



# BETA Safety Equipment Conference, 21<sup>st</sup> April 2026

## MEET OUR SPEAKERS



### The state of research into rider safety equipment – past, present and future

Dr. Stephanie Bonin PhD, MEA Forensic Engineers & Scientists

**Stephanie Bonin**, PhD, PE is a Principal and Senior Biomechanical Engineer at MEA Forensic Engineers & Scientists, an Adjunct Professor in the University of Kentucky's Department of Biosystems and Agricultural Engineering, and life-long equestrian. She serves on the ASTM International Committee on Helmets and Headgear and has chaired the ASTM Equestrian Helmet Task Group since 2019, helping advance evidence-based testing methods for rider head protection. Her helmet research includes relating residual liner crush to head acceleration and helmet fit, investigating whether liner age affects material properties and impact performance, evaluating the effectiveness of anti-rotations systems in helmets, including the influence of hair, and has evaluated the accuracy of helmet- and mouthguard-based instrumentation for measuring head acceleration during head impacts. Dr. Bonin is also the Scientific Chair of the FEI Equestrian Safety Vest Working Group, an international initiative developing evidence-based test methods for rider air vests and body protectors. The working group will bridge field data, injury biomechanics, and standards development to improve protective equipment for riders. In this seminar, she will share insights from her helmet research and how equestrian helmet standards may evolve in the future.



### Analysis and prevention of spinal injuries in horse racing

Daloni Lucas MSc BSc (Hons) MCSP HCPC, University of Bath

**Daloni Lucas** is a physiotherapist and PhD student at the University of Bath (Department for Health), specialising in jockey injury management and injury prevention. With over two decades of experience in professional sport, she works across elite equestrian disciplines, providing physiotherapy support at racecourses throughout the UK and for the British Eventing team. Her research explores the mechanisms and risk factors underlying spinal injury in horse racing, with the aim of translating evidence into practical strategies that enhance rider safety, reduce injury risk, and support optimal performance.



## Designing Safer Helmets: Understanding Rotational Protection & Innovation Forum Discussion Panel

Robin Spicer, Technical Design and Innovation Lead,  
Lemieux Ltd

**Robin Spicer** is a RedDot award-winning British designer and the Technical Design and Innovation Lead at LeMieux, where he has been instrumental in building the brand's technical and safety product range from the ground up. Since joining the team, Robin has led the development of cutting-edge helmets, rider protection, and a pipeline of technical equipment—establishing LeMieux as a serious force in equestrian sport innovation.

Robin began his career at DCA Design International while at the same time founding Armis Sport after graduating from Loughborough University. Following the acquisition of Armis by global polo brand La Martina in 2018, he went on to become Head of Product at HEXR, a pioneer in 3D-printed cycling helmets. During his time at HEXR, the company pivoted toward advanced ingredient technologies, and Robin is named on multiple patents focused on reducing rotational energy transfer to the brain—underscoring his commitment to advancing rider safety through design.

With a strong foundation in industrial design and a deep understanding of manufacturing and performance materials, Robin brings both creative vision and technical rigour to LeMieux's growing innovation portfolio.



## Safety Versus Comfort: A Preliminary investigation into the impact of body protectors on comfort, rider position and considerations for female riders

Lorna Cameron, Senior Lecturer,  
Department of Equine Sciences, Hartpury University

Following a successful career as a competition groom and equestrian coach, **Lorna Cameron** is now a Senior Lecturer in the Department of Equine Sciences at Hartpury University. She is an active researcher in the fields of horse-rider performance and equine welfare. Currently, she teaches across both undergraduate and postgraduate levels and supervises PhD students, generally focusing on research, female rider performance, or equine welfare topics.

Lorna is a Registered Animal Scientist via the British Society of Animal Science and a Member of the Royal Society of Biology. She is deeply passionate about promoting effective and engaging science communication to the wider equestrian industry.

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## Understanding Repetitive Head Loading: Sub-concussive impacts in football and their relevance to equestrian head protection

& Innovation Forum Discussion Panel

Megan Barnes-Wood, KTP Associate, Champion Mfg

**Megan** is a Knowledge Transfer Partnership (KTP) Associate at Champion Manufacturing, working on the development of novel safety solutions for equestrian protective equipment. She has recently submitted her PhD in Medical Engineering (viva pending), specialising in head impact biomechanics and sports safety.

Her doctoral research investigated the cumulative effects of repetitive football heading on the brain. Using a combination of experimental testing and finite element modelling, the work quantified head kinematics and brain tissue response during controlled heading impacts, with a particular focus on subconcussive exposure and variability between impacts.

At Champion, Megan leads the development of next-generation equestrian helmets, managing projects from concept through to certification. She works closely with manufacturing teams to translate technical and biomechanical data into protective equipment that meets the needs of riders without compromising comfort or performance. Through the use of computational modelling and simulation, and experimental data analysis, she focuses on integrating innovative, evidence-led approaches into product design.

Megan's background in medical engineering provides a strong foundation in biomechanics, materials science, and computational modelling. Her work sits at the intersection of research and product innovation, where she applies a systems-level approach to understanding how materials, impacts, and standards combine to influence real-world safety.



## Fitting a diverse rider population

Dave Derby, Chief Executive Officer, Charles Owen

**Dave Derby** is Chief Executive Officer of Charles Owen, a leading manufacturer of equestrian safety equipment. With nearly 40 years' experience across retail, manufacturing, technology, and creative industries, he has built a career driving business transformation, innovation, and growth. Alongside his role at Charles Owen, Dave is the Founder and Managing Director of Derby Consultants Ltd, where he advises organisations on strategic change and innovation, and serves as a Non-Executive Board Advisor to a global creative agency. Known for his strategic thinking and practical approach to change, Dave brings a cross-sector perspective to leadership, combining commercial insight with a strong focus on innovation, process alignment, and delivering sustainable results.

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## Fitting a diverse rider population

Jade Faulkner, Head of Product and Brand Development

Charles Owen

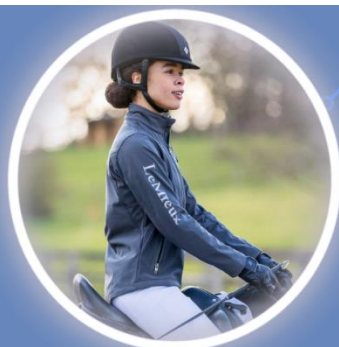
**Jade Faulkner** is the Head of Product and Brand Development at Charles Owen, where she drives product innovation and brand direction for one of the equestrian industry's most trusted safety brands. With a retail background and lifelong experience as a horsewoman, she brings a unique perspective that connects technical excellence with real rider needs.



## Fitting a diverse rider population

Kathryn Jaquet, Managing Director, RB Equestrian Ltd

**Kathryn Jaquet** is the Managing Director of RB Equestrian Ltd an equestrian retailer based in Buckinghamshire. She has been fitting hats and body protectors for many years and a key focus at RB Equestrian is the provision of safety equipment. Eight members of the team have completed their BETA Safety Equipment training and in 2024 one of them won the BETA Safety Equipment Fitter of the Year. Kathryn is the current chair of BETA.



## Fitting a diverse rider population

Lydia Heywood, Cool Ridings Equestrian

**Lydia Heywood** founded Cool Ridings Equestrian to help address the challenges faced by riders from underrepresented groups.

Lydia started riding at the age of 11, progressing through the levels until, in 2017, she secured dual nationality and began to represent Jamaica at International level eventing. Seeing Lydia achieve so much resonated with riders from underrepresented groups, showing what was possible with the right support and guidance. And this is exactly why Cool Ridings exist, to provide support and improve representation in the sport to ensure that riders from all background receive opportunities and access.

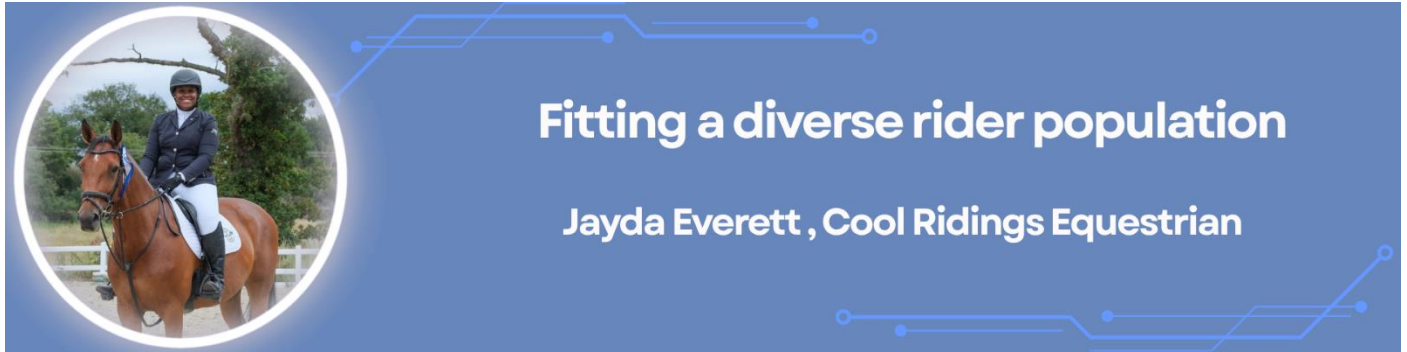
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Away from Cool Ridings, Lydia is also a mentor, DEI consultant and recently launched RIDE which is an initiative that builds community and expands the sport by engaging new audiences with inclusive events launching this summer.



## Fitting a diverse rider population

Jayda Everett , Cool Ridings Equestrian

**Jayda Everett** is a long standing and dependable Member of our community that radiates good vibes and proactively supports others.

Jayda credits Cool Ridings Equestrian with building her confidence both in and out of the saddle. Once a self-described shy rider, she has transformed into a visible advocate for diversity in the sport with her horse Drewmain Karisma aka Robbo. She also recently participated in a high-profile training clinic with Olympic riders like Becky Moody as part of the London International Horse Show.

With a focus on building a versatile partnership with Robbo that spans showjumping and eventing, Jayda continues to break down barriers and inspire other young riders to find their voice and their place in the equestrian community.



## “Safety” Stirrups- attitudes toward and the need for standards Claire Williams, Executive Director, British Equestrian Trade Association (BETA)

**Claire** is the Executive Director of the British Equestrian Trade Association (BETA) based in the UK. Claire has worked with equestrian protective equipment standards for over 25 years. Alongside running BETA's standard and assurance scheme for body protectors, she trains the equestrian sector on aspects of fitting and advises equestrian sporting bodies and racing authorities on standards and equipment rules. She sits as an expert on the UK and European technical committees responsible for writing the safety standards for body protectors, back protectors, air vests and riding hats. She has convened the working group responsible for writing the European hat standard EN1384 since 2020. Claire is also a member of the FEI's Equestrian safety vest working group looking at research and development with the aim of conducting research to feed into future safety standards. In her free time Claire rides her two horses, enjoys walking and photography.

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## Rider attitude to safety and the FEI's position & approach to rider safety now and in the future

**Dr. Mark Hart,**

**Medical Committee Chair & Board Member, FEI**

**Dr. Mark Hart** is a board-certified cardiologist and currently serves as Medical Committee Chair and Board Member for the Fédération Équestre Internationale (FEI) since 2020. This has allowed him to take on a lead role in international equestrian safety governance and promoting athlete safety and well-being.

Dr Hart leads the recently created FEI Equestrian Safety Vests Working Group (ESVWG), which is a multi-disciplinary research project to evaluate the effectiveness of air vests and body protectors in reducing serious injuries and to recommend more evidence-based and rigorous scientific testing standards. The FEI also created a Helmet Working Group in 2023 which made new recommendations for improved testing standards to reduce the risk of concussions.

The FEI is currently a co-chair (along with World Rugby) for the organising committee of the upcoming 7th International Conference on Concussion in Sport (ICCS). The FEI Medical Committee has drafted equestrian specific Concussion Guidelines and "Return to Sport" strategies and is implementing a FEI National Medical Advisor (NMA) program, designed to help smaller National Federations improve their medical coverage and athlete safety protocols.

Beyond the FEI, Dr. Hart has a long history of service to U.S. equestrian organizations.

Since 2012, he has served as the Team Physician for the USOC/USEF at the Olympic Games, Pan American Games, and World Equestrian Games.

He was a member of the USEF Safety Committee (2016–2019) and served on the Executive Board of the United States Eventing Association (USEA) for nearly a decade (2010–2019).



## An eventer's perspective on safety

**Laura Collett, MBE, European Champion, Gold medal winner at Paris and Tokyo, courtesy of Zebra Products, distributor of Uvex.**

**Laura Collett MBE** (born August 1989) is a world-renowned British equestrian, holding positions as a dual Olympic team gold medallist (Tokyo 2020, Paris 2024), 2024 Olympic individual bronze medallist, and 2025 European champion. Based near Cheltenham, she is acclaimed for her partnership with London 52, with whom she won the 2022 Badminton Horse Trials with a record score

Laura, a former show-pony rider, has represented Great Britain in eventing since Ponies in 2005 and twice won Young Rider double gold on Rayef, in 2007 and 2009. She joined the senior squad in 2011.

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In 2013, she suffered a serious fall that left her in a coma and with permanent blindness in one eye, yet returned to top-level competition within weeks. She was awarded the MBE in 2022.



As Head of Product at Racesafe, **Zoe** is responsible for developing the ever-growing range of rider safety and protection - leading design and new product implementation to build a strong product portfolio of reliable, technical, user-focused safety products.

Zoe's passion for user-centred design and pairing technology with ergonomics started her design career in medical, wearable, and consumer goods design - however her personal passion for equestrian sport, combined with the foundations of a user-focused design approach, translated into a career in equestrian safety and rider protection at Racesafe. Working closely with both manufacture and production teams, Zoe's focus is taking products from an initial idea through design, development, technical certification, and launch - introducing new innovative advances for riders into safety equipment whilst remaining comfortable, lightweight, and most importantly protective.

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