



Sister Carleen Schomer, chemistry professor and amateur photographer, is retiring. Story, p. 3.

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# The Cavendish Chronicle

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## Volunteer Program Has Global Reach

### *Recent Chem Grads in Tanzania, India*

Two recent CSB/SJU chemistry graduates are serving with the Saint John's Benedictine Volunteer Corps (SJBVC) for the 2012-13 academic year. **Moses Adeagbo '12** and **Joe Gair '12** put aside other post-graduation plans in order to gain unique experience on the other side of the world. One is serving in South Asia and the other is in East Africa.

The SJBVC is an initiative of Saint John's Abbey. It provides graduates with volunteer experience, either domestically or abroad, and seeks to educate alumni about the monastery and its service mission. Volunteer duties frequently involve teaching, but some participants may work at food shelves, on farms or at guest-houses, among other tasks.

Adeagbo's work is based at St. Thomas Benedictine Monastery in Kappadu, near Kottayam City, in the southern Indian state of Kerala.



Adeagbo in the classroom

However, his experience has also included a two-month posting to Kandy, Sri Lanka, where he taught elementary school children. Gair is work-

ing out of St. Maurus Abbey, located in the village of Hanga in southwest Tanzania. Each is paired with a fellow SJU grad for the duration of the experience.

Adeagbo's motivation for joining was straightforward: he wanted to see the world, and not just as a tourist. He wanted a chance to become steeped in a culture that was different from his own. For Gair, seeing former cross country running team mates return from SJBVC with new perspectives made him think he should take a break and *(continued page 7)*



Gair leading high school freshmen through Lewis structures

## Jakubowski To Help AAMC On Biochem



Jakubowski on a visit to China.

*A tradition of  
excellence in the  
classroom*

**Henry Jakubowski** was recently appointed as one of two biochemistry editors of a new initiative by the American Association of Medical Colleges (AAMC). He will be coeditor, along with Dr. Laura Zapanta at the University of Pittsburgh, of the biochemistry portion of the AAMC's Pre-Health Collection through its MedEdPORTAL's iCollaborative. The Pre-health Collection is a repository of reviewed web resources that are freely available to faculty, and indirectly through them to students.

It was created to help faculty prepare and revise courses in disciplines represented in the MCAT<sup>2015</sup> exam taken by pre-health profession students. The Pre-health Collection initiative makes use of the Internet to centralize teaching resources and to help faculty to incorporate high quality teaching material specifically reviewed to assist students in obtaining the required pre-health competencies in the new MCAT<sup>2015</sup> exam.

Dr. Jakubowski will help increase the number of teaching resources for bio-

chemistry within the portal and develop a community of users and contributors. This task takes on key significance as biochemistry competencies are increasingly represented in the new exam. In an era when specific content is distributed widely across courses and disciplines which are becoming more integrated. Recommendations from both the American Society for Biochemistry and Molecular Biology and the American Chemical Society are also moving towards competencies and away from specific courses.



## Chem Professors Win College Awards



Schaller



Jones

Two chemistry faculty members received college-wide honors this spring. **Nicholas Jones** received the Linda Mealey Faculty/Student Research and Creativity Award for his work with undergraduates in the laboratory. **Chris Schaller** was granted the Sister Mary Grell Teaching Award.

The two join a number of current and former distinguished chemistry professors. **Kate Graham** is a previous Linda Mealey awardee and **Ed McIntee** was a prior Grell Award winner. **Bob Fulton**, emeritus, **Abbot John Klassen**, **Henry Jakubowski** and **Brian Johnson** are previous winners of the Burlington

Northern Award for Teaching Excellence. Henry Jakubowski, **Anna McKenna** and **Frank Rioux**, emeritus, are previous winners of the Tom Creed Memorial Award for Effective Electronic Pedagogy. Graham, Klassen, McKenna, Rioux and **Richard White** have also won Advising Awards in the past.

## Schomer Retires From Teaching Chemistry

**Carleen Schomer OSB, CSB '66** is formally retiring from full-time teaching in the chemistry department. She has been teaching in the department for forty years, although her association with CSB stretches back to her undergraduate days.

Schomer already had some elementary school teaching experience in rural Minnesota when she graduated from St. Ben's with a major in chemistry and minors in mathematics, physics and secondary education. After a couple of years teaching high school science

and mathematics in Pierz, Schomer embarked on a four year teaching stint in Puerto Rico. During the course of that experience, Schomer was twice distinguished with Teacher of the Year Awards.

Upon her return to the mainland, Schomer earned a Master of Science in inorganic chemistry from Marquette University. She returned to the chemistry department as an Instructor in 1973 and was promoted to Assistant Professor in 1979. Schomer was awarded a Doctor of Arts from the University of

Illinois, Chicago in 1984, with a thesis on teaching chemistry to nursing students. She served as chair of the department from 1988 to 1994 and was promoted to Associate Professor in 1990.

Schomer, an amateur photographer for years, will be spending part of her time in the Studium at St. Benedict's Monastery, working on photography projects as well as homilistic writing. She will continue to teach occasional courses in the chemistry department.



Sister Carleen Schomer

## Dr. Amber Onorato Takes Position At Northern Kentucky



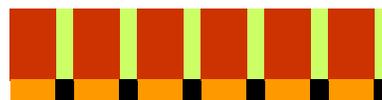
Onorato

**Amber Onorato** has accepted a new faculty position in the chemistry department at Northern Kentucky University, where she will be the Dorothy Westerman Herrmann Professor in Science. NKU is a primarily undergraduate institution serving 16,000 students in the Greater Cincinnati area.

Onorato joined the CSB/SJU chemistry department in a one year, renewable position in fall, 2011. The purpose of her position was to provide additional instructional support, particularly in general and organic chemistry, during a period of curricular revision in the department. Within that time, the logistics of providing one set of courses for students who had already entered the college while offering a new set of courses necessitated an extra, temporary position.

Onorato did an excellent job of covering her courses and making herself available to help

students, and her position was renewed for an additional year in 2011-12. At the same time, the department provided her with opportunities to conduct undergraduate research in an effort to help enhance her credentials for a permanent position elsewhere. Onorato was very successful in this regard, sending a student, **Ryan MacMillan**, to present research results at the National Meeting of the American Chemical Society in New Orleans.





# Alumni Find Rewarding, Diverse Careers at Saint Paul's Ecolab

The Ecolab Schuman Campus in Eagan

**Economics  
Laboratory,  
An S&P 500  
Company,  
Provides  
Pathways to  
Advancement**

When Ecolab was founded in 1923, the St. Paul-based company pledged to save its customers time, labor and money by providing laboratory-tested cleaning supplies to area businesses. Now in its ninetieth year, the firm boasts many satisfied clients, 40,000 employees and a global reach.

A number of chem and biochem grads from CSB/SJU are proud to be part of Ecolab. They occupy a variety of positions in different areas of the company.

Like many bachelor's level chemists working in industry, **Bernadette (Omann) Johnson '92** started out in the Analytical Services department. She was in charge of competitive product analysis, coordinating tests on incoming product samples in order to reformulate them. Afterwards, she worked for a period in the Shared Technical Service group, analyzing field sam-

ples and offering solutions to problems encountered by the customer. Currently, she is Quality Program Leader, Healthcare. She handles complaints, addresses quality in new product development, and manages some plant production issues.

"Every day brings a new problem and a new opportunity to fix something," said Johnson. "Most issues take help from other groups to resolve. I think having the ability to work well in a team environment is very important for any job." She also believes someone who is willing to remain open to new options is likely to be rewarded with career advancement.

That sort of mobility is not unusual at Ecolab. **Marne (O'Neill) Rasinen '99** started out in the Quality Control division a month after graduation from CSB/SJU. Later, she worked on the development of new

janitorial/floor care products in the Research & Development (R&D) facility, finally moving to the Regulatory Affairs department in 2003. Her responsibilities have encompassed a range of areas such as chemical compliance, including the safe handling, storage, transport, and disposal of hazardous chemicals, as well as food safety issues and sustainability initiatives.

Rasinen is now Manager, Regulatory Affairs – International. In that capacity, she advises chemists, microbiologists, and marketing managers on the biocidal regulatory requirements of countries in Asia Pacific and Latin America.

"Clean water and safe food are two of Ecolab's main focus areas, and products that sanitize/disinfect food contact surfaces are required to be registered in the countries in which they are sold," said Rasinen. Part of her job is also to help



Rasinen

## Minnesota Giant Offers Variety of Positions in Chemistry

document the safety and efficacy of Ecolab's products in order to gain regulatory approval in these international markets.

**Beau Hammel '06** has also seen different sides of the company. Originally hired in 2008 after he completed an engineering degree at University of Minnesota, he worked in an R&D lab until last year. He is now a Principal Chemical Engineer, working in process engineering.

"I always say that before I 'figured out what should go in the product' and now I 'figure out how to make the product,' he explained. Most of his time is spent coordinating projects and analyzing data in an effort to bring new products through



Hammel

scale-up all the way to full plant production. One of his favorite aspects of the job is interacting with different teams of chemists, engineers, marketers and project leaders in an effort to bring something to market. Although he spends much of his time in his office, he still likes to get out on the plant floor to see everything coming together.

Hammel spent some time in the U of MN career center to get his job; although Johnson and Rasinen could have used similar resources at CSB/SJU, they took a networking approach. **Dr. Anna McKenna** heard from an alumna about a job opening and passed the word along to Rasinen, whereas Johnson struck up a conversation with an SJU alumnus and Ecolab employee who had returned to campus for a seminar.

"**Dr. White** quite literally pushed me up front to speak with him," she admitted, glad now that he did so.

All three now have satisfying careers and they look forward to working every day with talented colleagues. Nevertheless, balancing work and home



Johnson and her children visiting the zoo

life is always an important task. Johnson believes that task is an easier one when working at Ecolab.

"We are lucky at Ecolab that we have the option for flexible working hours as well, so working at home when necessary is an option," she explained. Spending time in the outdoors is a high priority for her family, so they try to take a few camping weekends every summer. The natural setting of CSB/SJU was also important to Rasinen when she was a student; she used to escape for a walk in the woods when she wanted to unwind. Now, she and her husband are just as likely to be found in a museum, but she still thinks fondly of her days at CSB, and the route that brought her to where she is today.



# Department Hires New Assistant Professor



Stollo

*Inspired to explore the impact of chemistry on the natural environment*

Nature photo: C. Schomer



New faculty member **Dr. Christen Stollo** will be coming to CSB/SJU this fall to teach Structure and Properties (Chem 125) and Purification Lab (Chem 201). She will also be involved in the new Integrated Lab and will develop an environmental chemistry course. She specializes in atmospheric environmental chemistry, which is concerned with the change in the atmosphere associated with the pollutants released as a byproduct of human activity.

Stollo will be researching the identification of particle pollutants and mapping out how these particles may transport and change contaminants in the atmosphere. Some projects she is currently developing include collecting contaminant samples, analyzing the composition of these samples, creating new techniques for this analysis, and researching the effect laboratory-created particles have under controlled conditions.

Stollo's position will be tenure-track, meaning there is a long-term need for someone in the department with her background.

## *Stollo Fills Need in Environmental and Analytical Chemistry*

Performance in such a position is evaluated annually, but intensive reviews are conducted in the third and sixth years. Tenured faculty are considered permanent employees under normal circumstances. This system is meant to ensure formative feedback for inexperienced teachers but safeguard against capricious firings.

Stollo grew up in Tom's River, a quiet and friendly beach community located on the New Jersey shore. She became interested in chemistry at a young age, and started to give serious thought to a career as a scientist in high school when a woman chemistry teacher inspired her to explore how chemistry has an impact on the environment. For her undergraduate degree, Stollo went to Muhlenberg College in Allentown, Pennsylvania, a small liberal arts college similar to CSB/SJU. This experience taught her how to be a life-learner and gave her the confidence to continue on her career path. For graduate school she attended the University

of California at Riverside, a large research university. The large international population at the school exposed her to cultures from around the world and redoubled her commitment to making higher education more inclusive.

Stollo is formally replacing **Dr. Mike Ross**, CSB/SJU's longtime environmental analytical chemist. Although he is still active in the department, Ross is currently in phased retirement. He continues to teach a couple of courses per year.

## *Chemistry Hiring Adjuncts*

The chemistry department interviewed this spring for two adjunct positions. These one-year hires are needed to help cover courses because of sabbatical leaves for **Nicholas Jones** and **Brian Johnson**, as well as the retirement of **S. Carleen Schomer**. **John Hoody** (Univ. Montana) and **Rachel Hutcheson** (Montana State) accepted offers and will begin in the fall.

## Volunteer Corps Meets Need For Service Opportunities

(from page 1) evaluate his priorities before continuing his education. The fact that the opportunity would allow him to see a part of the world he had scarcely dreamed of was a bonus.

There is a kind of relaxed asceticism to both of their daily schedules. They may be awake by six for morning prayer, or even earlier to skype with family and friends back home or fit



Hills of Tanzania

in a run. After breakfast, they each spend the morning at their teaching duties; Adeagbo teaches English language to adults and Gair teaches high school chemistry. Gair returns to the monastery for lunch and midday prayer, whereas Adeagbo attends prayer in the evening. Both have free time in the afternoons, some of which may be devoted to lesson plans, and again after their evening meal.

Living arrangements vary. Adeagbo's room is in the elder monks' quarters, whereas Gair has a room in the nearby guesthouse that houses some

nuns and other visitors to the monastery; there are often volunteers from Italy and Germany. Both report having excellent internet access, although Gair has contended with occasional power outages during the dry season, when hydroelectricity is limited.

Gair speaks fondly of the simple meals served in the monastery guest house: fresh baked bread, eggs from the farm and

fresh cows milk with the tea. "Although the Italians think that Italy has the best of every food in the world, they insist that Hanga has the best

milk," he says, although it must be boiled before use, to prevent tuberculosis.

After a lot of hard work, Gair was pleased when his students' performance on their national exams was better than he expected. "Actually, chemistry was the subject in which they had their best national ranking," he said. He hopes to continue teaching at the college level one day. In the fall, he will begin graduate study in an organic chemistry lab at the University of Chicago.

Adeagbo also had positive feelings about the classroom. "The most rewarding part of the experience has been teach-

ing in Sri Lanka," he says. In addition to teaching English to his seven- to ten-year old pupils there, he also taught them

some history. "Their enthusiasm made me eager to go to school and interact with them as much as I could". He didn't realize beforehand how much he would enjoy the job. The experience was positive enough that he plans to go to South Korea next year to continue teaching English in a different program.

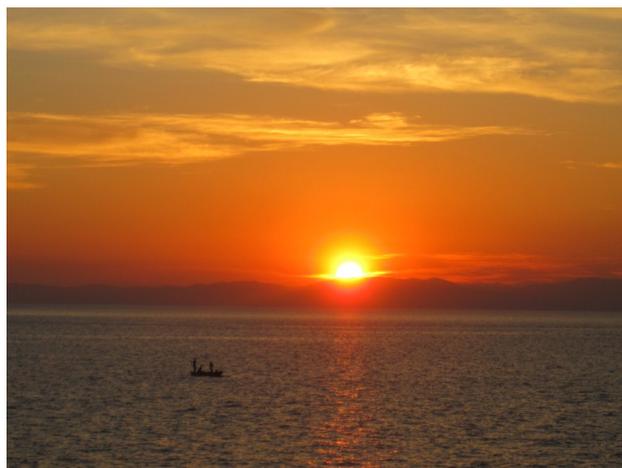
For both of these graduates, SJBVC offered an ideal mix of challenges and support in an overseas volunteer experience. As many students find, a momentary step out of their career path provided the right capstone to their undergraduate education.



Adeagbo admires the scenery

**Learning about the world and the Benedictine tradition while serving others**

Tanzanian sunset.





Barzen-Hanson



Wang

## Distinguished Students Recognized in 2012-13

The CSB/SJU chemistry department has announced its student award winners for the 2012-13 academic year. Annual awards include the CRC Chemistry First Year Achievement Award, which was given this year to **Hailey Chatelaine**, **Scott Echernacht**, **Genessis Gastelum-Lopez**, **Jane Keohen**, **Kristen Loecken**, **Isaac Secor**, **Jasmine N. Tutol** and **Hieu Van '16**. Strong first year performances were also recognized from **Alec Bramer**, **Becca Flynn**, **Vic-**

**toria Green**, **Sam Hager**, **Heidi Hanson**, **Ben Heath**, **Kaci McCoy**, **Molly McNamara**, **Calvin Pratt**, **Kirsten Sewall**, **Stephen Thomas**, **Emma Voit**, **Jake Wagner** and **Christine Wilda '16**. The **Richard Jochman** Scholarship was presented to **Erica Sinner** and **Brian Bohman '15**. The ACS Undergraduate Award in Organic Chemistry went to **Jennifer Marple '13**. **Sara Matthews** and **Blake Belland '14** are the recipients of the Analytical Chemistry Award. The Dis-

tinguished Service Award was given to **Andrew Cascione** and **Chi Le '13**. **Kyle Richards '13** earned the **Abbot John Klassen** Summer Research Award and **Sean Pickthorn '14** got the **Father Matthew Kiess** Scholarship. Among the prestigious junior and senior awards, **Kaitlyn Lauer '14** won the **Sister Rogatia Sohler** Award, **Joe Wick '14** took the **Glen Arth** Scholarship and the American Institute of Chemists Award was shared by **Haosen Wang** and **Krista Barzen-Hanson '13**.

## Students Attend 245th ACS National Meeting in New Orleans

Students in front of the convention center in New Orleans, April 8th, 2013 (l-r): **Ryan MacMillan '13**, **Kyle Richards '13**, **Jen Marple '13**, **Carla Saunders '14**, **Kate Kaiser '13**, **Haosen Wang '13**, **Tyler Gerads '13**, **Krista Barzen-Hanson '13**, **Dan Neuburger '13**.



## *Chem Department Welcomes New Chem and Biochem Students*



Brianne Gibson, Amy Knutson, Billy McCue, Tim Doyle, Tom Steichen, Josh Eggebraaten, Mara Janning; Gabe Amon, Christian Wilmore, Naomi Do, Jamia Moss, Autumn Flynn, Bailey Drewes, Justin Sachs; Ashley Wittrock,

Mel Quintanilla, Clare Johnston, Marie Nilles-Melchert, Sam Hurrle, Jeff Bowers, Levi Salzl; Jon Ericson, Ian Manion, Erica Sinner, Anna Luke, Jack Luke, Mike Ortlieb, Emmanuel Freeman; Ari Klein, Ben Kor, Josh Lorenz, Katherine Maguire, Alex Frie, Mai Chee Vang, Sam Klinker; Cameron Axberg, Joey Kinnan, Carmen Probst, Alexandra Vecchia, Brian Bohman.



# The Art of Chemistry

## Chem and Biochem Students Drawn to Dance Groups

A new dance troupe, Illmatic Force, has been founded at CSB/SJU by **Emmanuel Freeman '15** and history major Yasin Williams. The group also includes chemistry students **Brianne Gibson '15**, **Kiarah Ray '16** and **Frantz Soiro '16**. Illmatic Force focuses on the Hip Hop dance genre, while incorporating other influences such as elements of theater. The group was founded as an outlet for the passion that members share for dance and to encourage others to get involved.

"My main purpose for this group is to make Hip-Hop a more prominent part of the school culture," said Freeman, "But we also want to help ourselves become better dancers and share our talents with the rest of the school community."

Although dancing and chemistry may at first seem a strange



Freeman performs

combination, Emmanuel says that they are actually complementary, and share many figurative similarities.

"I love the fact that chemistry is structured but at the same time has so many different components that partake in its structure," Freeman explained. "This is the same with dance. The music is like the solvent, the people are like the atoms, and the way we move is our reaction process."

## The Cavendish Chronicle

Editor: Chris Schaller

Photo Credits: Henry Jakubowski, Carleen Schomer, Joe Gair, Moses Adeagbo, Jan Hylden

Story Credit: Ari Klein, CSB/SJU chemistry & biochemistry students & alumni

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## CSB/SJU Generations *Alumna and Daughter Connected Through Chemistry*



**Jan Hylden '78** recently sent this photograph to the Cavendish Chronicle. Hylden teaches at Columbia Basin College in Pasco, WA. She and a colleague, Karen Grant of Washington State University – Tricity, invited students to make quilt squares to represent each of the more than 100 Nobel Prizes in Chemistry for the International Year of Chemistry, 2011.

In addition to a chemistry degree from CSB, Hylden has a Ph.D. in Pharmacology from the University of Minnesota. She was pleased to show off the quilt to her daughter, **Anne Hylden '10** (left), during a Christmas break visit at the end of that year. Anne Hylden is currently in graduate school in chemistry at the University of Pennsylvania.