



Left: Jesse Gordon uses a Nitrogen gas filled double glovebox to conduct a chemistry experiment to prevent any contact with the air. Right: Frances Ooi tightens a stainless steel autoclave for a nanoparticle synthesis.



What Happens When...?

Students hit the books, the lab, and the abroad trips to continue their research over summer vacation.

Muna Oli

Don't mess with this rising sophomore, she boasts a black belt in karate! Muna Oli, a Psychology major, Bioinformatics minor, who was born in Scotland, is involved with the American Medical Student Association (AMSA), Science for Life, and the Neuroscience Club. She hopes to become a doctor, focusing on trauma surgery or oncology—while performing research in the oncology field as well. This summer, Oli is continuing the cancer research she began working on with faculty mentor Dr. Brent Reynolds during her sophomore year of high school. Her latest pursuit is discovering the effect of gap junction communication in brain cancer cells aiming to answer the questions: "What happens if you change the gap junction communication? Does it make the cancer weaker and easier to treat? Does it make the cancer harder to treat?" Oli will continue to work on this project in the hopes of finding positive results and publishing them. When she's not karate-chopping cancer cells in the research lab, Oli enjoys working out, photography, cooking and traveling.

By Christina Hunt
Freshman, Journalism major

Grace Ooi

While most second-year college students are at the beach this summer, still trying to recover from freshman year, Grace Ooi, from Plantation, Florida, is spending that time at the University of New South Wales (UNSW). Under the watchful eyes of UF faculty mentors Dr. Michele Manuel and Dr. Jacob Jones, and UNSW faculty mentor Professor Michael Ferry, Ooi, along with just four other select students, is researching the mechanical properties of Magnesium alloys doped with Zinc and Yttrium after an applied stress. The long-term goal is to use Magnesium, rather than Aluminum, to construct motor vehicles; which, according to Ooi, "would give a car a 10 percent weight decrease, which would increase fuel efficiency by about 6-7 percent." In the hopes of someday working in the field of energy technology, Ooi is in pursuit of a combined Bachelor's/Master's degree in Materials Science and Engineering. In her spare time, Ooi is involved with Engineering Ambassadors, enjoys outdoor activities, and loves to play word games such as Bananagrams.

Jesse Gordon

Alachua County native, Jesse Gordon is spending his summer in the lab, focusing on organometallic chemistry—which is the study of chemical compounds containing bonds between carbon and metal. Gordon, a rising sophomore and member of Chem Club, is a Chemistry and Economics major, and is also pursuing a minor in Physics. The goal of his research is "to construct organometallic structures with multimetallic sites that are designed to mimic the active sites of enzymes encumbered to prevent any uncontrolled reactivity," with the intent of testing its potential for catalysis. He found out about the opportunity by approaching Dr. Adam Viege at a seminar; where he was then referred to Dr. Leslie Murray, his current faculty research mentor. When asked to divulge a little-known fact about himself, Gordon admitted that when he was younger he hated his middle name and decided to change it to Sqwage (rhymes with lodge). In the future, he hopes to become a professor, teaching and researching at the University level. In his down time, Gordon enjoys playing tennis, guitar, and piano, listening to music, and hanging out with friends.

Haitao Xu

Haitao Xu, a Chemistry major who is considering a double minor in History and Theater, is a rising sophomore currently researching the effects of fructose intake in humans. He spent the summer perfecting experimental equipment set-ups and methods, and practicing the techniques involved in growing animal cells needed for his experiments. Xu learned of this opportunity by talking to his chemistry professor, and is now working alongside Dr. Alexander Angerhofer of the Physical Chemistry Department, and Yuri Sautin of the Nephrology Department. Serving as the Sports Coordinator for the Chinese American Student Association (CASA), and as a member of the Table Tennis Sports Club, allows him to organize and play the sports he loves, while forming a connection with the country he hails from. When Xu is not working to reach his goal of attending medical school and becoming a pulmonologist, he enjoys playing video games on his home PC or on friends' consoles.

Frances Ooi

No, it's not a typo—Frances Ooi is Grace's twin and they are pursuing the same major! While her twin is away, Frances is serving as the undergraduate coordinator for the Undergraduate Research Seminar sponsored by the Center of Nanostructured Electronic Materials at the University of Florida. Most important to Ooi is pursuing her own ideas: "I like to figure out what problems need to be solved and how to approach those problems rather than someone telling me what to do. This is analogous to singers who cover other artist's songs – they never sing with the same emotion as the original song writer." When Ooi's faculty mentor, Dr. Wei David Wei, offered her a position in his lab she jumped at the opportunity to research her own interests rather than those of a graduate student. This summer, she is conducting preliminary synthesis experiments to find the ideal nanoparticles for her future experiments involving the synthesizing of different hybrid metal nanoparticles for biomedical applications. She believes that "in the future, the use of nanoparticles will be widespread in every field." When she's not "being a lab rat" in her effort to someday become a professor or start her own company, you can find Ooi reading, playing guitar, or working out.

"I like to figure out what problems need to be solved and how to approach these problems rather than someone telling me what to do."

- Frances Ooi