

Rikke Buhl  
Professor, Professor  
Section for Medicine and Surgery  
Section for Medicine and Surgery  
**Postal address:**  
Agrovej 8, 2630 Taastrup  
**Postal address:**  
Agrovej 8  
2630  
Taastrup  
**Email:** rib@sund.ku.dk  
**Phone:** +4535332994  
**Web address:** <https://ecg.ku.dk>



## Short presentation

Professor and head of Section of Medicine and Surgery, Department of Veterinary Clinical Sciences with 20 scientific staff members. The research group consists currently of three PhD student, and several MSc and BSc students. Research focus is on cardiovascular adaptations to exercise, often termed "Athlete's Heart" in racehorses with focus on translational perspectives. Especially atrial fibrillation has high interest and the disease is disabling for both horses and people. The horse is an alternative animal model compared to traditionally used models such as rodents and pigs and we show that the horse and human has several similarities regarding this disease. The research with establishing this new animal model has been funded both by the Danish Research Council (2018 and 2021), Marie Curie Horizon 2020 ITN network and Marie Curie Horizon 2020 IF. The studies of atrial fibrillation are ongoing and methods established will be included in future projects.

Collaborations involve both veterinarians, biologist and MDs. Major collaborators include: Prof. Thomas Jespersen (AF and animal models), and assoc. prof. Steen Larsen (myocardial metabolism), Department of Biomedicine, UCPH. Consultant Steen Pehrson and Jacob Tfelt-Hansen, Rigshospitalet (pacemaker implantation and cardiac mapping), Prof. Pyotr Platonov (AF and animal models), University of Lund, Sweden. Prof. Ulrich Schotten and Assoc. prof. Sander Verheule (AF and tissue characterization), Maastricht University, The Netherlands. Assoc. prof. Mathias Hohl, University of Saarland, Germany (histology and biochemistry) Assoc. prof. Halina Dobrzynski (Athlete's Heart), University of Manchester, UK. Prof. Prashanthan Sanders, University of Adelaide, Australia (AF, 3D electroanatomical mapping and exercise).

## Career & collegial tasks

Present occupation:

Professor, Faculty of Health and Medical Sciences, University of Copenhagen

Education:

Doctor of Veterinary Medicine (1999)

PhD (2004). Thesis title: Cardiac development assessed by echocardiography in young Standardbred trotters

Employment:

PhD student, Department of Clinical Sciences, Internal Medicine, The Royal Veterinary and Agricultural University (May 1999)

Maternity leave (May 1999 – February 2000)

PhD student, Department of Clinical Sciences, Internal Medicine, The Royal Veterinary and Agricultural University (March 2000-December 2002)

Assistant Veterinarian, Department of Clinical Sciences, Large Animal Surgery, KVL (December 2002-April 2003)

Maternity leave (April 2003-February 2004)

PhD student, Department of Clinical Sciences, Internal Medicine, KVL (March 2004-June 2004)

Assistant Professor, Department of Large Animal Sciences, Medicine and Surgery, Faculty of Life Sciences, University of Copenhagen (June 2004-November 2007)

Associate Professor, Department of Large Animal Sciences, Medicine and Surgery, Faculty of Life Sciences, University of Copenhagen (November 2007 – October 2013)

PhD Coordinator, Department of Large Animal Sciences, Faculty of Life Sciences, University of Copenhagen (April 2009 - present)

Head of Medicine and Surgery at Department of Large Animal Sciences, Faculty of Life Sciences, University of Copenhagen (August 2009 - present)

Professor (MSO), Department of Large Animal Sciences, Faculty of Health and Medical Sciences, University of Copenhagen (October 2013 - present)

Other scientific qualifications:

Reviewer:

- Acta Veterinaria Scandinavia
- Journal of Equine Veterinary Science
- Equine Veterinary Journal
- Veterinary Journal
- Journal of Veterinary Medical Science
- Journal of American Veterinary Medical Association (JAVMA)
- Journal of Veterinary Cardiology

Co-editor:

- Equine Veterinary Journal (2010)

Editorial Board Member:

- BMC Veterinary Research (2012 - present)
- ACVIM board for the ACVIM consensus statement 2013: "Recommendations for equine athletes with cardiovascular abnormalities"
- Dansk Veterinær Tidsskrift (Danish Veterinary Journal) (2012 -present)

## **Publications; peer reviewed publications; journals and books**

### **Atrial fibrillation as a risk factor for exercise-induced pulmonary haemorrhage following a standardised exercise test**

Hansen, Sanni, Dam Otten, Nina, Nissen, Sarah Dalgas, Carstensen, Helena, Hopster-Iversen, Charlotte, Fjeldborg, Julie, Staun, S. H., Fenner, Merle Friederike, Hesselkilde, E. M. & Buhl, Rikke, 2024, (E-pub ahead of print) In: Equine Veterinary Journal.

### **Structural and electro-anatomical characterization of the equine pulmonary veins: implications for atrial fibrillation**

Kjeldsen, Sofie Troest, Nissen, Sarah Dalgas, Saljic, Arnela, Hesselkilde, E. M., Carstensen, Helena, Sattler, Stefan M, Jespersen, Thomas, Dr Linz, Dominik Karl, Hopster-Iversen, Charlotte, Kutieleh, R., Sanders, P. & Buhl, Rikke, 2024, In: Journal of Veterinary Cardiology. 52, p. 1-13

### **Long-Term Training Increases Atrial Fibrillation Sustainability in Standardbred Racehorses**

Carstensen, Helena, Nissen, Sarah Dalgas, Saljic, Arnela, Hesselkilde, E. M., van Hunnik, A., Hohl, M., Sattler, Stefan M, Fløgstad, C., Hopster-Iversen, Charlotte, Verheule, S., Böhm, M., Schotten, U., Jespersen, Thomas & Buhl, Rikke, 2023, In: Journal of Cardiovascular Translational Research. 16, p. 1205–1219

### **Muscarinic acetylcholine receptors M<sub>2</sub> are upregulated in the atrioventricular nodal tract in horses with a high burden of second-degree atrioventricular block**

Nissen, Sarah Dalgas, Saljic, Arnela, Carstensen, Helena, Braunstein, T. H., Hesselkilde, E. M., Kjeldsen, Sofie Troest, Hopster-Iversen, Charlotte, D'Souza, A., Jespersen, Thomas & Buhl, Rikke, 2023, In: Frontiers in Cardiovascular Medicine. 10, 10 p., 1102164.

### **Atrial fibrillatory rate as predictor of recurrence of atrial fibrillation in horses treated medically or with electrical cardioversion**

Buhl, Rikke, Hesselkilde, E. M., Carstensen, Helena, Hopster-Iversen, Charlotte, van Loon, G., Decloedt, A., van Steenkiste, G., Marr, C. M., Reef, V. B., Schwarzwald, C. C., Mitchell, K. J., Nostell, K., Nogradi, N., Nielsen, Søren Saxmose, Carlson, J. & Platonov, P. G., 2022, In: Equine Veterinary Journal. 54, 6, p. 1013-1022 10 p.

**Cartilaginous Intrusion of the Atrioventricular Node in a Quarter Horse with a High Burden of Second-Degree AV Block and Collapse: A Case Report**

Nissen, Sarah Dalgas, Saljic, Arnela, Kjeldsen, Sofie Troest, Jespersen, Thomas, Hopster-Iversen, Charlotte & Buhl, Rikke, 2022, In: *Animals*. 12, 21, 2915.

**Electrocardiographic Changes in a Horse with Induced Myocardial Infarction**

Weis, R., Carstensen, Helena, Sattler, Stefan M, Buhl, Rikke & Hesselkilde, E. M., 2022, In: *Animals*. 12, 10, 1272.

**Electrocardiographic characteristics of trained and untrained standardbred racehorses**

Nissen, Sarah Dalgas, Weis, R., Krag-Andersen, E. K., Hesselkilde, E. M., Isaksen, Jonas L., Carstensen, Helena, Kanters, Jørgen K., Dr Linz, Dominik Karl, Sanders, P., Hopster-Iversen, Charlotte, Jespersen, Thomas, Pehrson, S. & Buhl, Rikke, 2022, In: *Journal of Veterinary Internal Medicine*. 36, 3, p. 1119-1130

**A novel approach for obtaining 12-lead electrocardiograms in horses**

Hesselkilde, E. M., Isaksen, Jonas L., Petersen, B. V., Carstensen, Helena, Jespersen, Thomas, Pehrson, S., Kanters, Jørgen K. & Buhl, Rikke, 2021, In: *Journal of Veterinary Internal Medicine*. 35, 1, p. 521-531

**Atrial fibrillation in horses Part 2: Diagnosis, treatment and prognosis**

Decloedt, A., Van Steenkiste, G., Vera, L., Buhl, Rikke & van Loon, G., 2021, In: *Veterinary Journal*. 268, 105594.

**Biofilm Research in Bovine Mastitis**

Pedersen, Regitze Renee, Krömker, Volker, Bjarnsholt, Thomas, Dahl-Pedersen, Kirstin, Buhl, Rikke & Jørgensen, Elin , 2021, In: *Frontiers in Veterinary Science*. 8, 11 p., 656810.

**Detection of atrial fibrillation with implantable loop recorders in horses**

Buhl, Rikke, Hesselkilde, E. M., Carstensen, Helena, Fenner, Merle Friederike, Jespersen, Thomas, Tfelt-Hansen, Jacob & Sattler, Stefan M, 2021, In: *Equine Veterinary Journal*. 53, 2, p. 397-403

**Evaluation of electrocardiographic repolarization parameters after administration of trimethoprim-sulfadiazine, detomidine, or their combination in horses**

Trachsel, D. S., Callø, Kirstine, Jørgensen, Elin , Lunddahl, C. S., Pedersen, P. J., Kanters, Jørgen K., Klærke, Dan Arne & Buhl, Rikke, 2021, In: *American Journal of Veterinary Research*. 82, 3, p. 207-217 11 p.

**Exercise-Associated Sudden Death in Finnish Standardbred and Coldblooded Trotters - A Case Series With Pedigree Analysis**

Trachsel, D. S., Callø, Kirstine, Mykkänen, A. K., Raistakka, P., Anttila, M., Fredholm, Merete, Tala, M., Lamminpää, K., Klærke, Dan Arne & Buhl, Rikke, 2021, In: *Journal of Equine Veterinary Science*. 104, 103694.

**First catheter-based high-density endocardial 3D electroanatomical mapping of the right atrium in standing horses**

Hesselkilde, E., Dr Linz, Dominik Karl, Saljic, Arnela, Carstensen, Helena, Kutieleh, R., Jespersen, Thomas, Sanders, P. & Buhl, Rikke, 2021, In: *Equine Veterinary Journal*. 53, 4, p. 186-193

**Implantable loop recorders can detect paroxysmal atrial fibrillation in Standardbred racehorses with intermittent poor performance**

Buhl, Rikke, Nissen, Sarah Dalgas, Winther, M. L. K., Poulsen, S. K., Hopster-Iversen, Charlotte, Jespersen, Thomas, Sanders, P., Carstensen, Helena & Hesselkilde, E. M., 2021, In: *Equine Veterinary Journal*. 53, 5, p. 955-963

**Increased fibroblast accumulation in the equine heart following persistent atrial fibrillation**

Saljic, Arnela, Fenner, Merle Friederike, Winters, J., Flethøj, M., Eggert Eggertsen, C., Carstensen, Helena, Nissen, Sarah Dalgas, Melis Hesselkilde, E., van Hunnik, A., Schotten, U., Sørensen, U., Jespersen, Thomas, Verheule, S. & Buhl, Rikke , 2021, In: *IJC Heart and Vasculature*. 35, 100842.

**Inhibition of Small-Conductance Calcium-Activated Potassium Current ( $I_{K, Ca}$ ) Leads to Differential Atrial Electrophysiological Effects in a Horse Model of Persistent Atrial Fibrillation**

Fenner, Merle Friederike, Gatta, G., Sattler, Stefan M, Kuiper, M., Hesselkilde, E. M., Adler, Ditte Marie Top, Smerup, Morten Holdgaard, Schotten, U., Sørensen, U., Diness, J. G., Jespersen, Thomas, Verheule, S., Van Hunnik, A. & Buhl, Rikke, 2021, In: *Frontiers in Physiology*. 12, 614483.

### **Intrinsic Electrical Remodeling Underlies Atrioventricular Block in Athletes**

Mesirca, P., Nakao, S., Nissen, S. D., Forte, G., Anderson, C., Trussell, T., Li, J., Cox, C., Zi, M., Logantha, S., Yaar, S., Cartensen, H., Bidaud, I., Stuart, L., Soattin, L., Morris, G. M., Da Costa Martins, P. A., Cartwright, E. J., Oceandy, D., Mangoni, M. E. & 5 others, Jespersen, Thomas, Buhl, Rikke, Dobrzynski, H., Boyett, M. R. & D'Souza, A., 2021, In: *Circulation Research*. 129, 1, p. E1-E20

### **RNA-sequencing and immunofluorescence of the myotendinous junction of mature horses and humans**

Jakobsen, J. R., Schjerling, Peter, Svensson, R. B., Buhl, Rikke, Carstensen, Helena, Koch, M., Rindom Krogsgaard, M. R., Kjær, Michael & Mackey, Abigail, 2021, In: *American journal of physiology. Cell physiology*. 321, p. C453–C470

### **Relationship between atrial fibrillatory rate based on analysis of a modified base-apex surface electrocardiogram analysis and the results of transvenous electrical cardioversion in horses with spontaneous atrial fibrillation**

Van Steenkiste, G., Carlson, J., Decloedt, A., Vera, L., Buhl, Rikke, Platonov, P. G. & van Loon, G., 2021, In: *Journal of Veterinary Cardiology*. 34, p. 73-79 7 p.

### **Thoracotomy and Pericardiectomy for Access to the Heart in Horses: Surgical Procedure and Effects on Anesthetic Variables**

Adler, Ditte Marie Top, Hopster, K., Hopster-Iversen, Charlotte, Fenner, Merle Friederike, Buhl, Rikke & Jacobsen, Stine, 2021, In: *Journal of Equine Veterinary Science*. 96, 103315.

### **Atrial fibrillation in horses part 1: Pathophysiology**

Decloedt, A., Van Steenkiste, G., Vera, L., Buhl, Rikke & van Loon, G., 2020, In: *Veterinary Journal*. 263, 105521.

### **Comparison of Tenocyte Populations from the Core and Periphery of Equine Tendons**

Zhang, C., Svensson, R. B., Montagna, C., Carstensen, Helena, Buhl, Rikke, Schoof, E. M., Kjær, Michael, Magnusson, Stig Peter & Yeung, C. Y. C., 2020, In: *Journal of Proteome Research*. 19, 10, p. 4137-4144 8 p.

### **Effect of Selective IK<sub>ACh</sub> Inhibition by XAF-1407 in an Equine Model of Tachypacing-induced Persistent Atrial Fibrillation (AF)**

Fenner, Merle Friederike, Carstensen, Helena, Nissen, Sarah Dalgas, Hesselkilde, E. Z., Lunddahl, C., Jensen, M. A. H., Loft-Andersen, A. V., Sattler, Stefan M, Platonov, P. G., El-Haou, S., Jackson, C., Tang, R., Kirby, R., Ford, J. W., Schotten, U., Milnes, J. T., Sørensen, U. S., Jespersen, Thomas & Buhl, Rikke, 2020, In: *British Journal of Pharmacology*. 177, 16, p. 3778-3794

### **Miltbrandsemfysem hos kvæg – en kasuistik**

Martiny, K., Buhl, Rikke, Damborg, Peter Panduro & Agerholm, Jørgen Steen, 2020, In: *Dansk Veterinaertidsskrift*. 2020, 6, p. 18-22

### **Når hestehjertet får stød: behandling af atrieflimmer med elektrisk konvertering**

Buhl, Rikke, Hesselkilde, E. M., Carstensen, Helena, Nissen, Sarah Dalgas & Hopster-Iversen, Charlotte, 2020, In: *Dansk Veterinaertidsskrift*. 2020, 5, p. 30-34

### **Pulmonary vein firing initiating atrial fibrillation in the horse: Oversized dimensions but similar mechanisms**

Dr Linz, Dominik Karl, Hesselkilde, E., Kutieleh, R., Jespersen, Thomas, Buhl, Rikke & Sanders, P., 2020, In: *Journal of Cardiovascular Electrophysiology*. 31, 5, p. 1211-1212

### **Effect of Selective IK<sub>ACh</sub> Inhibition by XAF-1407 in an Equine Model of Tachypacing-induced Persistent Atrial Fibrillation (AF)**

Jespersen, Thomas, Fenner, Merle Friederike & Buhl, Rikke, 2019, In: *Acta Physiologica*. 227, S721, p. 96-96

### **Effects of dofetilide and ranolazine on atrial fibrillatory rate in a horse model of acutely induced atrial fibrillation**

Carstensen, Helena, Hesselkilde, E. Z., Haugaard, M. M., Flethøj, M., Carlson, J., Pehrson, S., Jespersen, Thomas, Platonov, P. G. & Buhl, Rikke, 2019, In: *Journal of Cardiovascular Electrophysiology*. 30, 4, p. 596-606

**Implantable loop recorders for arrhythmia detection - a new promising diagnostic tool for longterm arrhythmia monitoring**  
Hesselkilde, E. Z., Carsten, H., Fenner, Merle Friederike, Jespersen, Thomas, Tfelt, J., Sattler, Stefan M & Buhl, Rikke, 2019, In: Acta Physiologica. 227, S721, p. 93-93 35.

**Longitudinal study of electrical, functional and structural remodelling in an equine model of atrial fibrillation**  
Hesselkilde, E. Z., Carstensen, Helena, Flethøj, M., Fenner, Merle Friederike, Kruse, D. D., Sattler, Stefan M, Tfelt-Hansen, Jacob, Pehrson, S., Braunstein, T. H., Carlson, J., Platonov, P. G., Jespersen, Thomas & Buhl, Rikke, 2019, In: BMC Cardiovascular Disorders. 19, 1, 12 p., 228.

**Antiarrhythmic Effects of Combining Dofetilide and Ranolazine in a Model of Acutely Induced Atrial Fibrillation in Horses**  
Carstensen, Helena, Kjær, L., Haugaard, M. M., Flethøj, M., Hesselkilde, E. Z., Kanters, Jørgen K., Pehrson, S., Buhl, Rikke & Jespersen, Thomas, Jan 2018, In: Journal of Cardiovascular Pharmacology. 71, 1, p. 26-35 10 p.

**Effect of induced chronic atrial fibrillation on exercise performance in Standardbred trotters**  
Buhl, Rikke, Carstensen, Helena, Hesselkilde, E. Z., Klein, B. Z., Hougaard, K. M., Ravn, K. B., Loft-Andersen, A. V., Fenner, Merle Friederike, Pipper, C. & Jespersen, Thomas, 2018, In: Journal of Veterinary Internal Medicine. 32, 4, p. 1410-1419 10 p.

**Effects of trimethoprim-sulfadiazine and detomidine on the function of equine  $K_v11.1$  channels in a two-electrode voltage-clamp (TEVC) oocyte model**  
Trachsel, D. S., Tejada, M. A., Groesfjeld Christensen, V., Pedersen, P. J., Kanters, Jørgen K., Buhl, Rikke, Callø, Kirstine & Klærke, Dan Arne, 2018, In: Journal of Veterinary Pharmacology and Therapeutics. 41, 4, p. 536-545 10 p.

**Time-dependent antiarrhythmic effects of flecainide on induced atrial fibrillation in horses**  
Carstensen, Helena, Hesselkilde, E. Z., Fenner, Merle Friederike, Loft-Andersen, A. V., Flethøj, M., Kanters, Jørgen K., Sattler, Stefan M, Tfelt-Hansen, Jacob, Pehrson, S., Jespersen, Thomas & Buhl, Rikke, 2018, In: Journal of Veterinary Internal Medicine. 32, 5, p. 1708-1717 10 p.

**Effect of flecainide on atrial fibrillatory rate in a large animal model with induced atrial fibrillation**  
Hesselkilde, E. Z., Carstensen, Helena, Haugaard, M. M., Carlson, J., Pehrson, S., Jespersen, Thomas, Buhl, Rikke & Platonov, P. G., Dec 2017, In: BMC Cardiovascular Disorders. 17, 6 p., 289.

**Molecular cloning and functional expression of the  $K^+$  channel  $K_v7.1$  and the regulatory subunit KCNE1 from equine myocardium: [Inkl. corrigendum]**  
Pedersen, P. J., Thomsen, K. B., Flak, J. B., Tejada, M. D. L. A., Hauser, Frank, Trachsel, D. S., Buhl, Rikke, Kalbfleisch, T., DePriest, M. S., MacLeod, J. N., Callø, Kirstine & Klærke, Dan Arne, Aug 2017, In: Research in Veterinary Science. 113, p. 79-86 8 p.

**Appropriate threshold levels of cardiac beat-to-beat variation in semi-automatic analysis of equine ECG recordings**  
Madsen, M. F., Kanters, Jørgen K., Pedersen, P. J., Haugaard, M. M., Carstensen, Helena, Olsen, Lisbeth Høier & Buhl, Rikke, 28 Nov 2016, In: BMC Veterinary Research. 12, 10 p., 266.

**Left Ventricular Function After Prolonged Exercise in Equine Endurance Athletes**  
Flethøj, M., Schwarzwald, C. C., Haugaard, M. M., Carstensen, Helena, Kanters, Jørgen K., Olsen, Lisbeth Høier & Buhl, Rikke, Jul 2016, In: Journal of Veterinary Internal Medicine. 30, 4, p. 1260-1269 10 p.

**Characterization and differentiation of equine experimental local and early systemic inflammation by expression responses of inflammation-related genes in peripheral blood leukocytes**  
Vinther, A. M. L., Heegaard, P. M. H., Skovgaard, K., Buhl, Rikke, Andreassen, S. M. & Andersen, P. H., 1 Jun 2016, In: BMC Veterinary Research. 12, 13 p., 83.

**Changes in heart rate, arrhythmia frequency, and cardiac biomarker values in horses during recovery after a long-distance endurance ride**  
Madsen, M. F., Kanters, Jørgen K., Haugaard, M. M., Pedersen, P. J., Carstensen, Helena, Balling, J. D., Olsen, Lisbeth Høier & Buhl, Rikke, 1 May 2016, In: Journal of the American Veterinary Medical Association. 248, 9, p. 1034-1042 9 p.

**Pharmacological inhibition of I-K1 by PA-6 in isolated rat hearts affects ventricular repolarization and refractoriness**

Skarsfeldt, M. A., Carstensen, Helena, Skibsbye, L., Tang, C., Buhl, Rikke, Bentzen, Bo Hjorth & Jespersen, Thomas, Apr 2016, In: *Physiological Reports*. 4, 8, 11 p., e12734.

**Differences in the electrocardiographic QT interval of various breeds of athletic horses during rest and exercise**

Pedersen, P. J., Karlsson, M., Madsen, M. F., Trachsel, D. S., Kanters, Jørgen K., Klærke, Dan Arne & Buhl, Rikke, 2016, In: *Journal of Veterinary Cardiology*. 18, 3, p. 255-264 10 p.

**Pharmacologic inhibition of small-conductance calcium-activated potassium (SK) channels by NS8593 reveals atrial antiarrhythmic potential in horses**

Haugaard, M. M., Hesselkilde, E. Z., Pehrson, S. M., Carstensen, Helena, Madsen, M. F., Præstegaard, K. F., Sørensen, U. S., Diness, J. G., Grunnet, M., Buhl, Rikke & Jespersen, Thomas, Apr 2015, In: *Heart rhythm : the official journal of the Heart Rhythm Society*. 12, 4, p. 825-835 11 p.

**Acquired pulmonic stenosis due to a compressing intrathoracic abscess in a Thoroughbred yearling**

Laursen, S. H., van Galen Verwilghen, G., Wolf-Jäckel, G. A. & Buhl, Rikke, 2015, In: *Journal of Equine Veterinary Science*. 35, 8, p. 692-696 5 p.

**Action potential repolarization in equine hearts**

Callø, Kirstine, Pedersen, P. J., Tejada, M. D. L. A., Poulsen, K. L., Grubb, Søren, Buhl, Rikke & Klærke, Dan Arne, 2015, In: *Biophysical Journal*. 108, 2, Supplement 1, p. 113a 1 p.

**Antiarrhythmic and electrophysiologic effects of flecainide on acutely induced atrial fibrillation in healthy horses**

Haugaard, M. M., Pehrson, S., Carstensen, Helena, Madsen, M. F., Hesselkilde, E. Z., Præstegaard, K. F., Diness, J. G., Grunnet, M., Jespersen, Thomas & Buhl, Rikke, 2015, In: *Journal of Veterinary Internal Medicine*. 29, 1, p. 339-347 9 p.

**Molecular cloning and functional expression of the Equine K<sup>+</sup> channel KV11.1 (Ether à Go-Go-related/KCNH2 gene) and the regulatory subunit KCNE2 from equine myocardium**

Pedersen, P. J., Thomsen, K. B., Olander, E. R., Hauser, Frank, Tejada, M. D. L. A., Poulsen, K. L., Grubb, Søren, Buhl, Rikke, Callø, Kirstine & Klærke, Dan Arne, 2015, In: *PLoS one*. 10, 9, 19 p., e0138320.

**Acute exercise does not induce an acute phase response (APR) in Standardbred trotters**

Kristensen, L., Buhl, Rikke, Nostell, K., Bak, L., Petersen, E., Lindholm, M. & Jacobsen, Stine, 2014, In: *Canadian Journal of Veterinary Research*. 78, p. 97-102 6 p.

**Cardiac arrhythmias and electrolyte disturbances in colic horses**

Hesselkilde, E. Z., Almind, M. E., Petersen, J., Madsen, M. F., Præstegaard, K. F. & Buhl, Rikke, 2014, In: *Acta veterinaria Scandinavica*. 56, 11 p., 58.

**Diurnal modulation and sources of variation affecting ventricular repolarization in Warmblood horses**

Pedersen, P. J., Moeller, S. B., Madsen, M. F., Kanters, Jørgen K., Buhl, Rikke & Klærke, Dan Arne, 2014, In: *Journal of Veterinary Cardiology*. 16, 4, p. 265-276 12 p.

**Recommendations for management of equine athletes with cardiovascular abnormalities**

Reef, V. B., Bonagura, J., Buhl, Rikke, McGurrin, M. K. J., Schwarzwald, C. C., Loon, G. V. & Young, L. E., 2014, In: *Journal of Veterinary Internal Medicine*. 28, 3, p. 749-761 13 p.

**Normal electrocardiographic QT interval in race-fit Standardbred horses at rest and its rate dependence during exercise**

Pedersen, P. J., Kanters, Jørgen K., Buhl, Rikke & Klærke, Dan Arne, Mar 2013, In: *Journal of Veterinary Cardiology*. 15, 1, p. 23-31 9 p.

**Cardiac arrhythmias in standardbreds during and after racing: possible association between heart size, valvular regurgitations, and arrhythmias**

Buhl, Rikke, Petersen, E. E., Lindholm, M., Bak, L. & Nostell, K., 2013, In: *Journal of Equine Veterinary Science*. 33, 8, p. 590-596 7 p.

**Evaluation of clinical and electrocardiographic changes during the euthanasia of horses**

Buhl, Rikke, Andersen, L. O. F., Karlshøj, M. & Kanters, Jørgen K., 2013, In: Veterinary Journal. 196, 3, p. 483-491 9 p.

**Echocardiographic evaluation of changes in left ventricular size and valvular regurgitation associated with physical training during and after maturity in standardbred trotters**

Buhl, Rikke & Ersbøll, A. K., 2012, In: Journal of the American Veterinary Medical Association. 240, 2, p. 205-212 8 p.

**Atrieflimmer og elektrofysiologi hos heste**

Haugaard, M. M., Buhl, Rikke & Jespersen, Thomas, 2011, In: Dansk Veterinærtidsskrift. 12, p. 28-31 4 p.

**Building a platform for diagnosing long QT syndrome in the horse. Fundamental and clinical pharmacology**

Pedersen, P., Kanters, Jørgen K., Klærke, D. A. & Buhl, Rikke, 2011, In: Fundamental and Clinical Pharmacology. 25, 6, p. III-III 1 p.

**Cardiac arrhythmias in clinically healthy showjumping horses**

Buhl, Rikke, Meldgaard, C. & Barbesgaard, L., 2010, In: Equine Veterinary Journal. 42, Suppl. 38, p. 196-201 6 p.

**Prevalence of exercise-associated arrhythmias in normal performing dressage horses**

Barbesgaard, L., Buhl, Rikke & Meldgaard, C., 2010, In: Equine Veterinary Journal. 42, Suppl. 38, p. 202-207 6 p.

**Valvular regurgitations in the horse: the importance of an exercise ECG**

Buhl, Rikke, 2010, In: The Veterinary Journal. 183, 2, p. 117-118 2 p.

**Jugular venous pooling during lowering of the head affects blood pressure of the anesthetized giraffe**

Brøndum, E., Hasenkam, J. M., Secher, Niels H., Bertelsen, Mads Frost, Grøndahl, C., Petersen, K. K., Buhl, Rikke, Aalkjaer, C., Baandrup, U., Nygaard, H., Smerup, M. H., Stegmann, F., Sloth, E., Østergaard, K. H., Nissen, P., Runge, M., Pitsillides, K. & Wang, T., 2009, In: American Journal of Physiology: Regulatory, Integrative and Comparative Physiology. 297, 4, p. R1058-R1065 8 p.

***Actinobacillus equuli* subsp. *equuli* associated with equine valvular endocarditis: case report**

Aalbæk, Bent, Østergaard, Stine, Buhl, Rikke, Jensen, Henrik Elvang, Christensen, Henrik & Bisgaard, M., 2007, In: Acta Pathologica Microbiologica et Immunologica Scandinavica. 115, 12, p. 1437-1442 6 p.

**Bakteriel endokarditis hos hest: en kasuistik**

Østergaard, Stine, Buhl, Rikke, Aalbæk, Bent & Jensen, Henrik Elvang, 2007, In: Dansk Veterinærtidsskrift. 90, 19, p. 19-22 4 p.

**Anvendelse af arbejds-EKG under praksisforhold**

Buhl, Rikke, 2006, In: DANSK VETERINÆRTIDSSKRIFT. 89, 21, p. 10-11 2 p.

**Effect of light exercise on valvular regurgitation in standardbred trotters**

Buhl, Rikke & Ersbøll, A. K., 2006, In: Equine Veterinary Journal. Suppl. 36, p. 178-182 5 p.

**Changes over time in echocardiographic measurements in young Standardbred racehorses undergoing training and racing and association with racing performance**

Buhl, Rikke, Ersbøll, A. K., Eriksen, L. & Koch, Jørgen, 2005, In: Journal of the American Veterinary Medical Association. 226, 11, p. 1181-1187 7 p.

**Complete situs inversus in a two-year-old standardbred horse**

Buhl, Rikke, Koch, Jørgen, Agerholm, Jørgen Steen, Maddox-Hyttel, P., Søland, Tine Mangart & Eriksen, L., 2004, In: Veterinary Record. 154, 19, p. 600-602 3 p.

### **Low-intensity race training does not induce left ventricular hypertrophy in 2-year-old standardbred trotters**

Buhl, Rikke, Ersbøll, A. & Eriksen, L., 2004, In: Journal of Equine Veterinary Science. 24, 7, p. 295-300 6 p.

### **Sources and magnitude of variation of echocardiographic measurements in normal standardbred horses**

Buhl, Rikke, Ersbøll, A. K., Eriksen, L. & Koch, Jørgen, 2004, In: Veterinary Radiology & Ultrasound. 45, 6, p. 505-512 8 p.

### **Use of color doppler echocardiography to assess the development of valvular regurgitation in standardbred trotters**

Buhl, Rikke, Ersbøll, A. K., Eriksen, L. & Koch, Jørgen, 2002, In: Journal of the American Veterinary Medical Association. 227, 10, p. 1630-1635 5 p.

## **Other peer reviewed publicationer**

### **Cardiac response to exercise: the athlete's heart**

Buhl, Rikke, 2011. 2 p.

Research output: Contribution to conference › Paper › Research › peer-review

### **Clinical cases - what is your decision?**

Buhl, Rikke, 2011. 3 p.

Research output: Contribution to conference › Paper › Research › peer-review

### **Clinical examination of the cardiovascular system**

Buhl, Rikke, 2011. 3 p.

Research output: Contribution to conference › Paper › Research › peer-review

### **The most common cardiac arrhythmia and murmurs**

Buhl, Rikke, 2011. 3 p.

Research output: Contribution to conference › Paper › Research › peer-review

## **Publications; dissemination to the public**

## **Memberships of boards, networks and alike**

## **Activities**