

A Summer in the Lab

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Transitioning into academia is a rigorous process that selects for those who are committed to a life of inquiry and the expansion of knowledge. Unfortunately, not all institutions that claim to be academic in nature provide the opportunities to garner the skills to not only master but to innovate the accomplishments of academics. The passion, qualities, and commitment needed are not simply innate to a student, but something that has to be fostered at an early stage in the collegiate career. Incorporating these values of academia into its scholarly initiative, Lake Forest College has innovated the long-standing Richter Scholar program to provide more innovative opportunity to undergraduates to pursue a career in research.

Lake Forest College has transitioned from including only the 10-week program to the addition of a 3-week research program.

The Richter Class of 2013 consisted of 41 students, while the Class of 2012 included 29 students. The novel 3-week program was able to accommodate the highest number of Richter Scholars at Lake Forest College, allowing more students to participate in research.

With the option of a 3-week program, students are not as restricted in participating in the Richter program. The sole 10-week program may have deterred many students in the past, as students have other commitments or may be unsure if they would like to spend a large portion of their summer working on a research project.

In addition, students, like sophomore Sally Nahas, can choose interesting projects outside of their major with the 3-week program in order to get exposed to research in other disciplines without worrying about giving up too much time to do so during summer break.

"I chose to do the three-week research project with Professor Odugu because it allowed me to explore qualitative research in the social sciences apart from the quantitative work in the biology major," said Nahas, "I was able to delve into research of a different department without having to dedicate more than 3 weeks worth of commitment, however the experience opened opportunities to continue work for publication. It was also a good experience as a commuter to experience living on campus for free during my work."

Another student, Keke Roberts, worked in Professor Naomi Wentworth's psychology lab about eye movements and the brain during the three week program. Being from New Hampshire, she chose the three week program because she wanted to return home for summer break. The three week program allowed her to get a taste of research work and learn a new discipline and then spend the majority of her summer back at home. Had there not been a three week option, she would not have applied for the Richter Program. The first half of the three weeks was spent learning general theories and basic lab techniques. During the second half of the three weeks, she designed her own experiment and conducted a pilot study.

While there may be more flexible benefits to the 3-week program, 10-week Richter Scholars also received certain perks. 10-week scholars earned a \$2000 stipend and received 1 research credit, whereas 3-week scholars received no stipends and half a research credit.

While there is excitement about a new option, there is also much appreciation for 10-week programs as they give an intimate opportunity to research. Fatima Hooda who worked in professor Karen Kirk's lab believes that that she could not have accomplished what she did in 3-weeks. There was a lot more time to practice and master techniques in gel electrophoresis, polymerase chain reaction (PCR), etc than when she first started. The 3-weeks would suffice in trying to understand the full magnitude of intricacies involved in researching the effects of telomere manipulation in the filamentous fungi, *Aspergillus nidulans*.

Furthermore, sophomore Charles Alvarado believes a 3-week research experience may not allow students enough time to conduct a project in disciplines like biology.



"The three-week program did give me time to tutor, volunteer, and take a physics course," said Alvarado, "but I would have appreciated more time to conduct my research project, as there was still a lot to be completed and understood."

Whether Richter Scholars were part of the 3-week program or 10-week program, students were able to take advantage of a Lake Forest's Richter Scholar Program to enhance their skills and engage themselves in a novel way.

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