

David Ross MULLINEAUX, PhD

CURRENT POSITION

Assistant Professor, Dept of Kinesiology and Health Promotion, University of Kentucky, KY. Aug 2007 to present.

Responsibilities: undergraduate and graduate teaching in biomechanics, computer applications, and research techniques; research; associate director of the Biodynamics Laboratory.

PREVIOUS APPOINTMENTS

Research Coordinator, Associates in Neurology, PSC, Lexington, KY. May 2005 to Jul 2007.

Responsibilities: manage clinical trials (primary contact for sponsors; negotiate budgets; prepare institutional review board documentation; manage staff); instigate site initiated research (identify opportunities; write grant proposals; analyze data; write publications).

Visiting Scholar (Faculty), Dept of Animal Science, Michigan State University. Sep 2004 to May 2005.

Responsibilities: coordinate multi-university grant submission to USDA-NRI (lameness detection in cattle); supervise and advise graduate students (e.g. heart rate variability; gene expression; thermography; biomechanics); analyze data; write publications.

Research Center Manager (Faculty), College of Veterinary Medicine, Michigan State University. Aug 2002 to Aug 2004.

Responsibilities: manage research center; coordinate data collection and analysis; supervise students and visiting researchers; organize international conference; write research publications; maintain web-page.

Senior Lecturer, School of Sport and Leisure Management, Sheffield Hallam University, UK. Sep 1998 to Aug 2002.

Responsibilities: develop, lead and teach MS research methods; teach biomechanics; dissertation leader coordinating 30 staff and 200 students; research; deputy chair of ethics committee; research methods and statistics adviser; external course examiner; admissions tutor; MS development committee member; panel member for the QAA Subject Review (maximum score of 24); entered into the 2001 Research Assessment Exercise (score of 4 out of 5).

Lecturer, School of Health Studies, University of Teesside, UK. Sep 1994 to Aug 1998.

HIGHER EDUCATION

PhD

Issues in the application of statistical techniques in sport and exercise science, 2002. *Sheffield Hallam University, UK.*

MS Social Research Methods

Nov 1996. *University of Teesside, UK.*

PGC Teaching and Learning in HE

Sep 1995. *University of Teesside, UK.*

BS (Hons) Sport Science

Upper Second Class, Jul 1992. *Crewe and Alsager College of Higher Education, UK.*

SELECTED PUBLICATIONS

- Batterham, A.M., George, K.P. and Mullineaux, D.R. (1997). Allometric scaling of left ventricular mass and body dimensions in males and females. *Med Sci Sports Exerc* **29**, 181-6.
- Payton, C.J., Hay, J.G. and Mullineaux, D.R. (1997). The effect of body roll on hand speed and hand path in the front crawl - a simulation study. *J App Biomech* **13**, 300-15.
- Mullineaux, D.R., Barnes, C.A. and Batterham, A.M. (1999). Assessment of bias in comparing measurements: a reliability example. *Meas Phys Educ Exerc Sci* **3**, 195-205.
- Mullineaux, D.R., Barnes, C.A. and Barnes, E.F. (2001). Factors affecting the likelihood to engage in adequate physical activity to promote health. *J Sports Sci* **19**, 279-88.
- Mullineaux, D.R., Bartlett, R.M. and Bennett, S. (2001). Research methods and statistics in biomechanics and motor control. *J Sports Sci* **19**, 739-60.
- Clayton, H.M., Bialski, D.E., Lanovaz, J.L. and Mullineaux, D.R. (2003). Reliability of a technique to measure postural sway in horse. *Am J Vet Res* **64**, 1354-9.
- Wheat, J.S., Bartlett, R.M., Milner, C.E. and Mullineaux, D.R. (2003). The effect of different surfaces on ground reaction forces during running: A single-individual design approach. *J Hum Movement Stud* **44**, 353-64.

- Bialski, D., Lanovaz, J.L., Bohart, G.V., Mullineaux, D.R. and Clayton, H.M. (2004). Effect of detomidine on postural sway in horses. *Equine Comp Exerc Physiol* **1**, 45-50.
- Bidwell, L.A., Brown, K.E., Cordier, A., Mullineaux, D.R. and Clayton, H.M., (2004). Mepivacaine local anaesthetic duration in equine palmar digital nerve blocks. *Equine Vet J* **36**, 723-6.
- Biknevicius, A.R., Mullineaux, D.R. and Clayton, H.M. (2004). Ground reaction forces and limb function in tölting Icelandic horses. *Equine Vet J* **36**, 743-7.
- Clayton, H.M., Sha, D., Stick, J.A. and Mullineaux, D.R. (2004). Three dimensional carpal kinematics of trotting horses. *Equine Vet J* **36**, 671-6.
- Terada, K., Mullineaux, D.R., Lanovaz, J.L., Kato, K. and Clayton, H.M. (2004). Electromyographic analysis of the rider's muscles at trot. *Equine Comp Exerc Physiol* **1**, 193-8.
- Iwaarden, S. van, Clayton, H.M. and Mullineaux, D.R. (2004). Case study: phenomenological study of a university horse population for research and education. *Prof Anim Scientist* **20**, 286-91.
- Mullineaux, D.R., Clayton, H.M. and Gnagey, L.M. (2004). Effects of offset-normalizing techniques on variability in motion analysis data. *J App Biomech* **20**, 177-84.
- Ramón, T., Prades, M.R., Armengou, L., Lanovaz, J.L., Mullineaux, D.R. and Clayton, H.M. (2004). Effects of athletic taping of fetlock on distal limb mechanics. *Equine Vet J* **36**, 764-8.
- Sha, D., Mullineaux, D.R. and Clayton, H.M. (2004). Three dimensional analysis of patterns of skin displacement over the equine radius. *Equine Vet J* **36**, 665-70.
- Wickler, S.J., Hoyt, D.F., Clayton, H.M., Mullineaux, D.R., Cogger, E.A., Sandoval, E., McGuire, R. and Lopez, C. (2004). The energetic and kinematic consequences of weighting the distal limb. *Equine Vet J* **36**, 772-7.
- Wilson, D.V., Evans, A.T., Carpenter, R.E. and Mullineaux, D.R. (2004). The effect of four anesthetic protocols on splenic size in dogs. *Vet Anaesth Analg* **31**, 102-8.
- Wilson, D.V., Lankenau, C., Berney, C.E., Peroni, D.L., Mullineaux, D.R. and Robinson, N.E. (2004). The effects of a single acupuncture treatment in horses with severe recurrent airway obstruction. *Equine Vet J* **36**, 489-94.
- Tunstall, H., Mullineaux, D.R. and Vernon, T. (2005). Criterion validity of an isokinetic dynamometer to assess shoulder function in tennis players. *Sports Biomech* **4**, 101-11.
- Brown, K.E., Nickels, F.A., Caron, J., Mullineaux, D.R. and Clayton, H.M. (2005). Investigation of the immediate analgesic effects of extracorporeal shock wave therapy for treatment of navicular disease in horses. *Vet Surg* **34**, 554-8.
- Clayton, H.M., Lynch, J.A. and Mullineaux, D.R. (2005). The reliability of force platform data from trotting horses. *Equine Comp Exerc Physiol* **2**, 129-32.
- Biknevicius, A.R., Mullineaux, D.R. and Clayton, H.M. (2006). Locomotor mechanics of the tölt in Icelandic horses: Taking the walk for a run. *Am J Vet Res* **67**, 1505-10.
- Mullineaux, D.R., Milner, C.E., Davis, I. and Hamill, J. (2006). Normalization of ground reaction forces. *J App Biomech* **22**, 230-3.
- Almeida, P.E., Mullineaux, D.R., Raphael, W., Wickens, C. and Zanella, A.J. (2007). Early detection of lameness in heifers with hairy heel warts using a pressure plate. *Anim Welf*, **16**, 135-7.
- Kilding, A.E., Scott, M.A. and Mullineaux, D.R. (2007). A kinematic comparison of deep water running and over ground running in endurance runners. *J Strength Cond Res*, **21**, 476-80
- Mullineaux, D.R. (invited; in press). Sample size and variability effects on statistical power. In *Biomechanical Analysis of Movement in Sport and Exercise: Biomechanics Testing Guidelines* (edited by C.J. Payton and R.M. Bartlett). London: Routledge.

MISCELLANEOUS INFORMATION

Managed a c£400,000 project for virtual reality applications (1998-1999; part of a £1,700,000 European Regional Development Fund and European Social Fund grant).

Organized two national educational workshops on research applications and statistics (1997; 1999), and National Organizer for the Fifth International Conference on Equine Locomotion (Michigan State University, 2004).

External income: c\$415k. **Current funded research:** \$72k from industry (2006) to T.J. Carbary, S.D. Cornett, C.A. Knox, Z-L. Lu, D.R. Mullineaux, M.A. Pavez and F.A. Schmitt for 'Rapid iconic memory decay as a marker predicting Mild Cognitive Impairment and Alzheimer's Disease'.

\$83k from industry (2006) to J.M. Thompson, D.R. Mullineaux, M.A. Pavez, B.T. Westerfield and S.E. Cecil for 'Restless Syndrome in patients evaluated for Obstructive Sleep Apnea'.

Publications: journal papers 26; abstracts 43; full articles 7; editorials 3; others 4.

Communications: invited speaker 4; conferences 14; media 3; others 8.

Supervision of c10 graduate students and adviser on c10 PhD students.