

PROFILE FOR INSTITUTE WEBSITE

Current photo in graphic file e.g. 2024, 2023.	
Name and surname, Title	Dorota Lewczuk, dr hab.
Position	Prof. IGBZ PAN
Hirsch Index and Number of citations (according to Scopus) on the day of completing the form	Index H=7; 181 citations
Research areas (in points, min. 200 characters, max. 500 characters)	– Genetic background evaluation of sport horse performance traits – Movement biomechanics of sport horses, with a special emphasis on jumping ability – Health aspects of the horse performance, sport horse welfare
Total number of completed research projects; currently implemented research projects (title and number) and selected max. 3 completed projects (title and number) from the newest ones, i.e. 2024, 2023, 2022...	– 6 realized external projects (KBN, NCN, NCBIR) – Current project: EUnetHorse, HORIZON-CL6-2022-GOVERNANCE-01, Leader 3.2 task – Finished in the last years: Grant NCBiR POIR POIR.01.01.01.-00-0641/17 (2018) - "An innovative mechanical treadmill for horses with a unique IT system for training management " – scientific leader (2018-2019) Executing unit: MASTER-SPORT Grant NCBiR POIR POIR.01.01.01-00-1001/20 (2020-2023) - "Innovative training system for horses based on the synergy of unique technical solutions supported by an IT system using AI algorithms" - task leader (2022-2023) Executing unit: TECHNO-HORSE
Total number of publications; ORCID (number and hyperlink to the profile); SCOPUS (number and hyperlink to the profile); indicate selected publications (max. 5)	– 67 scientific papers, in it 28 from the JCR list (Scopus), co-author of 3 books – ORCID ID 0000_0002_7892_7995 – SCOPUS 16552843000 https://www.scopus.com/authid/detail.uri?authorId=16552843000 – selected papers: <i>1. Symmetry and regularity of recreation horse during treadmill training</i> Lewczuk, D., Maśko, M. Livestock Science, 2021, 254, 104773 <i>2. Toward the best young horse performance—Variability of behavior and performance-related traits in Polish warmbloods during years 2002-2017;</i> Lewczuk, D. Journal of Veterinary Behavior, 2020, 40, pp. 1–6

	3. <i>Polymorphisms in selected genes and analysis of their relationship with osteochondrosis in Polish sport horse breeds.</i> Wypchło, M., Korwin-Kossakowska, A., Bereznowski, A., Hecold, M., Lewczuk, D. Animal Genetics, 2018, 49(6), pp. 623–62 4. <i>Single nucleotide polymorphisms associated with osteochondrosis dissecans in Warmblood horses at different stages of training.</i> Lewczuk, D., Hecold, M., Ruś, A., Bereznowski A, Korwin-Kossakowska A, Kamiński, S., Szyda, J. Animal Production Science, 2017, 57(4), pp. 608–613 5. <i>Some Remarks on Repeatability and Heritability of the Bascule Technique in Jumping Horses.</i> Lewczuk, D. Journal of Equine Veterinary Science, 2017, 54, pp. 78–80
Total number of patents; selected patents (max. 2) and a hyperlink to personal patent achievements (UP RP), on the day of completing the form	– Application of two models for breeding values estimation (2003, 2015) – Application of osteochondrosis evaluation (2017)
Selected scientific achievements from the newest, i.e. 2023, 2022, 2021... (in points, min. 800 characters, max. 1000 characters)	– Estimation of possible deviations of symmetry and regularity of the basic gaits for health recreation horses in the treadmill training (0.17-0.19) were conducted. The coefficient of regularity for evaluation of the individual horse's optimal velocity was suggested. – Heritabilities of the horse body bascule points in the jump were estimated on the level 0.3-0.4, and heritabilities for the elevation of limbs above the obstacle were a little lower 0.1-0.2. The highest values of the coefficients of heritability were achieved for the arch of the horse silhouette in the highest airborne jump phase. – The genetic background of osteochondrosis in sport horses was evaluated on the level 0.27-0.30, and the single polymorphism nucleotides were found on the chromosomes ECA 1,2,5,7,15,16,24, depending on the stage of osteochondrosis and training level.
Number and list of defended PhD students from the latest, i.e. 2024, 2023, 2022...	– Becker Katarzyna. The influence of the obstacle structure and parcours parameters on the biomechanics of the horse jump. 2023.09.29. Politechnika Bydgoska – Mateusz Hecold. Analysis of changes of the results of radiographic image measurements in selected autopodium elements of the young mares and stallions from performance test. 20.01.2016 r. SGGW W-wa
Organizational activities, dissemination of knowledge and others (in points, min. 300 characters, max. 1000 characters)	1. practical experience and organization of equestrian activity – horse riding instructor in equestrian recreation (from 1993), national judge in jumping and dressage (1996-2000), international judge in endurance (1998-2005); 2. practical experience and organization in horse breeding activity – representative of the Polish Horse Breeders Association on WBFSh (2001-2008, 2019); breeding value estimation for PHBA (from 2002)

3. experience and organization in scientific activity –

2008-2015 Chair of the Horse Breeding and Management of the Polish Zootechnical Society (PTZ)

2007-2015 Vice-chair of the Horse Production section in the European Federation for Animal Production (EAAP).

Sessions leading on EAAP (2007, 2009, 2015) and in the frames PTZ (2008-2015). Lectures on international conferences (2002, 2005, 2008, 2013). Co-organization of ISAE (2018).

Decorations:

Silver Badge of Polish Equestrian Federation (1996)

Gold Honor Badge of Polish Horse Breeders Association (2008)