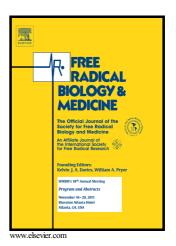
## Author's Accepted Manuscript

The cysteine-rich whey protein supplement, Immunocal®, preserves brain glutathione and improves cognitive, motor, and histopathological indices of traumatic brain injury in a mouse model of controlled cortical impact

Elizabeth Ignowski, Aimee N. Winter, Nathan Duval, Holly Fleming, Tyler Wallace, Evan Manning, Lilia Koza, Kendra Huber, Natalie J. Serkova, Daniel A. Linseman



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The cysteine-rich whey protein supplement, Immunocal®, preserves brain glutathione and improves cognitive, motor, and histopathological indices of traumatic brain injury in a mouse model of controlled cortical impact

Ms. Elizabeth Ignowski<sup>a1</sup>, Dr. Aimee N. Winter<sup>a1</sup>, Dr. Nathan Duval<sup>b</sup>, Ms. Holly Fleming<sup>b</sup>, Mr. Tyler Wallace<sup>a</sup>, Mr. Evan Manning<sup>a</sup>, Ms. Lilia Koza<sup>a</sup>, Ms. Kendra Huber<sup>c</sup>, Dr. Natalie J. Serkova<sup>c</sup>, Dr. Daniel A. Linseman<sup>d</sup>\*

<sup>a</sup>University of Denver, Department of Biological Sciences, Denver, Colorado, 80208, United States,

<sup>b</sup>University of Denver, Knoebel Institute for Healthy Aging, Denver, Colorado, 80208, United States,

<sup>c</sup>University of Colorado Cancer Center, Aurora, Colorado, 80045, United States,

<sup>d</sup>University of Denver, Department of Biological Sciences and Knoebel Institute for Healthy Aging, 2155 E. Wesley Ave.,

Denver, Colorado, 80208, United States;

lizignowski@gmail.com aimee.n.winter@gmail.com ng.duval@gmail.com holly.fleming@du.edu tywall28@gmail.com evan.manning@ucdenver.edu koza.lilia@gmail.com kendra.huber@ucdenver.edu natalie.serkova@ucdenver.edu daniel.linseman@du.edu

\*Corresponding author. 3038714663

#### **Abstract**

Traumatic brain injury (TBI)<sup>1</sup> is a major public health problem estimated to affect nearly 1.7 million people in the United States annually. Due to the often debilitating effects of TBI, novel preventative agents are highly desirable for at risk populations. Here, we tested a whey protein supplement, Immunocal®, for its potential to enhance resilience to TBI. Immunocal® is a non-denatured whey protein preparation which has been shown to act as a cysteine delivery system to increase levels of the essential antioxidant glutathione (GSH). Twice daily oral supplementation of CD1 mice with Immunocal® for 28

<sup>1</sup> These authors contributed equally to the manuscript.

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