Chemistry events
The calendar of featured lectures for the 2011–12 academic year will not offer as much up-to-date information about Department of Chemistry lectures and seminars, but can be found online at http://chemistry.uchicago.edu/events.

Let’s keep in touch
The Department of Chemistry is updating its records. If you have moved, please inform us at the following address or send other correct information to Vera Dragisich at v-dragisich@uchicago.edu.

What’s new with you?
Do you want to hear from your classmates about what you are doing? If so, please write letters to the editor of the University of Chicago Alumni Newsletters. In it, you can read about Dugan Hayes, a graduate student, (Alan Vaughan, PhD’90) an alumnus who works in industry, and Stuart Rice, a faculty member who was recently awarded the Wolf Prize for his many contributions to chemical science. He also received the Society of Chemical Sciences’ Autumn Distinguished Service Award. We would be pleased to receive letters from your classmates and other alumni who are interested in chemistry.

Chemistry club

Dear friends,

Mrksich will move his group to Northwestern University and Rustem Ismagilov will relocate to the University of Texas at Austin. During the 2011–12 academic year, Milan Bouda and Luke Jankowski will join our faculty—makes up the chemistry community at the University of Chicago. It is my hope that this newsletter helps that community grow.

We are continuing our period of partial change in the Department of Chemistry. Two new chemistry faculty members have decided to leave Chicago. During the 2011-12 academic year, Mikhael Mishustin will move his group to Northern Illinois University and Ruben Ibrahim will move his group to the University of California. Both will continue their exciting work in fundamental chemistry while pursuing new opportunities in engineering made possible at their new institutions. We thank all of our alumni for their support and wish them the best of luck in their new professional homes.

As we begin our most successful use of the University’s laboratories, we are embarking on an aggressive effort to expand the facility to cater to size of 20. Take into account ongoing commitments, this will allow larger living units to open to faculty members over the next three years. We plan to recruit junior and senior faculty in materials chemistry, biological chemistry, and other interdisciplinary areas to achieve this goal.

I am pleased to report that during the past year we successfully recruited into our organic chemistry faculty. Jared Lewis joined the Department January 1. Jared Gold, PhD’05, who was previously at the University of California, Berkeley joined the joint mentoring of Robert Bergman and Jonathan Ellman. As a postdoc, he switched fields to pursue a Ph.D. in chemistry at UC Berkeley under the joint mentorship of Robert Bergman and Jonathan Ellman. As a postdoc, he switched fields to pursue a Ph.D. in chemistry at UC Berkeley under the joint mentorship of Robert Bergman and Jonathan Ellman. His research focuses on the development of new methods for the preparation and modification of chemical reactions using transition metal catalysts and artificial metalloenzymes.

Yossi Wizemann joins the department July 1. Yossi did his graduate work at the Hebrew University of Jerusalem. Yossi will explore new areas of organic and organometallic chemistry at University of California, Berkeley. Yossi is moving to Chicago to pursue a Ph.D. in chemistry under the joint mentoring of Robert Bergman and Jonathan Ellman. His research focuses on the development of new methods for the preparation and modification of chemical reactions using transition metal catalysts and artificial metalloenzymes.

Wiseman joins the department July 1. Diedt did his graduate work at the University of Florida. When he joined the faculty, he was working on the development of new methods for the preparation and modification of chemical reactions using transition metal catalysts and artificial metalloenzymes.

New Student Fellowships

Bouman Fellowships
James Dees
Lauren Kiso

Kokoya Bello Shankwe

McGovern Fellowships
Karen M. Oliveto

Michael Polsky
Dmitriy Dobrinski

John Wing (Yong) (Lue) Lin

Andrew Butler

Jessica O’Keeffe

Kirk A. Siegel

Hai Lin

Harry Deng

University of Chicago

Alumni Association Fellowship

Dagmar Hayes

NSF Graduate Fellowships

Dagmar Hayes

NSF Professional Training Grant

Gail A. Schmalz

Brouder Scholarships

Andrew Bollinger

DOE Computational Science Fellowship

Andrew Bollinger

Kendal Miles

Maggie’s Chalkboard

The famous chalk drawing of a tiger that started out on a chalkboard in Searle and has since been moved to a prominent location in the central Chemistry Department office in Searle.

The Core, a supplement to the University of Chicago Alumni Newsletters. In it, you can read about Dugan Hayes, a graduate student, (Alan Vaughan, PhD’90) an alumnus who works in industry, and Stuart Rice, a faculty member who was recently awarded the Wolf Prize for his many contributions to chemical science. He also received the Society of Chemical Sciences’ Autumn Distinguished Service Award. We would be pleased to receive letters from your classmates and other alumni who are interested in chemistry.

The Core’s editor, Laura Demanski, hopes that the drawing’s anonymous artist will step forward. If you are the artist, or know who he or she might be, please drop Laura a line at v-dragisich@uchicago.edu.

The Chemistry Department held a mini reunion at the Spring 2011 ACS meeting in Atlanta, GA. Many alumni attended this successful event. You can see a picture from this successful event below. Thanks to all who attended. If you have news, want to reconnect or simply want to share your thoughts, please contact Laura Demanski at v-dragisich@uchicago.edu.

Do you have news? Want to reconnect with other alumni? Send your current address and other contact information to Vera Dragisich at v-dragisich@uchicago.edu.

Faculty kudos
Jared Lewis has joined the 2011 100 Most Influential Alumni University of Chicago Alumni Newsletters.

Congratulations to all of the changes since you were here last. We would be pleased to welcome you to the Department of Chemistry lectures and other activities, which are listed in the University’s online events calendar (found at event.uchicago.edu). You may be surprised at all of the changes since you were here last. W e would be pleased to welcome you to the Department of Chemistry lectures and other activities, which are listed in the University’s online events calendar (found at event.uchicago.edu).
Alumni profile: Alan Vaughan

Building a better mouse, one monomer at a time

Since becoming a mentor at Einstein’s research facility in City, Texas, Alan Vaughan, PhD ‘98, knows how to do the very best work. His involvement in research has been directed to finding links between structure and function in nanomaterials, and the relationship between their chemistry and environment. Vaughan, who has worked at Einstein since 1993, says his greatest challenge is not being able to see the results of his own work. Vaughan’s goal is to explore new ways to overcome these challenges, and to work on understanding the impacts of his own work.

Dugan Hayes, PhD, earned a bachelor’s degree from NSF in 2008. In 2009, he was a National Science Foundation Graduate Fellowship in support of his advisor, Dr. Gayle Figg. 

What have you been doing with your NSF Graduate Fellowship so far this year? (Of course, its absence is an NSF MISTLETOE: Firing fund from the NSF didn’t change my day-to-day operations in any major way, but the stipend made a big difference for me. I plan to use the travel allowance that comes with the fellowship to attend conferences to present my research to a broader audience.) In fact, I was a quantum entanglement.

What do you do with your time at the University of Chicago? I often tend to spend my time in the lab, experimenting with new materials, and the challenge of finding new ways to understand the function of materials.

I use ultrafast nonlinear optical spectroscopy to study energy transfer in Biological Systems conference in Germany.

What excites you about your work? I love the simplicity of the systems that we study. Our work involves very few variables, and there are no surprises. By contrast, in the academic labs we know that unexpected results will always happen. We often think about photosynthesis they think of the light and dark reactions, energy or sensing radiation. Photosynthetic organisms absorb photons to initiate a complex photochemical reaction in the chloroplast.

Where do you work? I work at the National Institute of Standards and Technology, where I research the physics of light-matter interactions and the applications of quantum information science. I am part of a large research team that develops new methods for understanding the properties of materials.

What are some of the challenges you face in your work? One of the biggest challenges is to understand how to use quantum information for practical applications. This involves mastering the techniques of quantum mechanics and quantum optics, which can be very complex. Additionally, we need to develop new methods for transferring quantum information over long distances.

What are some of the future directions for your work? I am very excited about the potential of quantum information science for solving problems in fields such as quantum cryptography, quantum computing, and quantum communication. We are working on developing new methods for quantum error correction and entanglement generation, which are essential for building quantum computers.

What have you learned from your research? I have learned that the field of quantum information science is rapidly developing, and there are many exciting opportunities for future research. I am particularly interested in the potential of quantum information science for solving problems in fields such as cryptography, computing, and communication.

What advice would you give to someone interested in pursuing a career in quantum information science? I would advise them to take courses in quantum mechanics, linear algebra, and probability theory. It is also important to have a strong background in physics and mathematics. Finally, it is crucial to have a passion for the subject and to be willing to work hard to achieve success.