

AUGUST 2016

## Teens explore medical field at OUWB biomedical sciences summer program

Oakland University William Beaumont School of Medicine (OUWB) introduced 30 local high school students to the medical field during its two-week Bioengineering and Biomedical Sciences Summer Program, where OUWB faculty members and staff brought the labs and classrooms to life for the students.

They prepared biology experiments and shared their passion for medicine with the teens. These hands-on activities engaged them while they absorbed lessons about the human body.

### Lessons in the anatomy lab

After suiting up in yellow smocks, they entered the anatomy lab for lessons about the skeletal system and the body's muscles as seen on uncovered cadavers. The instructors used an embalmed brain and spinal cord to explain how the brain functions.

"The students were very inquisitive and excited to be in the anatomy lab. I was impressed that at such a young age they were quite advanced. One of them mentioned being a vascular surgeon someday," said Victoria Roach, OUWB assistant professor, Department of Biomedical Sciences, who led the discussion of the gastrointestinal system during the second anatomy lab visit.

The faculty set up a microbiology

lab for a Rapid Strep Test. The students swabbed each other's throats to retrieve cells then used microscopes to view real strep bacteria growing on petri dishes.

In the classrooms, they learned about the limbic system by combining essential oils to create their own aromatherapy spritzers and witnessed how germs spread from a handshake during the session called Spread of Infection.



### A real-life preview of medicine and the health sciences

This year, the program included an afternoon at the OUWB Clinical Skills Center where students practiced with the otoscope to examine the ears and an ophthalmoscope to look at the retina. They also learned the components of a cardiac exam through a mannequin named Harvey. Harvey can simulate heart sounds and is the model that OUWB uses to teach its medical students.

"The students experienced what was like to be a health care

provider as they performed ear and eye exams, and blood pressure measurements on each other as instructed by rising second-year OUWB medical students," said Dawn Jung, M.D., assistant professor, Emergency Medicine, and assistant dean, Diversity and Inclusion.

Each day, they devoted time to a group research project on a medical topic. This year's topics ranged from "Nano Technology in Medicine;" to "Water Contamination from Lead;" to "Emerging Diseases: Zika Virus." This process gave them the opportunity to gather information using medical literature.

Formal presentations occurred on the last day of class where the groups demonstrated a command for their topics; a finale that clearly indicated that the participants not only gained an understanding of the medical field, but that fulfilling their interest in medicine is possible at OUWB. The faculty learned from the experience as well.

"Being involved in this program reminded that teaching, above all needs to be fun and engaging," said Stefanie Attardi, Ph.D., assistant professor, Department of Biomedical Sciences. "It also left me wondering if I would someday see these high school students at OUWB."

# NEWS YOU CAN USE

## OU partners with FCA US to manufacture leaders

A partnership between Oakland University and one of the largest employers in southeast Michigan continues to cultivate leaders among graduating Industrial and Systems Engineering (ISE) majors.

There are currently five Oakland ISE alumni in the Fiat Chrysler Automobiles' (FCA) US Manufacturing Leadership Development Program (MLDP), a two-year rotational program that allows participants to have leadership roles in all major manufacturing functions.



*Nick Karoumy, ISE '14 (right), and Taylor Humm, ISE '15, inside the Tipton Transmission Plant in Tipton, Indiana during a work trip through the Manufacturing Leadership Development Program at FCA US.*

Each rotation during the program lasts four months, and students also have an opportunity to complete a company-sponsored MBA or a master's degree in mechanical, electrical or industrial and systems engineering. In each assignment of six total, participants are put in hands-on roles that help them gain experience and get a grasp of FCA US's World Class Manufacturing philosophy.

Students also attend a graduate program at one of six local universities, including Oakland, which is partnered with FCA US. Participants are assigned mentors

that help guide them through the program and the students' career progression.

Candidates for the program must have earned a bachelor's degree of science in a manufacturing-related program, have a minimum 3.0 GPA, a strong interest in manufacturing operations, strong leadership characteristics, and an ability to work in a team environment. FCA US also prefers that those being considered for the program have a previous internship with an automotive manufacturer.

Dr. Robert Van Til, Pawley Professor of Lean Studies and Chair of the ISE Department said Oakland has a long history of partnering with FCA US on educational and research projects.

"Back in 1995, I spent a summer as a visiting faculty working in their Sterling Heights Assembly Plant," Van Til said. "Besides hiring ISE graduates into their MLDP and into other engineering positions, several ISE students are interning this summer at FCA. In addition, a large number of full-time FCA engineers are currently enrolled in our ISE M.S. and Engineering Management M.S. programs."

For more information on the Manufacturing Leadership Development Program, visit [fcagroupcareers.com/Students/Pages/MLDP.aspx](http://fcagroupcareers.com/Students/Pages/MLDP.aspx). Visit [oakland.edu/ise](http://oakland.edu/ise) for more on Oakland University's programs in Industrial and Systems Engineering as well as Engineering Management.

## Summer internships supplement medical education for rising M2s

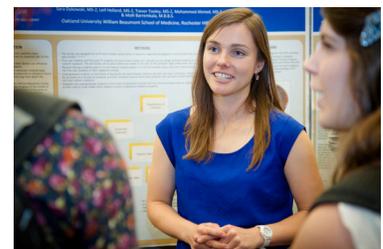
Thirty-six, Class of 2019 OUWB students wrapped up their first year of medical school and, instead of

taking a much-deserved break, they switched gears by participating in the Oakland University William Beaumont School of Medicine /Beaumont Health summer internship program.

"The summer internship program provides students with hands-on clinical, community, educational and research opportunities for rising M2 students," said Tracy Wunderlich, OUWB director, research training.

Students worked side-by-side with clinical faculty at Beaumont Hospital while some spent time with OUWB Department of Biomedical Sciences faculty members on campus, where, for the first time, four of them developed a study that included the anatomy lab. Students also worked on site with community partners at Easter Seals, South Oakland Shelter, Downtown Boxing Gym and Legal Aid for Children and Families.

"The program is meant to foster both personal and professional development in the students," said Wunderlich.



*Sara Dykowski, Class of 2019, presents anatomy research from her summer internship.*

## Gaining valuable experience

Additionally, the internship included an opportunity to create a poster about their areas of study to present during Orientation Week to the incoming Class of 2020.

# STATE AND NATIONAL HEADLINES

## **More evidence that getting a good job almost always requires a college degree**

A college degree is more expensive and more necessary than ever to earn a decent living.

Just 16% of job listings posted in 2014 on Indeed.com, an online job site, are what the site defines as “opportunity jobs.” These are roles where the average salary is above \$57,500 and wages have grown faster than inflation over the past 10 years. Nearly three-quarters of those jobs require a college degree compared with just 14% of so-called non-opportunity jobs, according to a report released Tuesday by Indeed. What’s more, employers hiring for these so-called opportunity jobs are offering workers \$96,380, nearly double the \$46,634 average starting salary offer for non-opportunity jobs.

“If you want a career path that is leading to high incomes and raises year after year, which psychologically really matters to people, that overwhelmingly requires a college degree,” said Tara Sinclair, the chief economist at Indeed and the author of the report.

*Market Watch*  
July 26, 2016

## **Oregon commissioners approve 'aggressive and ambitious' higher education budget**

THE DALLES – Oregon's higher education commission approved a dramatic budget request Thursday that would represent more than 40 percent increases in operating support for public universities and community colleges.

The Higher Education Coordinating Commission unanimously approved the 2017-19 biennial budget request

at a meeting Thursday at Columbia Gorge Community College in The Dalles.

The request includes \$943 million in operating support for public universities, a 42 percent increase from existing spending levels. For community colleges, the budget includes \$795 million for the state's 17 two-colleges, a 44 percent increase from the current two-year cycle.

"This is a very aggressive and ambitious budget request," Ben Cannon, HECC's executive director, said before the volunteer commissioners approved the plan.

But the budget is anything but a done deal, and comes as the state faces a projected revenue shortfall of more than \$1 billion due to public pension obligations and as voters mull a controversial business tax on the November ballot that has state agencies treading water as they wait for answers.

*The Oregonian*  
August 11, 2016

## **Report finds WV's public higher education institutions have \$2.7 billion impact on state**

The state Higher Education Policy Commission hopes the \$2.7 billion impact that West Virginia's colleges and universities have on the state's economy will prevent budget cuts to higher education.

“Rather than just to say ‘hey, we can save a lot of money by closing or consolidating certain institutions, you really need to also have an understanding of what kind of economic impact that’s going to have to those communities,” said Neal Holly, Vice Chancellor for Policy and Planning for the HEPC.

A report released last week by the WVU Bureau of Business and Economic Research found that West Virginia's 21 public institutions of higher education contributed over \$2 billion to the state in 2014. The study was commissioned by the HEPC.

According to the report, West Virginia's 12 four-year institutions and nine two-year institutions supported 22,000 jobs. Compensation in supporting those jobs was reported at \$1.4 billion. That activity generated more than \$60 million in tax revenue for the state.

Holly said when combined with tuition, student spending and other sources of revenue, the economic impact of the institutions was nearly seven times the amount of the state's appropriation for the schools. Holly called the report “a good tool” to see the scope of all contributions to each community.

“It's feedback for us, the institutions and for the community,” Holly said. “It's feedback for other stake holders, whether it's employers, folks outside of the state that are maybe looking to relocate businesses here.”

*MetroNews*  
August 8, 2016

## **MA: Tuition rises at UMass campuses**

University of Massachusetts trustees voted last week to raise next year's tuition by an average of 5.8 percent, bringing the average cost for an in-state undergraduate student to \$13,862 a year. Costs among the five campuses vary from \$12,783 at Dartmouth's campus to \$14,590 at



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**State and National Headlines *CONTINUED***

Amherst. The trustees had hoped to secure more money from the legislature, but after lawmakers approved a budget that only increased state funding by 1 percent, the university indicated its hand had been forced. Between the costs of new union contracts, debt service, and employee benefits, the UMass system is looking to address an \$85 million shortfall. The tuition increase will cover about one-fourth of the deficit.

*Boston Globe*  
July 14, 2016

**OK: State regents approve tuition increases for Oklahoma schools**

Last week, Oklahoma's state regents voted to increase tuition at the state's 25 public colleges and universities by an average of 8.4 percent. The undergraduate tuition and fee hikes range from 3.7 percent at Langston University to about 13 percent at Rose State College. The increase comes following the legislature's decision to slash funding for higher education by nearly 16 percent in an effort to close a projected \$1.3 billion deficit in the state budget for the coming fiscal year. While the cuts to postsecondary education total about \$136 million, the revenue generated by increasing tuition rates will only generate about \$87 million, forcing institutions to make up the difference in other ways, like eliminating faculty and staff positions or tapping into reserve funds.

*KOCO.com*  
June 30, 2016