Honors Sophomore Rocks Irish Music

Motivation and ambition have led Honors sophomore Jessi Witchger to pour out a passion for performing into her family’s band, an Irish quartet, and the Folger Shakespeare Theater’s production of Henry V. The family of six, driven by a common love for playing Irish folk music, formed their band, ShaLaurel, in 2001. Jessi’s father and mother sold the family house, made their tour bus a home, and with their four children, began playing venues throughout the United States, from theme parks to churches. They all sing and play, and Jessi is proficient in nine instruments. Her family began to gain quite a following in states from Alaska to New York. In 2007, the group represented American Irish music at the International Music Festival in Shanghai, China, and played for close to ten thousand people each show.

For the Witchgers, though, fame has always come second to being a family. The name ShaLaurel is meant to call to mind the deep roots of a laurel tree. Throughout the years, the band has remained focused on their faith and the strength of a united family. These roots have kept them grounded, so much so that a reality TV show, which followed the family for two years never produced the planned show because, as Jessi puts it, “it came down to a choice between fame and our values as a family.” The Witchgers chose the latter. Despite, or perhaps because of, the close quarters of a tour bus, the family has remained closely united throughout Jessi’s adolescence and into her college days.

Although the family does not get to play together as often now, since all four children are in college, Jessi is determined to perform, whether at pubs with her sister Kate, who attends Georgetown University, or on the CUA stage with the band Drop Dead Irish. Founded by Jessi and her sister, this band also features Nick Orsay and Kristen Johnson, a senior biochemist. When a protein is first created, there are multiple steps as a simple amino acid peptide chain, there are multiple steps before it can become a fully fledged highly efficient enzyme. The same is true for any young scientist, like me. Inherently, all of the components are there, but time, guidance, and discipline are first required to mould those naive components into a whole new scientific research-loving undergraduate. This summer I was awarded a grant from the Biochemical Society that provided me with 8 weeks to deepen my understanding of biochemical research. Under the guidance of Dr. Greg Miller, my research advisor at the Catholic University of America in Washington, DC, I was introduced to a wide variety of laboratory techniques. I developed discipline through hard work and the daily experiments working to purify and assay the activity of the inositol phosphate phosphatase ipgD. This enzyme is injected into a mammalian cell by Shigella, a genus of pathogenic bacteria that can cause dysentery, and alters host cell Akt signalling by dephosphorylating its inositol phosphate substrates. The end goal of this research was to understand further how this enzyme recognizes a specific set of host substrates. Starting out, I cloned the ipgD gene and transformed this into Escherichia coli, which was our expression system for producing the enzyme. Once sufficient soluble phosphatase ipgD. This enzyme is injected into a mammalian cell by Shigella, a genus of pathogenic bacteria that can cause dysentery, and alters host cell Akt signalling by dephosphorylating its inositol phosphate substrates. The end goal of this research was to understand further how this enzyme recognizes a specific set of host substrates. Starting out, I cloned the ipgD gene and transformed this into Escherichia coli, which was our expression system for producing the enzyme. Once sufficient soluble phosphatase ipgD. This enzyme is injected into a mammalian cell by Shigella, a genus of pathogenic bacteria that can cause dysentery, and alters host cell Akt signalling by dephosphorylating its inositol phosphate substrates. The end goal of this research was to understand further how this enzyme recognizes a specific set of host substrates. Starting out, I cloned the ipgD gene and transformed this into Escherichia coli, which was our expression system for producing the enzyme. Once sufficient soluble phosphatase continued on page 2
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Jonathan McGee, both of whom are Honors students. They recently won a campus-wide Battle of the Bands competition. Jessi is also the musical director and vocal coach for the upcoming Folger Theater production of Henry V. She also plays as part of the ensemble as she sings, dances, and plays five instruments. She describes her musical contribution as “an Irish twist on a very classic piece of Shakespeare, which should be fun.” In the midst of an incredibly busy life of performing, Jessi devotes a great deal of time to her studies as a high-achieving double-major in philosophy and English with a musical theater minor. She also completed four Honors courses this past fall, is a Resident Assistant, and may eventually pursue an MA or PhD studying the influence of the arts on growth and development. She has brought to college the same motivation that her “bus-schooling” instilled in her, as she spent about ten years giving herself assignments and constantly challenging herself. “Traveling as a family, we would always go to the places we were studying. It’s fostered in me a real love of learning.” The future is bright for Jessi, as her passion for learning and performing continue to drive her forward!

Alumni Spotlight: Sam Sweeney, B.A. 2009

After graduating from CUA in 2009, I decided to set off for the Middle East and wound up in Damascus, Syria, where I studied Arabic for nearly a year. I showed up in Damascus without a place to stay, not enrolled in any program, and not knowing a soul. I also did not speak more than 20 words of Arabic. Needless to say, the learning curve was very steep. After signing up for classes at the University of Damascus, shway, shway (little by little) the language started to click and I came to appreciate the layers and layers of history that exist on every street in Damascus. Syrians like to repeat the phrase, “Every cultured man belongs to two nations: his own and Syria.” While I might disagree on some of the finer points, the phrase rang true as I walked down Straight Street nearly 2,000 years after St. Paul, visited the tomb of Saladin, and wandered the ruins of the many empires that have passed through Syria throughout the millennia.

Any country, however, must be defined by its present, not its past, and I will cherish the many friends I made in Syria more than anything. The tragedy of Syria unraveling at its seams is not the historic landmarks that have been destroyed, like the ancient markets of Aleppo or the old city of Homs, but the real people whose lives have been ended or upended by the devastating violence. It saddens me to see these events unfold, and I can only hope that there’s an end in sight soon.

I will always fondly remember wandering the narrow alleyways, eating my favorite Syrian foods and sweets, smelling the never-ending incense at Eastern churches, waking up to the Muslim call to prayer, savoring McDonald’s in Beirut, and bracing for impact as I dared to cross the streets of Damascus. I sincerely hope that I can return one day and visit the many good friends I made, but in the meantime they will be in my thoughts and prayers.

Biochemistry Success (continued)

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enzyme was observed, a larger-scale bacterial growth and purification protocol was carried out. I isolated ipgD to sufficient purity to allow me to detect and measure the enzyme’s activity using a colorimetric phosphate assay. Much work remains before I understand how ipgD identifies its substrates, and I hope to decode some of the lingering questions regarding substrate specificity this semester with Dr. Miller. The work completed this summer was reasonably successful, but it was not all smooth piping. Sometimes experiments did not go quite as planned and they had to be repeated or redesigned. In hindsight, as frustrating as these rough days were, they were usually more educational than the successful days. The difficulties I faced pushed me to develop valuable troubleshooting and experimental design skills. Through this experience I have gained confidence and a passion for learning. As a result, I now know that I want to pursue a Ph.D. in biochemistry. In addition, after my summer vacation studentship with the Biochemical Society in Dr. Miller’s laboratory, I want to dedicate myself to learning and research. Finally, I have learned to welcome the integration of experimental and theoretical learning that is catalyzed by a research environment. To me, this is the best education any young scientist can have; without the pressures and exams of a normal school year, I could learn solely for the sake of learning. I am so grateful to have had this amazing summer experience with the Biochemical Society, the Catholic University of America and Dr. Miller.
Adventures in Eichstätt

This past summer, my desire to improve my German took me to Eichstätt, a small city of 13,000 in Central Bavaria for a 4-week, 6-credit program at the Catholic University of Eichstätt-Ingolstadt. This international program hosted 50 students from 19 different countries. Even though I was only there for a few weeks, I experienced what it means to be an Eichstätter.

My schoolwork was good training to perfect my grammar and still gave me ample time to explore and get to know the city. Most of Eichstätt lies in the lush and green Altmühltal river-valley. The Altmühl River runs right through the center of the old city—winding around the university and the cathedral. On a nice summer day, the Altmühl is filled with canoes and kayaks rowing under the shade of the long branches that hang over the river. Off the side of the bridge connecting the two sides of the town, hangs die Prelle, a cage to dunk medieval bakers who did not bake their bread large enough.

Eichstätt is a town that has not forgotten its roots. Virtually anywhere you go in the center of the city, you can find a statue of St. Willibald, the patron Saint of Eichstätt who first brought Christianity to Eichstätt with his sister, St. Walburga in the 8th century. Also, the old high city walls and Willibaldsburg, the Castle of St. Willibald, can be seen from almost anywhere in the city. My favorite place in Eichstätt was the Marian Chapel on the Frauenberg (Mountain of Our Lady). The chapel has a beautiful statue of the Blessed Mother above the altar, and when the sun shines through the windows, she radiantly glows above the whole chapel. At night, the primary lights of the church illuminate Mary among the candlelit chapel. Outside the chapel, I enjoyed watching many sunsets from the hill on which the chapel sits, and on a clear night, thousands of stars illuminated the Bavarian sky.

By the end of the four weeks, I was surprised by how attached I had become to Eichstätt. I still miss hearing the 2-minute long ringing of the church bells before every Mass, even when it woke me at 7 on a Monday morning. I miss the beautiful churches, and the walk over the cobblestone bridge across the river to the Cathedral. I miss opening my front door and seeing the city wall across the mountain. It seemed like everywhere I went in Eichstätt, I wanted to pull out my camera because everything was so picturesque.

Unfortunately, there were a lot of images my camera couldn’t capture, but hopefully my auf Wiedersehen to Eichstätt really means auf Wiedersehen - until we see each other again.

Andrew Krema is a philosophy and German double major who studied abroad with the Merkel Fund.
As we come to the end of the year, we celebrate the generosity that makes this program possible. Please consider making a donation to one of the University Honors Program funds.

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We wish all of you a Merry Christmas and a Happy New Year!

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**Letter from the Director**

Dear Friends,

At the end of August, I welcomed a group of 96 new honors students to campus. As I make their acquaintance, I am constantly impressed by the remarkable range of talents and accomplishments that they bring to CUA. They have distinguished themselves not only as scholars, but also as athletes, performers, and community leaders. I cannot wait to see what they do next!

Thanks to the achievements of our students and the efforts of our wonderful faculty, the Honors Program continues to thrive. In the spring, we will be offering “The Mortal and Divine in Art and Music,” an exciting new course taught by Andrew Weaver of the School of Music and Nora Heimann of the Department of Art. We are also offering our second annual installment of our “European Capitals” program in collaboration with the Department of Modern Languages and Literatures. After Vienna in 2011-12, our focus turns to Venice this year, with an interdisciplinary course taught by Dr. Stefania Lucamante in the fall and a week-long study abroad experience in the “city of bridges” in the spring of 2013.

A number of students travelling to Venice will be receiving support from the Ingrid Merkel Fund. This endowment, established in honor of the program’s founding director, provides academic travel funding to honors students on the basis of merit. As we approach the end of the year, please consider supporting our students by making a gift at [http://giving.cuatoday.com](http://giving.cuatoday.com). (Please designate the “Ingrid Merkel Fund.”)

Best wishes for a Merry Christmas and a Happy New Year!

Peter Shoemaker, Director