



## **NEWS RELEASE**

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### **New Biomedical Program Flourishing in 13 High Schools**

*Carthage program to be featured at national symposium Thursday*

A tough, new science curriculum is giving some Missouri students an early taste of the rigors and rewards that await those who prepare for biomedical careers. And students say that they relish the challenge.

Thirteen Missouri public high schools have adopted the [Biomedical Sciences program](#) developed by Project Lead The Way, a national not-for-profit that promotes hands-on, problem-based coursework to improve achievement in math and science.

One of those schools, Carthage High School, has earned the honor of showcasing its program this week (Nov. 12) at the national Project Lead The Way Symposium in Austin, Texas. Just seven schools nationwide received this honor.

“The biomedical and health care fields are expected to generate one out of every five new jobs by 2016,” said Commissioner of Education Chris L. Nicastro. “For Missouri to be a leader in the biomedical industry, and for students to be well-prepared for those jobs, our schools need to put greater emphasis on math, science and technology. The Biomedical Sciences program provides a high-quality curriculum that is motivating for students.”

The Department of Elementary and Secondary Education oversees Project Lead The Way programs in Missouri. The Biomedical Sciences program began in Missouri in 2007-08 with five pilot schools.

Started in 1998 as a pre-engineering program in 12 New York high schools, Project Lead The Way first came to Missouri in 2001-02 at Riverview Gardens High School in St. Louis. Today, the program has grown to 87 high schools and 44 middle schools across the state and nearly 3,000 schools across the nation.

### **Employers Are Paying Attention**

Project Lead The Way programs are designed to prepare students to pursue careers in math, science, and technology fields where national employment shortages exist and pay scales are among the highest levels for entry-level professionals or technicians.

Students in the Biomedical Sciences program apply their skills and knowledge to solve realistic, health-care-related problems, while gaining exposure to various related careers. To be eligible for the program, students also must enroll in college-preparatory math and science classes.

Project Lead The Way began the Biomedical Sciences program in response to an expected critical shortage of qualified science and health professionals. Helping students explore these careers is of interest to Missouri's colleges and universities where new health and biomedical programs are being offered, as well as the state's biomedical sciences companies, including Cerner, Covidien and Pfizer, which have all shown an eagerness to work with the students.

"Career awareness in the biosciences has been a real problem in attracting students to these careers," said Keith Gary, director of program development at the Kansas City Area Life Sciences Institute. "Project Lead The Way Biomedical provides students exposure to high-wage, high-demand jobs within the biosciences field."

### **Prepared for College**

Students are excited about taking the Biomedical Sciences courses because the classes are different and fun. Teachers are excited because their students are eager and engaged.

"They look forward to the class each time because they know they are going to be challenged and active," said Chris Adams, an instructor at Carthage High School.

The curriculum emphasizes critical thinking, creativity, innovation and real-world problem solving —skills that will help students excel in college and their careers, said Ralph Flori, a Project Lead The Way teacher instructor at the Missouri University of Science and Technology.

"It's such a rich curriculum," Flori said. "It's not teacher-centered; it's student-centered. The teacher presents a problem, gives some background information and then, as quickly as possible, turns the students loose with an open-ended problem to solve. It asks students to think at a higher level. They quickly respond to that challenge and start relishing it."

And, apparently, telling their friends about it. Jean Hammer, a Project Lead The Way instructor at Hazelwood East High School, reports that enrollment in the program has tripled from 132 students the pilot year to 393 this year.

"Students that have gone on to college have called to say how well they are doing because of the exposure to labs they received and the activities," she said.

Norma Anderson, assistant superintendent at Blue Springs, reports a similar phenomenon. "We went from approximately 40 students last year to 110 this year in the first class," she said. "The parents love Project Lead The Way. They are very supportive."

Because the curriculum requires students to give presentations, generate reports, and keep lab journals, the Biomedical Sciences program also requires students to hone their communication skills.

“If you ask these students to explain something, they have no trouble jumping up and doing that,” Flori said. “This curriculum prepares them to lead because it gives them confidence and a sense of accomplishment that’s impressive.”

Schools interested in implementing Project Lead The Way can learn how at [www.pltw.org](http://www.pltw.org). They may also contact Janice Rehak, health occupations supervisor at DESE, at 573-522-5811 or [janice.rehak@dese.mo.gov](mailto:janice.rehak@dese.mo.gov).

The 13 high schools participating in the Project Lead The Way Biomedical Sciences program are:

**Blue Springs School District**

- Blue Springs Freshman Center
- Blue Springs High School
- Blue Springs South High School

**Carthage School District**

- Carthage Senior High School

**Fort Osage School District**

- Fort Osage High School

**Hazelwood School District**

- Hazelwood Central High School
- Hazelwood East High School
- Hazelwood West High School

**Lee’s Summit School District**

- Summit Technology Academy

**Liberty Public Schools**

- Liberty Senior High School

**North Kansas City School District**

- Winnetonka High School

**St. Joseph School District**

- LaFayette High School

**School District of Clayton**

- Clayton High School

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More information is available at [http://dese.mo.gov/divcareered/missouri\\_connections\\_news\\_room.htm](http://dese.mo.gov/divcareered/missouri_connections_news_room.htm).

*The Missouri Connections Public Outreach Partnership workgroup represents a collaboration of state agencies concerned with education and workforce development who are helping inform and build awareness among the public, particularly students and potential students, of targeted careers, educational and industry trends, and workforce development priorities. Workgroup members represent the Department of Elementary and Secondary Education; Department of Higher Education; Department of Economic Development, Division of Workforce Development and Missouri Economic Research & Information Center; Missouri Center for Career Education; and Missouri Chamber of Commerce and Industry. Freelance writer is Anita Neal Harrison.*