

BRIGHAM YOUNG UNIVERSITY

Chemigram

A NEWSLETTER FOR
BRIGHAM YOUNG UNIVERSITY CHEMISTRY ALUMNI
(DATE 2005)

DEPARTMENT OF CHEMISTRY AND BIOCHEMISTRY,
C 100 BNSN, PROVO, UTAH, 84604
VISIT OUR WEBSITE AT [HTTP://WWW.CHEM.BYU.EDU](http://www.chem.byu.edu)

MESSAGE FROM THE CHAIR

It is difficult to believe that a year has passed since I wrote my inaugural chair's message last summer. It has been a busy and productive year in the department. We got a good check on our progress last fall as we underwent a thorough review of the department by a team from within the university and by two distinguished reviewers from off campus. The reviews are mandated for academic departments every seven years. We prepared a detailed self assessment that provided focal points for the visits by the internal and external teams. The reports on the department by both teams were very positive. The internal reviewers commented on our leadership within the university in the areas of research and scholarship, while recognizing our important contributions in undergraduate mentoring and teaching of service courses. The external reviewers praised our physical facilities and our exceptionally bright and motivated undergraduates. They noted a shared commitment by the faculty, staff and students in the department to the BYU mission. They also noted the challenges we face in strengthening our graduate program while maintaining our commitment to undergraduate education. In this last respect, we are a unique department, and we remain committed to excellence in both undergraduate and graduate education.

The reviewers' comments on our physical facilities were particularly poignant to me. We are exceptionally blessed as a department. This summer marks the tenth anniversary of our move to the Benson Building. Those of us who have been here long enough to remember life in the ESC realize the profound positive effect the move has had on all aspects of our performance as a department.



In cleaning out some old files last month I came across a collection of photographs of work in the ESC that Earl Woolley had taken in support of his pleas for a new building. While a bit of nostalgia for the old days was inescapable, so was a sense of wonder at how far we have come. If you have never visited the department in the Benson Building, you owe it to yourself to come. Our annual alumni gathering on October 15 would be an excellent opportunity.

The external reviewers touched on our biggest challenge as a department: maintaining a balance between our commitments to graduate and undergraduate education, and continuing to strengthen our graduate program. As is the case with many departments, recruitment of well-prepared graduate students is increasingly difficult for us, and we face unique challenges in that the BYU environment appeals to a limited group of prospective students. This is where you, as alumni, can help. I am sure that most of you know an undergraduate student in chemistry who will be considering choices of graduate schools in the coming years and for whom the BYU environment would be a plus. It is impossible for our recruiting committee to identify and reach all of these students. Encouragement from you for the students to consider graduate study at BYU would be our best recruiting tool. As noted above, we have world-class facilities and a world-class faculty. With you as our eyes, ears, and recruiting voices, our graduate program can continue to grow and excel.

It was a pleasure to get responses from some of you to our last newsletter. I hope that you will take the opportunity to let us know how you are doing. Don't hesitate to comment on how your BYU preparation has affected you professionally or personally. I welcome both positive and negative feedback as I work with the faculty and staff to ensure that the department reaches its full potential.

NEW FACULTY

David M. Belnap came to BYU from the National Institutes of Health in Bethesda, Maryland where he had worked since 1995. He worked there first as a postdoc and then as a staff scientist under the direction of Alasdair Steven. He received his B.S. in biochemistry from BYU in 1989. He next studied under Timothy Baker at Purdue University where he received a Ph.D. in biology in 1995.



His research and teaching interests include biochemistry, virology, structural biochemistry, and electron microscopy. His research interests include the study of virus structures and other macromolecular complexes via three-dimensional electron microscopy. He also is interested in improving 3-dimensional electron-microscopy techniques.

His past work has included work on the structures of poliovirus, papillomaviruses, polyomaviruses, hepatitis B virus, and clathrin.

His hobbies include photography, cycling, and hiking. He and his wife, Julie, are the parents of four daughters and one son.

Steven Herron came to the department from a staff scientist position at the W.M. Keck Center for Molecular Structure housed in the California State University at Fullerton. He received his Ph.D. in Biological Sciences from the University of California at Irvine.

Steven is a protein and small molecule crystallographer who enjoys working on structure function relationships in proteins and enzymes. Steven grew up in San Diego California. He married Amy Wensel in 1997 in the San Diego Temple. They are the



parents of three children: Jessica (6), Lorna (2), and Morgan (born 4/12/05).

NEW STAFF

Kathy Lee Garrett is the newest member of the Chemistry Business Office working as the Support Services Supervisor. She is a graduate of BYU with a BS degree in Family Science and an AS degree in Business. Kathy Lee started working at BYU as a student employee a month after high school graduation and has over 20 years experience working at the University. After many years of living the single life, Kathy Lee married Jeff Garrett in 1995 and became an instant mom to three young children. In 1999, she was

able to quit working and stay at home. However, after a six year leave of absence, she is happy to be back at BYU. Growing up Kathy Lee spent a lot of time at ball parks and in gymnasiums and that continues as she supports her children in their extra curricular activities. After sending the oldest off to BYU-Idaho, her family will enjoy their first wedding this summer as her daughter is engaged and getting married in June. In the rare case that she has any spare time, she enjoys sports, reading, knitting, crocheting, cooking, and doing puzzles.



Laura DeLong started working full time for Chemicals Management at the end of July 2004 as Regulated Waste Disposal Officer. She graduated from BYU with a B.S in Food Science. She was born and raised in Minnesota and learned early from her father that Minnesota is "God's country". You need to experience it for yourself to get the true picture. Minnesota (and Canada) is the home of the world's

best-kept secret, "Boundary Waters Canoe Area," which happens to be her favorite place to camp. It is nothing but miles of lakes and islands; only canoes and whatever can be carried is allowed in. Laura met her husband in Minnesota. They grew up together and attended the same early morning seminary, but never did acknowledge each other's presence until they were older. He is currently working on a degree in Public Relations. In her



spare time she enjoys running, hiking, playing soccer, football, and hockey. She also enjoys going to museums, plays and concerts. Most of all, Laura loves to spend time with her family.

Janet Fonoimoana has joined the department as the Assistant Graduate Student Coordinator. She comes to us from employment as the Academic Advisor for the Professional MBA program at the David Eccles School of Business at the University of Utah. This summer Janet will graduate with a BA in Human Development and Family Studies from the University of Utah – 30 years after receiving her junior college degree at Ricks College!

Janet grew up in New Zealand and Hawaii, and served a mission in the Guatemala, Guatemala City Mission. She was employed for 18 years as the secretary to the Laie Hawaii Temple president. She and her husband, Lucky, are the parents of five children; the two eldest, David



and Tina, are current BYU students. As a family they moved from Hawaii to Utah in 1996. Lucky is a counselor here at BYU.

Janet's claim to fame is that she speaks English in three "dialects": American English, Kiwi English, and Pidgin English – and she speaks Spanish too. Although she is Caucasian, she is very interested and involved in the Polynesian culture, having lived in the South Pacific most of her life.

Marcia Flake joins the department as a part-time secretary supporting the Department Chair. She and her husband moved recently from Brookings, SD, where she taught 23 years as a computer applications high school teacher. Marcia attended Utah State, BYU and graduated from Washington State University. In addition, she earned an M.Ed. at South Dakota State University. Marcia is also currently teaching basic computer application classes for UVSC. Marcia has three children. Her two daughters (both graduated from BYU) are married, living in California and have three children a piece. Her son is attending BYU majoring in Japanese. Her hobbies include quilting, golfing and bragging about her grandchildren.



RETIREMENTS

Kathryn Rollins began her career at BYU working for the Director of Registration and the Director of Admissions from 1984 until 1990, at which time she decided to work part-time in order to spend more time with her family.

In 1992, Katie filled the position of secretary for the graduate program in the Department of Chemistry and Biochemistry. The number of graduate students in our department nearly doubled during the 12 years that she was in this position. Katie meticulously tracked the progress of each graduate student as they completed requirements for their degrees. She served as secretary for three energetic committees in the department, the

Recruiting Committee, the Waivers Committee, and the Admissions Committee. She received the President's Appreciation Award in 1998. Katie served the University and the Department of Chemistry and Biochemistry well for the past 20 years, and retired January 1, 2005.

Katie and her husband are gifted artists who create beautiful bronze sculptures together. Their retirement will be spent working together in their art. They have moved to a newly built home in Annabella.

COLLEGE SPRING

RESEARCH CONFERENCE

The College's 19th Annual Spring Research Conference was held March 19th with Chemistry and Biochemistry students playing a leading role. Each participant presented a 15-minute overview of their original research project while their faculty mentor watched from the audience.

A continuing problem of undergraduate research is finding adequate resources for the students. For the past several years, donations to the College's Annual Fund have been used to support these research projects. Many alumni, faculty, staff and friends have contributed these funds and have had their donations matched by the President's Leadership Council (PLC), a group of generous friends of BYU. Most of the principal donations and all matching funds have been used to support additional research mentorships.

The Dean has announced that the PLC has agreed to continue this match in 2005. Our long range goal is to provide a mentored research experience to every undergraduate student who wants to participate. During the past four years the College Annual Fund has supported 49 undergraduates in mentored research for one or more semesters. We appreciate your help in making these research experiences possible. If you would like to contribute to the College's Annual Fund, you can send your donations to P&MS College Annual Fund, % Chemistry & Biochemistry Department, C-100 BNSN, Brigham Young University, Provo, UT 84602.

Our Department had 72 students make presentations at this year's Spring Research Conference. The following students were selected as having the best paper in their sections:

Sarah Warburton
Tyler Meldrum
Joseph Bair
S. Darbi Chavez
Michael Ferguson
Jeremy Johnson
Yansheng Liu
Carl Jones
Randal Goff
Ryan Kelley



RESEARCH HIGHLIGHTS

Chemistry and Biochemistry Researchers Announce Immune System Key in 'Science'

As part of a multidisciplinary team of scientists from around the world, Paul Savage and his graduate students have helped to discover a key to how the body regulates its immune response.

The finding has important implications in uncovering the roots of baffling autoimmune conditions like multiple sclerosis, lupus and rheumatoid arthritis. The work also sheds light on how the body responds to threats such as viruses, bacteria and cancer.



don't survive. Autoimmune diseases like multiple sclerosis or rheumatoid arthritis are cases where the body attacks itself with an inflammatory response. This can be a result of a lack of natural killer T cells, which exist to regulate the immune response so that it protects the body without damaging it.

"We can come back to these people that don't have a lot of natural killer T cells and have autoimmune diseases, and it's possible they don't have enough of this antigen," Savage said.

Describing the antigen is a huge step toward understanding the complete chain of events involved in immune response. When Savage and his colleagues published a paper in "Science" last year that hinted at the identity of the key antigen, he called identifying it "the Holy Grail for us." Now armed with this knowledge, researchers are much closer to uncovering why some people develop conditions like multiple sclerosis and others don't.

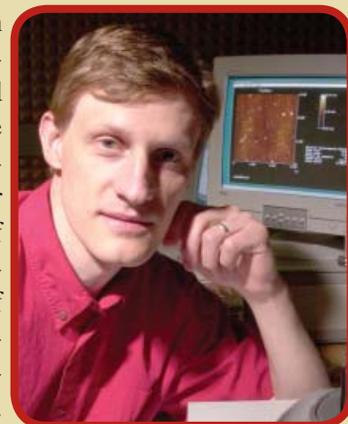
Savage and two of his graduate students, Ning Yin and Ying Gao, are organic chemists who created artificial antigens for the research team.

"Scientifically, this is extremely exciting because there have been so many at major universities around the world who have been after this," Savage explained. "Because we've combined a team of organic chemists with immunologists, we've been able to figure it out."

The lead authors on the paper are Dapeng Zhou and Albert Bendelac at the University of Chicago. In addition to the BYU team, other coauthors are at the Scripps Research Institute, National Institutes of Health, Goteborg University in Sweden, the Chinese Academy of Sciences and the University of New Hampshire.

Nanowire "Y"s Developed Using DNA

Professor Adam Woolley has been developing a bottom-up approach for making metal nanostructures on surfaces, with potential application in the construction of integrated circuits that power computers. Nanowire formation is achieved by using DNA molecules as templates for the positioning of metal cations, followed by electrodeposition to make metal nanostructures with diameters from 3-30 nanometers, and lengths up to tens of microns. This research is motivated by the increasing interest in developing new and revolutionary nanofabrication techniques that can provide significantly smaller feature sizes at lower cost than presently available with top-down micromachining methods. Several advances reported in this field by Dr. Woolley's group over the past two years have been the fabrication of DNA-templated copper nanostructures, the positioning of carbon nanotubes on surfaces using DNA, and the development of an ionic masking technique to reduce the nonspecific surface background surrounding nanowires.



Recently, Woolley's group has created metallized three-branched DNA nanostructures. These three-armed assemblies should facilitate the character-

The study is published online in "Science Express," the online version of America's premier scientific journal, "Science," which fast-tracks articles with important implications for human health. Studies initially published online appear in later print editions of the journal.

This research revolves around special cells called natural killer T cells, which act as switches in the body, determining whether to unleash an aggressive response such as inflammation, or instead initiating a ramping down of such responses.

"The problem has been that we didn't know what the key looks like that unlocks that switch," said Paul B. Savage.

The missing key is an antigen, which acts as a signal for the immune system, sending it into action. Most antigens studied to date have been small pieces of protein, but the antigen in this case is a glycolipid, made up of sugars and a fatty molecule. Scientists knew there was an antigen involved in activating natural killer T cells because they could observe its effects, but the team of scientists including Savage is the first to identify and describe it.

"Now we know what the real key is so now we can start asking where that key is made, how it's regulated, and that will allow us to understand how these responses are regulated," Savage said. "We can start to manipulate the natural killer T cells into doing what we want – treat disease."

In addition to digging deeper to understand the process, researchers can now create artificial versions of the antigen and test their ability to ramp the immune system up or down.

This antigen also plays another crucial role by "selecting" natural killer T cells for duty – without its presence, they

ization of the electronic properties of individual nanoparticles, and could find use in forming arrays of independently gated nanoelectronic circuits. This work was published in March 2005 in the *Journal of the American Chemical Society*. An interesting, though unplanned outcome of these experiments is that the branched DNA assemblies look like nano-Y's (nearly 1 billion times smaller than the one on Y mountain) when viewed by electron microscopy or atomic force microscopy.



The Department of Defense, and the Petroleum Research Fund of the American Chemical Society provided funding for this work. Assisting Dr. Woolley in the fabrication of branched nanostructures were BYU physics professor Robert Davis, chemical engineering professors Dean Wheeler and John Harb, graduate student Hector A. Becerril, and undergraduate student Randall Stoltenberg.

Professor Woolley is also working to create miniaturized devices for the rapid analysis of proteins and other biological samples. His research group presently consists of five Ph.D. students, two M.S. degree candidates, and five undergraduate students.

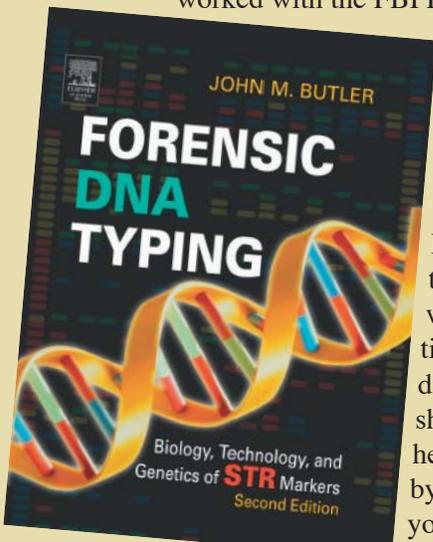
ALUMNI CORNER

Chemistry Alum Recognized with International Award

John M. Butler, a research chemist at the National Institute of Standards and Technology (NIST) and 1992 graduate of BYU, was recognized in 2005 by the International Society of Forensic Genetics (ISFG) for his work in the field of forensic DNA analysis. He is just the fifth scientist (and only American thus far) to receive the ISFG Scientific Prize and was selected for his research on improving the characterization of single-nucleotide polymorphisms.

Dr. Butler, who received his Ph.D. in chemistry from the University of Virginia in 1995, is the project leader of the NIST Forensics/Human Identity Project team. Prior to assuming his present leadership role over the human identity testing efforts at NIST, he worked with the FBI Laboratory and a Silicon Valley biotech start-up company. Dr. Butler maintains an active research program and is one of the most prolific authors in his field in addition to being a regular invited speaker at national and international forensic DNA conferences.

Following the terrorist attacks of September 11, 2001, Dr. Butler's expertise was sought to aid the DNA identification efforts, and he served as part of the distinguished World Trade Center Kinship and Data Analysis Panel. He also helped develop new techniques used by those identifying the 9/11 victims. If you are interested in learning more about



Dr. Butler's latest research and his current publications, you can find them at the website link: <http://www.cstl.nist.gov/biotech/strbase/butler.htm>.

Dr. Butler loves teaching and has written the standard text for his field that is used worldwide for training forensic scientists and other members of the law enforcement and legal communities. His award-winning textbook, *Forensic DNA Typing: Biology, Technology, and Genetics of STR Markers*, is now in its second edition. In addition to his busy scientific career, Dr. Butler serves as the bishop of the Gaithersburg 1st Ward in the Seneca Maryland Stake. He and his wife Terilynne ('93) are the parents of five (and soon to be six) children, all of which have been proven to be theirs through the power of DNA testing.

Fiftieth Anniversary Celebration for Creation of Synthetic Diamonds by H. Tracy Hall

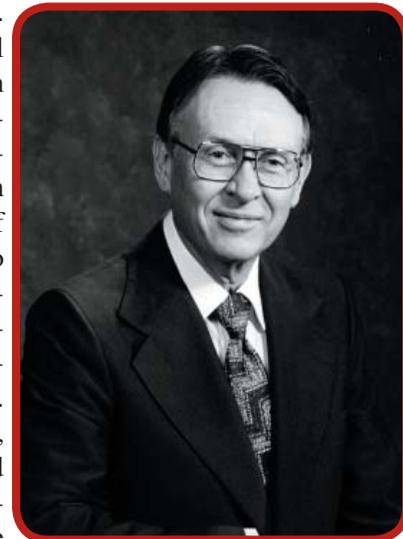
The fiftieth anniversary of the creation of the first man-made diamonds by BYU emeritus professor H. Tracy Hall was recently celebrated. On Dec. 16, 1954, Dr. Hall was working in a General Electric laboratory in Schenectady, N.Y., when he successfully created the first man-made diamond from carbon. His discovery led to the creation of a global, multibillion-dollar industry making synthetic diamond tools for companies in mining, oil and gas exploration, aerospace, automotive, glass and ceramics, electronics, and construction.

Dr. Hall was honored by more than 150 industry participants gathered at the Provo Marriott to remember the occasion. His processes are now used to fabricate diamonds for a wide variety of polishing and cutting equipment including masonry saws, ceramic drill bits, dentist drills, knife sharpeners, optical polishing machinery, construction picks, saw blades, and oil drills.

New applications are constantly being found for synthetic diamonds such as hip replacements and for cutting new superalloys used by the aerospace and automotive industries.

Dr. Hall came to BYU in 1955 and eventually became the Director of Research and a Professor of Chemistry. He also helped to start several industrial diamond product makers in the local area.

David Hall, Dr. Hall's son, said "Today, the industry generates more



than \$100 million in sales annually and has created more than 500 jobs in Utah". Terry Kane, the executive director of the Industrial Diamond Association of America, said, "Globally, the finished diamond tools industry is valued at up to \$5 billion, while the raw materials industry is valued at more than \$1 billion."

Charitable Remainder Trusts

Charitable Remainder Trusts (CRTs) are powerful tools that can provide you an income for life, and then present a wonderful gift to the Department of Chemistry and Biochemistry upon your passing. When properly crafted and implemented, CRTs provide asset diversification and significant tax advantages. CRTs are frequently used to convert an unproductive asset into a source of income.

A CRT works as follows: (1) Donor(s) execute a CRT document in accordance with IRS regulations; (2) Donor(s) then contribute a highly appreciated asset (e.g. real estate or stock) to the trust thus bypassing capital gains tax on the asset and receiving an income tax deduction; (3) The trust sells the asset and invests the proceeds in accordance with the terms of the trust agreement and state and federal law; (4) The trust pays an income for a term of years or the life or lives of the donor(s) in accordance with the terms of the trust agreement and state and federal law; and (5) At the expiration of the trust, the remaining assets are transferred to the selected charity(s).

The LDS Foundation at BYU provides considerable expertise in planned giving in strict confidence and at no charge. Working in harmony with you and your professional advisors, the Foundation can help you identify the potential benefits offered by CRTs and other planned giving vehicles.

Please contact David Bonner, our department's representative from the LDS Foundation at BYU, for more information about Charitable Remainder Trusts and other planned giving instruments. David may be reached by phone at **(801) 422-1691 or (800) 525-8074**. His email



address is David_Bonner@byu.edu. David looks forward to hearing from you.

FACULTY AWARDS & RECOGNITIONS

Paul B. Savage was recognized with the University's Karl G. Maeser Excellence in Teaching Award given for outstanding teaching accomplishments. The citation read "Students in Professor Paul B. Savage's class are challenged to understand the fundamental principles of organic chemistry. By making the added effort to learn the "why" of organic reactions, his students are rewarded with a broad mastery of the discipline. With his excitement for organic chemistry, he guides his students to a high level of competence and self-confidence."

Milton L. Lee was honored with the Wesley P. Lloyd Award for Distinction in Graduate Education. This award pays tribute to a faculty member of exemplary performance in teaching, research/creative work, and citizenship in graduate education. His citation read "He has served many graduate students, including serving as major advisor for 39 PhD students and five MS students. Dr. Lee is a



prolific scholar. He is internationally recognized in microseparation techniques, high-speed separations, time-of-flight spectrometry, and ion mobility focusing. Dr. Lee has received numerous prestigious national and international awards. The Wesley P. Lloyd Award for Distinction in Graduate Education recognizes Milton L. Lee's profound impact on the lives of graduate students at BYU."

Gregory F. Burton was selected for a John A. Widtsoe Fellowship. These awards are given for research that enhances the quality of life or contributes to the solution of pressing world problems. Dr. Burton was recognized for his research in understanding the cellular reservoirs where the

HIV/AIDS virus is maintained in a form that perpetuates the persisting infection.

UNDERGRADUATE AWARDS 2005

Keith P. Anderson-Outstanding Senior
Randall Stoltenberg

ACS Analytical Chemistry-Junior Award

Megan Gould
Adam Washburn

Analytical Chemistry
Randall Stoltenberg

Biochemistry
Nathan Lewis

Chemistry Literature
Spencer Jones

Freshman Chemistry Major
Allen Nicholson

Freshman Chemistry Non-major
Elizabeth Wallman

Inorganic Chemistry
Andrew Duffin

Organic Chemistry Major
Eric Chen

Organic Chemistry Non-Major
Scott Cardall

Physical Chemistry
Tyler Meldrum

Bevan Ott-Service Award
Carrie Jensen

Catalyst Club-Outstanding Junior Woman

Anne Bean

College Undergraduate Research

Awards -Spring and Summer 2005

Name	Faculty Adviser
Anne Bean	Fleming
Karl Bedke	Andrus
Eliot Bennion	Asplund
Eric Chen	Savage
Taylor Greenwood	Willardson
Jeremy Johnson	Sevy
Spencer Jones	Castle
Garry Kelley	Herron
Kam Lau	Vollmer-Snarr
Michael Morrill	Harrison
Nathaniel Nye	Fleming
Jordan Olsen	Farnsworth
Jared Parkinson	Castle
Caleb Stowell	Willardson
Adam Washburn	Woolley

Ott Undergraduate Research Award

Robert Blake Linford

Harr Undergraduate Research Award

Jeffrey Stephens Andrus

Garth L. Lee Undergraduate Teaching Awards for Fall 2004-2005

Student	Class	Professor
Kathryn Tjarks	Chem 101	Adams
Michael Courtright	Chem 105	Dearden
Marcus Crosby	Chem 105	Lamb
Morgan Gainer	Chem 105	Wood
Alicia Mabey	Chem 105	Dearden
Jared Goodman	Chem 105	Eatough
Jason Hawkes	Chem 105	Lee
Robert Kitchen	Chem 105	Brown
Kristin Skidmore	Chem 105	Lee
Rick Nordgren	Chem 105	Wood
Jessica Price	Chem 105	Lamb
Caleb Stowell	Chem 105	Wood
Brian Cheney	Chem 106	Cannon
Natalie Valentine	Chem 106	Cannon
Rachel Williams	Chem 106	Cannon
Allan Draper	Chem 107	Brown
Bradley Rogers	Chem 107	Brown
Kari Waite	Chem 107	Brown
Melissa Schmidt	Chem 152, 101	Nielson
J. Daniel Jensen	Chem 213	Nordmeyer
Heather Aamodt	Chem 353	Hinshaw
Crain Pew	Chem 353	Hinshaw
Sean Quigley	Chem 353	Hinshaw
Matt Stewart	Chem 353	Hinshaw
Nick Tanner	Chem 353	Hinshaw
Soren Harward	Chem 354, 391	Hinshaw

GRADUATE AWARDS 2005 FELLOWSHIPS

Bradshaw Graduate Fellowship in Organic Chemistry

Renmao Liu

Outstanding continuing graduate student in organic chemistry - 10-hour research assistantship for up to 12 months beginning Fall 2005.

Charles E. & Margaret P. Maw Research Fellowship

Hector Becerril-Garcia

Outstanding continuing graduate student in any area - 20-hour research assistantship for up to 12 months beginning Fall 2005.

Roland Robins Research Fellowship

Binghe Gu

Jiangqiong Liu

Xiangtian Long

Iyas Masannat

Karen Merrill

Bo Zhang

Outstanding continuing graduate students in any area - 20-hour research assistantship for up to 12 months beginning Fall 2005.

BYU Graduate Studies Research Fellowships (Internships)

Jenny Armenta

Joseph Bair

Alyson Cerny

Pucheng Ke

Jing Liu

Douglas Tanner

Outstanding continuing graduate students in any area - 10-hour research assistantship for up to 12 months beginning Fall 2005.

Stanley & Leona Goates Research Fellowship

Bridget Peeni

Outstanding continuing graduate student in any area - 20 hour research assistantship for Spring and Summer beginning Spring 2005.

CONTINUING STUDENT SUPPLEMENTARY AWARDS

Garth L. Lee Award

Randall Goff

Outstanding continuing graduate student in any area, based on religious commitment, service, and scholarship- \$1,250

Loren C. & Maurine F. Bryner Award

James Gregson

Outstanding continuing graduate student in any area - \$1,000

Jennie R. Swensen Award

Sarah Warburton

Outstanding continuing biochemistry graduate student - \$1,000

GRADUATING AWARDS

Outstanding graduating M.S.

Seth Grant

Outstanding graduating Ph.D.

Ryan Kelly

Georgi Lukov

2005 BYU

HOMECOMING EVENTS

Please mark your calendars and plan to renew your friendships in the department at our homecoming activities as follows:

- Chemistry and Biochemistry Alumni Reception, Dinner, and Program, Friday, Oct 14, 2005

6:00 pm – Mixer in Rm W-170 , BNSN

6:30 pm – Dinner in Rm W-170

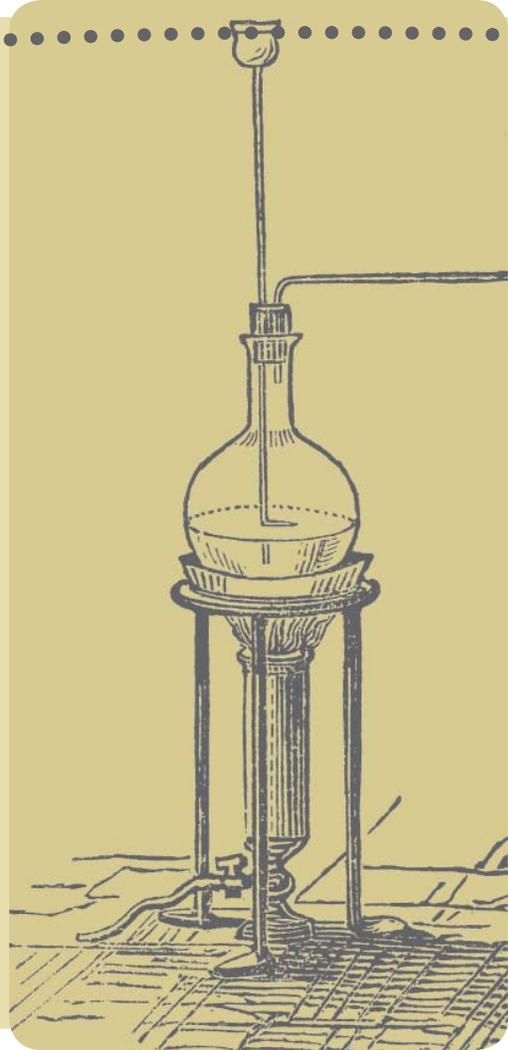
7:30 pm – Speaker (Paul B. Savage)

-Homecoming Spectacular, 7:30 pm, Oct 13 & 14 at the Marriott Center

-Homecoming Game, Saturday, Oct 15, 2005

10:00 am – Parade

TBD – Homecoming game, BYU vs. Colorado State University



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