Students often choose to study science with little knowledge of the myriad of options open to those with scientific knowledge and training. They enter college with enthusiasm, fueled by a love of experimentation and a craving for understanding how the world works. After college, they, like many of us, follow a traditional path that leads them to graduate school. Advice about career choices based on one's strengths and interests are often limited. Too many graduates feel they have no career options outside of academia.

In this issue, you’ll read two inspiring articles about rewarding non-traditional science careers, featuring two biochemists who pursued paths that allowed them to use their love of science in their own unique careers.

Finally, I want to thank Rebekah Waikel for her time and energy over the past year as the Editor of Enzymatic. Her enthusiasm and creativity have energized this newsletter. We are seeking a new editor to replace Waikel who will oversee the Enzymatic with fresh ideas and enthusiasm. If you are interested, please contact Weiyi Zhao or myself.
Improving learning by focusing on threshold concepts

By Jenny Loertscher, Ph.D. and Vicky Minderhout, Ph.D., Seattle University

In the midst of these turbulent times in higher education, we have taken a “back to basics” approach that focuses on improving deep learning in biochemistry. As a discipline, biochemistry has a set of concepts that biochemists agree are essential for undergraduates studying biochemistry to master, regardless of their disciplinary home department. Yet we know from classroom experience that many students fail to master these concepts. One barrier to achieving mastery of these concepts is the fact that students bring incomplete ideas from their prior experience to biochemistry classrooms. Another is the fact that many of these incomplete ideas relate to threshold concepts in the discipline. Threshold concepts are concepts that, when mastered, represent a transformed understanding of a discipline, and without which the learner cannot progress. They are therefore crucial in learning in a discipline (1-3). By focusing on student understanding of threshold concepts in biochemistry, instructors can maximize the impact of classroom instruction toward learning achievement.

We recently received NSF funding to use a systematic approach to improve student learning in undergraduate biochemistry courses nationwide. Working together with a community of biochemists, biologists and chemists, we will identify and confirm concepts that are critical for learning in biochemistry, design classroom activities to target these concepts, measure changes in student learning and disseminate classroom activities and assessment tools. All of these goals will be accomplished in collaboration with a group of faculty experts, a process that will maximize input from diverse perspectives and simultaneously build a community of biochemistry faculty who are able to make sustained changes in their classroom instruction to improve student learning.

Although input from faculty and students will be the driving force that defines threshold concepts in biochemistry, the existing literature indicates that threshold concepts in biochemistry are likely to relate to the following themes: 1) macroscopic versus microscopic scale, 2) purposeful versus random events (including emergent properties resulting from random events), and 3) integrating across contexts and disciplines (4-7). Specific threshold concepts could include equilibrium and biochemical processes, the role of randomness in directing biochemical events and energy transformations in biochemistry (8-10).

Identification of threshold concepts for biochemistry must be a community effort involving faculty and students. In summer 2013, we will be hosting a workshop (part of the ASBMB sponsored Student Centered Education in the Molecular Life Sciences special symposia) that will use a community-based approach to identify and refine threshold concepts for biochemistry. If you are interested in attending or participating in this effort in other ways, please contact us at loertscher@seattleu.edu or vicky@seattleu.edu.

References:

This June, the University of Arizona’s UAN Chapter and the Biochemistry Club hosted its first highly successful multidisciplinary BlastOff! Summer Science Camp. An important goal of this camp was to provide fifteen Tucson middle school students from historically under-represented ethnic groups, or students with limited exposure to science in their households, with the opportunity to engage in hands-on scientific experiments. The original idea for the camp was conceived by Mary-Helen Wanat (UA ’11) and Nina Martin (UA ’12), both Biochemistry majors.

Developed around the theme of outer space exploration, BlastOff! covered topics from the fields of physics, engineering, molecular biology, and biochemistry. Campers, who are mostly middle school students, participated in a wide variety of activities that challenged their problem solving abilities and their understanding of scientific topics. Camp activities included the chemistry of soil testing and water purification, the importance of light to life on Earth, identifying an organism using DNA fingerprinting techniques (students isolated their own DNA), and building their own solar powered vehicles and “rocket ships” using baking soda and vinegar. In addition to lab experiments, students also took field trips to the UA’s Flandrau Planetarium and the Steward Observatory Mirror Lab. Professor Carol Dieckmann (Molecular and Cellular Biology) visited the camp to give a talk on the green alga Chlamydomonas and how it can control phototaxis by using its large eye spot and flagella.

On the closing morning of the camp, students engaged in a CSI-like investigation to identify the culprit who murdered a space alien by analyzing DNA samples on an agarose gel. In the afternoon, siblings, parents, and grandparents were invited to watch a bottle rocket launching contest, a solar powered car race, a strongest spaghetti bridge contest, and to view the posters that each team of campers had worked on during their time at camp. The week closed with an award ceremony for all the campers.

For an overwhelming number of campers, the main vehicle by which they were taught science in classrooms was videos. Only two out of fifteen students had ever even taken a field trip. BlastOff! introduced many of them to hands-on science for the first time. Camper Madison Cruz-Lewis wrote, “My favorite activity was harvesting our own DNA...it was cool to see our DNA!!” Another camper Rashell Pedrego noted, “I really enjoyed making The Slime (a mix of borax, glue, water, and food coloring).” Vanessa Villalobos’ comments summarized all of the campers’ impressions about the camp,
“I had a wonderful time at BlastOff. I learned a lot about science in a fun way...it was a great experience.” Her older sister Isela is already looking forward to the next camp, “BlastOff was an experience I will never forget. I met other kids my age and had great time conducting experiments and listening to presentations. I hope to come back next year as a Junior Leader.”

What began as an idea presented to the UA UAN Chapter and Biochemistry Club by Dr. Hazzard over two years ago, required the involvement of many talented, energetic, and dedicated individuals. The initial camp theme was developed by Wanat and Martin. Michael Nelson (see Enzymatic July 2011, p.2) and Jonathan Merritt (UA ’12) developed the activities and figured out the logistics of hosting the camp during the 2012 summer break. A large number of other UAN Chapter and Biochemistry Club members generously donated their talents serving as Team Leaders, and two high school students, Carissa Grijalva and Yurika Isoe (participants in a former UA science camp), joined BlastOff! as Peer Mentors.

Reflecting upon her prior experiences as a camper and her recent experiences as a Peer Mentor, Isoe told us, “BlastOff! was special to me because when I worked as a Mentor this summer interacting with the students, it was as though I was seeing myself from six years ago - curious, enchanted and ardent. In 2006, I was one of the students in the first year of InnoWorks (a pilot summer camp founded by former UA student Grace Hsieh). This was the catalyst for my continued interest in science. The advanced materials in InnoWorks challenged me to investigate. The hands-on activities brought science out of the classroom. The dedication of the UA students made them look like heroes through my young eyes. Now that I have served as a Mentor, I realize how much of an impact these programs have had on my education”.

BlastOff! was funded in part by the ASBMB UAN Outreach Support Award, funds from the UA Department of Chemistry and Biochemistry, the College of Science, the Honor’s College, the Office of Vice President for Research, and personal contributions from Professors Marc Tischler (CBC), and James T. Hazzard. Lunches were donated by Tucson area restaurants and food chains.

Learning from this summer’s experience, we have already started developing a modified curriculum which will incorporate more field trips and a more biological theme to next year’s camp. Despite the exhaustive work and long hours, a large number of UA students have already made commitments to work on the BlastOff! 2013. Both the middle school and undergraduate participants overwhelmingly felt that the camp was a great success and a lot of fun. And that is, after all, what science should be!
From horse stingers to courtship and cuckoldry - Harold White's Delmarvalous reflections on the fascinating world of Odonata

by James T. Hazzard, Ph.D., University of Arizona

Immediately before beginning a seven-week summer session nonmajors biochemistry course, I was quite surprised to receive an autographed copy of Harold White's book “Natural History of Delmarva Dragonflies and Damselflies: Essays of a Lifelong Observer” (1). Before receiving this book, I had just read White's article “Visualizing the Perception Filter and Breaching It with Active-Learning Strategies” (2), in which he suggests that a primary goal of student-centered learning is “to generate situations and activities that open holes in the perception filter and allow information to invade the student’s working memory space.” Standing on the precipice of a once-a-year teaching obligation, my memory space already was fairly overwhelmed, and, not being an Odonata aficionado, there was certainly a need for something to poke a hole in my self-imposed perception filter. Fortunately, that was primarily accomplished by my great admiration of Hal’s passion for and leadership in transforming undergraduate education in biochemistry and secondarily by the fact that, having been born and raised on the Delmarva Peninsula, I am very familiar with many of the collection and observation sites White reveals in his book.

In the preface, the author candidly states that he has not written this book to be a formal field guide describing the 85 dragonfly and 44 damselfly Delmarva inhabitants. Rather, he uses the detailed photographs and colorful descriptions of each species as the basis for an eclectic series of reflections on subjects ranging from the development of his own interest in these amazing creatures to natural selection and evolutionary biology, the ethics of obtaining voucher specimens for collections as opposed to photographic documentation (a dragonfly enthusiast’s version of catch-and-release), the humorous opportunity to use his knowledge to discreetly identify the species depicted in a woman’s dragonfly body art, and the lamentable fact that many younger bioscience students are disconnected from the natural world and seldom go outdoors for extended periods of time. This latter chapter prompted me to reflect on the fact that while those of us who are of pre-Nintendo/ Xbox/Wii generations often were stimulated to pursue careers in the biosciences because of our interest in the outdoor world (this was certainly the case for me, as I spent copious amounts of time paddling a canoe along the upper reaches of the Nanticoke River and duck hunting in a variety of lower Delaware marshes), we spend so much time investigating the intricacies of the molecular world that we tend to neglect studying the intricacies of the creatures with which we co-exist in our biosphere.

This charming, humorous and well-written book is such a joy to read because it reminds us of the first principles we learned in traditional biology courses many years ago and instills in us the desire to learn more about the living things about which we have little knowledge, whether we live in the arid Sonoran Desert or the more water-rich Delmarva Peninsula. To that end (and being the consummate educator), White
sprinkles suggestions for interesting research projects for young scientists throughout his book. These suggestions, coupled with the fact that natural habitats are being lost at an alarming rate, makes one realize that it is incumbent upon those of us who are in a position to do so to engage in greater outreach activities, mainly in the form of field trips, with K–12 students to give them a better sense of the astounding natural world in which they live as well as “how science is done and the people who do science.”

Interestingly, after looking through “Dragonflies and Damselflies” one evening, my 14-year-old granddaughter (who is “terrified” of insects) casually informed me that she had seen a couple dragonflies down near our horse corrals. Now we are determined to know whether they are Spot-winged Gliders, Cardinal Meadowhawks or Mayan Setwings; being amateurs in the “Ode” field, we will have to wait until the dragonflies perch on a greasewood branch, because we lack the skill to identify them in flight. But as a direct result of White sharing his passion for these amazing insects in his wonderful book, another young person has become more knowledgeable about the world in which she lives.

References:


Finding the right career path: How one woman found her place in science

By Adebanke Fagbemi, Ph.D., Prescient Life Sciences

My path to graduate school was a lot like that of many other Ph.D. students. After completing my master’s program, I found myself at a crossroads not knowing exactly what I wanted to do next. So I continue my schooling and started on my Ph.D. This was almost a default option for me, as I honestly hadn’t put a lot of thought into where I wanted to be ten years down the line.

During my first two years in the Ph.D. program, I found classes challenging and was preoccupied with deciding what lab to join, leaving little time to ponder on long-term career goals. However, as often happens, by my third and fourth year of graduate school, frustrations set in. Failed experiments, even failed projects, are par for the course during your Ph.D. training, and it is usually somewhere around this time that many students begin to reconsider whether or not they want to do academic research long-term. It takes a certain type of personality to absorb the constant failures in the lab and use them as motivation to go on. The more I battled with failed experiments, the less I wanted to be in the lab. My main motivation for the last few years became “finish my Ph.D.” Quitting was not an option (but don’t think I didn’t consider it!),

Adebanke Fagbemi
and I made up my mind that whatever it took, I was going to get that degree! At this point it became apparent that a career at the bench (academic or industry) was not for me. I love science, but I had to find a way to stay in science without being at the bench. It was a tough decision because I knew that once I left the bench, there would be no going back.

The Ph.D. program I was in did not prepare students for any careers other than an academic one. Luckily for me, I learned about a Certificate Course offered at Stony Brook University Center for Biotechnology that is geared towards graduate students and post-docs looking for “non-traditional careers” in the bioscience industry. Some colleagues in my lab had taken the course and raved about it, so I applied and took it in the spring semester of my fifth year as a Ph.D. student. It was exactly what I needed and at the right time! The Fundamentals of the Bioscience Industry (FOBI) course introduced me to scientists working in industry, all of whom had graduate degrees, and had gone on career paths divergent from the traditional route. They included patent lawyers, regulatory affairs professionals, industry research scientists, and others, and it showed me that a Ph.D. really opened up a world of possibilities. I began to explore careers in patent law, medical communications and consulting, but decided early on to leave my options open pending when I got my first job. Landing your first job outside of academia requires non-academic research experience which can be gained either through internships or becoming involved in graduate student organizations.

I received a lot of encouragement from my colleagues for my decision to pursue a career outside of academia. I was also lucky in that my Ph.D. advisor was very supportive of my pursuits, allowing me to take the FOBI certificate course (his permission was required), and supporting me in any activities that usurped my time in the lab. Not all students are so lucky, however once the decision is made, I strongly encourage a student to do what it takes to get their career in the direction they need to go. After all, it is your life and you have to take control of it.

Upon completing my Ph.D., I began searching for jobs in a number of different fields including patent law, medical writing, and consulting. What I found attractive about these career options was the opportunity to work in many different therapy areas concurrently. My current position is at a pharmaceutical consulting firm working as a research analyst. We consult to pharmaceutical and biotech companies, giving them advice on clinical, regulatory and commercial strategy. A day on the job could involve working on an oncology drug in the morning, a women’s health device in the early afternoon, and a neurological disease late in the day. I find my job exciting and stimulating, and particularly enjoy taking up new projects and learning about a new disease area/drug. With this new career comes a new set of challenges, the most significant of which is time management. In academia you tend to have time to conduct research at your own pace, even when your PI is anxious to get a paper published, or you’re worried about getting scooped. This is not the case in the business world where I hardly ever have enough time to do things I would...
like. I had to learn to manage my time well in order to work effectively and efficiently under time constraints. Another challenge I’ve faced is learning to work as part of a team and managing other people. Most graduate students learn “people management” skills through mentoring lower-level lab members, but I still found it to be quite challenging to manage people who have a direct impact on my work. This was a skill I had to develop during the early stages of my industry career.

I enjoy my new career and am very satisfied with my decision to move from academia into industry. These days, I believe that with a Ph.D. degree and some industry experience, my career options are unlimited. While I have no idea what the future holds, I’m looking forward to it. Now when I’m asked, “With everything you’ve been through in getting a Ph.D. and knowing what you know now, would you do it again?” My answer is a definitive “YES!”

Careers in Science - An interview with Latasha Wright

By Teaster Baird, Ph.D. San Francisco State University

In this installment of our Careers in Science series, we talked with Dr. Latasha Wright, Staff Scientist and Development Officer for the BioBus. The BioBus is a state-of-the-art mobile research laboratory housed in a 1974 upcycled transit bus. Aboard the BioBus, students participate in inquiry-based, hands-on experimentation aided by research scientists from top-tier universities such as Columbia, NYU, Rockefeller, Princeton, Rutgers and more.

Q1: Dr. Wright, how did you get involved in science and eventually decide to become a scientist?

A1: When I was in high school my science teacher, Robert Pursley, made learning science fun. He was this really eccentric person who used to do corny things like sing Christmas carols based on the periodic table. He was so enthusiastic about science that it was infectious. We used to do crazy experiments like making bubbles with gasoline and lighting them on fire. I guess I have always been curious and a bit mischievous. These characteristics came alive in chemistry class. Mr. Pursley would say, “whatever you do, do NOT mix these two chemicals.” I would have one of my friends distract the teacher, and mix the two chemicals to see what would happen. Let’s just say I received a lot of chemical burns that semester.
After high school, I pursued a B.S. in Chemistry at Tougaloo College. At Tougaloo College, I once again encountered two wonderful mentors, Bharati and Bam Mehrotra. Both Bam and Bharati were Ph.D. scientists. They were really committed to increasing the number of minorities pursuing Ph.D.s in science. As a freshman, I received a Minority Access to Research Careers (MARC) scholarship. This scholarship paid for my tuition, gave me a modest stipend, and allowed me to do research in the summer.

My first research experience was at the NIH. My mentor was Dr. Joel Schwartz and that summer was phenomenal. It was a real turning point for me. Up until then, I really liked science, but I was unsure of what I really wanted to do with my life. After that summer, I learned that I loved not only the technical aspects of doing experiments, but also the intellectual component of conceptualizing an experiment. I loved asking questions. I loved the idea that I would become an expert in a field. Seeing experiments work and finding answers to questions felt like I was doing magic. The idea that I could spend my life doing something I loved was irresistible to me.

Q2: Did you always know that you wanted to get a Ph.D.?

A2: No. I come from a small town in Mississippi. My graduating class in high school consisted of about 90 people. I am a first generation college student in my family. As a result, the idea of pursuing a Ph.D. was not one that even entered my mind until after I met my mentors in college. I just knew I liked science. However, after my first research experience at the NIH, I became sure that I wanted to pursue a career as a research scientist.

Q3: It seems that you traveled the typical path of training and preparation to become an academic scientist up through your post-doc. At what point, or what experience(s) did you have that made you realize that you didn't want to do bench science anymore?

A3: It is true that most of my career path was traditional. However, teaching has always been a part of my extracurricular activities. I was a tutor in college and after college, I taught a summer science course at Tougaloo College. Also, as a graduate student, I taught science to kids through Brothers and Sisters in Science, the Urban Health Initiative, and Daddy's House Social Programs. I have always loved learning about and talking about science to others. During my second post-doctoral fellowship, I decided that I did not want to continue doing bench science. As a result, I did a bit of self-analysis. I took a hard look at my strengths and weaknesses and my likes and dislikes. I found that I loved teaching and talking about science, and that I wanted to continue doing this in some capacity. Additionally, I wanted to somehow share my love of science with young people.

Q4: Was it difficult to commit to the decision to leave bench science?

A4: Change is always difficult, especially for someone who has traveled the typical path of training. However, there comes a point where you have to choose between your happiness versus expectations of what you should and should not do.

Q5: After you decided that you didn’t want to follow the more traditional path, what “path less traveled” did you take?

A5: During my post-doctoral fellowship at
Cornell, my yoga teacher introduced me to Ben Dubin-Thaler, founder of the BioBus. The BioBus is a mobile microscope laboratory whose mission is to transport innovative hands-on experimentation to K-12 students throughout the northeast area (the five boroughs of New York City, Long Island, New Jersey and upstate New York). I started volunteering in 2009. I loved the idea of having a research lab on a bus. I loved the interaction with children. As a graduate student, I did a lot of recruitment for NYU. I found that interest in science has to be fostered at an early age. In a lot of instances, college is too late. That is why programs like the BioBus are so important. In 2012, I became a full-time employee of the BioBus. I am a staff scientist and also the development officer. I teach as well as write grants and fundraise for the non-profit.

**Q6:** Could you give our readers an idea of what your current job involves?

**A6:** Typically, I spend three days each week teaching students aboard the BioBus. The BioBus travels to schools all over the Northeast Area. In addition to going to schools, the BioBus travels to public events. We believe this is necessary to achieving our mission because it allows a cross-section of the general public to experience what it is like to be inside a genuine research laboratory. In addition to being the Staff Scientist, I am also the development officer for the BioBus. The remainder of my week is focused on fundraising for the BioBus. That entails researching and writing grants to fund the organization.

**Q7:** Does any of the training or education that you received help you in your current career path, i.e., can someone without a Ph.D. do what you do?

**A7:** Both the founder and I have Ph.Ds. However, our other Staff Scientist has a Master’s degree. Most of our volunteer scientists are either Ph.Ds or in graduate or medical school. Do you need a Ph.D. to teach children about science? No. However, we are teaching them inquiry-based science. We use our experience as research scientists to lead them in their experimental processes. We focus on the scientific method. We encourage them to form hypotheses and formulate experiments to test these hypotheses. Having a Ph.D. is an advantage. It gives credibility. We have over $200,000 worth of donated research laboratory equipment including a scanning electron microscope. Our donors are confident in our ability as scientists mainly because we have Ph.Ds. Additionally, we are seeking to change the public perception of what a scientist is. Seeing young, diverse, “normal” people as scientists has changed a lot of peoples’ perceptions. I cannot tell you how many times people have asked me, “You are a scientist?” Also, the other aspect of my job is writing grants. I have extensive grant writing experience and writing experience in general because of my graduate training as well as my post-graduate career.

**Q8:** What advice would you give to undergraduates who may know that they like science, and may want a career in science, but don’t yet know exactly what they want to do once they graduate?

**A8:** In the immortal words of Douglas Adams, “Don’t panic.” Allow yourself to not know. Ask yourself what makes you happy and look around at the people who inspire you. Consider internships, they help determine what you like and dislike and help to guide you towards a path that will ultimately lead to finding a career that suits you.

Learn more about BioBus at www.biobus.org.
Book Review: The Great Influenza: The Story of the Deadliest Pandemic in History

By Pumtiwitt McCarthy, Ph.D., FDA

Author John M. Barry provides a detailed and engaging account of the 1918 influenza outbreak in *The Great Influenza: The Story of the Deadliest Pandemic in History*. From 1918-1920, the influenza virus spread across the globe and hit with such lethal force that it still remains the deadliest pandemic the world has ever seen. It has been estimated that 20-50 million people lost their lives to the disease. In the book, Barry takes the reader on a thoroughly compelling journey through the pandemic, which nearly brought life in the United States to a standstill.

Before delving into the harrowing details of the pandemic, Barry offers a brief but intriguing look at the medical revolution that took place during the late 18th century in America. The field of medicine, from the time of Hippocrates up until most of the 1800s was based on “logic and observations alone.” Medical students did not do any work on cadavers or even see patients. To earn a medical degree, you simply had to take classes and pass an examination. This all changed when one scientist, William Henry Welch, began to look at disease in a laboratory setting at Bellevue Hospital in New York City and later at Johns Hopkins University in 1877. Barry describes Welch as someone who would “catalyze the creation of an entire generation of scientists who would transform American medicine.” From this point forward, medical schools across the country would be trained to go beyond observation and delve into the experimental world of science and patient research. Welch led the charge with other “scientists who would confront influenza in 1918.”

Barry paints a vivid portrait of American life during influenza in some of the hardest hit cities like Philadelphia and New York City. His words hauntingly convey the emotional toll the disease mortality rate had on the nation. Fear was rampant. To keep up public morale and support for World War I, the influenza pandemic was barred from mention in newspapers. Public officials denied that the disease gripping the nation was influenza until it was too late. The war had a direct impact on the disease. Military camps became quickly overcrowded as more and more troops were enlisted. These camps became, in Barry’s words, a “tinderbox” which provided the spark for an influenza “explosion” heard around the world. Once the disease hit these camps, it inevitably spread globally as soldiers came in and were shipped out far and wide.

“The Great Influenza” is an extremely well-written look into influenza and the efforts by medical science to combat it. Although written in 2004, Barry’s portrayal of the events is a timely reminder for our need for preparedness. The influenza virus is constantly changing and we are always at risk for another flu pandemic. The most recent example of this was the 2009 H1N1 pandemic which was met with a worldwide vaccination effort. A recently found super-antibody which can attack all strains of the virus may be medicine’s most promising weapon for destroying influenza in the future.
## 2012-13 UAN Calendar

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<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tr>
<td>November 3, 2012</td>
<td>Last day to renew your UAN membership and still qualify for UAN Student Travel Awards to the 2013 ASBMB Annual Meeting.</td>
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<td>November 8, 2012</td>
<td>Abstracts submission deadline for the ASBMB Annual Meeting.</td>
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<tr>
<td>November 28, 2012</td>
<td>Last day to submit applications for the Competitive Undergraduate Travel Award and Undergraduate Faculty Travel Award to the 2013 ASBMB Annual Meeting.</td>
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<tr>
<td>November 30, 2012</td>
<td>Last day to renew your UAN membership for the 2012-13 school year.</td>
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<td>December 14, 2012</td>
<td>Last day to submit articles for <em>Enzymatic</em> Winter 2013 Issue.</td>
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<tr>
<td>January 31, 2013</td>
<td>Last day to nominate students for the ASBMB National Biochemistry and Molecular Biology Honor Society.</td>
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<tr>
<td>February 8, 2013</td>
<td>Last day to designate UAN Non-Competitive Travel Award Recipients to the 2013 ASBMB Annual Meeting.</td>
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<tr>
<td>March 15, 2013</td>
<td>Deadline to submit applications for the UAN Outstanding Chapter Award.</td>
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<tr>
<td>May 17, 2013</td>
<td>Last day to submit applications for the Undergraduate Research Award.</td>
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### Establishing UAN chapters at Minority Serving Institutions

The ASBMB Minority Affairs Committee (MAC) and the UAN Committee are collaborating to launch a new Minority Serving Institution UAN initiative. We would like to invite existing UAN faculty advisors to serve as mentors to a newly initiated UAN chapter at an institution that is a Minority Serving Institution (MSI). This institution may be located within the same region as the mentor institution or in any region of the United States.

This ASBMB MSI-UAN initiative is a three-year project with funding for up to 6 new UAN-MSI UAN partnerships.

1. The advisor of the mentor school will receive his/her annual membership dues to the society ($140) paid for the first year of the partnership.
2. The advisor of the mentor school will also receive a $850 travel award to the 2013 ASBMB Annual Meeting in Boston, MA.

To incentivize initiation and encourage and support continuation, the new MSI-UAN chapters will receive the following:

1. MSI UAN chapter membership dues will be waived for three years at up to $200 per year.
2. Each MSI advisor will receive a $850 travel award to the ASBMB Annual meeting for three consecutive years after chapter creation (2013, 2014, and 2015, for example).

If you are willing to mentor a MSI through establishing a UAN chapter, please contact Weiyi Zhao (wzhao@asbmb.org) by Oct. 31, 2012.

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