

Local athletes to be subjects of new, international study



SHEPHERDSTOWN — Athletes from Shepherd University will soon be some of the subjects of a new study being conducted by photobiomodulation (PBM) therapy researchers.

According to Ann Liebert, who is the coordinator of photomolecular research at Sydney Adventist Hospital in Australia, the research will focus on whether or not PBM therapy heals concussions.

"The next one we are doing is on concussions, which is very topical at the moment," Liebert said. "Concussion treatment is usually just rest and gradually getting back to normal activity, while monitoring their condition to make sure there are no other things that show up. However, 6% of people have symptoms still, after 21 days. A good percentage of people that have symptoms have one year and don't recover and cannot get back to football or sport or normal activities. There's a percentage that go on to have chronic traumatic encephalopathy (CTE), which is only diagnosed after death.

"Now, we have a good treatment for concussions, (using photobiomodulation therapy), and we have good monitoring for them off of EEGs," Liebert said of the EEG test, which detects brain abnormalities, like concussions.

"A neurologist came to us (with this study idea) after seeing the results of our other studies, and said, 'We want this to happen,'" Liebert added.

"So, we're going to start a trial with one of our Ivy League teams, and we would love to do it here, as well, in Shepherdstown, with our athletes who have a concussion."

Liebert said the outcome of the low-level laser and light-emitting diode therapy treatments, which all Shepherd University athletes are offered for free at the Suzanne Shipley Wellness Center, will be determined by using

validated EEG measurements, the Post-Concussion Symptom Scale and monitoring the physical, emotional, sleep and cognitive symptoms, including headache, neck pain, balance, anxiety, irritability, concentration, brain fog and fatigue.

“My Ph.D. is on treating migrainous headaches, so I know we can help with that. That’s the most common symptom among concussion patients,” Liebert said, noting the post-concussion study will be a double-blinded, randomized, placebo-controlled clinical trial, supervised by a sports neurologist. “We are very keen to start to do this.”

Liebert could be found speaking on this subject at the wellness center on Monday, with local residents who were interested in the recent PBM research conducted by herself and her research partner, Brian Bicknell, who is a research fellow at the NICM Health Research Institute and the University of Western Sydney and a research assistant at the Brain and Mind Centre, Sydney University.

Bicknell and Liebert said they have found that the microbiome appears to be what is changed by PBM therapy. Through their research on various illness treated with PBM therapy, they have proven PBM has a positive effect on the microbiome in Parkinson’s disease, autism spectrum disorder, diabetic kidney disease, oral mucositis, Lou Gehrig’s disease and other neurological and metabolic

diseases.

“Most particularly, we have been looking at the effect of light, generally, and our treatment on sleep and wakefulness and many, many diseases of the 21st century,” Liebert said, noting PBM therapy is safe for anyone to use, even those with pacemakers. “We have an absence of sleep right now. Having disrupted sleep can be a precursor to Parkinson’s. So, sleep is important, and the photobiomodulation treatments can be used therapeutically to help with sleep.”

The researchers made the stop at Shepherd prior to speaking before the U.S. Congress to advocate for PBM therapy being offered in all of the Veterans Affairs Medical Centers in the country. Currently, only 17 out of 170 centers offer the treatment option, which has been successfully used to help veterans suffering from post-traumatic stress disorder and from Agent Orange exposure.

Shepherd University’s George Washington Institute of Living Ethics vice president, Scot Faulkner, serves as an advisory board member for the PBM Foundation. He indicated that the Center of Excellence for Photobiomodulation at Shepherd University will be pleased to collaborate with Liebert and Bicknell on their new study.

“There’s a long way to go with this research,” Faulkner said, mentioning PBM was developed behind the Iron Curtain and

was not learned about by Western scientists until after the fall of the Berlin Wall. "There have now been 10,000 published studies on it. There's an average of 80 new papers a month being published on it, worldwide.

"It's a movement that we hope will continue to expand, because we have seen that it helps people," Faulkner said. "After a hundred million clinical patients — not just consumer patients — they have found not a single documented side effect from it. You can't even get that off of Bayer aspirin! That's the beauty of it — it's a natural process, helping natural processes."