

## Class of 1960 Branford College Travel/Study Fellowships

Twenty-two Branford College students applied for the Class of 1960 Travel/Study Fellowships in early 2015. A committee of members of the Class of 1960 and 1986 studied the applications carefully. Committee members included: Clint Brooks 1960, Peter Dickinson 1960, Chair Mike Griffin 1960, Jim Ottaway 1960, Rich Roberts 1986, and Carrie Reynolds 1986. The Committee met in New Haven on a snowy March 5 to interview candidates. We were joined by Betsy Bradley, master of Branford, who provided very helpful insights.

The allocated funds from the Class of 1960 and 1986 were supplemented by contributions from supportive class members. The combined amounts permitted us to fund projects proposed by six students. Below is a biography of the awardees and their projects.

### Dante Archangeli

Biography:

Dante Archangeli is a Mechanical Engineering major from Tucson, Arizona. He began playing with blocks and Legos at a young age. Now he is project manager of Yale's Formula SAE team, Bulldogs Racing, where he oversees design and fabrication of F1 style race vehicles. Dante's interests extend beyond the garage. He rock climbs throughout the world and has attended US national level competitions. In his spare time he studies Japanese.

Project Summary:

Dante spent this past summer in Vancouver, British Columbia, as a research intern with the Robotics and Control Lab (RCL), a multidisciplinary lab at the University of British Columbia that combines engineering and medical students from around the world to focus on developing better surgical tools and techniques. RCL's current research focuses on three dimensional ultrasound imaging, organ elastography, and minimally invasive robotic surgery.

Dante spent his time at RCL developing a basic training program that uses haptic guidance to train surgeons operating the da Vinci robot, a robotic arm system used in minimally invasive surgery. His research combined the fields of education and engineering to develop a software package that uses recorded surgical movements to train novice operators. The package acts similar to a tennis coach, first moving a trainee's arms through the proper motion and then later offering pointers and evaluative feedback. Now a team of UBC senior Electrical Engineering students is further developing the basic program that Dante created. For Dante, this was a great experience since it built upon compliant motion research that he participated in at the University of Hong Kong and upon course work taught.

### Rachel Arnesen

Biography:

Rachel Arnesen is a Global Affairs major from Bethesda, Maryland (though she is originally from Chicago) and a Yale Global Health Fellow. She is primarily interested in the epidemiology of infectious and chronic disease both domestically and abroad. She spent the spring of 2015

abroad in Grenoble, France studying French. At Yale, she is the president of the first Yale chapter of AMWHO (America's 1<sup>st</sup> Mock World Health Organization), a violinist in the Davenport Pops orchestra, an avid IM tennis player, and an intern at the Yale Global Health Leadership Institute. In her free time, Rachel loves watching Chicago Cubs baseball games, playing tennis, skiing, and traveling.

#### Project Summary:

As a Class of 1960 fellowship recipient, Rachel spent this past summer in Kigali, Rwanda, working at WE-ACTx, an HIV/AIDS clinic. She spent most of her time working on a growth chart program, which involved creating a digital database with every child's growth chart history, as well as observing the clinic's different activities, including sitting in with the nurses on consultations, working in the pharmacy, attending support groups, working with Musicians without Borders on music therapy, and helping with food distribution. This experience was a very good introduction to working in health abroad.

### Mariona Badenas

#### Biography:

Mariona Badenas is an Astrophysics major from Barcelona, Spain. She loves observational astronomy and is passionate about exoplanets – planets orbiting a star different than the Sun. Mariona is a Michele Dufault Scholar, the Co-President of the Yale Society of Physics Students, and an active member of Yale Women in Physics, an organization that encourages female involvement in scientific fields. In January 2015, she sat on the organizing committee for the Northeast Conference for Undergraduate Women in Physics at Yale, which was attended by roughly two hundred female undergraduates.

#### Project Summary:

This past summer, she conducted exoplanetary research at UC Berkeley under the guidance of Professor Geoffrey Marcy and NASA Carl Sagan Fellow Dr. Roberto Sanchis Ojeda. Her project involved performing an in-depth study of three planetary systems observed by the NASA Kepler Telescope during the K2 Mission's second campaign. For that purpose, she wrote a code to calculate the most important physical parameters of each system, such as the radius of the transiting planet or the mass of its parent star. Her research helped an international collaboration of astronomers to better understand these planetary systems, so she will be one of the authors of a paper that will be published soon in *The Astrophysical Journal*.

### Rebecca Brudner

#### Biography:

Rebecca Brudner is a senior Theater Studies major from Brooklyn, New York. She is a member of Yaledancers, the Yale Dramat, and Yale Repertory Chorus, and has acted in 12 Yale

productions. She is also the co-president of Hear Your Song, an organization that helps children in hospitals express themselves through song writing.

#### Project Summary:

For her senior project in Theater Studies, she will be creating a play using the writings of the Brontë sisters to tell the story of their lives. She spent her summer in Haworth, West Yorkshire, England—the hometown of the Brontë family—researching their lives through looking at primary source material (letters, diary entries, poems, first editions of their novels, as well as household objects and clothing). This research was crucial in helping her find the textual foundation of her play. Every day for three and a half weeks she engaged with these objects at the Brontë Parsonage Museum and Library, working more or less chronologically through the documents in the library's collection.

Rachel began with the Brontë's childhood fiction as well as looking at books they owned and in which they had written notes, drawn countless doodles, and solved (usually incorrectly) arithmetic problems. She then moved into their adolescence, looking at the poetry, fiction, journals, and letters from their teenage years and early adulthood. And finally moved to their well-known novels, which were written and published in the very last years of their lives. In addition to seeing first editions of their novels, filled with misspellings and grammatical errors, she looked at letters to and from various publishing houses and prominent social figures like William Thackeray (*Vanity Fair*), Hartley Coleridge, etc., debating the identities of the three sisters, who published under male pen names. Through looking at all of these documents and objects, she was able to construct an idea of what the Brontë sisters' lives were like not only in a historical or narrative way, but also in a sensory, emotional, and physical way, which is extremely valuable as an actor and theater-maker.

### Jillian Kravatz

#### Biography:

Jillian Kravatz is a junior English major from Leesport, Pennsylvania. She studies poetry and creative writing here at Yale and has enjoyed the variety of both professors and content that she has encountered in her classes—from Chaucer and Coleridge to contemporary poets like Claudia Rankine. She dances and choreographs as a member of Yaledancers, and writes and edits for Yale's political journal, *The Politic*. She has also taught journalism to elementary students in New Haven public schools and works as a yoga instructor in Branford.

#### Project Summary:

As a Class of 1960 Fellowship recipient, Jillian worked as an intern for The Poetry Society of New York. She helped the society prepare for their upcoming installation of "The Typewriter Project," a poetry booth that invites people off the street to sit down for a few minutes and write poetry. She spent most of her time, however, working as a production assistant for the

Poetry Society's production of *Two Genius Husbands*, a new play by poet Carina Finn. As an assistant, she was able to meet with the director of the show and join in on conversations about how the play should work. She helped to make decisions about set and costume design, running around to various warehouses and thrift stores in the city gathering materials. The best part of the experience, though was talking with the playwright every day at rehearsal, learning more about how a play is written and about how a writer can use poetry as a driving force in a play. Helping to produce a show has gotten her excited about theatre opportunities here at Yale, and she will be pulling from her experience with *Two Genius Husbands* as she choreographs a production of *Heathers: The Musical* for a fellow student's senior project next semester.

## Houriiyah Tegally

### Biography:

Houriiyah Tegally is a Class of 2016 student of Branford College at Yale, double majoring in Molecular Cellular, Developmental Biology, and Cognitive Science. She is an international student from Mauritius, and her first time in the US was when she arrived for her Freshman year at Yale. She is fluent in Mauritian Creole, French, and English. Passionate about different cultures and their people, she loves traveling and involves herself with different cultural groups at Yale. For instance, she is currently on the executive board of the Yale African Students Association, and a Peer Liaison for the Office of International Students and Scholars. A creative at heart, her various interests include photography, digital design, and cooking. She helped found the Yale College Photography Society and has been a chef for a student-run pop-up restaurant on campus. Houriiyah also has a passion for technology, enrolled in Computer Science classes in addition to completing her major, and is planning a career in Bioinformatics, which is a field at the intersection of Biological and Computational Sciences.

### Project Summary:

This summer, as a Class of 1960 Fellowship recipient, Houriiyah had the incredible opportunity to spend two months in Nairobi, Kenya, interning at the Kenya Institute for Bioinformatics. Her achievements and growth this summer were two-fold. First, she was given intensive training in using and manipulating Bioinformatics tools. She was taught wet-lab experiment techniques, as well as development of algorithms to be used in bioinformatics projects. This not only enabled her to contribute to ongoing projects in drug discovery and development, Houriiyah also became majorly equipped with the required skills to pursue a career in this field. Secondly, this was a chance for her to observe and evaluate the state of scientific practice in Kenya. She concluded that although Kenyans are extremely skilled, the framework and structure for scientific research in Kenya is less conducive to innovative projects than in America. Since one of Houriiyah's main life goals is to improve science, scientific education, and scientific research in Mauritius, and on the African continent in general, this was an extremely valuable experience for her. At the same time, discovering the vibrancy of life in Nairobi was personally very fulfilling to Houriiyah. She is now studying Swahili at Yale, and is thinking of going back after graduation to pursue related work there. Houriiyah is extremely grateful to the Class of 1960 Fellowship, as without it, she wouldn't have been able to achieve and learn so much personally and academically this summer.