Honors College students make discoveries in freshman colloquium

This fall, OU's Honors College welcomed a record-breaking 400-plus freshmen to its ranks. These talented students have spent the semester tapping into their creative powers through a colloquium that embraces the virtues of inspiration, imagination and innovation.

Drawing on a range of disciplines, the ‘Making Discoveries’ colloquium has featured many distinguished guest lecturers, including Christopher Gilchrist, executive director of the National Museum of the Great Lakes, and A.G. Riddle, bestselling author of The Atlantis Gene.

There were also visits from Dr. Brad Roth, director of OU’s Center for Biomedical Research; Literature Specialist Dr. Gania Barlow; OU’s award-winning Loon Copter team; and Mark Stone, coordinator of OU's World Music Program and Percussion Program.

Everything from the arts to medicine and technology has been explored this semester, according to Dr. Graeme Harper, dean of the Honors College.

“We also worked with Connected Detroit Innovates (CDI), which is helping Detroit be a global, cross-industry innovation center,” Dr. Harper said. “They in turn are working with the Advance Michigan Defense Collaborative (AMDC), which is supporting worker transition from defense to other growing regional industries. AMDC works with organizations such as the Macomb/St. Clair Workforce Development Board and the Workforce Intelligence Network for Southeast Michigan. ‘Making Discoveries’ is underpinned by ideas of making connections, empathy and individuals working together to reach important goals.”

As part of the class, students were tasked with coming up with creative solutions to a range of challenges. They conducted extensive research and wrote papers on their ideas. Here are some ideas that emerged from this year's colloquium:

Sydney Scofield, Biomedical Sciences

App to turn travel time into study time

“The app would allow the user to connect their smartphone to their car audio system and listen to pre-recorded lectures and audio textbooks and study using audio flashcards while driving,” Scofield said. “I devised this as a way for commuters to make better use of the time spent driving to and from the university campus.”
Rosemarie Calandrino, Engineering Chemistry

Specialized chemical filters for water purification

“These filters would be composed of different chemicals and elements that would neutralize the specified pollutants for the chosen area,” Calandrino said. “The filters could then be made to focus on certain areas and could also work within systems already created, like BRITA, other systems found in household settings. This would help those in areas that have polluted water sources.”

Jack Sebring, Computer Science

App-based delivery service

“I want to create an app that would allow urban users to order groceries, laundry, medication and other services that another user would be able to pick up for them for a fee,” Sebring said. “The purpose of this is to solve a problem in inner cities like Detroit where there are limited store options that are often far away while also providing users with the ability to make supplemental income.”
Christian Ylvisaker, Biomedical Sciences

Nanotechnology as an alternative to antibiotics

“The problem with conventional antibiotics is that bacteria, such as staphylococcus aureus, have evolved resistance to antibiotics, which makes them particularly dangerous,” Ylvisaker said. “Unlike antibiotics, nanotechnology could destroy 100 percent of bacterial cells, which would allow for a ‘permanent antibiotic’ by preventing surviving cells from replicating. Nanotechnology has great potential, and can even be used to effectively cure cancer by targeting and destroying malignant cells.”

Lauryn Doussett, Health Sciences

Baby anklet monitor

“The purpose would be to potentially be able to save infants' lives. The anklet would consist of two parts, a heart rate monitor and a thermometer,” Doussett said. “The anklet sensors would connect to an app on the parents' cell phone that would give them an alert if the baby’s temperature increased or if the baby's heart rate seemed abnormal. This would make the reaction time for sick children much faster, hopefully decrease sickness and death among infants.”

To learn more about the OU Honors College, visit the website at oakland.edu/hc.