Neuro Kinetics, the University of Cambridge, and Addenbrooke's Hospital Partner with FIA and BTCC for Professional Car Racing Concussion Study

The RESCUE-RACER study uses I-PAS™ and other concussion assessment tools to establish and assess the natural history of concussion symptoms in motorsports.

Image Credit: British Touring Car Championship (BTCC) and www.jakobebrey.com (photographer Jakob Ebrey)

PITTSBURGH, PA, US, February 20, 2019 /EINPresswire.com/ -- Neuro Kinetics, Inc (NKI), the University of Cambridge and Cambridge University Hospitals NHS Foundation Trust are pleased to announce their collaboration of a comprehensive and potentially transformational motorsport concussion study entitled RESCUE-RACER (Research Evaluating Sports ConcUssion Events – Rapid Assessment of Concussion and Evidence for Return).

This two-year study of motorsport concussion, in partnership with world motorsport's governing body Fédération Internationale de l'Automobile (FIA), incorporates the most promising and technologically advanced concussion assessment modalities currently available.

The modalities include: OVRT (Oculomotor - eye tracking, Vestibular - balance, and Reaction Time) data collected on NKI's innovative I-PAS™ (I-Portal® Portable Assessment System); the Cambridge Neuropsychological Test Automated Battery (CANTAB); salivary biomarkers; and functional Magnetic Resonance Imaging (fMRI) at 7T.

The study begins by collecting baseline data from professional motorsport drivers in the United Kingdom with post-injury tests to be run during the 2019 race season. The study consists of two parts: the first, CarBON (Competitor Assessment at Baseline; Ocular, Neuroscientific), investigates 40 UK-based racing drivers at baseline; and the second, CARS (Concussion Assessment and Return to motorSport), assesses a minimum of 20 drivers serially in the acute post-injury period (1-3 weeks).

Prof. Peter Hutchinson, Professor of Neurosurgery, NIHR Research Professor, and Principle Investigator for RESCUE-RACER said: "The project represents a significant step for motorsport medicine; RESCUE-RACER prospectively follows drivers through a racing season and uses state-of-the-art assessment tools and imaging. This represents a tremendous opportunity to improve the management of drivers with concussion and traumatic brain injury in terms of assisting

recovery and enabling return to safe driving."

Primary study support is provided by the FIA's 2018 Sid Watkins Scholar and RESCUE-RACER Study Coordinator, Dr. Naomi Deakin, who, like Prof. Hutchinson, is based at Robinson College, Cambridge. The RESCUE-RACER programme is jointly sponsored by the University of Cambridge and Cambridge University Hospitals NHS Foundation Trust, which comprises Addenbrooke's Hospital and the Rosie Maternity Hospital.

The ambitious goal of this study is to establish the natural history of symptoms and signs of concussion sustained in motorsport activity using a comprehensive neuroscientific battery by exploring emerging technologies for objective assessments that can assist with concussion diagnosis and prognostication. After an accident there is obvious concern for the individual racer, but a concussed driver also presents a potentially lethal risk to other competitors as well as spectators and crew.

RESCUE-RACER is expected to result in evidenced-based, medical decision-making protocols for track-side evaluation after potentially concussive incidents and a plan for clinical management of motorsports concussion, including the important 'return-to-race' decision.

Improved care for head-injured racers could translate into enhanced care for road-traffic accident victims from the general population. "The advantage with I-PAS, in particular, is that it appears to be both objective and portable," said Dr. Deakin. She continued: "We need an accurate assessment tool that we can easily take to the race circuit medical center or rally service park. If I-PAS performs well in RESCUE-RACER, we may be able to rapidly, and objectively, identify concussion in the motorsport environment."

"The BTCC has been investigating concussion with Dr. Deakin since 2017 and provides a perfect opportunity to study competitors of all ages in a variety of vehicles, with our associated series', including both closed cars and single seaters," said Alan Gow, BTCC Chief Executive. "With a permanent medical team and the support of the Technical Director Peter Riches and his crew, any potential accident resulting in a potential concussion can be thoroughly investigated and important data collected."

"The opportunity to expand I-PAS's motorsport role from INDYCAR to the British Touring Car Championship, its associated series, and the FIA is an exciting reward for the Neuro Kinetics team of scientists," said Howison Schroeder, President and CEO of Neuro Kinetics. He continued, "Collaborating with the prestigious and dedicated team from the University of Cambridge is exhilarating!"

The project is funded by the FIA Foundation and supported by Neuro Kinetics.

For further information on the RESCUE-RACER study, visit the study's website at www.rescueracer.org or follow the account on Twitter (@RESCUE_RACER).

ABOUT NKI

Neuro Kinetics, Inc. (NKI) is the leader in clinical eye tracking and non-invasive neuro-functional diagnostics and monitoring. Abnormal eye responses have been connected to more than 200 diseases and medical conditions. With 24 issued patents and over 150 installations, NKI's FDA cleared I-Portal® devices are sold to physical therapists, audiologists, ENT's, neurotologists, neuro-chiropractors, neuro-ophthalmologists and neurologists around the globe. The company's cleared diagnostic platforms include the I-PAS® (I-Portal® Portable Assessment System), I-Portal® NOTC (Neuro-Otologic Test Center), I-Portal® VNG, (Video Nystagmography) and I-Portal® VOG (Video Oculography), along with related accessories, software, training and support services.

Concussions, as mTBI's are widely known, are an increasing public health concern. The need for an objective diagnostic device has made health care practitioners eager for a system that can measure concussion symptoms acutely and over time with speed, precision and reliability. Recent third-party research initially indicates a battery of OVRT (oculomotor, vestibular, and reaction time) tests, in combination with NKI's I-Portal devices, can support a more accurate diagnosis of mTBI (concussion) symptom measurement both acutely and during convalescence. Please refer to NKI's website and the resources page for papers reporting on I-Portal's role in various concussion studies. NKI is actively working toward gaining clearance for its I-Portal® systems as an aid in the diagnosis of concussion based on this and other research. To learn more about NKI, please visit www.neuro-kinetics.com.

About Cambridge University Hospitals

Cambridge University Hospitals (CUH) is one of the largest and best known hospitals in the country, delivering high-quality patient care through Addenbrooke's and the Rosie Hospitals. CUH is a leading national centre for specialist treatment for rare or complex conditions and a university teaching hospital with a worldwide reputation.

CUH is a key partner in Cambridge University Health Partners (CUHP) and is one of only six academic health science centres in the UK. It is at the heart of the development of the Cambridge Biomedical Campus (CBC), which brings together on one site world-class biomedical research, patient care and education. As part of the Campus development, Papworth Hospital is creating a bespoke, purpose-built hospital, and AstraZeneca is building a new global R&D centre and corporate headquarters. The Campus is one of the government's 20 National Institute for Health Research (NIHR) comprehensive biomedical research centres.

About FIA

The Fédération Internationale de l'Automobile is the governing body of world motor sport and the federation of the world's leading motoring organisations. Founded in 1904, it brings together 236 national motoring and sporting organisations from more than 135 countries, representing millions of motorists worldwide. In motor sport, it administers the rules and regulations for all international four-wheel sport, including the FIA Formula One World Championship and FIA World Rally Championship.

About BTCC

The British Touring Car Championship (BTCC) was formed in 1958 and is Britain's most popular motor racing spectacle. Its race season comprises ten events at top circuits across the UK. It is contested by professional racing drivers in competition versions of every day road cars, giving it tremendous public appeal. Over 380,000 watch the BTCC trackside each year. It also receives widespread UK terrestrial TV exposure on the ITV network with all ten race events broadcast live on ITV4, ITV4 HD and www.itv.com.

MEDIA CONTACTS

Susan Zelicoff
Neuro Kinetics
+1 412-963-6649
email us here
Visit us on social media:
Facebook
LinkedIn