Sportex researcher becomes cover star on The Journal of Physiology

Posted on Friday 9th September 2011

Dr Raymond Reynolds (http://www.birmingham.ac.uk/schools/sport-exercise/staff/profile.aspx?ReferenceId=5533&Name=dr-raymond-reynolds) , Lecturer in Motor Control at the School of Sport and Exercise Sciences, has become a cover star on the August 15 2011 edition of The Journal of Physiology following the publication of his new paper on Vertical torque responses to vestibular stimulation in standing humans.

The cover image is taken from an illustration in Dr Reynolds' article where the colours represent the amplitude of vestibular-evoked torque responses in standing subjects, demonstrating modulation by head orientation.

The summary of Dr Reynolds' paper reads as follows:

Galvanic vestibular stimulation (GVS) is a method for activating the human vestibular nerve with electricity. It induces sensations of head movement which cause sway and eye movements, and affect navigation. GVS is used here to demonstrate a novel vestibular reflex. Stimulation of standing subjects caused them to generate torque around a vertical axis, resulting in trunk rotation. Response magnitude and direction were systematically altered by head orientation in a manner consistent with GVS causing a sensation of head roll. This is relevant for balance control because vestibular information is only useful for fall prevention when interpreted in the context of head orientation. These findings therefore provide a method for investigating this neural transformation process. This can be used to diagnose deficiencies in the vestibular control of balance caused by ageing and/or neurological disease.

The full text of the paper can be read on **The Journal of Physiology website (http://jp.physoc.org/content/589/16/3943.full)**

© University of Birmingham 2015