# ÁDÁM MIKLÓSI Curriculum vitae



#### PERSONAL INFORMATION

Family name: Miklósi First name: Ádám Researcher unique identifiers: ResearchGate: http://bit.ly/2bRjSET; ORCID: 0000-0003-4831-8985;

G Scholar: http://bit.ly/2bBf7d5; MTMT; Scopus: 7003466993

Date of birth: 25th Sept. 1962 Nationality:

Hungarian

Project homepage: <a href="http://etologia.elte.hu/en/home-2/">http://etologia.elte.hu/en/home-2/</a>;

https://familydogproject.elte.hu/about-us/our-research/

#### EDUCATION

2005 Doctor of Sciences (DSc) in Biology, Hungarian Academy of Sciences

2005 Habilitation at Institute of Biology, Eötvös Loránd University, Hungary

1995 PhD in Ethology, Hungarian Academy of Sciences

#### • CURRENT POSITION(S)

2018- Head of Biology Institute, Eötvös Loránd University

2017- Head of MTA-ELTE Comparative Ethology Research Group

2006- Head of Ethology Department at Eötvös Loránd University, Hungary

#### PREVIOUS POSITIONS

2000-2006 Associate professor at the Department of Ethology, Eötvös Loránd University, Hungary

1999 Fellowship at the University of Sussex, England (The Wellcome Trust, U.K., 1 year)

1998 Fellowship at the Univ. College London, England (Human Frontiers, EU, 3 months)

1997-1998Fellowship at the University of Sussex, England (NATO-Royal Society, U.K, 1 year)

1995 Fellowship at University of Sussex, England (OTKA Foundation, Hungary, 5 months)

1992 Fellowship at University of Sussex, England (ASAB, U.K., 3 months)

1989-1997 Postdoctoral researcher at the Department of Ethology, Eötvös Loránd University, Hungary

# • FELLOWSHIPS AND AWARDS

- 2016 Elected corresponding member of the Hungarian Academy of Science (http://mta.hu/english)
- 2016 Innovation Prize for establishing a database on dog vocalisations, Eötvös Loránd University
- 2015 Prize for Research Achievements, Hungarian Academy for Sciences
- 2015 Golden Medal for Teachers, National Union for Science Students
- 2011 Juhász-Nagy Pál Prize (for assisting in competitions for biology students), Eötvös Loránd University
- 2011 Medal for the Scientific Education of Biology Students, Eötvös Loránd University
- 2010 Distinguished Scholar Award, International Association for Human-Animal Interaction Organisation
- 2004 Frank A. Beach Comparative Psychology Award (best paper in 2003)

#### ORGANISATION OF SCIENTIFIC MEETINGS

2018 6<sup>th</sup> Canine Science Forum, Budapest, Hungary (~260 participants)

2008 1<sup>st</sup> Canine Science Forum, Budapest, Budapest, Hungary, founder (~250 participants)

2005 XXIX. International Ethological Conference, Budapest, Hungary (500+ participants)

# • INSTITUTIONAL RESPONSIBILITIES

2017- Head of the Institute of Biology at Eötvös Loránd University

2012-2019 Deputy Head of the Biology Doctorate School at Eötvös Loránd University;

2013- Member of MSc Biology Examination Committee

2014- Member of the PhD Committee of Faculty of Natural Sciences

2005- Leader of the Ethology PhD Program

### • EDITORIAL DUTIES AND REVIEWING ACTIVITIES

**2018-** Editor in chief for Biologia Futura (<a href="https://www.springer.com/journal/42977">https://www.springer.com/journal/42977</a>). We aim for providing a forum for researchers thinking about the future of research in biology

I am an associate editor for Animal Cognition (Springer Verlag) 1998-present; Anthrozoös 2004-2009; Journal of Veterinary Behavior (Elsevier) 2005-2012; BMC Neuroscience 2010-; Applied Animal Behaviour Science 2010-2013; Advances in Interaction Studies (Book series) 2010-, Frontiers of Psychology (2018-present); Animal Behavior and Cognition (2014-).

**Regular reviewer** for Animal Cognition, Animal Behaviour, Current Biology, Journal of Comparative Psychology, Gene, Brain and Behaviour, Frontiers of Psychology, PLoS One etc.

**Refereeing grants**: I was invited to referee grants for BBSRC (UK), Austrian, Hungarian, French, Dutch, US and German national science funding bodies. In 2014, I was panel member for ERC Consolidator grants.

#### • MEMBERSHIPS OF SCIENTIFIC SOCIETIES

1995 - Founding Member of Hungarian Ethological Society; 1989- Hungarian Biological Society; 2012-2016 Board member of Int Soc for Anthrozoology); 1985-2010 ASAB:; Academia Europaea (2020-)

## RESEARCH

I am a full professor and the head of the Department of Ethology at the Eötvös University in Budapest (Hungary), in addition leading a research group on comparative ethology that has been funded by the Hungarian Academy of Sciences. I am also the co-founder and leader of the Family Dog Project (http://familydogproject.elte.hu) which aims to study human-dog interaction from an ethological perspective. Our research group is one of the largest organizations of this kind worldwide in which **6 senior researchers**, **8 post docs** and **17 PhD students** work on a wide range of topics. Among others, we have shown that dogs develop specific attachment relationship with their owners, dogs are able to communicate with humans using a range of fine-tuned visual and acoustic signals, and dogs are also able to learn via observation. Our ground-breaking paper in *Science* (2016) revealed how the dog brain processes human words. During more than twenty years of research, our group has published **over 240 papers**. In 2014, I published the 2<sup>nd</sup> edition of an academic volume entitled <u>Dog Behavior</u>, <u>Evolution and Cognition</u> published by Oxford University Press. The 3<sup>rd</sup> edition is planned for 2023. With my colleagues, I edited The Dog; A natural history (Ivy Press, UK, 2018) is written for popular audience (translated to German and Hungarian).

I am the founder of 'ethorobotics' that provides a new framework for making robots. We pioneered also in research on the effect of mobile phones on both adults and parents, we were among the first to realise the complex relationship between people and their mobiles. We have established the 'Alphageneration Reseach Group' (<a href="https://www.alphageneration.eu/">https://www.alphageneration.eu/</a>) that carries out both applied and fundamental research. Our activities are well-known and respected in Hungary, the research group received some funding from the state, the Academy. We are also disseminating knowledge of this field to parents and teachers.

Together with Judit Abdai we have got a contract to write the first textbook on 'Introduction to Ethorobotics' for Taylor and Francis.

**External collaborations**: I have several international collaborators with whom I have regular contact and plans for research: Social robotics: Kerstin Dautenhahn (Univ. Herfortshire); Vicente Mattelan (Univ. Leon) Dog Ethology: Daniel Mills (Univ Lincoln), Ludwig Huber (VetMed Univ, Vienna); Comparative ethology: Richard Byrne and Josep Call (Univ. St Andrews), Robert Wayne (UCLA).

### PROFESSIONAL AND EXTERNAL STANDING

My standing in the field of cognitive ethology is internationally recognized and over the years, I have received several invitations to present overviews at various national and international meetings. I am also acting as an expert and advisor for several organisations. I also led a group of expert scientists supported by a European Science Fund (The Evolution of Social Cognition) between 2008 and 2013. I was honoured as an outstanding researcher of the Eötvös Loránd University in 2014 and 2015.

**Other engagements:** Advisory Committee for Animal Welfare (member), Ministry for Agriculture; founding member and member of the board of trustees for the Dogs for Humans Charity.

Interdisciplinary knowledge transfer and public outreach: I have advised several documentaries for BBC, ITV and Oxford Scientific Films, and participated in a film series 'Dogs might fly' (2016 Sky One). I was asked to review dog research for American Scientific Mind in 2015. I have edited 3 volumes on behavioural topics for the journal Hungarian Sciences. Each year, I give 4-5 public seminars on recent advances in dog research across Europe and in the US. Some of these seminars are available on youtube. In 2016, I was voted 'Personality of the year' by DOGS Magazin (Hannover, Germany). Since 2013, we have been organizing a yearly symposium in November for dog owners (400+ participants), and a Word Wide Free webinar (35,000+

viewers in 11/2015, and 40,000+ in 2016). Our research has been featured in several media outlets including Time, New York Times, BBC, ABC, Wired, Discovery, New Scientist, Spiegel TV, Science News, The Guardian, Los Angeles Times, National Geographic, The Australian, Daily Mail, CNET, The Telegraph, Herald & Review, Independent, Scientific American, NBC, Reuters, RTL, Cell Press, WTop, Kurier, The Scientist, Focus, Psychology Today, Cosmos, The Washington Post, The Huffington Post, Channel Four, Phys.or, PBS.

In total over 250 published, peer reviewed paper, including 3 in *Science* and 3 in *Current Biology*.

Two monographs in English, published by Oxford University Press (2007 1<sup>st</sup> edition and 2<sup>nd</sup> extended edition Dec/2014, Oxford University Press; translations to Hungarian, German and Japanese. 2 edited textbooks in Hungarian. Ten book chapters in books.

Hirsch index: 81 (G Scholar) (5-year: 57), 61 (Scopus)

Total impact factor: 756.6 (5-year: 265.2)

Total number of citations: 21297 (G Scholar) (5-year: 9367), 12374 (Scopus)

# Top 10 publications 2012 onwards - Citations according to Google Scholar, Impact Factor (IF)

Konok, V., Liszkai-Peres, K., Bunford, N., Ferdinandy, B., Jurányi, Zs., Ujfalussy, D. J., Réti, Zs., Pogány, Á., Kampis, G., **Miklósi**, Á. 2021. Mobile use induces local attentional precedence and is associated with limited socio-cognitive skills in preschoolers. *Computer in Humans Behavior*, 120, IF: 6,8. *Cit:6* (For the 1<sup>st</sup> time, we show a direct effect of mobile phone use on attention)

Konok, V., Bunford, N., **Miklósi**, Á. 2019. Associations between child mobile use and digital parenting style in Hungarian families. *Journal of Children and Media*, 14:1, 91-109. IF 2.02, **Cit: 41** (*More and more children use mobiles under the age of 7-8 years*)

Konok, V Gigler, D., Bereczky, B., **Miklósi, Á** 2016. Humans' attachment to their mobile phones and its relationship with interpersonal attachment style. *Computers in Human Behavior* 61, 537-547 (*This is one of the 1st papers investigating human's 'social' relationship with an object: their mobile phone*): IF: **Cit: 136.** 

Fugazza C, Pogány Á, **Miklósi Á** 2016. Recall of others' actions after incidental encoding reveals episodic-like memory in dogs. Current Biology 26, 3209-3213 (We develop a novel method for detecting episodic memory on action of others in dogs that can be applied to other species as well) IF: 8.85 **Cit: 55** 

Andics, A, Gábor, A, Gácsi, M., Faragó, T. Szabó, D. **Miklósi, Á**. 2016 Neural mechanisms for lexical processing in dogs. *Science*, DOI: 10.1126/science.aaf3777. (*First evidence that dogs process human words independently from intonation. Intensive coverage by media world-wide including BBC, CNN, and New York Times.*) IF: 33.61, **Cit: 171** 

Gergely A., Compton A.B., Newberry R.C., **Miklósi Á.** 2016. Social Interaction with an "Unidentified Moving Object" Elicits A-Not-B Error in Domestic Dogs. *PLoS ONE*. 11(4): e0151600 (*One of several papers showing that dogs interact with a social agent after short exposure just like they would do it with a human experimenter*) IF: 3.54 **Cit: 19** 

Andics, A., Gácsi, M., Faragó, T., Kis, A., **Miklósi, Á.** 2014. Voice-Sensitive Regions in the Dog and Human Brain Are Revealed by Comparative fMRI. Current Biology, 24: 574-578. (This was the 1<sup>st</sup> comparative neuroimaging study of a non-primate species and humans. The media coverage of this paper was one of the highest among those published by this journal ever) IF: 8.983, **Cit: 254** 

Gerencsér, L., Vásárhelyi, G., Nagy, M., Vicsek, T., **Miklósi**, Á. 2013. Identification of behaviour in freely moving dogs using inertial sensors. *PloS ONE* 8 (10), e77814. IF: 3,7, **Cit: 91** *One of the first papers reporting that wearable sensor technology can be used to detect dog behaviour actions at high accuracy.* 

Téglás, E., Gergely, A., Kupán, K., **Miklósi, Á.,** Topál, J. 2012. Dogs' gaze following is tuned to human communicative signals. *Current Biology*, 22: 209-212. (*New method to show how dogs follow human gaze, and attend the sequence of communicative signals, similarly to human infants*) IF: 9.494, **Cit: 224** 

# **Top 5 reviews 2012- onwards** (*Citations according to Google Scholar*)

Andics, A., **Miklósi**, Á. 2018. Neural processes of vocal social perception: Dog-human comparative fMRI studies. *Neuroscience & Biobehavioral Reviews*, 85: 54-64. doi: 10.1016/j.neubiorev.2017.11.017 **Cit: 33** Bunford, N., Andics, A., Kis, A., **Miklósi**, Á., Gácsi, M. 2017. *Canis familiaris* as a model for non-invasive

comparative neuroscience. *Trends in Neurosciences*, 40: 7. doi: 10.1016/j.tins.2017.05.003 IF: 11.12 **Cit: 64 Miklósi, Á,** Korondi, P., Matellán, V., Gácsi, M. 2017. Ethorobotics: A new approach to human-robot relationship. *Frontiers in Psychology* 8, 958. doi: 10.3389/fpsyg.2017.00958. **Cit: 41** 

Miklósi, Á., Topál, J. 2013. What does it take to become 'best friends'? Evolutionary changes in canine social competence. *Trends in Cognitive Sciences*, 17: 287-294. IF: 21.1, Cit: 257

**Miklósi, Á.,** Gácsi, M. 2012. On the utilization of social animals as a model for social robotics. *Frontiers in Psychology*, 3:75. IF: 2.4, **Cit: 91** 

## **Research monographs and translations**

**Miklósi, Á.** (2014) Dog Behaviour Evolution and Cognition, Oxford University Press, 2nd extended and revised edition (hardcover); Paperback edition in 2016; German translation in 2020, , Japanese edition 2014 Total cit: 808

# **Invited plenary and keynote talks**

I was invited to 13 lectures at various conferences, e.g., Living Machines 2014; 'Measuring Animal Emotions' 50th Congress of the International Society for Applied Ethology 2016; Animal-Robot Interaction (<a href="www.aci2017.org">www.aci2017.org</a>), 2017; 13th Conference of the European Human Behaviour and Evolution Association, 2018 (<a href="http://psychology.pte.hu/ehbea2018">http://psychology.pte.hu/ehbea2018</a>); International Joint Conference on Neural Networks, 2019 (<a href="https://www.ijcnn.org/">https://www.ijcnn.org/</a>), International Congress of Vertebrate Morphology, 2019; Centers for the Human-Animal Bond (CHAB) 2021;

# Research grants (with PI role)

2020-2024	Mobile friend: Development of social skills in children (PI) (Nat Res Dev Innov Office)
2019-2021	The genetic basis of olfactory skills in dogs (co-PI) (US NAVY)
2018-2019	Early recognition of developmental disturbance and skill development by the means of
	automatic movement decoding sensor system (PI) (Nat Res Dev Innov Office)
2017-2021	National Brain Program (Co-PI)
2017-2022	Hungarian Academy of Sciences: Comparative Ethology Research Group (PI)
2017-2019	CELSA: Uncertainty monitoring in autism (Participant)
2015-2017	Waltham Foundation: Individual variation to reward based training in dogs (PI)
2011-2014	SWARMIX: Synergistic Interactions in Swarms of Heterogen Agents (consortium member)
2014-2016	Social learning of parental roles (PI) (Nat Res Dev Innov Office)
2012-2016	Hungarian Academy of Sciences: Comparative Ethology Research Group (PI)
2008-2012	ESF Research Network: The Evolution of Social Cognition (chair)
2008-2012	EU FP7 ICT: Living with robots and interactive companions (consortium member)