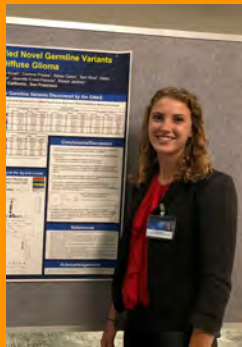


The Cavendish Chronicle

Volume 35, Issue 1

Fall, 2019



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Following the Data to Opportunity



Zeljko Ostojic and family

Five years ago, **Zeljko Ostojic**, Chem '08 decided on a career change. He had been working since graduation in the Institute of Water in his hometown of Bijeljina, Bosnia and Herzegovina, rising to become head of the laboratory. With an eye to the future, he had finished a

master's in analytical chemistry at University of Belgrade, fifty miles away in Serbia. He was ready for a new job at Alumina DOO in Zvornik, B&H, one of the largest factories in the country, with 1500 employees.

“We predominantly pro-

duce alumina via Bayer process,” explained Ostojic. “This means that we digest bauxite ore using sodium hydroxide as a ‘solvent’ and extract sodium aluminate, out of which we precipitate $\text{Al}(\text{OH})_3$.” Annual production is 400 000 tonnes. Almost all of that material is exported, either for use in bricks and ceramics or as finer materials such as synthetic zeolites.

Ostojic is now a director of the quality control sector at Alumina, which has about 120 employees divided into three main departments: Laboratories, In/Out control (raw materials and products) and Technical control. Ostojic must coordinate these departments, providing information to other sectors of the company to keep things working efficiently. Other tasks include running data analyses and approving technical specifications, purchasing and
(continued page 2)

Driving Toward the Future, Thriving on Innovation



Ostojic:
Returning to an
old haunt

(from page 1) implementing analytical instrumentation, training personnel, working on accreditation activities, and even conducting customer tours.

All of these responsibilities require frequent meetings and presentations. It helps that Ostojic has had the opportunity to take additional training in management, organizational behavior, and planning. In addition, he is a certified auditor in BATA, the main accrediting body in B&H.

Ostojic takes special pride in being able to take the company in new directions. During his time with the company, Alumina has

gone from producing four products to twenty-eight, all of which are seeing demand in the market. Ostojic has had a hand in all of these developments.

“This part when I figure out that we are capable to produce a new product,” he explained, is what keeps him going. “This part of researching in the lab is my favorite.” He also added that he enjoys visiting company partners, whether in Brasil, Russia, USA, China, Germany, Switzerland, Spain, England, Holland,...

Travel with his family is also a favorite activity. He and his wife have a

daughter, Emilija, 8, and a son, Aleksa, 10. More often, they spend time with their children practicing mathematics, English, the piano, but they also take time out to play soccer and volleyball.

He advises students to take advantages of the opportunities CSB/SJU has to offer. One of his most memorable ones was participating in the research program at Southwest University in Beibei, China. Taking chances on experiences like that enriched his life and helped him get where he is today.

Alum Notes



Kyle Richards, Bchm '13 is working on a master's in biology, researching translocon interactions in the medical center at Ball State University.

Kyle Spengler, Bchm '16 started medical school; he previously worked as a drug product scientist for Cambrex in Longmont, CO.

Hieu Van, Bchm '16 has passed her admission to candidacy exam in the MD Anderson Cancer Center at University of Texas and has recently had a review paper published in *Cell Cycle*.

Niesha Ford, Bchm '17 has received a Payne

Fellowship, designed to attract outstanding individuals to pursue careers in the Foreign Service of the U.S. Agency for International Development (USAID). She is studying public health at Tulane. See profile on CSB/SJU website: <https://www.csbsju.edu/news/niesha-ford-2019>

Raymond Twumasi, Chem '17 has been awarded a National Science Foundation graduate fellowship for his work at the Ohio State University. He recently published a paper in *J. Org. Chem.*

Guangyao Gao, Chem '18 is in the Ph.D. program in chemistry at Michigan State University. In preparation for grad school, he enjoyed a road trip from Minnesota to East Lansing with his dad, who was visiting from China.

Susie Xiong, Chem '18 is a lab technician at Chanel in the Greater New York City area.

Visit the Cavendish Chronicle archive at: <https://employees.csbsju.edu/cschaller/cavendish/Cavendish.htm>



Putting Good Hands to Good Use

The St. John's Wood Shop is a busy place.

"We are a production shop," explained Fr. Lew Grobe, manager of the shop. "This means that we are often creating runs of furniture for the Abbey, University, Prep School and Collegeville Institute." During a one-month period this summer, that included 25 beds for dorm rooms, shelving for new offices in Engel, a kitchen / conference room in the monastery, cabinets for the Episcopal House of Prayer, and new pipes for the organ expansion in the Abbey and University Church. Nevertheless, community members often buy items for use in their own home.

Grobe says there are five to eight people working in the shop on a given day. That includes three master craftsmen, two student workers, a couple of monks and a half-dozen volunteers, including **Professor Emeritus Mike Ross** of CSB/SJU Chemistry.

Ross has been interested in working with wood for a long time. While working at 3M during the early '70's, Ross took an opportunity to attend a furniture refinishing course offered by the 3M Club.

"I started by refinishing a number of pieces of furniture that we picked up from junk stores," recalled Ross. After he started his teaching career at Mt. St. Clare College in Clinton, IA, he bought a radial arm saw, and that was when everything changed.

"I thought I had gone to heaven," Ross exclaimed. The scale of his projects grew. He made a couple of headboards for beds, then a whole new bed for his son. After arriving at St. John's, he made a media cabinet and a kitchen table. Of course, then he needed benches for the table.

After retirement, Ross was volunteering with Habitat for Humanity when he heard about opportunities in the

wood shop from foreman Michael Roske. That was about four years ago; he has been a valued contributor ever since. Although known for his day-to-day hard work, Ross' most important contribution has been designing the "banner bench", made out of cut-offs from other projects. With a shape that brings to mind Marcel Breuer's iconic bell banner of St. John's Abbey Church, it has proven popular with customers.

"You can tell that he was a chemist in the way he approached this project because he wasn't afraid of experimenting with different types of joints, angles, or new ways to make things more efficient," explained Grobe. "He's been a great addition to the shop and we hope that he is with us for many years to come...mostly because we need more banner benches!"



The Abbey Bench

Changes Around Ardolf

There are, as always, some new faces in the Ardolf Science Center this fall. **Dr. Silas Brown** is teaching in Chem 125: Structure. Brown, a native of east Texas, recently finished graduate work in bioinorganic chemistry at the University of Alabama.

Dr. Regina Peters is teaching Chem 201 lab.

Peters received a Ph.D. studying organometallic chemistry at Iowa State University.

Dr. Elyse Krautkramer, a U MN grad hired in fall 2018, continues to teach labs and supervise tutors and teaching assistants. She also teaches Chem 349.

Peters and Brown are helping to fill the absence

left by two sabbaticals this year. **Dr. Alicia Peterson** is working in an environmental engineering lab at the University of Minnesota this fall. In the spring, **Dr. Christen Strollo** will be on sabbatical. Her atmospheric chemistry project will involve work at University of Colorado.

Visit the shop online at: <https://sjawood.org>

What I Did on My Summer Vacation...



Zeleny on the high seas

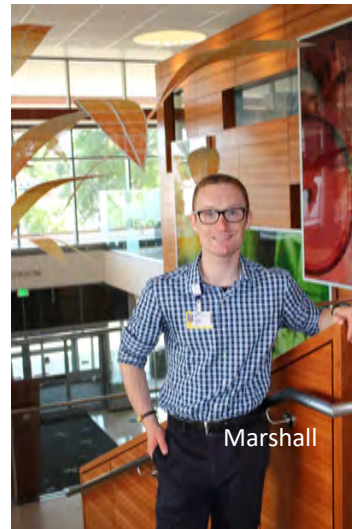
University of New Mexico; and **Abby Peddle**, Chem '21 found herself at Southern Illinois University. **Morgan Murphy**, Chem '20 was at North Dakota State in the Coatings and Polymer Materials program. **Ellen Otto**, Bchm '21 worked at University of Wisconsin – Oshkosh.

A couple of students worked in different environments. **Anna Zeleny**, Chem '21 investigated how photo-oxidation affects oil spills at Bigelow Laboratory for Ocean Sciences in Maine.

Quinlen Marshall, Chem '20 led a medical mission trip to Honduras, then conducted research on gene expression in pediatric lung tissue at the University of Rochester Medical Center and Golisano Children's Hospital in Rochester, NY. He presented his research on campus at Thursday Forum this fall.

A few students found opportunities at the Mayo Clinic. **Lauren Clark**, Bchm '20 conducted research on the genetics underlying glioma development. **Brenna Sharp**, Bchm '20 looked at the underlying genetic mechanisms for bipolar disorder and genetic mutations in the TCF7L2 gene that places individuals at higher risk for this disorder. **Colin Yokanovich**, Bchm '21 joined a project in the department of immunology, with a focus on mitochondrial membrane potential and cell activation response.

Summer undergraduate research programs and other internships figured prominently in student activities this summer. Many of these programs were offered at large research universities: **Noelle Fursa**, Chem '21 traveled to University of Michigan; **Usama Hassan**, Bchm '21 went to University of Nebraska Lincoln; **Hannah Johnson**, Bchm '21 journeyed to



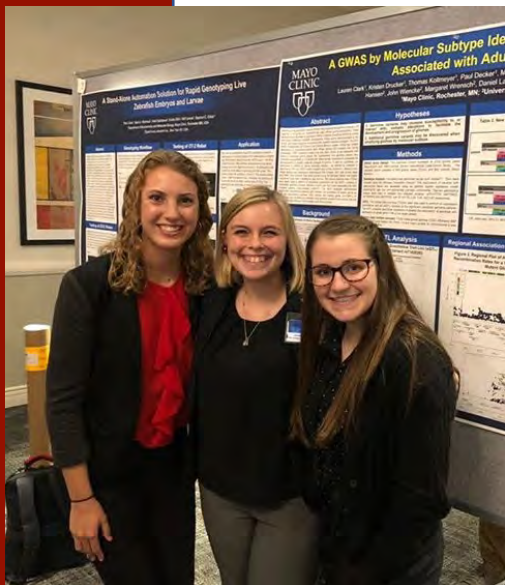
Marshall



Yokanovich

In an industrial internship, **Jack Matuska**, Chem '20 worked in the research and development department of the resins group at Sherwin Williams, the coatings and paint company. **Jessica Hodges**, Bchm '20 completed a US Army internship in Germany.

Clark (left) and Sharp (right)





Jackson, Mullon, Allyson, Bestul

*Science
Environment
Human Health
Public Policy
Industry
...all in one summer*



Schulz

Seth Jackson, Chem '21, **Zoe Allyson**, Chem '21, **Emma Bestul** Bchm '21, and **Patrick Mullon** Bchm '21 did research in Chongqing, China, at Southwest University.

Kenzie Claypool, Chem '22 had an "incredible experience" working with **Dr. Nicholas Jones** on organocatalysis in Mary Cloninger's lab at Montana State, leaving a little weekend time to explore Yellowstone and float down the Madison River. **Autumn Fuchs**, Chem '20 was also part of the program.

Closer to home, **Leandria Albury**, Chem '21 spent the summer in the CSB/SJU Chemistry Department, working with **Dr. MA Fazal** on development of a technique to detect Cyanide exposure. Joining

her in the lab were **Jon Gibson**, Bchm '21 and **Reese Jacobson**, Isci '21; their project focused on investigations of common human proteins with carbon-based nanoparticles under physiological conditions.

Tessa Venables, Chem '20 and **Elizabeth Bartlett**, Bchm '22 worked with **Dr. Annette Raigoza**

or activate) the activity of low molecular weight protein tyrosine phosphatase isoforms. The two worked under the direction of **Dr. Ed McIntee**, in collaboration with **Dr. Henry Jakubowski**.

Other students worked in public policy. **Jillian Schulz**, Bchm '20 was accepted in the CSB/SJU Washington DC Summer Internship Program, working at Better Medicare Alliance as their Health Policy Intern. BMA educates seniors and advocates for Medicare Advantage. **Val Doze**, Bchm '21 interned in Arlington, VA at AHRI (Air Conditioning, Heating, and Refrigeration Institute) in the International Affairs Department. She researched international trade regulations and how trade and environmental policy affect the heating and cooling industries.



Albury

in Ardolf. The Raigoza group focuses on understanding how sulfur donor molecules arrange on metal surfaces in order to tailor patterns and modify surface properties.

Tori Jennrich, Bchm '20, Josh Mikos, Bchm '20 and **Gabriella Lott**, Bchm '22 used computational and synthetic chemistry to develop small molecules to modulate (inhibit



Doze



Claypool



The Cavendish Chronicle

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Photo Credits: Zeljko Ostojic,
Mike Ross, CSB/SJU Chem &
Biochem students

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St. Joseph, MN 56374

The College of Saint Benedict | Saint John's University

Strollo Promoted

Dr. Christen Strollo has earned tenure and promotion. In addition, Strollo and husband Ted Gordon, FYS, welcomed baby Olive to the family this summer.

Gordon and Strollo



Grad Launch *What the Class of 2019 is Doing Now*

The class of 2019 – both chemistry graduates and grads of biochemistry, a joint major of CSB/SJU biology and chemistry, have found a range of rewarding positions beyond the Pine Curtain. As always, a number of them have found positions in industry. **Connor Canfield**, Chem '19 is a chemist for LubeTech. **Kirk Gronda**, Chem '19 is an additive manufacturing test engineer for Jabil in Albuquerque, NM. **Andrew McCrea**, Bchm '19 is a lab tech in the sugars and sweeteners division at Cargill. **Daviette Mulbah**, Chem '19 has joined 3M. **Alex Patton**, Chem '19 is a chemical analyst at Seagate Technologies. **Evelyn Pérez**, Chem '19 is a quality control technician at Pelron in Chicago.

Several students are pursuing graduate studies in science. **Josh Gavin**, Chem '19 is studying at University of Minnesota. **Heidi Koenig**, Chem '19 is in organic chemistry at Montana State. **Jherian Mitchell-Jones**, Chem '19 is doing astrochemistry at the University of Virginia.

Janna Quick, Chem '19 is at University of Minnesota Duluth. **Augie Witkowski**, Chem '19 has started studies at University of Oregon. In a related area, **Will Gillach**, Bchm '19 is pursuing a master's degree in the ESTEEM science & technology entrepreneurship program at University of Notre Dame.

Others are continuing in graduate school in the health professions. **Haley Anderson**, Bchm '19 and **Noah Taylor**, Bchm '19 are both in pharmacy school at University of Minnesota – Duluth. **Miguel Bowe**, Bchm '19 is in medical school at University of the West Indies. **Alex Messner**, Bchm '19 is at Michigan College of Optometry. **Wendy Osei-Bonsu**, Bchm '19 is pursuing an MD at University of Pennsylvania. **Nicholas Pathoulas**, Bchm '19 is in the graduate research education program at Mayo Clinic. **Mitchell Thelen**, Bchm '19 is at University of North Dakota Medical School.

Health-related positions continue to be a growing area for graduates. **Sophie**

Samson, Bchm '19 is a medical assistant at Tareen Dermatology Clinic. **Mikayla DuFresne-To**, Bchm '19 is a cardiovascular monitor technician. **Austin Hill**, Bchm '19 is a histology technician at Mayo Clinic. **Ryan Lembke**, Bchm '19 is a dental lab assistant. **Cory Seehusen**, Bchm '19 is a clinical research assistant at Children's Hospital Colorado. **Aaron Tostenson**, Bchm '19 is with United Health Group.

A few students are spending a year of service through the Benedictine Volunteer Corps. **Ryan Gall**, Bchm '19 is teaching high school science in New Jersey. **Josh Olson**, Chem '19 is serving in Hanga, Tanzania. **Taylor Pickthorn**, Bchm '19 is with the BVC in Montserrat, Spain. Some grads ignored the herd and found their own paths. **Jack Barsody**, Bchm '19 is in officer training with the US Marine Corps. **Keyla Flores**, Chem '19 is the stockroom fellow in Ardolf Science Center as. **Caitlin Loeffler**, Chem '19 is teaching at St. Cloud Technical High School.

