# **Marshall Sarah**

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# **Professional experience**

April 2018-present **Senior scientist** Konrad Lorenz Institute of Ethology, University of Veterinary Medicine Vienna.

- PI and Co-PI on 8 third-party funded projects (see below for details)
- Co-management of two field-sites: wild wolves in Italy and free-ranging dogs in Morocco
- Supervision and co-supervision of 3 postdocs and 10 PhD.

2020-2021 **Visiting Professor**, University of Sassari (Italy). Teaching position: 16-hour course in "Ethology" for students of the Master Degree in Wildlife Management, and Conservation

2013-2018 **Senior Post-doctoral scientist**, Comparative Cognition, Messerli Research Institute, University of Veterinary Medicine, Vienna, Medical University of Vienna, University of Vienna, Vienna, Austria, Wolf Science Centre, Ernstbrunn, Austria, March ERC funded research:

- ERC (CanCoop: principle investigator Assoc. Prof. Range): Co-supervision of 5 PhD students, and numerous Master students investigating topics related to cooperation and sociality in wolves and dogs (WSC based)
- Since 2014 establishment of a field-site for the study of wild wolves in the Italian Apennines
- Since 2016 establishment of a field-site for the study of free-ranging dogs in Morocco with Martina Lazzaroni

2010-2013 **Post-doctoral grant ("assegno di ricerca")**, University of Milan, Biomedical Sciences and Technology Department. **Co-founder of a Dog Cognition Lab** at the University of Milan. Funded by a Post-doctoral fellowship I obtained from the university of Milan.

- Projects involving social cognition in dogs and human infants.
- Co-supervision of 2 PhD students, and Master students, on social cognition projects at the Lab
- Lab management

**Research Assistant**, Psychology, Scottish Primate Research Group (Professor Whiten), University of St. Andrews, U.K. 1999

- experimental pilot study of observational learning in chimpanzees and baboons at the Southwest Foundation for Biomedical Research, San Antonio, Texas.
- Funded by Leverhulme Trust grant

**Research Assistant**, Psychology, Scottish Primate Research Group (Professor Whiten), University of St. Andrews, U.K. 1998

• Collection of behavioural data on the introduction of two groups of chimpanzees and their release onto a newly established island sanctuary (Ngamba Island, Uganda).

Research Assistant, Columbia University (Dr Cords), New York

 Collection of behavioural data and fecal samples of blue monkeys in Kakamega Forest, Kenya.

# **Education & Qualifications**

2022 **Italian State-Habilitation for Full Professor**, in Comparative Psychology and Zoology.

 This is a peer-reviewed process which allows successful candidate to subsequently apply for relevant positions at Italian University in the 'habilitated' disciplines.

2018 **Habilitation** at University of Veterinary Medicine, Vienna. Title: The importance of socio-ecology in wolf-dog behavioural and cognitive differences.

2017 **Italian State-Habilitation for Associate Professor**, in Comparative Psychology and Zoology.

2005-2008 Doctor of Philosophy (Ph.D.), Psychobiology, University of Milan, Milan, Italy.

 "Relational and Environmental factors affecting pet dogs' performance in socio- cognitive tasks". Supervised by Professor Prato-Previde, Biomedical Sciences and Technology Department, University of Milan.

1999-2003 **Doctor of Philosophy (Ph.D.), Psychology**, University of St. Andrews, Scotland, U.K.

- "Observational Learning in Chimpanzees using Naturalistic Experimental tasks." The research project was carried out on Ngamba Island Chimpanzee Sanctuary, Uganda.
- Supervised by Professor Whiten, School of Psychology, St. Andrews University.

**Master of Arts (MA), Psychology** University of St. Andrews, Scotland, U.K. Whiten)- First class distinction obtained for the dissertation.

• Thesis title: "Social learning and imitation in captive stump-tail macaques"

#### **Fellowships**

2010-2013 Fully-funded Post-doctoral fellowship from the University of Milan.

2005-2008 Fully funded PhD fellowship from the University of Milan.

1999-2003 Fully funded PhD scholarship by a Biotechnology and Biological Sciences Research Council (BBSRC), UK.

## **Third-party funding**

#### Current:

Principle investigator: CEUS-UNISONO International Project "Testing the Domestication Syndrome hypothesis in free-ranging domestic dogs" (€682.000).

Principle investigator: WWTF- Vienna Science and Technology Fund "Urbanization of a top predator: are wolves and humans adapting to life in close proximity?" (€ 650.000).

CO-PI: FWF- Stand-Alone with Prof. Range and Dr. Tebbich "Proximate mechanisms underlying problem solving abilities in dogs and wolves" (€400.000).

CO-PI: FWF- Stand-Alone with Prof. Range and Prof. Lamm "Do human attitudes towards wolves and dogs actually reflect the human related temperament traits of the two species?" (€800.000)

#### Pending decision:

Principle investigator: FWF "The social styles of wolves and dogs" (€400.000).

CO-PI: FWF- Stand-Alone with Prof. Range and Andreas Berghaenel "Socio-ecology of free-ranging dogs" (€400.000).

#### Past:

2020: Principle investigator: Avoiding conflicts: what strategies do pack-living wolves and dogs use? Wissenschaft Niederösterrich (€ 16.000)

2016-2020: Principle investigator: A new look at domestication: the role of oxytocin in wolves' and dogs' social relationships with conspecific and human partners. WWTF- Vienna Science and Technology Fund (CS15-018) (€ 600.000)

2016-2019 Co-applicant with Martina Lazzaroni 'The effect of human socialization on problem solving abilities of canines; are dogs socially more dependent than wolves?' Austrian Academy of Sciences (€ 112.000).

2012-2014 Co-applicant with Dr Cafazzo, Dr Range & Dr Viranyi, Wolf Science Centre (WSC), Vienna 'Peace-making and conflict management in wolves and domestic dogs'. FWF- Meitner Programme -Project nr. BM1400-B19 (€ 160.000).

2008-2010 Co-applicant with Professor Miklosi and Dr Lakatos of the Department of Ethology, Eotov Lorand University, Budapest: 'Breed group differences in dogs' communicative abilities towards humans', supervision of a funded Italy-Budapest exchange program (IT/64)

2006-2008 Co-applicant: project of national relevance (PRIN) funded by the Italian Ministry of Education 'The influence of welfare and human-attachment on dogs' cognitive abilities'.

### **Research Supervision**

- Since 2108 (post-habilitation) I have been the main supervisor of three Postdoc researchers (Dr. Schaebs, Dr Cimarelli, Dr Lazzaroni) and one PhD student (Ms Wirobski).
- Since joining the Vetmed (2013) I have co-supervised 6 completed PhD projects (Dr. Rao, Dr Dale, Dr. Brucks, Dr. Chaumette, Dr. Essler, Dr. Lazzaroni) and I am currently supervising three additional student (Ms Lam-Jim, Ms Pedretti- University of Parma)
- At Milan University I co-supervised one PhD (Dr. Merola)
- I have supervised over 30 research projects (Master's dissertations, undergraduate dissertations and internships) at Milan University and Vetmed University, Vienna of students coming from different degrees (psychology, veterinary science, natural sciences, biology and different Universities in Europe.

# **Teaching Experience**

**Lecturer:** Interdisciplinary Master's Program in Human-Animal Interactions, Veterinary Medicine University, Vienna, 2016-ongoing

- Course "Canine Evolution and Behaviour" (11 hours lectures and and journal club)
- Course "Into Science": lectures in methods of research and statistics (3 hours)
- For both course supervision of undergraduate research projects

**Teaching Assistant:** Comparative Psychology, Psychology Department, University of Milan-Bicocca, Milan, Italy 2007- 2010

• yearly course for final year psychology students on the comparative study of cognitive abilities in humans and other animals.

**Teaching Assistant:** Tutorials in Comparative Psychology, Psychology Department, University of St-Andrews, U.K. 2003

• tutorials for final year undergraduate students on the study of social learning and imitation in primates.

**Complementary teaching activity** in general psychology at the Medical Faculty of the University of Milan (Bachelor programs) 2008-2011.

**Ad hoc Seminars for doctoral students**: Biology Department, Parma University, 2008-2011

• yearly seminar on different aspects of animal cognition

#### Reviewer

Proceedings of the National Academy of Science, Proceeding of the Royal Society B, Scientific Reports, PLoS ONE, Animal Cognition, Animal Behaviour, Journal of Comparative Psychology, Behavioural Processes, Folia Primatologica, Behaviour, Journal of Veterinary Behavior, Mammalian Biology, Frontiers in Psychology, Cognition, Behavioural Ecology and Sociobiology, Biology Open, Learning and Behaviour, Ethology.

## Scientific evaluator

- National Research, Development and Innovation Office Hungary
- Romanian National Council for Research & Development: evaluator for Partnership Programme - Joint Applied Research Projects - PCCA 2021
- Collaborative Research Projects of the ESF Comparative Cognition Research Networking Programme "The evolution of social cognition" (www.compcog.org)

## **Language and Computer Literacy**

Bilingual English and Italian, basic French and A2 level German.

## Seminar/Conference organization

- Symposium organization "Studying Animal Cooperation in the Wild and in the Lab" ECBB -European Conference on Behavioural Biology; July 12-15, 2016; Vienna, AUSTRIA.
- Organization of an expert workshop part of the comparative Cognition Network and funded by the European Science Foundation "Recognizing, attracting, directing and sharing attention in human and nonhuman animals. Methods of investigation and levels of interpretation" with the participation of 13 European scientists, University of Milan, 19-20 November 2010.
- Organization of the conference 'Pensare da Cani. 2<sup>nd</sup> edition' at the Natural History Museum in Milan, with invited speakers from the University of Vienna and Parma (2010).
- Organization of the conference 'Pensare da Cani.' at the 'Casa della Cultura' in Milan, with invited speakers from the University of Milan and Parma (2008).
- Organization of a yearly cycle of 3 seminars on topics relating to dog cognition aimed at the volunteers visiting our lab and the general public (2009-2013)

#### **Publications & Presentations**

As of 1/2022: h-index = 28/30(Scopus/Google Scholar), i10 index = 62 (GS), Research Gate score 37. 5; 81 peer reviewed publications, 5 book chapters, 1 edited volume, 1 monograph.