Biomarkers could be key to blood test for concussions

There is no single distinguishing feature of a concussion. Most of these symptoms can also be present in other types of injury or disease. In many cases, even brain scans of concussed patients, such as MRI or CT scans, appear normal. As a result, researchers are racing to find alternative methods to better diagnose concussions.

Recently, there has been new hope that specific biomarkers – objective and quantitative indicators of disease, illness, or injury – could signify someone has developed a concussion. The use of biomarkers to diagnose diseases has already proven successful for many types of cancers and heart damage. These biomarkers include levels of certain proteins or molecules in blood, urine, or even saliva.

…

Perhaps someday all of these potential biomarkers could be used together: GFAP and UCH-L1 to determine the presence of a brain bleed, and BDNF to provide insight into the severity of the concussion itself. Going forward, it will be important for scientists work together to define particular symptoms of a concussion, both on a biological and physiological level. The more specific we get, the easier it will be to define biomarkers, and to identify clusters of physiological changes in order to define the disease.

Read the original post