lunch (especially if you can provide the food), evenings, and weekends.

Best times will depend on how you organize chapter activities and what works best for the students at your school.

For example, the Anne Arundel CC chapter holds weekly officers' meetings in order to plan chapter activities.

Because planning is done primarily by the chapter officers, they are the only ones who need to be present, simplifying scheduling. The activities themselves are held at a variety of times of day, so that there is at least one activity that every member can attend.

In contrast, the St. Louis CC chapter comprises primarily students in the chemical technology program. Because most students are on the same schedule, meetings can be scheduled around common classes. Lunchtime activities are particularly popular.

Flexibility should also extend to the activities themselves.

When the Cincinnati State chapter participated in an all-day campus event, volunteer shifts were only 15 minutes long. The short shifts allowed members to set schedules that worked best for them, even if they could only participate for a few minutes between classes and other commitments.

Make it worth the effort

Participating in extracurricular activities can become a real hassle, especially if members have limited transportation options or

family commitments. So make sure that meetings and activities are interesting and worthwhile. Sometimes professors give extra credit for participation in chapter activities. Mostly, though, chapters focus on what interests their members most.

A little organization can go a long way. Tracy Lynn, faculty advisor for the Anne Arundel CC chapter, tries to ensure that everyone attending a meeting leaves with a specific and manageable action item. She has found that when members know exactly what they need to do, they are more likely to follow through and do the tasks. For activities that require coordination among many people, such as scheduling volunteer shifts for the chapter's National Chemistry Week booth, officers create and share a grid with the names of all the volunteers and their assignments.

The Cincinnati State chapter uses a similar strategy, assigning its members highly focused tasks that can be completed in about an hour. Azariah reports that officers are looking into ways to minimize the amount of time spent in meetings and options for holding virtual meetings.

Use social media

Good communication is essential. For example, the Anne Arundel CC chapter relies on a combination of mass e-mails, Facebook, on-campus bulletin boards, and classroom announcements to share information about activities. Activities are open to anyone who is interested, and membership is open to anyone participating in two or more activities (that's the flexibility mentioned earlier).

Likewise, the Los Angeles City College chapter uses Google Groups to keep in touch with members and schedule activities. Chapters also use other social media, such as the ACS Network,



ISTOCK





LEFT: Cincinnati State chapter members Kinshasha (Kat) Azariah, Sharonda Hall, Triska R. Thomas, and Jeremy Sauerland converse at a recent meeting.

CENTER: Cincinnati State chapter president Kinshasha (Kat) Azariah receives the Cincinnati Student Leadership Award from Wyatt Cotton.

RIGHT: St. Louis CC outgoing chapter president Jordan Aach passes the gavel to the incoming president, Sandra Warner.

ACS Network Student Chapters Toolkit

BY ACS STAFF

The ACS Network is the Society's social media platform. As a member of your ACS student chapter, you can use this resource to connect with your chapter and with other chemists, develop a profile, and collect friends. You log on to the Network with the same ACS ID and password you use to renew your dues or to access *C&EN* or other publications online.

COMMUNICATING AND PROMOTING ACTIVITIES

Chapters can use the ACS Network to remind their members of an event or advertise a program by starting a discussion or posting an announcement. Organizers or officers can update their status and remind other users about upcoming events. You can choose to follow or track a group, person, or piece of content so that it appears on your activity stream, and also set your preferences to receive e-mails concerning content you're tracking.

A group can be set up for the entire chapter. This group can be used to host discussions among members, blog, and post documents to facilitate conversation among chapter members, especially before and after your meetings. You can use the Network to help your chapter decide as a group which events to sponsor by voting on ideas and events. And by using the events tool, you can invite members to participate in activities, and owners of a group can post pictures or share a video for all members to see.

EXECUTIVE TOOLS FOR OFFICERS

The ACS Network also has some very powerful and easy-to-use tools that can support the work and duties of student chapter officers. Officers can form a private group to keep minutes, notes, and any other documents generated for and by chapter officers, and the group can become a permanent place to keep documents as chapter officers change. Meanwhile, the document and file upload tools provide more efficient ways for groups to write or review documents.

Interested in learning more? Access the Student Chapters Toolkit at www.acs.org/student-network-kit. 

Checklist for Engaging Commuter and Off-Campus Students

- Hold activities at varied times.
- Ask if faculty are willing to offer course credit for participation.
- Have a communication system for those who cannot make meetings.
- Provide a variety of ways members can participate.
- Assign specific action items to members, even if they are small tasks.
- Engage members in planning activities.

to keep members informed; in fact, the ACS Network recently released a Student Chapters Toolkit (see sidebar) for this purpose.

ACS student chapters can play a key role in keeping commuter and off-campus students engaged in chapter activities and help them to get the most out of their education. With a little flexibility, ingenuity, and communication, ACS student chapters — and *all* their members — can really take off. 



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The Retention Saga

Keeping Student Chapters Thriving Year-Round

BY ALLISON PROFFITT

ACS student chapters have to compete for students' time along with many other undergraduate activities — both academic and social — and sometimes keeping the momentum high can be difficult. A lot of chapters are finding that they can successfully recruit members... but then participation and interest drop off. Eventually, the same few members are running the chapter and showing up for meetings and events.

Retention means keeping students involved and excited year-round, not just at the beginning of the year or only during National Chemistry Week. Three ACS student chapters that have had success keeping their students active and their chapters thriving credit the hard work of their executive boards and careful planning.

Add variety to spice up chapter life

Offering a range of chapter activities can make a huge difference in chapter participation. "I think a variety of activities throughout the year is very helpful and keeps students interested," says Mark Sabo, chapter advisor at Catawba College in Salisbury, NC.

Jessica Bound, vice president of the Catawba chapter, agrees that different kinds of events keep everyone involved. "If we offer fun, social things to do, it helps students feel that we're not lacking in any way. It creates a good atmosphere in which you can still have some structured meetings and get down to business when you need to." Catawba hosted a campus-wide movie night and a glass jewelry workshop in addition to hosting speakers and regular chapter meetings.

Phil Hamzik, president of the ACS student chapter at Northeastern University in Boston, says his chapter hosts



Northeastern University ACS chapter members preparing for National Chemistry Week activities.

annual trips. "They become events that all of our members look forward to continuously," Hamzik explains. "They're usually coordinated with the seasons. For instance, in the early fall we go to an amusement park; in late fall we go apple picking. In January, we go snow tubing and to a Boston Celtics game."

Andrea Lebed is a past president of the Northeastern chapter, and she mentions the importance of working with other student groups to vary activities and expand the chapter's reach on campus. "A big thing we started doing was collaborating with other clubs on campus, because I know a lot of students think, 'Oh, I'm a chemistry major. Let's join some other clubs with other kinds of interests.' So we collaborated with [a student group for environmental action] and put on recycling fashion shows."

Connect with the campus community

Being connected to the campus community helps in other ways as well. Angela Peters, chapter advisor of the ACS



LEFT: Members of the Claflin University student chapter. RIGHT: Through careful planning and successful fundraising, the Catawba College chapter sends a large number of students to each spring ACS national meeting.

student chapter at Claflin University, cites strong university support as one of the keys to success. “We are able to retain our students because everybody at the university buys into what we do,” she says of the historically black university in Orangeburg, SC. “ACS is embedded in everything we do in the School of Natural Sciences and Mathematics. So not only do the chemistry and chemical engineering students know about ACS and its goals and mission, but the math and computer science students do also.”

Northeastern also enjoys a high level of support from the university and chemistry department. The chemistry department chair is really involved with the chapter, says Jordan Swift, chapter advisor. “I think that helps keep everyone involved, because they know professors are looking out for them and are really interested in what [the students] are doing.”

Roll out the welcome mat

One of the biggest tricks to member retention is to build a strong sense of community within the group itself. This begins as soon as new students arrive on campus — or earlier! At Northeastern, says Swift, potential students meet student chapter members at open houses and “introduction days” before they enroll at Northeastern; in addition, incoming freshmen who have expressed an interest in chemistry are assigned to a mentoring group of four

“Every time we take students to the national meeting, they come back with a different mindset. They see the professionalism of their career.”

to five freshmen led by two upperclassmen. The goal is for new students to “have someone to go to, to ask questions, or encourage them to go to the meetings,” explains Swift. “And these mentors are also required to go to the meetings and events that we have for the first-year students.” The mentoring relationship continues through the first year, with social events in both the fall and spring semesters to build relationships and community.

One of Peters’ goals is to engage the broader community. “In the summer we have a bunch of programs, including ones for middle school kids and pre-college students, in which our ACS members serve as counselors. When it’s time for a seminar, our students will sign

up to give the seminar and give a PowerPoint presentation about ACS and science.” By the time freshmen arrive on campus, they are likely to already be interested in being a part of the chapter.

Once students have joined the chapter, keeping everyone in the loop through e-mails, a chapter website, or a blog helps everyone feel that they have access to what’s going on within the chapter.

Amy Kallmerten, last year’s president of the ACS student chapter at Northeastern, stresses the importance of students feeling like they belong and also emphasizes the role of the president and executive board in establishing that rapport. “One of the things



COURTESY OF CATAWBA COLLEGE

Student chapter members networking at a recent ACS national meeting.

that was really important when I was president was just getting to know every single member on a first-name basis — because if people feel like you’ll notice if they’re not there, they’ll keep coming and be excited about seeing everyone and stay involved. But if they feel like they kind of ‘fly under the radar’ and aren’t noticed, then they may just think, ‘Why bother coming?’”

Take a road trip

Many chapters attend the spring ACS national meeting, and including as many students as possible in the trip goes a long way toward building a cohesive and connected group. “Attendance at national meetings is so important because you get to see other students from other colleges like yourself,” says Sabo. “Every time we take students to the national meeting, they come back with a different mind-set. They see the professionalism of their career.”

This year, Catawba has invited anyone who is interested to attend the national meeting, even though the trip expenses may not be fully covered. “We’re fundraising like crazy,” explains vice president Bound, “but it may come down to where we have to pay for our own plane tickets.” Still, planning and fundraising for the trip has kept attendance high. To travel with the chapter, a student should have been involved in about 75% of chapter events — which include everything from business meetings to school chemistry presentations to doughnut sale fundraisers.

Of course, the national meeting isn’t the only prize that serves as a worthy “carrot” to motivate students and keep a chapter active and lively. “One thing that’s unique about Northeastern is

“If people feel like you’ll notice if they’re not there, they’ll keep coming and be excited about seeing everyone and stay involved.”

that we put such a heavy emphasis on experiential education,” explains Hamzik. The university includes several co-ops in a five-year curriculum. Because the student members know their audience, he adds, “We continually try to provide professional development activities like résumé writing and interview workshops. We also bring in employers and host panels with students who are currently on co-ops.”

Understand YOUR members’ needs

Kallmerten points out that there is not a “one size fits all” solution. “Talk to the members and find out what they’re looking for in a group, because every group is going to be different,” she says. Bound believes that participation should be voluntary, with attendance increasing because students are excited about what’s going on. “You can’t say you have to attend 7 out of 10 meetings if you want to be in the chapter... it puts people off,” she says.

The keys to achieving better member participation and retention are planning a varied event schedule, cultivating the strong support of faculty, and building a sense of camaraderie within the chapter through recurring social activities, campus and community outreach, and working together toward common goals. That is the combination that keeps ACS student chapters thriving. **IC**



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Chapter Field Trips

The Hows and Whys and a Few Ideas to Get You Going

BY ALLISON PROFFITT

There's a lot of chemistry happening beyond the walls of your university or college, and field trips aren't just for grade school anymore!

Many ACS student chapters have been venturing outside campus boundaries to take advantage of opportunities to see science in action, learn about career options in chemistry, and network with local chemists. Although field trips take some forethought and planning, they are well worth the effort and will likely be a popular addition to your chapter's event schedule. In fact, the biggest challenge may be deciding which field trip to take first!

The business trip

No matter how good your instruction at school, there's nothing like seeing a job for yourself. Field trips and site visits give students the opportunity to put job descriptions in context. After a presentation by the president of Grifols Biologicals in Los Angeles, student members from California State University (CSU) Long Beach received a factory tour. They witnessed the process of producing a drug on the industrial scale. The chapter also visited the Orange County Sanitation District in Fountain Valley, CA, where they donned hard hats and toured the plant, learning about each step of the sanitation process. Along the way, they talked with chemists about their daily routines and gained a better understanding of what sanitary chemists do.

Lab tours also provide opportunities to see how the equipment and techniques used in university chemistry labs are used in industry. In addition, tours introduce chapter members to new types of instrumentation. University of Central Missouri (Warrensburg) student members toured Acceleration Laboratory Services in Lee's Summit, MO, and received tutorials on several

instruments to which they did not have access at their university. For younger undergraduates, lab tours can provide a practical introduction to instrumentation they will soon encounter in upper-division coursework, while upper-level students get the opportunity to learn how specific techniques are used in an industrial setting.

Site visits often give students the opportunity to interact with more chemists than a career seminar would. CSU Chico student members toured the environmental analytical lab at TestAmerica Laboratories in Sacramento, CA. It was a helpful experience

for the students to see industry positions with which they were unfamiliar. The tour also introduced students to new instruments, allowed them to ask questions about chemists' daily routines, and gave them a firsthand look at the responsibilities that different types of chemists have.

The inquiry isn't unidirectional, though. Site visits also give local companies a chance





to meet the newest class of chemists and promote their companies, internships, and job positions. At CSU East Bay, student members visited Bayer, enabling them to build connections with valuable resources for future internships or job positions. After the Carroll University (Waukesha, WI) chapter tour of Aldrich Chemical, many members quickly applied to their undergraduate programs, and at least one member was able to parlay this experience and the contacts made into a job following graduation.



PHOTO COURTESY OF UNIVERSITY OF TENNESSEE AT MARTIN

The spirited trip

Maybe just as important as networking, though, is the opportunity for chapter members to spend time together as a group away from campus. Field trips to breweries, wineries, and — in the case of the University of Puerto Rico-Humacao — the Bacardi rum distillery give students who are nearing the end of their undergraduate careers a chance to relax and enjoy their colleagues — and chemistry at work in the “real world.”

The student members of Indiana University-Purdue University Indianapolis (IUPUI) toured the Fountain Square Brewery. “I reached out to a few local breweries and found Fountain Square to be a great fit, as the owner had a background in microbiology and chemistry,” says Tomas Meijome, chapter president. The student members got a private tour in which they observed the brewery’s microbiological techniques that ensure optimal chemical conditions in their microbrews, and also got a peek at the on-site brewing laboratory.

The student members at Louisiana State University (Baton Rouge) also toured a local brewery and prepared for the trip by watching the ACS webinar “Tapping into the Chemistry of Beer and Brewing” (<http://acswebinars.org/bamforth>).



PHOTO COURTESY OF INDIANA UNIVERSITY-PURDUE UNIVERSITY INDIANAPOLIS

A bit of history

Local historic sites and graveyards might not be the most obvious choices for a field trip, but they often have a wealth of interesting knowledge to share. At Mercer University (Macon, GA), students joined a local historian on a tour of a local graveyard. The historian regaled the students with stories about the role of chemistry in Macon 150 years ago, highlighting how doctors, lawyers, pharmacists, builders, and entrepreneurs all used chemistry. When the chapter members at Messiah College (Mechanicsburg, PA)

travelled to the Joseph Priestley House in Northumberland, PA, they learned a great deal, not only about his pioneering work in chemistry and his discovery of oxygen, but also about the dangerous experiments he performed at home in the process of making his landmark discoveries.



PHOTO COURTESY OF UNIVERSITY OF TENNESSEE AT MARTIN

LEFT: UTM chapter president Gilbert J. Forgays under the influence of the Van de Graaff electrostatic generator at the AMSE in Oak Ridge, TN.

TOP: UTM students exploring exhibits at the AMSE.

CENTER: IUPUI students receiving a private tour of the Fountain Square Brewery (Indianapolis, IN), including the on-site brewing laboratory.

BOTTOM: Group photo of the UTM participants in the Oak Ridge tour of the Y-12 History Center and the AMSE.

The more the merrier

Many chapters used their field trips to drive home — or discover — the multidisciplinary nature

PHOTO COURTESY OF UNIVERSITY OF TENNESSEE AT MARTIN

of the science. CSU Sacramento students toured the Novozymes facility in Davis, CA, where guides showed how multiple fields collaborate to facilitate their enzyme production.

Another multidisciplinary approach that some chapters use is to plan their field trips in conjunction with other scientific organizations on campus. For example, CSU Long Beach joined forces with the Biology Student Association to tour the Orange County Crime Lab in Santa Ana. Meanwhile, members of both the University of Michigan, Dearborn ACS student chapter and the university's Society of Physics Students toured Fermilab in Batavia, IL. It was a great experience and showed that there is room for overlap and inquiry among the scientific disciplines.

Other student chapters invited groups from off-campus to join them. University of Detroit Mercy (MI) students joined the Education Committee of the Detroit Local Section and 30 area high school chemistry teachers to tour Pewabic Pottery in Detroit. Participants observed the kiln room and the giant ovens that bake the water out of ceramic pieces to harden them. The group then visited a studio where clay was processed and made ready for use in molds, and also learned about the inorganic chemistry of colored paints and salt glazes. Afterward, they were taken to a workshop where they designed and painted ceramic tiles to take home.

Student members at the University of Tennessee at Martin (UTM) combined their field trip with an outreach program to local high school students, with the help of an ACS Innovative Activities Grant. Coinciding with the 100th anniversary of Mme Marie Curie's 1911 Nobel Prize in Chemistry, a group of 24 college and high school students visited Oak Ridge, TN, and toured the Y-12 History Center and the American Museum of Science and Energy (AMSE) to learn the history and science behind nuclear technology, including how nuclear technology is used in electricity-producing power plants.

Planning and logistics

Trip planning should begin by polling the chapter members and finding out which types of events are most interesting to members. "Tailor your activities to what members want to do and you will be more likely to have a great turnout of students," advises Elizabeth Ebensperger, chapter president at Carroll University.

Scheduling is the most common challenge student groups reported. Some trips — like a brewery tour, for example — can be planned for a weekend, but most outings need to be arranged during the week. "Start considering days that work for everyone super-early in the semester, get a list of two or three laboratories/trips you would like to take, and start calling them right away," advises Christina Dobson with the University of Central Missouri. "Check with the lab and make sure that this is something they allow, ask if there is a minimum/maximum amount of attendees, and ask when is a good time to visit."

Taking a field trip to a facility that is local is usually the best bet for student groups. It makes transportation easier

A Few Field Trip Ideas

Chemistry is everywhere, so the opportunities for field trips are nearly endless. But to get your planning started, here's a list of spots other ACS student members have visited:

- Pharmaceutical companies
- Industrial chemical companies
- Science museums and historic sites
- Forensic laboratories
- Public health labs
- Oil refineries
- Wineries
- Breweries
- Glass factories
- Power stations
- Dairies
- Environmental test labs
- Sanitation facilities
- Pottery factories.

PLANNING FIELD TRIPS

Planning off-campus trips may take a month to a full semester to arrange. Here are tips and ideas for planning an off-campus event.

- Establish with the host an appropriate dress code.
- Arrange an orientation/preview for students prior to the event.
- Plan transportation arrangements.
- Establish time of departure and return, and length of tour.
- Specify cost(s) to students, if any.
- Observe appropriate safety precautions.
- Conduct a follow-up discussion.
- Send appropriate thank-you notes!

and keeps the overall trip shorter, so it will interfere with fewer schedules. One reasonable place to start, then, is with the ACS local section. Reach out and see which ACS members have connections to facilities that you would be interested in touring. Chances are, there will be a local section member who can at least give you an introduction to any local lab or facility. For example, students from the University of Detroit Mercy were able to tour Midwest Analytical in Ferndale, MI (a specialty analytical laboratory) by connecting with owner Kevin O'Mara, a chemist active in the Detroit Local Section.

Dave Tiberi, president of the Saint Vincent College (Latrobe, PA) chapter, recommends keeping the tour group fairly small — less than 20 people. "It is much easier to get a small group to a location."

Making field trips work for your chapter depends on choosing the right trip for the audience and planning well. As Tiberi says, "The easier it is to organize a trip, the more trips you can make!" **iC**



Allison Proffitt is a writer and editor based in Nashville, TN.

Creating Positive Chemistry on Campus

How Student Chapters Can Make an Impact through Department and Campus Service

BY NICOLE DI FABIO

What has your chapter done for your department or college lately? If you're looking for ideas, there are plenty of ways to get started. As undergraduate students and

chapter members, you have great potential for contributing in positive ways — and impacting both current and future chemistry students, as well as your entire campus community.

Department and campus service is one of the essential categories recorded in student chapter annual reports, thanks to its huge potential for impact. By planning and executing activities and events, you can help your chapter gain visibility and increase awareness among students and faculty regarding your approachability, accessibility, intensity, and commitment to chemistry. This, in turn, could lead to an increase in chapter membership — and more motivated people to help reach your chapter goals. Perhaps the impact on your department or campus will extend even further and have a positive effect for years to come.

Compiled here are some suggestions for service ideas and some examples of chapters that contributed service, in large and small ways, to increase the vitality of their campuses.



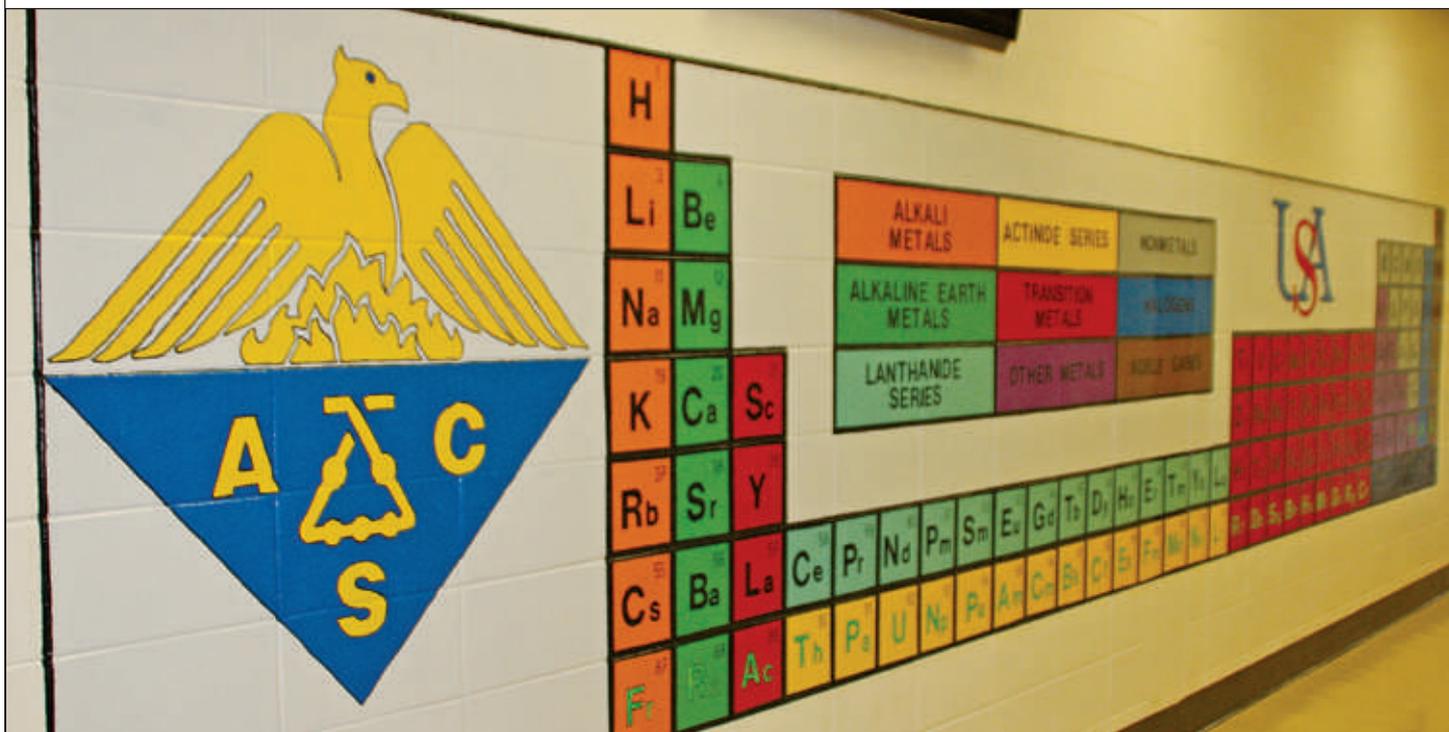
The Utica College chapter designed a chemistry stole for graduating seniors.

Increasing visibility and engagement

Last year, chapter members at the University of South Alabama in Mobile made a big statement (literally) by painting a periodic table wall mural in the chemistry building on campus. The group dedicated an entire weekend to creating this piece so that fellow students could see the finished product when they returned to classes Monday morning.

The members of the Morgan State University chapter in Baltimore, MD, increased their visibility and served their campus community by holding a “demo day.” The event enabled students to experience and engage with chemistry in ways not normally found in a general chemistry course.

The student chapter at Utica College in New York made quite a few strides this past year — including increasing its chapter membership. Simultaneously (and perhaps not coincidentally), the number of students



This wall mural in the chemistry department was created by members of the University of South Alabama chapter.

graduating with degrees in chemistry at Utica College doubled. To recognize all of these successes, chapter members designed a chemistry stole (including buckyballs and a nuclear decay cartoon!) that was presented as a gift to all chemistry graduates as a way to recognize their outstanding achievements during their short time together.

Providing resources

Chemistry isn't an easy discipline; some students need more study time, while others may prefer to have a few chemistry lessons outside of the classroom to stay on top of their course material. To meet these needs, many ACS chapters offer chemistry tutoring as a service to both the students and their department. A tutoring service is one of the fundamental (and less costly) ways for chapters to provide department service.

The student chapter at the University of Southern Indiana (USI) in Evansville took the concept a step further by piloting a mentoring program called CheMentors. The program began by asking students interested in becoming mentors to apply. Once approved, each student mentor was paired with a freshman interested in majoring in chemistry. After mentors and mentees were introduced at an initial meeting, they stayed in contact with each other individually, as needed. Mentors provided information about classes offered by the chemistry department, and also suggested studying tips and strategies for approaching professors for advice.

In addition, the USI chapter compiled a guidebook that oriented new chemistry majors to their department and invited

them to the first ACS chapter meeting of the year. Their "Beginner's Survival Guide for Chemistry Classes" offered tips and guidelines for succeeding as a chemistry major at USI as well as department information, biographies and photos of faculty members, contact information, and a list of the benefits of becoming a student member of ACS.

Chapter members at Rensselaer Polytechnic Institute (RPI) in Troy, NY, are creating a series of instructional supplements for the Chemistry I courses offered on their campus. The group has created PowerPoint presentations and videos that map out conceptual frameworks and applications — specifically for students in the introductory class. These resources will enable RPI chemistry students to see each step of a calculation, develop problem-solving skills, and, so the hope goes, struggle less with homework and do better on chemistry exams.

Fun, learning, and productivity?

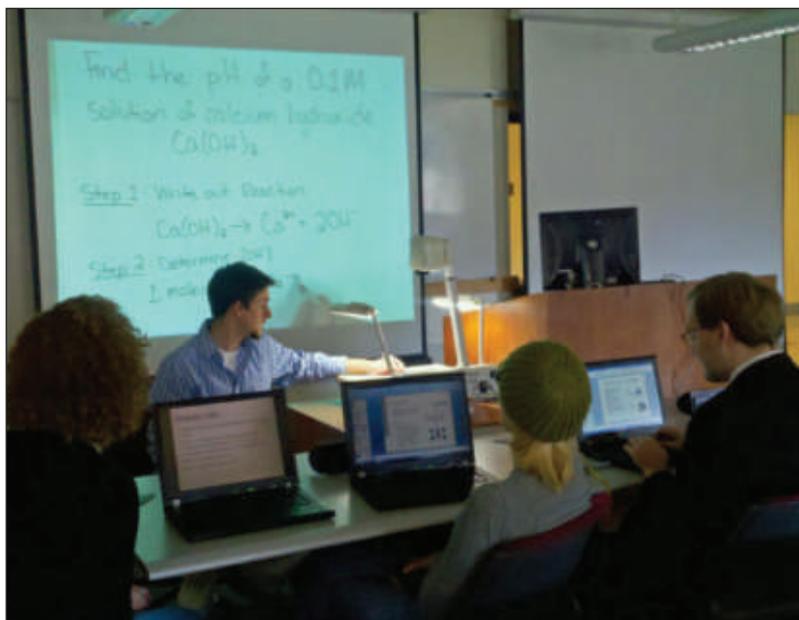
Yes, it's possible to achieve all three simultaneously!

Becoming an ACS student chapter member should be fun and engaging, so why not plan service activities that also function as social events? The California State University (CSU) Fresno chapter hosted a "Meet Your Professor Series" to enhance the relationship between students and faculty. The series allowed students to participate in chemistry activities and discussions outside the typical classroom environment. The chapter achieved its goal of breaking down formal classroom barriers by hosting a night to watch the TV show "CSI" with an analytical/forensics professor. The chemistry department chair also participated in the "Meet



COURTESY OF SOUTH TEXAS COLLEGE

South Texas College members became certified by the Texas Stream Team to test the water quality of local streams and rivers.



COURTESY OF RENSSELAER POLYTECHNIC INSTITUTE

RPI chapter members created instructional videos for the general chemistry students.

Your Professor Series” by hosting a “Chemistry of Cooking” barbecue at his home. Since this service experience was successful, the chapter hopes to expand upon the concept and encourage other departments to take advantage of the “Meet Your Professor Series” idea for their own students.

Many ACS student chapters try to conduct more informal meetings to ensure that chapter members enjoy their time spent with the chapter, while also promoting membership and retention. Some chapters offer events, such as liquid nitrogen ice cream socials, as a part of regular meetings to encourage students to become chemistry majors and members of the chapter. Although the meetings have a social component, the chapter leaders also discuss chapter activities and other business to balance productivity and socializing.

The “Classroom Luncheon Series” was an idea that originated at the University of Richmond student chapter. A special guest was invited to each luncheon for a question-and-answer session with chapter members at the Virginia institution. The sessions were exclusively for students to network, learn about chemistry careers, and hear about the career paths of the invited guests while enjoying lunch together.

Local action, global impacts

The impact of some service endeavors extends beyond the chemistry department. To take advantage of a general heightened awareness, some chapters are providing environmentally friendly services to their schools.

Chapter members at South Texas College in McAllen teamed up with biology club members to become certified by the Texas Stream Team to test the quality of water in local streams, rivers, and other bodies of water. Periodically, the chapter also received

requests from citizens of the greater McAllen area to test lakes on their ranches.

The CSU Fresno chapter made spill kits for chemistry teaching labs, hoping to eventually expand the program by providing spill kits to labs in other departments on campus. In doing so, the members wanted to have a positive impact on their campus community as well as the environment, and consulted with their campus Department of Environmental Health and Safety about how to include only eco-friendly contents in the kits.

Of course, if you don’t have the resources to assemble entire spill kits, there are more basic ways to help your department reduce its carbon footprint. Setting up recycling stations in places that previously did not have the means to recycle, or introducing more environmentally safe alternatives to disposing of chemical waste are simple initiatives that help your department, your campus, and the environment.

No better time to start

The ideas offered here for department and college campus service are some of the activities collected from chapter reports. Some of these may be effective on your campus, or perhaps they will help to stimulate new ideas that you can adapt to your own needs and capabilities. Regardless of the activity, these examples demonstrate the importance and benefit of introducing multiple service activities on your campus. We hope to see some more rewarding accomplishments in the coming year! **IC**



Nicole Di Fabio is a senior education associate in the ACS Undergraduate Programs Office.



Tap into Some Real Synergy!

The Whys and How-to's of Collaborating with Your Local Section

BY ERIC STEWART

One of the best-kept secrets of successful ACS student chapters is active collaboration with their local section. The recent change in the ACS membership structure has altered the relationship between student chapters and local sections, once seemingly unconnected parts of the society, according to LaTrease Garrison, assistant director of the ACS Office of Local Section and Community Activities. "Students can become members of ACS itself, and when they do, they automatically become members of their local sections."

Even so, it takes a certain amount of strategy and foresight for student chapters to make the connection initially and keep it up and running. Luckily, other ACS student chapters and their faculty advisors are eager to share tried-and-true methods, strategies, and tips to ensure that your chapter gets the most out of collaborating with your local section.

Collaboration works!

There are many ways in which working with your local section can benefit your chapter — and you personally. Your chapter will probably be able to have more impact collaborating as a group than

you could alone. For example, many local sections are constantly looking for ways to reach out to the community during National Chemistry Week (NCW) and Chemists Celebrate Earth Day (CCED), and your chapter is the perfect partner for them. It's likely that the local section can provide financial resources to help with purchasing supplies — while your chapter has the "people power" needed to put the plan into action, by planning and performing demos, helping with publicity and event planning, and so on.

It opens doors!

Interacting with your local section can also give your chapter members opportunities to participate in activities that you might otherwise never do. At the University of West Florida in Pensacola, for example, faculty advisor Tim Royappa recalls how he and a chapter member enjoyed the experience of accompanying some fellow local section members when they visited the local office of their congressman to urge for more support for basic science.

It helps you personally!

In addition to the benefits your chapter will get from working more closely with your local section, you can also benefit personally in a number of ways:

Get valuable contacts — As you interact with other members of your local section, you'll start making professional connections with working chemists who could become valuable resources during your job-hunting, or might even become your future employers.

Learn new skills — By working side by side with your fellow members, you'll hone your skills in brainstorming, teamwork, and putting plans into action. In addition, if you gain



Brett Stoll (back row, third from left) with undergraduate attendees at a recent ACS Leadership Institute, when he first met the chair of the Southern Arizona ACS local section, who later became his mentor and collaborator for joint chapter and local section events.

experience in managing volunteers on a committee, you'll have a much easier time later on in your career, when you may be managing fellow employees.

Polish your networking skills — The more you get involved with local section members, the more comfortable you'll feel talking and networking with working chemists. "It's never too early," says Royappa with a laugh, "to learn to start schmoozing!"

At the University of Arizona in Tucson, student chapter president Brett Stoll and president-elect Emily Simpson formed a strong relationship with Terry Matsunaga, the chair of the Southern Arizona ACS (SAZACS) local section, when Stoll and Simpson attended the ACS Leadership Institute in Fort Worth, TX, and Matsunaga served as their mentor. Stoll and Simpson now regularly attend SAZACS executive board meetings, where they report on student member needs, concerns, and successes. This relationship led to continued support and cooperation from the SAZACS local section at major events, such as the Tucson Earth Day Festival.

One Success Story

Where can collaboration take you? Consider the example of the Ball State University (BSU) student chapter, in Muncie, IN. According to faculty advisor Jason Ribblett, soon after he started working with the chapter, two students came up with an idea for an honors project that resulted in "Science on the Greenway." The first year, the event consisted of a handful of students conducting science demos for a small crowd of children and families.

The following year, the chapter members decided they wanted to hold the event again, this time as an actual chapter event — but had only a few hundred dollars to buy supplies and generate publicity for the event. A breakthrough came when a member of the Indiana local section who worked at Eli Lilly and Company came to speak with BSU department members about another topic. During the visit, he mentioned that Lilly had some funds set aside for community outreach, and when Ribblett described the chapter's planned Greenway event, the visitor immediately said Lilly would be interested in funding the event. With a budget almost three times the size of the previous year's, the event grew in size. The next year, the local section itself asked if it could take over the funding.

The event has grown each year since then, says Ribblett, and this year attracted more than 800 attendees, including kids and family members. Best of all, the costs are paid by the local section, with the student chapter handling the planning and execution. **iC**



A Ball State University student conducts a chemical demonstration during the Science on the Greenway event.

COURTESY OF BALL STATE UNIVERSITY

Charlee Mclean, president of the Morgan State University (MSU) ACS student chapter in Baltimore, MD, is also a fan of her ACS local section. The group approved her application for financial help to attend an ACS national meeting this year, she recalls, and she has also benefited from speaking and networking with chemists, professors, and other students at local section events. McLean observes, "It's been exciting and motivating to learn from others who have already experienced what I'm going through, and I've also gotten useful insights about my own career path."

The more interaction, the better!

There was a time, recalls Louise Hellwig, faculty advisor for the MSU chapter, when the only occasion at which her students and local section members got together was an annual meeting where

the local section gave an award to the top senior from each institution in the area.

"In more recent years, my students have been attending more local section meetings, partly because the topics have become more accessible — such as the collapse of the twin towers, the chemistry of chocolate, and others — basically, subjects students could easily relate to."

For example, senior Rudy Dehaney, vice president of the MSU student chapter, has attended several meetings of his local section. "Going to meetings and networking with chemists working in the field has helped me," says Dehaney. While the idea of talking with local section members might make some students feel nervous at first, he adds, it's still worth doing. "After all, they're just people, like anybody else. Talking with them helps you broaden your choices and also makes it easier to get your foot in the door after you graduate."

New collaborations can also be spurred by events on your own campus. For example, Hellwig recently applied for a Bridging the Gap Nano-Grant with the specific goal of helping students at regional institutions become more involved with the local section. "Originally we were going to have a quiz bowl competition," Hellwig recalls, "but we got feedback from students and even some of the professionals that they didn't want to put themselves in an awkward competitive situation. So we toned it down to feature noncompetitive chemistry

Tap into Some Real Synergy! continued

games and added a 'Speed Dating for Chemists' event where participants had two minutes to talk with people they don't know."

The meeting, held last March, was a great success, Hellwig notes. "We got a lot of positive feedback from attendees; I'd say it was definitely \$250 well spent by ACS."

The University of St. Thomas in Houston, TX, also enjoys a close relationship with its local section. Thomas B. Malloy, Jr., the chapter's faculty advisor, also serves on the executive board of the Greater Houston local section. The contacts and interactions with the local section have been essential for obtaining grants and for finding venues for community service activities. Through connections with the



Chapter members from the University of St. Thomas (TX) posing with Kerry Spilker, chair of the ACS Greater Houston local section, after a collaborative outreach event at a local museum.

local section, the chapter became involved with volunteering at Hospitality Apartments, which provides free temporary housing for families receiving treatment at the Texas Medical Center. Notes Malloy, "When the student chapter and local section support each other, we all benefit."

Time to start collaborating!

However your chapter gets started working with your local section, the benefits are almost sure to follow. The two member groups of ACS already have very similar goals — and it's highly likely that you also each have something the other party can use. "In my experience, collaborating with our local section has been a very synergistic relationship," observes Royappa. "There's really been a lot of cross-pollination." **IC**



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Students at Morgan State University meet and network with fellow members at a local section meeting.

Tips, Techniques, and Timing

Strategies for Successful NCW and Mole Day Celebrations

BY ALLISON PROFFITT

Some ACS student chapters look to the third week in October with great anticipation, while others view it with apathy, if not outright dread! National Chemistry Week (NCW) and Mole Day can be the highlight of your chapter's calendar, or they can be sources of stress and uncertainty for new officers early in the academic year. For chapters that excel at these events, the keys are planning, consistency, tradition, and a sense of humor.

The theme of NCW changes every year, and many chapters host a range of events that include traditional favorites of members and special new events that are theme-related.

Demos in the dark

The University of Mary Hardin-Baylor (UMHB) in Texas has been celebrating NCW with a bang (literally) every year since 1991. The student chapter's annual event — Demos in the Dark: Things That Go Bang and Boom in the Dark — happens

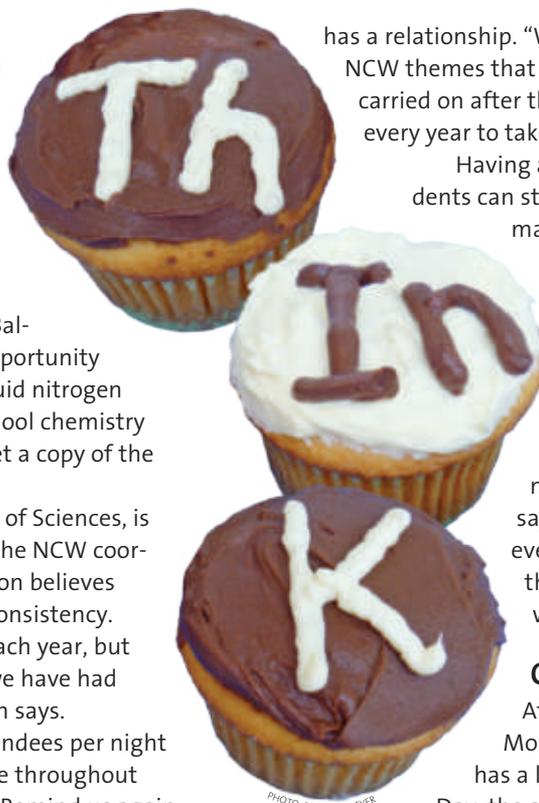


COURTESY OF WESTERN
KENTUCKY UNIVERSITY

twice during NCW, on Tuesday and Thursday. The show starts at dusk, and students conduct a host of chemical demonstrations that glow in the dark, produce controlled fires, or cause colorful explosions. Some examples of the demonstrations are Methane Mambo, the UMHB Fire Jug (Swoosh Bottle), Glow-in-the-Dark Toothpaste, and Exploding Hydrogen Balloons. After the show, kids have the opportunity to pick up an NCW balloon, enjoy a liquid nitrogen slushy, and make some slime. High school chemistry teachers who attend the event each get a copy of the Merck Index.

Darrell Watson, dean of the College of Sciences, is also the student chapter sponsor and the NCW coordinator for the ACS local section. Watson believes the event is successful because of its consistency. "There are many different variations each year, but basically that's the same celebration we have had for at least the past few years," Watson says.

The outdoor event attracts 450 attendees per night in good weather. "We hear from people throughout the year," Watson explains, "who say, 'Remind us again when you are having Demos in the Dark. We don't want to miss that!'" For admission to the event, the chapter charges one canned food item; after NCW is over, the chapter donates what it has collected to a local food bank with which the chapter



has a relationship. "We started a long time ago with one of the NCW themes that dealt with the chemistry of food. It kind of carried on after that, and we now raise quite a bit of food every year to take to our food pantry."

Having a consistent NCW tradition means that students can start practicing and planning early and that many of the logistics associated with a large event get easier each year.

Even the local fire department joins the fun. "One of our policies on campus is to notify our fire marshal about anything we do that could be considered a little bit dangerous. In the past several years, we have also invited the fire department to attend our performance," Watson says. "Usually you will see a fire truck at our events, complete with paramedics and everything. Fortunately, they are just sitting and watching the show."

Cupcake lab

At the University of Colorado (UC) Boulder, Mole Day (celebrated annually on October 23) has a long-standing tradition as well. Every Mole Day, the student members build a Periodic Table of Cupcakes to sell for a penny a proton for each element, up to 50 cents apiece.

"We don't make as many hydrogen cupcakes, because at their price, they sell out really quickly," say Alyssa Wiener and Jackie Stonebraker, co-presidents of the UC Boulder chemistry club. "We usually make enough for every single element; also, because some research groups want to buy specific elements they work with, we'll make some special-request cupcakes as well."

The cupcakes are baked by faculty members ("They have kitchens," explains Wiener) and sold by students at a table set up outdoors at a centrally located spot with a lot of student traffic. The money raised from the sale is donated partly to the Christopher Severy Memorial Fund for Undergraduate Research and partly to award a prize at an undergraduate poster symposium that the club hosts in April.

The Mole Day cupcake sale has been a tradition at UC Boulder for 10 years. The annual event, with the added incentive of its proceeds funding the student memorial scholarships, reaches not only chemistry students but the larger campus as well.

Cupcakes are something that all students can relate to, Wiener says. She acknowledges that non-majors don't usually remember how to calculate the number of protons for an element, but most do know the periodic table and recognize some of the elements. "I think that if people do something that's not too esoteric, something that non-majors can relate to, that's always a good thing."

The pageant and the piñata

Similar to UC Boulder, Union University also offers a Periodic Table of Sweets, but using cookies rather than cupcakes. "We



During NCW, faculty members at the University of Colorado Boulder bake for the Periodic Table of Cupcakes sale, and chapter members decorate and sell the cupcakes. The proceeds go partly to the Christopher Severy Memorial Fund.



PHOTO COURTESY OF UNION UNIVERSITY

At Union University (Jackson, TN), NCW and Mole Day events — such as crowning the Mole King and Queen and the NCW semiformal dinner — have grown into fun and unique annual traditions.

If the Mole-ata doesn't release its loot after the King and Queen take a swing at it, it's open to anyone. "I try to even the playing field for the mole," Baldwin laughs, "by putting the thing on a pulley. That way, people don't have an easy time of hitting the poor little mole."

The Mole King and Queen then invite the campus community to the chapter's semiformal NCW closing dinner, over which they preside. The event also features a guest speaker, and it wraps up the week's festivities.

If the official date of Mole Day is inconvenient for the celebration, the club simply shifts the date by a few decimal points. "If Mole Day falls on, say,

a Saturday, we have no reticence about declaring that we're going to celebrate MegaMole Day instead! Then we just move it six days out so it's 10²⁹," says Baldwin. "One year, we celebrated DecaMole, and another we celebrated MilliMole." The tradition is the most important part and ensures that chapter members and chemistry students are engaged and having fun.

Baldwin credits effective planning efforts with Union University's successful NCW. The chapter elects officers in March for the following academic year, and two key positions are the NCW coordinators. Planning for October's festivities starts early.

"It is impossible for one person to coordinate all of NCW and Mole Day well. They need help," agrees Frank. "As Dr. Baldwin says, 'Many hands make light work.' By delegating each NCW/Mole Day event to a point person, the NCW coordinators can ensure that more members are involved and committed to making NCW/Mole Day the best. By planning during the summer and relatively relaxing first few weeks of the semester, we allow for work groups to be formed and put into action for the big week!"

But the single most important thing to remember? Enthusiasm, says Frank. "Enthusiasm in leadership positions will be mirrored in the members. In other words, GET EXCITED! This is one week devoted to celebrating chemistry, embracing our nerdiness, and having so much fun along the way!" **iC**

used to do cupcakes," Charles Baldwin, chapter advisor, says, "but cookies are easier."

Whereas the cookies are for everyone on Union University's Jackson, TN, campus, some of the institution's NCW and Mole Day traditions are specifically for chapter members and have grown into fun and unique traditions. After nominations and voting during NCW, the Union University ACS student members crown a Mole King and Queen, and celebrate with a Mole piñata (or "Mole-ata") and a Mole Day cake.

"This is an idea that has gained momentum throughout the years," Baldwin says. "Initially it was kind of a cheesy idea, but now the junior and senior members of the chapter are really interested in running for Mole King and Queen."

The chapter's Mole Day coordinator makes up a ballot of all junior and senior chemistry majors and distributes it in all of the chemistry classes for voting. The winners are crowned (with actual crowns and scepters) at a ceremony held outside on the Student Union patio. After the King and Queen are named, they're invited to take the first swings at the Mole-ata.

"To customize our Mole-ata, we started with a Blue's Clues piñata," says Jill Frank, former chapter president. "By cutting off the big dog ears and eyes, spray-painting the whole thing brown, and then reattaching the eyes, the Mole-ata becomes a Mole Day masterpiece!"

Although the event isn't necessarily an outreach event, it is held centrally on campus. "All of the students are walking by as they change classes, and they stop to check to see what's going on, so it's not uncommon to have 40, 50, 60, even 100 people standing around," says Baldwin.



Allison Proffitt is a writer and editor based in Nashville, TN.



Show Me the Money, Honey

Fundraising Ideas for ACS Student Chapters

BY ALLISON PROFFITT

Raising money can be a challenge for ACS student chapters, but it's also a necessity. We polled 45 chapters to see what's working, and came away with some real gems. From the tried-and-true to the completely new, you're bound to find ideas here to line your coffers!

Fundraising 101

First, the goal of fundraising is to make money. That might seem obvious, but take a closer look at your fundraising efforts and ensure that they are, in fact, making you money. You should not be providing any goods or services at cost as part of your fundraising activities; if you can't charge a reasonable markup, then find other options. Also, be sure to consider the competition. If the campus bookstore sells model kits for \$10 and you can only find kits for \$8.50, then you won't be able to both make money *and* be competitive.

Your goal is to make money as efficiently as possible, so be conscious of your members' time as well. Finally, have a plan and a

timeline for your fundraising efforts. Know exactly how you hope to spend the money, how much you need, and your deadlines. Everyone will be much more motivated!

Free money

Before you sell your first tchotchke, make sure you are taking advantage of the grant programs available to you. ACS offers grants for active student chapters in good standing. Applications are straightforward, but be sure to follow the instructions and provide all of the information requested by the due date. Otherwise, you'll waste your stamp... and the reviewers' time as well!

Here are descriptions of the various grants that ACS offers — so make sure to apply for any that are relevant to your chapter:

- ◆ **Student Inter-Chapter Relations (ICR) Grant:** ACS awards grants of up to \$750 for activities that involve interaction with chapters within a 120-mile radius. Activities could involve friendly competition, scientific sharing, or fellowship over a commonly held interest.
- ◆ **Starter Grant for ACS Student Chapters at Two-Year Colleges:** Students at two-year colleges can receive

starter grants in the amount of \$500 to start or reactivate an ACS student chapter.

- ◆ **National Meeting Travel Grant:** ACS awards grants to help active ACS student chapters pay for registration fees, lodging, and/or transportation costs associated with ACS national meetings.
- ◆ **Undergraduate Programming at Regional Meetings Grant:** Chapters can receive up to \$2,800 to develop undergraduate events and activities for ACS regional meetings.
- ◆ **Community Interaction Grant:** Active student chapters are eligible to receive up to \$500 to help improve the science learning experience of minority children through community interactions and projects.
- ◆ **Innovative Activities Grant:** Active chapters are eligible to receive up to \$500 in matching funds to support new and innovative chemistry-related projects.



LEFT: Chapter members from Adams State College (Alamosa, CO) sell pizza at their college's club fair. CENTER: On Mole Day, chapter members from the University of Colorado Boulder raise money by selling periodic table cupcakes. RIGHT: Spring Hill College (Mobile, AL) co-sponsors an annual crawfish boil with the ACS Mobile Local Section.



Feed your brain

Food fills an ever-present void for college students — one in their stomachs! And savvy chapters are making the most of the hungry masses. For example, at Millikin University (Decatur, IL), the ACS fridge is stocked with weekly trips to Sam's Club. Snacks and beverages are sold on the honor system to students, generating about \$200 a semester in profit for the chapter. Meanwhile, the student chapter at Canisius College (Buffalo, NY) made \$700 making and selling chocolate roses for Valentine's Day. To raise money for your chapter, try selling:

- ◆ Periodic table cupcakes, cookies, or brownies
- ◆ Candy
- ◆ Chips
- ◆ Nachos
- ◆ Burritos
- ◆ Soda
- ◆ Bottled water
- ◆ Coffee
- ◆ Energy bars
- ◆ Liquid nitrogen ice cream or marshmallows
- ◆ Sandwiches from a local restaurant
- ◆ Krispy Kreme doughnuts
- ◆ Cookie dough.

Apparel and gear

The original ACS student chapter fundraiser: goggles! Here are a few other must-haves you could sell to equip your peers:

- ◆ Lab coats
- ◆ Lab aprons
- ◆ Lab manuals
- ◆ Lab notebooks



ABOVE, UNDER SNOW CONE IMAGE: At Cal Poly (San Luis Obispo), the student chapter sells snow cones at an open house and hosts the Revenge-o-Rama, where students pay to throw a wet sponge at a p-chem professor (PAGE 24).



ABOVE: The Indiana University of Pennsylvania (Indiana, PA) student chapter earns money through weekly hot dog fundraisers, and it also sells periodic table stickers and T-shirts.

Tips and Tricks

Whenever you're raising funds, there are a few key tricks to remember:

1. **Be consistent.** Chances are you'll do much better the third week you're selling burritos than you did the first week. People are more likely to spend money if they are expecting you. The same goes for annual events. Whether it's a Periodic Table of Cookies or a Mole Day Fun Run, create something people can look forward to... and then stick with it.
2. **Be clear and polite.** When you're asking for donations, profit sharing, or other funds from a company or business,

write a letter clearly explaining what you plan to do with the money or product, and then follow up with a timely, detailed, personal thank-you note.

3. **Do your research.** Maybe you've always ordered your goggles from the same place every year, but is it still the best source today? You may be able to increase your profit simply by finding a more affordable supplier.
4. **Ask for help.** If you need fresh ideas for fundraising options, be sure to reach out to your ACS local section. Members may be able to make suggestions or help with connections in the community.

- ◆ ACS exam study guides
- ◆ Model kits
- ◆ Books
- ◆ Pocket periodic tables
- ◆ Dopamine tattoos — a fun way to celebrate Valentine's Day.

Put your name on it

College is based on a few basic laws. Chief among them: the more T-shirts you have, the less frequently you'll need to do laundry. Try selling:

- ◆ Department or slogan T-shirts — the funnier, the better! Look into printing more than one design; someone might buy two.
- ◆ Green chemistry bracelets
- ◆ Green chemistry buttons
- ◆ Water bottles branded with your chapter name
- ◆ Lanyards (ropes or cords worn around the neck to carry a name badge, keys, or other lightweight items)

- ◆ Key chains
- ◆ Bumper stickers or car stickers
- ◆ Reusable grocery bags.

ATP creation

If sitting at a table of goodies isn't your thing, get moving... and get someone to pay you for it! Some ideas:

- ◆ Hold a sporting event or race. Montana State University (Bozeman) held a 5K fundraiser run to raise some extra cash.
- ◆ Offer to clean up after a campus event, and see if the administration will make a donation for your work.
- ◆ Is there a campus-wide activities day? If so, why not host a Dunking Booth, Pie-in-the-Face Booth, or free-throw contest? You'll be raising funds and awareness at once.





ABOVE: Scented soaps made and sold by the Hartwick College (Oneonta, NY) student chapter in time for Christmas and Mother's Day provide most of the chapter's fundraising revenue. RIGHT: The Francis Marion University (Florence, SC) student chapter earns its money by selling general chemistry, organic chemistry, and laboratory safety manuals each semester.



Get friendly with the locals

If you aren't attracting crowds, go where the customers are! To get a little more traffic coming your way, try one of these approaches:

- ◆ Set up a profit-share day with a local business. For example, the Cal Poly (San Luis Obispo) chapter arranged a promotion with Panda Express in which every purchase made using a simple coupon netted the chapter 20% of the total cost of the meal.
- ◆ The West Virginia State University (Institute) chapter teamed up with Kroger Cares to earn 5% of every \$5,000 spent at Kroger by anyone with a WVSU Kroger gift card, and used the funds for the chapter's school outreach program. (The national Kroger Cares program is open to any organization and costs nothing to join.)
- ◆ Hold a silent auction and ask for donated gift certificates and products from area businesses. Businesses are often happy to give free products or services, which draw in customers.



Go big or go home

Although they are more risky, big fundraising events or projects can net big profits, and the more creative, the better! Here are a few examples:

- ◆ The Spring Hill College (Mobile, AL) chapter holds a crawfish boil every spring and sells tickets at the door. With help from the ACS Mobile Local Section and University of South Alabama student members, the chapter hosted 150 guests this year during Alumni Weekend.
- ◆ The Hartwick College (Oneonta, NY) student chapter makes and sells handmade soap in time for Christmas and Mother's Day each year. Last year they mixed 16 batches and made over \$1,000.

How to Get Your Creative Juices Flowing

Of course, this is not an exhaustive list of suppliers, but it will get you off to a good start!

www.acs.org/undergrad

List of ACS grants available to student chapters.

www.usimprints.com

USimprints sells thousands of items that can be personalized, including some in small quantities.

www.zazzle.com/create

Zazzle has lots of customizable options as well, including many with no minimum order.

www.store.acs.org

The ACS store sells chemistry silly bands, periodic tables, and everything in between.

www.globalindustrial.com

Global Industrial sells chemical splash-resistant goggles for as low as \$1.50/pair.

www.prosafetyproducts.com

Pro Safety Supplies sells a range of goggles for as low as \$1.16/pair.

- ◆ The chapter at William Jewell College (Liberty, MO) sold exam survival kits to parents and delivered them to students the week before finals began. **IC**



Allison Proffitt is a writer and editor based in Nashville, TN.



How Chapters Find the Funds to Attend ACS National Meetings

BY ERIC STEWART

Traveling to an ACS national meeting is an amazing experience for members of student chapters. When you add the fun and excitement of being in a large city to the already great networking, educational, and résumé-building opportunities at ACS national meetings, every ACS student chapter should encourage its members to attend at least one national meeting each academic year.

“Sure,” you might be saying, “attending would be a great thing to do. But how do we pay for it?” Well, read on!

Money helps!

When you add it all up, there are potentially a lot of expenses related to attending an ACS national meeting, including not only travel, accommodations, and registration but also poster printing, incidental expenses, and more. Fortunately, there is also a long list of possible sources of funds, not to mention a variety of proven tips and strategies that other chapters are happy to share.

Know your sources

Everyone seems to agree on one central fact: you’ll almost certainly have to tap a variety of funding sources in order to take some or all of your chapter members to a national meeting. Fortunately, there are many to choose from:

FUNDRAISING — First and foremost, you and your fellow members can directly increase your ability to attend a national meeting by conducting your own fundraising activities. In speaking with ACS student members and faculty advisors, we heard about a wide range of ventures. In fact, the list of fundraising ideas is limited only by your imagination.

But if you’re still looking for ideas to implement on your own campus, be sure to read the Chapter Spotlight section

of *inChemistry* magazine to learn about the many innovative ways chapters go about raising funds from year to year. You can also check out Allison Proffitt’s “Show Me the Money, Honey: Fundraising Ideas for ACS Student Chapters” starting on page 22.

ACS TRAVEL GRANTS — The ACS Undergraduate Programs Office offers National Meeting Travel Grants to help ACS student chapters attend national meetings. Monique Wilhelm, adjunct lecturer and chapter advisor at the University of Michigan Flint (UMF), notes that her students get a combination of benefits from writing proposals for these grants each year. “In addition to helping to make attending the meeting more affordable,” she notes, “it’s also a great experience for our students. It’s not nearly as challenging as writing a grant for NSF funding, but it’s still a real sense of accomplishment.” For more information, visit www.acs.org/undergrad and click on Student Chapters and Grants.

ACS DIVISION-LEVEL GRANTS — In addition to Travel Grants from the ACS Undergraduate Programs Office, be sure to check out the websites of the 34 ACS divisions and secretariats, many of which also offer grants to individual students who are presenting posters to their specific technical areas.

UNIVERSITY RESEARCH/TRAVEL GRANTS — Every college and university is different, but you should check with your chemistry department to see whether your institution offers grants for costs related to research, which sometimes cover costs such as travel or printing posters.

ACS LOCAL SECTION GRANTS — Many ACS local sections offer grants to help ACS student chapters. Be sure to reach out to your local section to inquire. “I always tell my students, ‘You’re now colleagues with working chemists in the region,’” says Wilhelm, “and they’re interested in helping

you get your career off to a strong start.' So check to see if your local section can help."

SUPPORT FROM YOUR DEPARTMENT — Ask whether your own chemistry department can help with travel funds. According to Pam Mabrouk, a professor of chemistry and chemical biology at Northeastern University and associate dean for academic affairs, it never hurts to try to remind potential sources of funding about the professional opportunities a meeting presents for students. Several years ago, for example, Mabrouk urged one of her freshman students, Anthony Fusco, to write an abstract about his research, and the recommendation paid off. "With Professor Mabrouk's advice and help," says Fusco, "I managed to get the grant that allowed me to go to my first meeting, and that in turn helped me go to other ones — and those experiences ultimately helped me get my current job."

YOUR INSTITUTION'S STUDENT GOVERNMENT — Just as with your chemistry department, your student government may be interested in helping you get to the national meeting, especially if doing so will help to bring some national recognition to your institution in the form of an ACS student chapter award.

Other tips and strategies

STICK TO A SCHEDULE — At Henderson State University in Arkadelphia, AR, members of the ACS student chapter usually begin planning for the national meeting early in the fall, says David Bateman, assistant professor of chemistry and faculty advisor. "That way, by the time Christmas break rolls around, we know who's going and have our airplane tickets and hotel rooms reserved and paid for." Also, Bateman says, it means his students can spend the few months leading up to the meeting finishing up their posters explaining their research. "There are so many things to do," he says, "if we don't stay organized, it could be a headache to keep up with everything."

DELEGATE ROLES — One of the realities of raising enough funds for the national meeting is that you'll probably need to have a number of different "pots" of money to make it work. "We have a treasurer who keeps track of the various funds we've raised," notes Bateman, "but my co-sponsor and I stay in constant touch and meet with our members regularly to stay on top. We also have a secretary who's in charge of writing reports and updating changes on Facebook so all members know what's going on."



TOP: The South Texas College (McAllen) ACS student chapter has attended ACS national meetings since 2005, thanks to members' diligence in applying for travel grants, raising funds, and finding creative ways to reduce travel costs.

BOTTOM: To finance their travel to ACS national meetings, chapter members at Carroll University (Waukesha, WI) tap into a special chemistry department endowment fund that pays for the trips.

PHOTO COURTESY OF CARROLL UNIVERSITY

BUILD ON YOUR SUCCESSES — At UMF, says Wilhelm, there was a time when the students had to pay for the bulk of their travel expenses themselves. Then they began to raise funds by selling T-shirts and ACS study guides, and eventually became more active, selling lab coats and other items. This led to increased recognition and visibility on campus, which helped them win an Outstanding Student Chapter Award — and that in turn led the university to want to help them attend the national meeting in order to receive the award.

CONTROL COSTS — Last but not least, another strategy for helping your members get to a national meeting is to control expenses wherever you can. Ludivina Avila, chemistry instructor at South Texas College (STC) and faculty advisor of STC's ACS student chapter, has been helping her students attend the national meeting each spring (and sometimes the fall meetings as well) since 2005.

Avila observes that in addition to being diligent about applying for travel grants and raising funds through sales, her group has also developed some reliable ways to reduce expenses — while not detracting from the experience. “For example,” she notes, “my students have used online hotel booking services to get the best possible room rates, and also found ways to reduce airfare by arranging to arrive to meetings a day or two earlier.”

In addition, she explains, her students have developed strategies to control incidental costs during the meeting itself. For example, when her group arrives, one of the first things they

Don't Overlook Local Scholarships and Foundations

Here's a tip that may or may not apply to your institution, but it's still worth investigating. There may be specialized endowments or scholarship funds to which you can apply.

At Carroll University, for example, the ACS student chapter is fortunate to pay for a significant portion of its meeting travel expenses thanks to an endowment that is only available to one small group within the field of higher education: the students and faculty of the chemistry department of Carroll University. “In fact,” says Greg Marks, faculty advisor and assistant professor of biochemistry and chemistry, “that money not only pays for our trips to national meetings but also allows a small group of students and faculty members to do research abroad each year.”

Other endowments and foundations may focus on certain student demographics, areas of inquiry, or regions of the country — so it's worth investigating to see if there are any that would be interested in supporting your group's efforts to attend national meetings. **IC**

Ideas for Funding National Meeting Travel

- www.acs.org/inchemistry
Read “Show Me the Money, Honey” by Allison Proffitt on pages 22–24.
- www.acs.org/undergrad
Click on Student Chapters and Grants to find out about \$300 ACS Travel Grants that are available to student chapters.
- www.acs.org/divisions
Click on Technical Division Websites and search “awards.”



do is have some members find a local grocery store and stock up on water, sodas, chips, and snacks. “That way,” she explains, “the students can use their money for other things during the meeting.”

Get started today!

Make no mistake: attending a national meeting is worth a little extra effort.

“The whole experience definitely lived up to my expectations,” says Elizabeth Ebersperger, Carroll University's ACS student chapter president and a junior majoring in biochemistry. “I loved meeting the other students and working chemists, attending the various presentations, and talking with different recruiters.” At her last national meeting, Ebersperger presented a poster on her university's student chapter. “But next year,” she notes, “it's my chance to present on my own research, and I'm really looking forward to that.”

If you and your fellow members are interested in enjoying a similar experience, there's no better time to start than now! In fact, across the country, chapters begin planning for the spring national meeting each fall — and continue their fundraising activities throughout the year.

So good luck with your planning efforts, and we hope to see you at an ACS national meeting soon! **IC**



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Funds Available for Outreach and New Projects

Innovative Activities Grants Can Help Your Chapter Make a Big Difference

BY ALLISON PROFFITT

The ACS Innovative Activities Grants (IAG) program is designed to support ACS student chapters as they launch new programs. Experimental or innovative events are often difficult to fund, especially for student chapters that are already having trouble raising the money they need. The IAG program specifically supports these new ideas with \$500 matching grants.

“The idea here is to make chapters expand their horizons a little bit, to provide them with the support to try something that in many cases can be rather exploratory for them, without having to risk blowing their entire year’s budget,” says the University of Houston’s Simon Bott, a member of the ACS Society Committee on Education (SOCED) and a student chapter faculty advisor who has helped judge the IAG proposals for three of the past four years.

Active ACS student chapters in good standing are eligible to apply, and any type of project may be funded, as long as it is not one the chapter has done before. The project must be relevant to chemistry and involve maximum participation from ACS student members. New community service, research, or educational programs qualify, as do programs that involve collaboration with another school or sister professional societies.

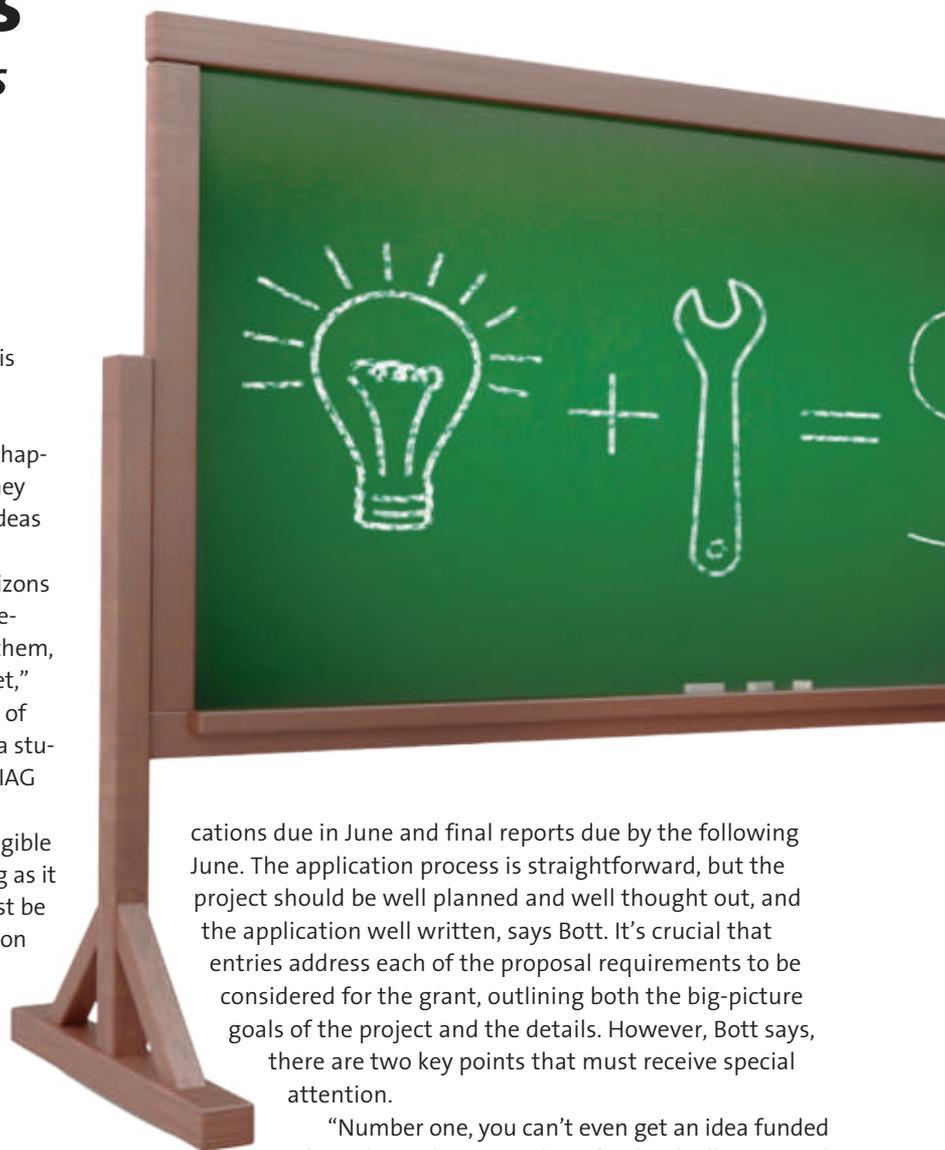
As Bott sees it, “Student chapters’ number one priority should be outreach to the community, particularly K–12 students. It’s all well and good for student members to host professional development activities, events to raise money for themselves and other college students, or simply occasions to get together for pizza and ice cream. But the most important thing they can do is get out to the rural schools, the inner city schools, and share their love of science. It’s amazing,” he adds, “the effect that having some college kids go out to these schools can have, especially when the college kids are from the same background as the kids they’re visiting.” For this reason, a major portion of the IAG funds are dedicated to outreach programs, whether they involve traveling to visit schoolkids, bringing the kids to the campus, or going to children’s museums, libraries, or other places to host events.

IAG projects should run no longer than one year, with appli-

cations due in June and final reports due by the following June. The application process is straightforward, but the project should be well planned and well thought out, and the application well written, says Bott. It’s crucial that entries address each of the proposal requirements to be considered for the grant, outlining both the big-picture goals of the project and the details. However, Bott says, there are two key points that must receive special attention.

“Number one, you can’t even get an idea funded if you do not have matching funds. Ideally, we need demonstration of those matching funds. There was one phenomenal proposal from one chapter — one of the best chapters in the whole country — where they actually said, ‘Yeah, we want this \$500. We’re not going to worry about matching funds, we’ll match something in kind.’ Our committee didn’t even review the proposal, because the proposal didn’t list any matching funds.”

The second essential point is safety. “If anyone is touching chemicals we need to know that they’re aware of the issues with those chemicals. We need to know they’re going to be adopting safe habits, and particularly, of course, if they’re doing it with schoolchildren we need to know that the kids are going to be safe,” Bott says.





The Washington State University student chapter received an IAG to assemble grab-and-go demonstration kits for local teachers. They also used part of the grant money to build an online portal to enable the teachers to learn about and request the kits.

PHOTO COURTESY OF WASHINGTON STATE UNIVERSITY

One recent year, winning proposals were submitted by six institutions: University of Arkansas at Little Rock, Washington State University, Southeastern Oklahoma State University, Ball State University, New Mexico Institute of Mining & Technology, and Yeshiva University.

Creating a new safety video

Students at the University of Arkansas at Little Rock were tired of the chemistry safety video shown to lab members. It was outdated, was generic, and didn't cover all the areas that needed to be addressed. Students proposed a collaboration with an on-campus audiovisual team to film a new, more relevant safety video featuring the familiar faces and spaces of the chemistry department.

"The remake of the chemistry safety video is a project that has been in discussion for over a year," explain Jerry Darsey, chapter advisor, and Amy Alexander, chapter president. "Receiving the IAG funding gave this project the push that was needed to set it into action." The Little Rock chapter had actually applied for an IAG before, but this was their first award. "Chapter officers should educate themselves and communicate these opportunities (and the deadlines) to all members and volunteers," stress Darsey and Alexander. "Two of our previous IAG proposals were denied, but ACS sends out suggestions and comments to the denied proposals as to how we can improve and expand the idea. Take these sugges-

tions to heart; be proactive, and try again the following year. And the year after that, and again, and again, etc."

Demo kits to go

Washington State University ACS student chapter members assembled grab-and-go demonstration kits for local teachers. Each kit included a curriculum, worksheets, and detailed instructions, as well as all reagents, glassware, safety equipment, and other materials. They assembled similar kits for their own chemistry demonstrations — demos and workshops that would require additional knowledge, materials, or safety equipment that couldn't be included in the teachers' kits. "With the IAG, we were able to put together kits for our most popular demonstrations and experiments (plus a few new ones!), which we will be able to use for years in the future. Best of all," notes Jen Ratfield, the chapter president, "the kits are portable, allowing the demonstrations to travel to wherever the educational activity will take place. Next year's chapter officers will be expanding the kits and encouraging more local educators to take advantage of this resource."

The chapter also recognized that the processes for publicizing and distributing the kits could be disrupted by normal chapter turnover. As the members who were most familiar with the program graduated, the program might start losing momentum, or things could slip through the cracks. So the chapter also proposed a project to streamline its chemistry demonstration process. The proposal was approved, and the chapter received funding to enable their Information Technology officer to build an online portal to make it easy for local teachers to learn about the project and request kits. "This component will be structured so that any transitions of student or faculty leadership within our student

ISTOCK



chapter will not adversely affect our ability to provide fun, educational, chemistry-themed demonstrations to the community," the chapter explained in its proposal.

Reaching Native American students

Southeastern Oklahoma State University (SEOSU) is located in southeast Oklahoma, a mostly rural area with a large Native American population; in fact, almost 30% of the SEOSU student population is Native American as well. The ACS student chapter at SEOSU wanted to reach out to the rural high school students, many of whom come from households below the federal poverty line, with parents who did not attend or complete college.

The chapter hopes to focus on high schools in the most rural and underfunded areas in the university's region. Students prepared a simple demonstration on recycling and plastics, a topic that they felt would be accessible and familiar to students. They hope to engage students in the experiment either in hands-on labs or by using student volunteers in a larger setting. The student members will then talk with the high school students about college life and encourage them to consider chemistry. "We hope these talks will help the students see themselves performing research in science fields," the chapter explained in its application. "We will also hand out information about the chemistry-related degrees at SEOSU, including advisor contact information and examples of where recent graduates are now."

Boosting student success

About 600 students take introductory chemistry in their first semester at Ball State University, and one-quarter of them withdraw or earn a D or F grade. The Ball State ACS student chapter proposed an organized plan of attack to improve those numbers.

Starting by holding a Surviving Chemistry workshop at the beginning of the semester, the student members will offer study sessions before each scheduled test and exam for both first- and second-semester general chemistry. Chemistry majors who succeeded in introductory chemistry will share their tips for study habits, note-taking, class attendance, exam prep, and getting the most value from labs. Study guides and outlines will be provided for the students before the first exam, and they will be shown how to effectively prepare their own study materials for the subsequent exams.



TOP LEFT: Simon Bott is an ACS student chapter faculty advisor at the University of Houston and a member of SOCED who has helped to judge the IAG proposals. PHOTO COURTESY OF THE UNIVERSITY OF HOUSTON



TOP AND BOTTOM RIGHT: With the money it received from an IAG, the student chapter at the University of Arkansas at Little Rock teamed with an on-campus audiovisual team to create a laboratory safety video for use in the university's chemistry department. PHOTOS COURTESY OF THE UNIVERSITY OF ARKANSAS AT LITTLE ROCK

"The goal of the project would be to help students who are struggling with general chemistry to not only stay in the class, but to do well," the chapter noted in its proposal. The dedicated and consistent effort will also expose underclassmen to the ACS student chapter and student members early in their college careers.

Made-to-order lab materials

ACS student members at New Mexico Tech noticed that the nearest high school, Socorro High School, did not offer a laboratory component to its chemistry lectures, and many high schools in the state do not offer a chemistry course or lab. To help better equip high school juniors, the student members — with additional funds from the Central New Mexico ACS Local Section — prepared a Chemistry Lab pilot program.

They assembled a kit consisting of five experiments and required materials for use by high school teachers. Using projects outlined in the ACS *Activities Workbook for Chemistry in the Community*, the student members assembled kits with activities including measuring the relative reactivity of metals, retrieving copper, calculating the caloric content of nuts, and testing water for certain ions. The New Mexico Tech student members will evaluate these five experiments based on the high school students' data and success with each lab. Using these data, changes can be made in the experiments or the kit design, and the findings will be used to establish a permanent chemistry lab at Socorro High School. **IC**



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Programs and Services for ACS Student Members

A Closer Look at the ACS Undergraduate Programs Office and How You Benefit

BY LORI BETSOCK AND CHRIS ZEIGLER

Did you know that there are more than 1,000 ACS chartered student chapters and nearly 20,000 undergraduate members of ACS? Undergraduates enjoy most benefits of ACS membership — plus a variety of unique services and resources provided by the Undergraduate Programs (UP) Office.

The UP Office develops and runs

programs to help individual undergraduate students develop professional skills, learn about traditional and nontraditional career options in chemistry, and take advantage of opportunities to network with professional chemists. We also provide many resources for ACS student chapters, including chapter grants and support in starting, reactivating, or re-energizing chapters.

We're ready to help

Whether you're interested in the resources and opportunities we offer for individual students, entire chapters, or both, we encourage you to take full advantage of these unique benefits of your membership in ACS.

If you have any questions about any of these programs, please e-mail us at undergrad@acs.org. 

Resources for individual ACS student members

inChemistry MAGAZINE

You've probably already encountered *inChemistry* magazine, which we publish four times each year and send to student members, faculty advisors, and chemistry department heads. As with other UP Office resources, the magazine is a resource to help you transition from a student into a professional chemist and to encourage you to take an active role in your community and your profession. Articles include information about career options in chemistry, professional skills development, study and research abroad opportunities, graduate school, and student chapters. These articles are contributed by professional chemists and freelance writers, along with student authors like you.

SOCIAL MEDIA ENGAGEMENT

As the Internet continues to change the way we interact with one another, the UP Office maintains a vigorous online presence on **Facebook** (ACS Undergrad Programs), **Twitter** (@ACSUndergrad), and **Reddit** to inform and support the online undergraduate chemists' community, as well as the **Reactions** blog at

www.acs.org/undergradblog. In **Reactions**, undergraduates blog about everyday chemistry, undergraduate life, and student chapter activities.

If you are interested in contributing articles to *inChemistry* or blogging for *Reactions*, e-mail undergrad@acs.org for more information.

NATIONAL MEETING PROGRAMMING

We work closely with the Society Committee on Education (SOCED) Advisory Board on Undergraduate Programming to plan sessions, workshops, and other events for undergraduates at ACS national meetings. These programs typically consist of technical symposia, graduate school information and recruiting events, career workshops, and undergraduate research poster sessions.

Undergraduates who attend ACS national meetings learn more about the latest research in various chemical areas and about the educational requirements you need to be successful in these fields. Recent meetings have included programs on careers in government and academia and pharmaceutical chemistry, as well

as career skills and leadership training and networking sessions with practicing chemists.

Each year, more than 1,600 undergraduates present their research at the undergraduate research poster sessions at ACS national meetings. Poster presenters enjoy valuable networking opportunities with potential employers, graduate school representatives, and other students. At the same time, they get to hone their skills in speaking and communicating their science to others.

GET EXPERIENCE DATABASE

Access a wealth of information on internships, summer work opportunities, fellowships, and co-ops for undergraduate chemical science students on the Get Experience online database. These experiential opportunities help you gain practical research experience in the United States and abroad; they also enrich your academic experience by helping you prepare professionally, gain exposure to the chemical industry, and make informed decisions about your career options and direction. Try the Get Experience database for yourself at www.acs.org/GetExperience. 

See the full spectrum of services at www.acs.org/undergrad



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PHOTO COURTESY OF LOYOLA UNIVERSITY

Support for ACS student chapters

ACS has student chapters at institutions throughout the United States, including Puerto Rico. Chapters typically engage in community service, chemistry outreach in schools and other locations, and professional development activities. When planning and carrying out these activities, student members learn to work together to put their thoughts and ideas into action. Chapter officers gain valuable leadership skills by learning to work with volunteers and by setting project schedules to ensure that their chapters reach their goals.

Many chapters have partnered with local elementary, middle, and high schools to conduct hands-on demonstrations, tutor, or serve as mentors. In the process, chapter members learn to function as teams and work together efficiently — important skills that carry over to the professional world. Chapters also collaborate with their ACS local sections on a regular basis to plan yearly National Chemistry Week celebrations and to promote Earth Day. And by the way, collaborating with your local section is a great way to interact with potential mentors, employers, and professional colleagues in a variety of industries.

REGIONAL MEETING PROGRAMMING

The UP Office provides regional meeting programming grants to help active student chapters plan and host undergraduate programs at their respective regional meetings. These programs can include workshops and symposia that focus on career-building opportunities at a local level. Student members not only gain useful skills from the proposal writing and peer review processes but also learn about planning a technical meeting. Working with the steering committee of their respective region, chapter members plan a program that will be informative and educational for the student members in their local area.

At the same time, students who attend regional meetings can meet and network with local section officers and other members of ACS, who can become valuable resources and sounding boards for you as you make career choices and decisions.

GRANTS FOR STUDENT CHAPTERS

To support ACS student chapters, the UP Office offers grants for Student Inter-Chapter Relations, Innovative Activities, Community Interactions, and National Meeting Travel. The chapter grants provide funding for many worthy chapter activities while also benefiting the chapter members who take part in the application process. Preparing proposals and summarizing how grant monies were spent are just two examples of the types of skills and knowledge that you can carry into your professional career.

Chapter members and faculty from Loyola University New Orleans display their student chapter award at a recent ACS national meeting.

To apply for an Innovative Activities Grant, a Student Inter-Chapter Relations Grant, or a Community Interactions Grant, members of a chapter are required to submit a detailed proposal outlining the project and how it will be of benefit to their chapter and/or community. The grants are reviewed by faculty advisors under the auspices of SOCED, and grants are awarded based on proposal content. All chapters receive feedback about their proposals, as well as tips for improving future proposal submissions. Chapters that receive grants are required to submit a mid-year progress report as well as a final report about the project.

NATIONAL RECOGNITION

The UP Office plays a key role in selecting ACS student chapters for recognition and sharing outstanding chapters' winning ideas with other chapters.

Student chapters are asked to submit their annual report forms in May of each year. Following the rules and criteria set down by SOCED, student chapter faculty advisors review the reports and select those that stand out in terms of originality, impact, or execution. At each ACS spring national meeting, SOCED recognizes these student chapters for their exceptional service and activities during the annual Student Chapter Awards Ceremony. These ceremonies have been held since 1992 and allow the Society and its officials the opportunity to thank and encourage the student chapters as they continue to promote the positive image of chemistry in their local communities. **iC**



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Chris Zeigler is an education associate in the ACS Undergraduate Programs Office.

See the full spectrum of services at www.acs.org/undergrad

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REACTIONS

THE ACS UNDERGRADUATE BLOG



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A blog of The American Chemical Society

American Chemical Society
Undergraduate Programs Office



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