CRISPR: An Overview

by Robert Vera ’20

The advent of CRISPR has scientists in a wide range of fields wildly excited. CRISPR, a process by which genes can be easily modified, holds the potential to accomplish everything from fighting cancer to the re-creation of a woolly mammoth. CRISPR, an acronym for Clustered Regularly Interspaced Short Palindromic Repeat, was initially discovered in studies of bacteria in which abnormal, repeating codes of DNA were observed.

Eventually, scientists realized that these repetitions were a protection method against viruses; the bacterium would take a code from a virus it defeated and adopt it into its own DNA so that if the virus attacked again it could be recognized and terminated. Recently, scientists have found a way to use this process to their advantage by modifying these repeating CRISPR structures in RNA so that, instead of terminating a virus, enzymes locate and destroy a desired strand of DNA. This leaves a sort of gap in the DNA, which scientists can then fill with a desired strand, thus changing an organism’s genetic makeup.

Needless to say, this process holds a lot of promise in the psychological field. As the genetic factors that play a role in different psychological disorders become clearer, CRISPR could potentially be used to correct them. Theories that CRISPR could even be used to increase memory and intelligence have emerged in the scientific community as of late.

With great power, of course, comes great responsibility. Ethical concerns about the CRISPR process have arisen especially regarding its use in embryos, since the modification would then be transferred down from generation to generation. This creates a moral dilemma because an embryo cannot consent to such a procedure, and no one knows the possible effects this could have on future generations. Currently, however, governments around the world are allowing CRISPR research to continue.
A Day as a Clinical Neuropsychologist

by Celia Butler '17

Ever wonder how the psychology classroom experience compares to psychology in the real world? If so, you are in luck. Providence College offers a Psychology Internship course—PSY 350—nearly every semester.

The class is exclusive to sophomores and juniors, which is the perfect time to be gaining valuable experience in the field or career you are considering post-graduation. I decided to do an internship the second semester of my junior year. I felt as though time was running out for me to decide on a career path, but how could I make a decision with no real-life experience?

At the time, I had just taken the class Human Neuropsychology with Dr. Guilmette (who is an awesome professor, by the way—I highly recommend taking his class). I was so intrigued and fascinated by the subject that I thought I would like to become a clinical neuropsychologist like him. However, I knew I couldn’t know for sure if I would enjoy being a clinical neuropsychologist until I knew what a day in the life of one was actually like.

So I pre-registered for the course, and began my search for an internship placement, as it was a requirement to have a secured placement well before beginning the internship. Finding a placement was definitely the most challenging and stressful part of the internship course for me. I spent days emailing hospitals asking if they had any internship opportunities, which generally led to me getting rejected and being told there was no space in their programs for interns. Unfortunately, some places never got back to me at all. It was just disappointment after disappointment, and I was beginning to worry that I might not be able to find anything.

Finally, however, I was told by a woman at Memorial Hospital, Dr. Janet Grace, that they were willing to take me in as an intern in their Neuropsychology unit. I was over the moon. We worked out a schedule for when I was able to come—it is a requirement of the course that you spend 8-10 hours per week at your internship, so you are advised to plan your other classes accordingly.

I went to the hospital twice a week, Monday and Friday, for four hours each visit. Mondays and Fridays became the days I looked forward to the most, because of my internship. It was a very interesting experience. It was exciting to see the concepts and assessments I had learned about in the classroom being brought to life and applied to real-life situations.

The best part of the experience was that I got to meet a lot of very interesting people. Because the neuropsychologists I was shadowing saw multiple patients each day and rarely saw the same patient twice, each day was never quite like the last. There was always an element of excitement going in each day wondering what kind of patient I’d meet that day.

Although I enjoyed my time at Memorial Hospital shadowing the clinical neuropsychologists, the experience was very different from how I expected it to be. When I hear the word “internship”, I think of learning through hands-on experience. However, I was unable to participate in hands-on experience with the patients, as I had no qualifications or certifications that allowed me to do so. Despite the lack of hands-on experience, I still feel like I learned a lot from observing patient sessions, as well as engaging in discussions with my supervisors after sessions.

I also learned some things from the required journal entries that we had to write after each day of interning. We simply had to write about our experience that day, how we felt, and what we learned. The journal entries force you to think deeply about your experience, and in doing so you can learn a lot about yourself, specifically whether or not you can envision yourself making your internship a career. It’s really hard to know what you want to do with the rest of your life until you immerse yourself in an internship-like experience.

I highly recommend taking the internship course, and I also highly recommend interning at Memorial Hospital’s Neuropsychology Unit if you are interested in neuropsychology. Whether you end up loving the experience or hating it, it’s a win-win situation because you either walk away with a better idea of the direction you want to head in or steer away from—both being extremely valuable.

CTE and the Future of Football

by Bryan Blum '17

Football has a problem. Well, technically it has many problems, such as decreased viewership, decreased youth participation, and the fact that the Jets are at the bottom of the league (that may be a personal problem, but it is a bad one). The problem that has the biggest impact on the game for the long run, however, is the issue of chronic traumatic encephalopathy (CTE) and concussions.

Football players have higher rates of dementia, depression, and lower overall functioning after they retire. After retirement was the key word in that statement though, as onset of these symptoms may occur even during their playing days. Last week, future Hall of Famer and long suffering Browns offensive tackle Joe Thomas came out and said that he is already experiencing memory loss.

A few weeks ago, Aaron Hernandez’s brain was tested for scientific purposes after his suicide in prison to see the effects of football on his brain. His family suspects injuries sustained during football may have influenced his suicide. In the past year, young, promising players have been announcing their retirement, such as Bills linebacker AJ Tarpley, in order to preserve their health. Tarpley was just 23 years old.

Scientists are still not in complete agreement over the existence of CTE, those against it believe that it is just a random set of vague symptoms that cannot be specifically defined. However regardless of scientific consensus on the issue, it remains clear that the NFL does indeed have a concussion problem. Many prominent figures and former players have come out saying that if they had known what they knew now about head injuries, they would not have played football or would not let their children play. This list includes Hall of Famers Terry Bradshaw, Brett Favre, Troy Aikman, and even former president Barack Obama.

Evidence supports the idea that playing football does have a negative effect on future mental capacity, so the question now exists: who is going to play football in the future? Parents are not allowing their children to play because of the risks that may be involved. Football may be the most popular sport now, but decreased youth participation will result in a smaller talent pool for future generations. This smaller talent pool will limit the total available talent, ultimately decreasing the overall ability of those at the highest levels. If no one is playing football and quality is decreasing, viewership will most likely decrease as well. If no one is watching football, advertisers will pull their spots or will be getting a reduced price. If football is not making any money, then the NFL really has no purpose in society.

So what does this mean for the future? Well, if the NFL wants to continue as the national sports powerhouse that it is, changes need to be made. The perception that football is not safe needs to be changed, and the NFL has made steps in the right direction by providing $100 million dollars towards CTE research, but will it be enough? The fact that current players are coming out against football is not good for business or the future of the game.

The question then becomes does football have any future at all?
The Importance of ‘FeMANism’

by Christie Smith ‘17

The amazingly qualified Dr. Hebl is an applied psychologist at Rice University whose research focuses predominantly on issues associated with diversity and discrimination. Several weeks ago, she gave a talk at PC, discussing the prevalence of subtle sexism displayed throughout the workforce. Additionally, Dr. Hebl argued that men encouraging other men to interact and evaluate women on a truly equal level is perhaps more effective than simply women rallying for their own cause. Hebl went on a six country voyage and witnessed a global lack of female rights.

Countries like India and China ardently desire to hear “It’s a boy!” Women living in such oppressive communities are often deprived of the ability to divorce, pass on citizenship, travel, etc. Clearly there are gender equality issues on a global scale, but what about the United States? Hebl raised the pivotal question, “Have we successfully fixed our problems of discrimination?” In 1942 the “Rosie the Riveter” poster was released, which intended to increase morale in the workplace. It wasn’t until the early 1980s that this now iconic poster was rediscovered and became a symbol for women’s empowerment.

Unfortunately, not many men are initially receptive to hearing women “whine” about the condition of their inequality, however, if another man broaches the subject, it is met with less opposition. Hebl discussed the “He For She” campaign in which men champion gender equality. Ryan Gosling is a part of it, so how bad could it be? Young adults don’t fully understand the still-present disparity between genders—some college classes actually are majority female.

In the lower echelons we are in fact seeing increased equality, however, upon moving up the career ladder, things become a bit more disheartening. Speaking to this evident delta, there are more CEOs named “John” than all combined women in upper ranked companies. There has been lots of legislation prohibiting job discrimination, but is it really working?

The pay gap has barely moved in the past 20 years, and you can’t really say we “just need more time”; estimations in the 1970s regarding where wages would be by now have not come to fruition. Also, allegations of discrimination across time have changed very little. These statistics matter because men are 15% of the net growth in the workforce. Having made a case for the fact discrimination remains a pertinent issue, Hebl began to discuss the topic of overt and subtle discrimination, specifically how influential subtle discrimination can be.

There is something called “benevolent sexism” that is occurring in companies across the country; essentially women are given easier tasks relative to men, and are also praised more in performance reviews. While this might seem like a positive step for women it can actually prove detrimental to their long-term career. It is a subtle suppression technique; companies refuse to take women seriously by failing to push them to the next level, but rather keep them complacent with their current responsibilities and salary. Let’s be clear though, men aren’t the only ones to blame! Men and women use more communal words when writing letters of recommendations for women. Both genders seem to revert to explaining women in stereotypical terms, describing them as caring and relational.

Also amusing to women’s lack of progression are the use of doubt raisers (e.g. “she might be good” vs. “she is good”). Is anyone really going to notice these minute differences though? Yes! Due to the fact that recommendation letters are already positively skewed, inserting doubt raisers by altering only one or two words can have a noticeable impact on hiring outcomes.

Hebl asked the audience if they thought it was a big deal that PC asked her to come and give a talk. Well, the answer is yes. Men simply get invited to more talks than women. This is important because academia operates differently from the business world. If you want to survive and be recognized, you have to publish and give talks. It is a way to make your name familiar to other colleges and universities and essentially increase your value. In all the following fields: biology, political science, bioengineering, history, psych—more men are invited to give talks. The biggest bias is seen in new assistant position, so seniority of professors is not a mediating factor in determining who is chosen to give talks.

Promoting men speaking on behalf of women is so crucial because they are half the population: they have power and higher status, as well as greater access to resources. Simply put, men can be influential to other men’s attitudes and behaviors. This was shown by a study in which participants were shown an article, written by either a male or female author. The article was related to gender (experimental group) or something entirely neutral in content (control group). When the article was related to gender issues, the men did not like the article... when it had a female author. Most likely they thought, “Oh no, not another ranting feminist.”

Although attitudes are not always accurate predictors of behavior, it was shown that a month after reading the article, men’s initial attitudes toward the article were indicative of their future behavior. In a similar vein, men were more likely to donate money to women’s rights when persuaded by a man. These studies implicate that role models are significantly the best method for altering the subtle biases we still see in today’s workplace arena.

Hebl concluded by urging women to find trusted men who will advocate for them. Women need to start being bold enough to nominate themselves, which is all part of understanding and appreciating your self-worth.
The new Netflix show, 13 Reasons Why, has quickly become one of the streaming site's most viewed and discussed programs. Based on the 2007 novel of the same name by Jay Asher, the series focuses on Hannah Baker, a high school student who commits suicide and leaves behind cassette tape recordings describing the events and individuals who contributed to her death.

The show moves between the past tense, in which we see Hannah struggle with the demoralizing events that drove her to take her own life, and the present tense, in which Hannah's friend and crush, Clay Jensen, listens to the tape recordings and seeks to understand Hannah's suicide, his own feelings of guilt, and to confront the other students who hurt her. 13 Reasons Why involves explicit and controversial content such as rape, violence, and graphic depictions of suicidal self-harm. Many people have taken issue with the show's uncensored material, however, what is far more troubling is the show's approach to the suicide narrative and the almost complete absence of discussion on mental health.

In recent years, psychologists and social scientists have sought to help expand the general public's understanding of suicide and to combat some of the dangerous stigma attached to it. The American Foundation for Suicide Prevention provides some somber statistics on the reality of suicide in modern American society: it is the 10th leading cause of death among the general population and, on average, 44,193 people die from it each year. Although older segments of the population, especially middle aged men, have the highest rates of suicide, the American Psychological Association cites that there has been distressing increase in young people 15-24. It is clear, even just by these statistics, that suicide is a chronic issue facing our country.

However, it can be a preventable issue if serious steps were taken to improve our society's understanding of and empathy to mental illness. Thomas Joiner, an academic psychologist at the Florida State University and author of two books on the psychology behind suicide, gave an interview to NPR on the subject in which he explains, "People who kill themselves...are influenced in doing so by mental illnesses, and these illnesses themselves are widely misunderstood, subject to many myths. But make no mistake, they're forces of nature. They're grave. They're severe, just like heart disease, cancer and stroke. They kill a million people every year - through - suicide worldwide."

Common, and severely misguided, notions of suicide portray its victims as being 'selfish' or just 'asking for attention.' This could not be further from the truth. The suicidal mind is complex and can be plagued by a number of detrimental health conditions, including major depression, bipolar disorder and schizophrenia. There is no one universal reason why people take their own lives, but with a greater public openness to discussions about mental health, a greater understanding of how to help a friend or loved one who may be suicidal, and erasing the stigma attached to seeking mental health services can help significantly reduce suicide being seen as a viable option for those in pain.

13 Reasons Why could have been a kind of the show to help initiate open and honest discussions about mental health struggles among young people. It could have been a show that helps vulnerable teens know that there is help out there, people care about them and they are not alone in their pain. Instead, Hannah Baker takes her own life with there being little to no discussion or acknowledgement about the state of her mental health. It is clear as the series progresses that Hannah is struggling with some kind of form of depression but the word 'depression' is never uttered by one character and nor are any mental health resources discussed - or offered to Hannah.

Moreover the premise of Hannah leaving various tapes behind for the people who ‘wronged’ her to learn about how they helped ‘kill her’ is an extremely dangerous plot point. It implies that suicide can be a legitimate means to taking revenge. Of course this could not be further from the truth. The show’s use of the cassette tape narrative depicts a nasty and manipulative portrait of suicide in which it can be the key to getting back at others. For vulnerable young adults, this could provide a terrible incentive for them to attempt suicide.

Finally, the scene in which Hannah commits suicide by cutting her wrists with a razor while sitting in the bathtub is an extremely graphic scene with potentially even more disturbing consequences. The scene plays like a 'step by step' guide to committing the act and is almost romantic in a way it seems like Hannah has finally 'found peace.' The glamorization and explicit technicality of the suicide are grounds for legitimate outrage.

In a time when awareness about suicide and mental health issues is rising, it is incredibly important that we, as a society, are having the right discussions. 13 Reasons Why falls to contribute to this discussion. Psychologists, mental health professionals, and community leaders, should speak out against the show’s irresponsible glamorization and manipulation of suicide.
Research at PC: Opportunities Abound

by Christie Smith '17

There is no shortage of research opportunities at PC for psychology students interested in a variety of different fields. Towards the end of the semester professors and their research students gather in McPhails to recap on the semester, taking the opportunity to spread the word about their individual research as well as glean insight into some of the projects their peers are involved in. Curious about what domains of research are being studied on campus and how to get involved? Read on!

If you're interested in understanding early learning in children or the effects of pretend play then Dr. Van Reet's Kid Think lab is most definitely for you! Her research focuses on understanding more about the way children learn and their ability to think about things that aren't real. Around one year of age children begin to develop the concept of pretend play, which allows them to engage in the pretend world with their peers. In addition to pretend play, Van Reet's team looks at some broader, more macroscopic issues, such as the relationship between play and self-control.

So what kind of things can you expect to be involved with if you join the KidThink research team? Mainly, you will learn how a psychology research lab functions (writing scripts, running participants, coding data, etc.). Additionally, you will have the opportunity to gain hands on experience working with children and families in the community. Previous findings implicate that engaging inhibitory control improves pretend play in preschoolers. Children at this age make similar moral judgments in pretend and real worlds; they prefer to learn about pretending from people who think like they do. And think is now setting out to answer the question, "Can children learn from pretend play?" The lab is corroborating with Dr. Lin Zhang (from the EDU department) to investigate the effectiveness of play and guidance in early science learning. As of March 23rd they began testing kindergarteners and next fall they will begin to test elementary school-aged children.

Dr. Warmuth is setting into her second year as a faculty member at PC and has her family and development lab up and running! The lab is interested in testing effortful control seen among children (5-6 years of age). Essentially, effortful control looks at how well a child can wait for something desired and override their impulses. They are continually recruiting families from the community via flyers to schools, pediatrician's offices, etc.

Additionally, some members of her research team are looking into the role children's intelligence might play in dealing with marital conflict. How are kids with certain abilities (higher IQ and the ability to inhibit behavior) utilizing adapting mechanisms when marital conflict occurs? If you have taken Psych 306 (Child and Adolescent Development), have at least started RDS5A and have a passion for child development, don't hesitate to hand in an application!

Dr. Boucher is currently on sabbatical, but was willing to come and share her current research. She runs an interpersonal communication lab, looking mainly at the effects of personality on social behavior. Her lab is interested in seeing how people interact with one another and whether or not their behavior is dependent on all upon previously filled out personality surveys. The phenomenon of social surrogacy, or how often people ask you to accompany them to social events, is studied as well as determining what kinds of people are more likely to engage in this behavior and how their friends respond over time.

Recruitment remains difficult for their lab; consistently finding people in the community proves to be challenging. Dr. Boucher is already accepting students with her 395 class in the fall, so don't hesitate to reach out and inquire! Generally, expect to set aside roughly eight hours a week and some time for semi-regular lab meetings. Dr. Boucher is flexible to give students tasks that will work with their pre-existing schedules.

Dr. Templar works in a neuroscience and animal cognition lab. It has been shown that those involved in happy marriages are generally found to report lower levels of dementia. With age, social roles can have neuroprotective benefits. This lab looks at the effect of housing rats either socially or non-socially and how they differ in terms of dominance and sociability. The idea of social novelty, or how a stranger rat is treated when introduced to the cage, is looked at in terms of either social or non-social housing. Also fundamental to this lab is the concept of metacognition do rats have knowledge about their own memory states? Each year, the lab presents their research in Florida, with a couple students from the lab attending. Students remarked how exciting it was to disseminate findings with other people in the country who are passionate in similar research domains.

Last but certainly not least, Dr. Mendza and his team presented their research, primarily centered on how social psychology can help inform us about real life issues in organizational, legal, racial, and educational contexts. Their team measures discrimination tendencies, both explicitly and implicitly. This is such a relevant topic because whether we are aware of it or not, stereotypes are constantly infiltrating our mind and influencing our daily decisions. Students involved in this lab have spent time looking specifically at the controversy of police decision making in shooting behavior—does race come into play?

Another research topic that remains integral to their lab are the double standards that exist for women. Women who pursue male dominated field are often discriminated against. Reception of female presidential candidate Hillary Clinton varied depending on which slogan was utilized, either 'I'm with her' or 'Stronger together'. If you're interested in the topics of discrimination and gender inequalities then take Dr. Mendza's 395 course!

'Psych' Up Your Summer

Volunteer
Volunteering is a great way to get hands on experience in an area of psychology that interests you. Being volunteer—whether it is assisting in a research project, volunteering in a hospital, clinic, or counseling center will help you build important skills that will valuable on your resume and for graduate school. Do a quick search on organizations in your local community that could use some help during the summer. Some major organizations to look at are: American Red Cross, Big Brothers Big Sisters of America, Child Mind Institute, New York City, Give an Hour. Free Mental Health Services for U.S. Military Personnel and Families Project HOPE, Psychology Beyond Borders and Volunteers of America.

Attend Psychology-related events
Depending on where you might live, attending a public event like a TED Talk or conference, can be a good way for you to strengthen your critical thinking skills and make networking connections. If you live near a University or community learning center, it is worth looking into whether or not there are any interesting psychology-related events you could attend. If you do not have easy access to such institutions, participating in a webinar can be another great option. The American Psychological Association frequently hosts webinars with other organizations that are open to participation. Learn more by going to the APA website.

READ!
Your professors are not lying when they say reading is important. Of course no one really wants to crack open a 500-plus page Neuropsych textbook during summer vacation, but reading something a little lighter and more interesting, while you're lounging around the pool can be beneficial in the long run. Keep your brain (semi-) active and check out stimulating psychology books and magazines this summer!

Photo Courtesy of Flyground
Faculty Announcements 2016-2017

Dr. Guilmette will be giving a presentation in July titled, “The Role of Neuropsychological Assessment in Predicting Work Capacity Following Traumatic Brain Injury,” in Prague at the 35th International Congress on Law and Mental Health.

Fr. Guido’s professional work over the past year included two publications:


Dr. O’Keeffe (with Dr. Randi Kim of Rhode Island College) hosted a session at the Northeast Conference for Teachers of Psychology Titled: “Challenging Your Psychology Department: Approaches, Perspectives, Challenges, and Rewards.” Dr. O’Keeffe also was recognized on the floor of the RI House of Representatives and Senate for her efforts to help stop the spread of aquatic invasive species by coordinating a voluntary boater inspection and education program.

Dr. Mendoza presented a professional poster with his SPA Lab students at the New England Psychological Association Conference in Worcester, MA and another at the Society for Personality and Social Psychology Conference in San Antonio, TX. These projects focused on strategies for reducing stereotypy threat and gender bias in the 2016 presidential election. Dr. Sa'id also had a co-authored publication appear in the Journal of Abnormal Child Psychology on the nature of social positive illusory bias and has a manuscript under review that examines shooter bias in police decisions. On a more personal note, Vivi will be turning 3 at the end of April and is excited for the fall to come, when she will become a big sister.

Dr. Spiegler had one of his books, Contemporary Behavior Therapy, 5th ed, translated into Chinese (and he is hoping that the 873 million people who speak Mandarin will read it; actually, he’d be happy if they just bought it). He also has had a book translated into Korean. He has no idea if either of them say what he wrote. In May, Dr. Spiegler traveled to Oregon to present a workshop on textbook writing in the 21st century at Portland State University. In June he will be traveling to downtown Providence to make several presentations and mentor textbook and academic authors at the annual conference of the Textbook and Academic Authors Association. Dr. Templer has been writing manuscripts for publication and working with five students in the NAC lab. In November, she traveled to San Diego to attend the Society for Neuroscience Conference. In April, she took four students to the International Conference on Comparative Cognition in Melbourne, FL, where they all presented their original research on two projects with rats: social behavior and cognitive aging. This summer Dr. Templer will participate in the Summer Scholars program to wrap up her 2.5 year longitudinal research on sociality as a neuroprotective for cognitive decline due to aging, and her NSBRE SURF students will be working in the NAC lab as part of a Collaborative Research Grant, entitled “Functional dissociation of the rat posterior parietal cortex” with her colleague Rebecca Burwell at Brown University. Dr. Van Reet has been busy in a number of areas. She had a conference presentation: Leon-Santos, A., & Van Reet, J. (2017, April). Children’s Understanding of Illegitimate Ownership Transfers. She presented at the biennial meeting of the Society for Research in Child Development, Austin, TX. She had two publications: Van Reet, J. (in press). Measuring pretend play and its development in young preschoolers. In SAGE Research Methods Cases; and Van Reet, J. (2016). The development of representations of pretend object substitutions. The Journal of Genetic Psychology, 177, 131-142. Dr. Van Reet was the recipient of external funding: Caplan Foundation for Early Childhood ($44, 000), Testing the Effectiveness of Play- and Inquiry-Based Instruction in Early Science Education, January–December 2017. (Role: Co-PI). And, on a personal note, Eli Van Reet Gilliam was born on June 2, 2016.


Graduate Plans

- Maria Allifier ’17 will be attending Boston University in the fall for her Masters of Public Health.
- Bryan Blum ’17 will be attending the Stony Brook University master’s program in psychology.
- Lauren Cramer ’17 will be enrolled in the Master’s of Social Work program at Rhode Island College in the fall. She also has accepted a position as an Individual Therapist to teens in the RI Foster Care system.
- Michael DeCaprio ’17 has been accepted to Rutgers Medical School.
- Lauren Ioho ’17 will be pursing a Professional Degree in School Psychology at Fordham University.
- Julie James ’17 will be pursuing an M.Ed. in higher education at Merrimack College.
- Nadia Kemp ’17 will be pursing a Psy.D. in School Psychology at St. John’s University.
- Julia McDonald ’14 has been accepted to Dartmouth Medical School.
- Katie McNulty ’14 was accepted to the Didactic Program in Dietetics and the Certificate in Sports Nutrition program at Simmons College.
- Scott Roy’l ’11 will be pursuing an M.Ed. in elementary education at Bridgewater State College.
- Jamie Russo ’17 will be doing a year of service with City Year Americorps in Boston.
- Victoria Sanborn ’15 will begin the Ph.D. program in clinical neuropsychology at Kent State University this fall.
- Carrilla Serna ’16 is doing fantastic work at Pfizer Pharmaceutical.
- Kate Sulka ’15 is beginning Tufts University Ph.D. program in neurommunology.