



March 23, 2017

## **Faculty forum to explore concussion injury in football – legitimate concern or media hype?**

PLATTEVILLE, Wis. — The University of Wisconsin-Platteville’s College of Liberal Arts and Education will present a faculty forum, “Concussion Injury in Football: Legitimate Concern or Media Hype?” on Thursday, April 6, in Room 136 Doudna Hall from 5-6:30 pm. The forum is free and open to university students, faculty, staff and community members. Refreshments will be served.

More than 72,000 high school, college and professional football players in the United States are diagnosed with a football-related concussion each year. The definition of concussion, formed at the Third International Conference on Concussion in Sport held in Zurich, Switzerland in November 2008, is “a complex pathophysiological process affecting the brain, induced by traumatic biomechanical forces.” This type of injury changes the way the brain functions and can cause a variety of symptoms, including headaches as well as difficulties with concentration, memory, balance and coordination.

Over the past 76 years, as more research and testing related to concussions has been conducted, members of the medical community and general population have grown increasingly concerned about the health risks of playing football and other contact sports in which concussions occur.

As the level of concern about the negative health effects of concussions has risen, it also has drawn the attention of media, prompting many to wonder, are concussions a legitimate concern or media hype?

At the forum, Dr. Matthew Rogatzki, assistant professor of health and human performance at UW-Platteville, will share highlights of a research project he

conducted this fall examining members of the university's 2016 football team to determine if biomarkers can be used to predict when an athlete is at an elevated risk of sustaining a concussion injury as well as diagnose concussion injury.

Rogatzki and his research team's concussion research suggested something that may be surprising – playing football, in the absence of concussion injury, is no more dangerous to the brain than any other sport.

In the study, Rogatzki and a team of researchers measured two biomarkers of brain injury in blood serum before and after a UW-Platteville junior varsity football game. The biomarkers were measured to determine if brain injury occurs when football players experience sub-concussive impacts – head impacts not large enough to cause a concussion injury – during a football game.

The research showed that serum biomarkers of brain injury increase following a football game, even in players not experiencing concussive injury, which is what the research group was expecting to see. Rogatzki said it was surprising, however, that the increase in biomarker levels was not any different than that seen in other contact and non-contact sports, such as running, swimming or playing basketball. In addition, the biomarker levels were much lower than those found after boxing and karate matches.

"I hope audience members at the forum will gain an understanding of how much researchers and the medical community still need to learn about concussion injury before any definitive answers about the long-term danger of concussions can be made," said Rogatzki.

Following Rogatzki's presentation, Dr. Richard Dhyanchand, associate professor of biology at UW-Platteville, will discuss his views on sports-related concussion and sub-concussive impacts. His views differ slightly from Rogatzki's, but he agrees that "there is still a lot to learn about injuries related to head trauma."

Rogatzki began teaching at UW-Platteville in 2014, after receiving his Ph.D. He teaches Nutrition, Advanced Nutrition, Kinesiology, and Exercise Science

Research. His specialties include biomarkers of concussion injury and lactate metabolism.

Dhyanchand began teaching at UW-Platteville in 2010. He has a Medical Doctorate degree and training in Public Health and possesses broad interest in human medicine. He has research experience in chest pain and asthma as well as vision (glaucoma). He teaches Human Anatomy and Physiology, Human Gross Anatomy, and Introductory Human Pathology.

For more information about Rogatzki's concussion research, go to:

- Research reveals surprising evidence about football and brain injury:  
[www.uwplatt.edu/news/research-reveals-surprising-evidence-about-football-and-brain-injury](http://www.uwplatt.edu/news/research-reveals-surprising-evidence-about-football-and-brain-injury)
- Rogatzki conducts game-changing concussion research:  
[www.uwplatt.edu/news/rogatzki-conducts-game-changing-concussion-research](http://www.uwplatt.edu/news/rogatzki-conducts-game-changing-concussion-research)
- Can biomarkers be used to diagnose concussion injury?:  
[www.uwplatt.edu/news/can-biomarkers-be-used-diagnose-concussion-injury](http://www.uwplatt.edu/news/can-biomarkers-be-used-diagnose-concussion-injury)
- Students present research at sports medicine conference:  
[www.uwplatt.edu/news/friday-features-nov-13-2015](http://www.uwplatt.edu/news/friday-features-nov-13-2015)
- Students conduct research on blood lactate levels:  
[www.uwplatt.edu/news/students-conduct-research-blood-lactate-levels](http://www.uwplatt.edu/news/students-conduct-research-blood-lactate-levels)

Rogatzki's research has been featured in:

- WKOW's "New study aims to take guesswork out of diagnosing concussions,"  
<http://www.wkow.com/story/32766210/2016/08/Monday/new-study-aims-to-take-guesswork-out-of-diagnosing-concussions#>
- Isthmus's "Diagnosis: Maybe – Football could be safer than we think"  
<http://isthmus.com/arts/sports/football-could-be-safer-than-we-think/>
- CBS Chicago's "New Ways to Track Football Impact on Human Brain"

<http://chicago.cbslocal.com/2017/03/04/new-ways-to-track-football-impact-on-human-brain/>

In addition, the article “Research Reveals Surprising Evidence About Football and Brain Injury” is scheduled to be reprinted in the spring issue of The Point After II, a quarterly magazine published by the Wisconsin Football Coaches Association.

The LAE Faculty Forum Series, a program instituted in the fall of 2004, is sponsored by UW-Platteville’s College of LAE. The purpose of the forum is to allow faculty to present information in their research areas. Presenters tailor their presentations to a general audience.

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