

Curriculum vitae for Anna Olsson

Date of birth: 13-06-1970
Nationality: Swedish
Work address: Institute for Molecular and Cell Biology, Rua Campo Alegre 823,
4150-180 Porto. olsson@ibmc.up.pt
Languages: Speak/write fluently: Swedish, English, Portuguese;
Read: German, Dutch, Spanish, Danish, Norwegian

University studies

- 1989-94 Master of Science in Agriculture, specialisation Animal Science
Swedish University of Agricultural Sciences, Uppsala, Sweden with
part of the study undertaken at Wageningen Agricultural University,
The Netherlands
- 1997-2001 PhD in Ethology
Department of Animal Environment and Health, Swedish University of
Agricultural Sciences, Skara, Sweden, with part of the research
undertaken at University of Guelph, Canada.
- PhD thesis Motivation in Laying Hens: Studies of perching and
dustbathing behaviour

Present activity

- 2004-present Researcher (*investigadora auxiliar*).
Institute for Molecular and Cell Biology, Porto, Portugal.
- Starting as a post-doctoral research fellow in November 2001, I have set up facilities for and initiated research on behaviour and welfare of laboratory mice. This was made possible through my first research grants, from the Universities Federation for Animal Welfare and from the Swedish National Board for Laboratory Animals for the study of laboratory mouse housing and welfare. In 2003 I was successful in obtaining a grant from the Fundação para a Ciência e Tecnologia for the research project, which enabled me to employ a graduate student starting in May 2003. The research is carried out in collaboration with colleagues at the IBMC and the Swedish University of Agricultural Sciences.
- In 2005, the associated research group *Laboratory Animal Science* was formed, which I coordinate together with Dr Luís Antunes. Our research activities include the above-mentioned on laboratory rodent behaviour and welfare, refinement of laboratory rodent anaesthesia as well as ethics of animal research and technology, the later in collaboration with Professor Peter Sandøe, Centre for Bioethics and Risk Assessment, Copenhagen.
- My activities also include the development of training in laboratory animal science for young researchers at the institute, teaching animal ethics and animal welfare at postgraduate courses and chairing the animal ethics committee.

Previous professional activities

- 2001-04 Post-doctoral research fellow
Institute for Molecular and Cell Biology, Porto, Portugal
- 1996-97 Head of section
Division for Animal Production and Management,
Swedish Board of Agriculture, Jönköping, Sweden
Within the areas animal housing and welfare and organic animal husbandry, I provided expertise for government and representatives in EU committees and participated in the central administration of financial support for research and extension activities. I was the editor of a report on alternative housing systems for laying hens.
- 1995 Post-graduate research studies in ethology
Section of Ethology, Wageningen Agricultural University, The Netherlands
I participated in a research project on the effects of housing and social stress during rearing on the behaviour of pigs. I was responsible for a major part of the practical work, which included investigating behavioural and physiological characteristics of pigs using several test methods.

Teaching

- 1994 I was an assistant at the undergraduate course in *basic and applied ethology* at the Department of Animal Nutrition and Management at the Swedish University of Agricultural Sciences.
- 1997-2001 I regularly taught different aspects of *ethology* to agriculture students and animal welfare inspectors at the Department of Animal Environment and Health, Swedish University of Agricultural Sciences.
- 2003-present I teach *animal ethics* and *welfare of laboratory animals* at post-graduate courses in Portugal and internationally.

Other relevant activities

- 2001 – Member (from 2003 chair) of the institutional animal ethics committee at Institute for Molecular and Cell Biology
- 2002 - Assistant Secretary of the International Society for Applied Ethology (ISAE)
- 2004 - Member of editorial board for the journal *Laboratory Animals*
- 2005 - Chair of the working group on ethics in the European COST initiative on Laboratory Animal Science and Welfare

Invited lectures

Animal experimentation: Ethics and animal welfare aspects. Seminar given at Institute of Molecular and Cell Biology, Porto, Portugal, March 6, 2001.

Animal rights or human obligations? An introduction to animal ethics. Talk given at the conference “100 anos de Ciências Veterinárias” organised by Sociedade Portuguesa de Ciências Veterinárias. Oeiras, Portugal, October 11, 2002.

Animals and society: Culture, ethics and animal production (together with Michael C Appleby). Talk given at XII Congresso de Zootecnia. Vila Real, Portugal, November 21, 2002.

Ensuring animal welfare in research: Why should we and how can we? (together with Peter Sandøe). Talk given at the meeting “The use of animals in research” organised by European Molecular Biology Organisation (EMBO), Madrid, March 19, 2005.

Pig genomics and the public (together with Jesper Lassen and Peter Sandøe). Talk given at the 1st European Conference on Pig Genomics, Lodi, Italy, February 21, 2006.

On several occasions since 2003, I have lectured on animal ethics upon invitation from student associations at different Portuguese universities.

Conference and course organisation

- 2002 *Ciência responsável: experimentação animal hoje e no futuro*
[Responsible science: animal experimentation today and in the future].
One-day symposium for scientists, students and technicians on
different aspects of laboratory animal science. 6 international and
Portuguese speakers, 100 participants. Institute for Molecular and Cell
Biology, Porto.
- 2003 *Nós e os (outros) animais* [We and the (other) animals].
One-day symposium for animal professionals and the general public on
animal welfare and animal ethics. 5 international and Portuguese
speakers, 250 participants. Institute for Molecular and Cell Biology/
Biblioteca Municipal Almeida Garrett, Porto.
- 2004- *FELASA Cat C course in laboratory animal science*
This 80-h course following the recommendations of the Federation of
European Laboratory Animal Science Associations is held every year
in collaboration between Universidade do Minho and IBMC.
- 2004- *Rodent behaviour testing*
A 2-day course was held in June 2004, with 5 international speakers
and 30 participants. As the course was successful we are presently
exploring the possibilities for expanding it into an international 1-week
course.
- 2005- *Ethics, Science and Society*
A one-week course module in the postgraduate program GABBA at
the University of Porto.
- 2005- *Animal research ethics*
A one-day workshop for biology undergraduate students at the
University of Porto.

Publications

Articles in international refereed journals

- Olsson, I.A.S.; de Jonge, F.H.; Schuurman, T and Helmond, F.A.. 1999. Poor rearing conditions and social stress in pigs: repeated social confrontations and the effect on behavioural and physiological responses to stress. *Behavioural Processes*, 46: 201-215
- Olsson, I.A.S. and Keeling, L.J. 2000. Night-time roosting in laying hens and the effect of thwarting access to perches. *Applied Animal Behaviour Science*, 68:243-256.
- Olsson, I.A.S., Keeling, L.J. and Duncan, I.J.H. 2002. Why do hens sham dustbathe when they have litter? *Applied Animal Behaviour Science*, 76:53-64.
- Olsson, I.A.S., Keeling, L.J. and McAdie, T. 2002. The push-door for measuring motivation in hens: An adaptation and a critical discussion of the method. *Animal Welfare*, 11:1-11.
- Olsson, I.A.S. and Keeling, L.J. 2002. The push-door for measuring motivation in hens: Laying hens are motivated to perch at night. *Animal Welfare*, 11:11-19.
- Olsson I.A.S. and Dahlborn, K. 2002. Improving housing conditions for laboratory mice: a review of 'environmental enrichment'. *Laboratory Animals* 36:243-270.
- Olsson I.A.S., Duncan I.J.H., Keeling L.J. and Widowski T.M. 2002. How important is social facilitation for dustbathing motivation in laying hens? *Applied Animal Behaviour Science*, 79:285-297.
- Olsson, I.A.S. and Keeling, L.J. 2002. No effect of social competition on sham dustbathing in furnished cages for laying hens. *Acta Agriculturae Scandinavica (Sect A Animal Science)* 52, 253-256.
- Olsson, I.A.S., Nevison, C.M., Patterson-Kane, E., Sherwin, C.M., van de Weerd, H.A. and Würbel, H. 2003. Understanding behaviour: the relevance of ethological approaches in laboratory animal science. *Applied Animal Behaviour Science* 81, 245-264.
- Sherwin, C.M. and Olsson, I.A.S. 2004. Housing conditions affect self-administration of anxiolytic by laboratory mice. *Animal Welfare* 13, 33-38
- Olsson, I.A.S and Sandøe, P. 2004. Ethical decisions in animal biotechnology: what is the role of animal welfare science? *Animal Welfare* 13, S139-144.
- Olsson, I.A.S. and Keeling, L.J. 2005. Why in earth? Dustbathing behaviour in jungle and domestic fowl reviewed from a Tinbergian and animal welfare perspective. *Applied Animal Behaviour Science* 93, 259-282.
- Olsson, I.A.S and Sandøe, P. 2005. Biotechnology and the animal issue. *Global Bioethics* 17.
- Olsson, I.A.S, Gamborg, C. and Sandøe, P. In press. Taking ethics into account in farm animal breeding: What can the breeding companies achieve? *Journal of Agricultural and Environmental Ethics*.
- Lund, V and Olsson, I.A.S. In press. Animal agriculture: Symbiosis, culture or ethical conflict? *Journal of Agricultural and Environmental Ethics*.
- Marques, J.M. and Olsson, I.A.S. Accepted for publication. The effect of preweaning and postweaning housing on the behaviour of the laboratory mouse (*Mus musculus*). *Laboratory Animals*.
- Olsson, I.A.S. and Sherwin, C.M. Accepted for publication. Behaviour of laboratory mice in different housing conditions when allowed to self-administer an anxiolytic. *Laboratory Animals*.

Book chapters

Olsson, I.A.S., Robinson, P, Pritchett, K, and Sandøe, P. 2002. Animal research ethics. In: Van Hoosier, G. and Hau, J (eds) Handbook of Laboratory Animal Science 2nd edition. CRC Press.

Olsson, I.A.S and Sandøe, P. 2005. Biotechnology and the animal issue. In: Landeweerd, L., Houdebine, LM, and Termeulen, R. (eds.). BioTechnology-ethics - an introduction. Florence: Angelo Pontecorboli Editore.

Articles in national refereed journals

Olsson, A. and Keeling, L. 1998. Motivation och beteendebestov hos djur [Behavioural needs: how research into motivation can help understand animals' needs and prevent behavioural problems]. Svensk Veterinärtidning [Swedish Veterinary Journal], 50:697-702.

Sandøe, P. and Olsson IAS 2004. Dyreforsøg – et etisk dilemma. [Animal experimentation – an ethical dilemma]. Ugeskrift for Læger [Journal of the Danish Medical Association] 24, 2361-2363.

Scientific reports

Olsson IAS and Sandøe, P. 2006. Ethical considerations in Danish pig breeding – a report for Danske Slagterier. 13 pp.

Congress presentations

Jensen, P.; Köster, E.; Olsson, A. and Thødborg, K. 1994. Aggression and individual behavioural strategies in pigs - are there any consistencies? Suomen Eläinlääkäri-lehti [Finnish Veterinary Journal], 100(2):120-121.

Olsson, A.; de Jonge, F.H.; Helmond, F.A. and Schuurman, T. 1995. Rearing conditions and social stress in pigs. Spoken presentation at the autumn meeting of Nederlandse Vereniging voor Gedragsbiologie [Dutch Society of Behavioural Biology] Dalfsen, The Netherlands 13-15 December 1995.

Olsson, A.; de Jonge, F.H.; Schuurman, T. and Helmond, F.A. 1997. Rearing and social stress in pigs: the effect of poor rearing conditions on reaction to social confrontation. In: Proceedings International Congress of the International Society for Applied Ethology (ISAE) 1997, Prague, Czech Republic.

Schuurman, T., Wichers Schreur, M.J.M., Olsson, A. and de Jonge, F.H. 1997. Behavioural and physiological differences between domesticated and crossbred pigs: effects of domestication. In: Proceedings International Congress of the ISAE 1997, Prague, Czech Republic.

Olsson, A. and Keeling, L. 1998. Perching in laying hens. Spoken presentation at Nordic ISAE Winter Meeting. Tune, Denmark 28-30 January 1998.

Olsson, A and Keeling, L. 1998. Thwarting of normal resting behaviour in laying hens. In: Proceedings International Congress of the ISAE 1998, Clermont-Ferrand, France.

Olsson, A. and Keeling, L. 1999. Measuring motivation in hens. Spoken presentation at Nordic ISAE Winter Meeting. Flämslätt, Sweden. 27-29 January 1999.

Olsson, I.A.S. and Keeling, L.J. 1999. Working their way to rest – motivation for perching in laying hens. Poster presented at Association for the Study of Animal Behaviour (ASAB) Summer Meeting, Lisbon, Portugal. 12-14 July 1999.

- Olsson, I.A.S., Duncan I.J.H., Keeling, L.J. and Widowski, T.M. 2000. Dustbathing motivation - physical stimuli more important than social? Spoken presentation at Nordic ISAE Winter Meeting. Sormarka, Norway. January 27-29, 2000.
- Olsson, I.A.S. and Keeling, L.J. 2000. The value of a good night's sleep: measuring hens' motivation for night-time perching. Spoken presentation at Fourth European Meeting for the Experimental Analysis of Behaviour, Amiens, France. 9-13 July 2000.
- Olsson, I.A.S. and Dahlborn, K. 2001. A better house for a mouse: a review of methods to improve laboratory housing. Spoken presentation at International Congress of the ISAE, Davis, California. 4-8 August 2001.
- Olsson, I.A.S. 2001. Laboratory animals in applied ethology. Workshop at International Congress of the ISAE, Davis, California. 4-8 August 2001.
- Duncan, I.J.H. and Olsson, I.A.S. 2001. Environmental enrichment: From flawed concept to pseudo-science. Spoken presentation at International Congress of the ISAE, Davis, California. 4-8 August 2001.
- Olsson, I.A.S. 2001. Animal welfare aspects of research on transgenic mice. Spoken presentation at 2º Congresso Nacional de Bioética, Porto, Portugal. 26-28 October 2001.
- Olsson, I.A.S., Nevison, C.M., Patterson-Kane, E., Sherwin, CM, van de Weerd, H.A. and Würbel, H. 2002. Using ethological approaches in the study of laboratory rodents. Spoken presentation at UK/Eire Regional Meeting of the ISAE, York, UK. April 9-10 2002.
- Olsson, I.A.S. and Keeling, L.J. 2002. Sham dustbathing and use of dustbaths in furnished cages for laying hens. Poster at UK/Eire Regional Meeting of the ISAE, York, UK. April 9-10 2002.
- Olsson, I.A.S. and Sandoe, P. 2003. Ethical decisions concerning animal biotechnology – the role of animal welfare science. Spoken presentation at the UFAW symposium Science in the Service of Animal Welfare, Edinburgh, UK. April 2-4 2003.
- Olsson, I.A.S. and Sherwin, C.M. 2003. Self-administration of anxiolytic in laboratory mice in different housing conditions. Spoken presentation at the International Congress of the ISAE, Abano-Terme, Italy. June 24-28 2003.
- Marques, J. and Olsson, I.A.S. 2003. Environmental enrichment for laboratory mice: The use of a semi-transparent PVC nestbox. Poster presentation at the VIII Congresso de SECAL, San Sebastian, Spain. November 5-8 2003.
- Ferreira, C.S.; Antunes, L.M.; Guardão L. and Olsson, I.A.S. 2003 Propofol and Propofol/remifentanyl intraperitoneal anaesthesia in mice. Spoken presentation at the VIII Congresso de SECAL, San Sebastian, Spain. November 5-8 2003.
- Olsson, I.A.S, Marques, J.M, Ferreira, C.S.A and Keeling, L.J. 2004. Effect of pre- and postweaning housing on the behaviour of laboratory mice. Poster presentation at the 9th FELASA meeting, Nantes, France, June 14-17 2004.
- Marques, J.M, Ferreira, C.S.A and Olsson, I.A.S. 2004. Effect of preweaning and postweaning housing on laboratory mouse behaviour. Spoken presentation at the 38th International Congress of the ISAE, Helsinki, Finland, August 3-7 2004.
- Olsson, I.A.S. and Sherwin, C.M. 2004 Behavioural activity of laboratory mice in standard and furnished cages with a running wheel. Poster presentation at the 38th International Congress of the ISAE, Helsinki, Finland, August 3-7 2004
- Olsson, I.A.S, Gamborg, C. and Sandøe, P. 2004. Growing fast or growing well? How to take ethics into account in farm animal breeding. Spoken presentation at the 5th EurSafe conference. Leuven, Belgium. September 2-4 2004.
- Lund, V and Olsson, I.A.S. 2004. Animal agriculture: Symbiosis, culture or ethical conflict? Spoken presentation at the 5th EurSafe conference. Leuven, Belgium. September 2-4 2004.

Olsson I.A.S. and Sandøe P. 2005. Lack of references to refinement measures in published animal-based research of genetic diseases. Poster presentation at the 5th World Congress on Alternatives & Animal Use in the Life Sciences. Berlin, Germany, August 21–25, 2005.

Olsson I.A.S. 2005. Replacing the use of live stimulus animals by scent cards in the social recognition test for mice. Poster presentation at the 5th World Congress on Alternatives & Animal Use in the Life Sciences. Berlin, Germany, August 21–25, 2005.

Marques, J. and Olsson, I.A.S. 2005. Intertrial behaviour as a measure of aggression in group-housed male laboratory mice. Poster presentation at the International Ethological Conference, Budapest, Hungary, August 21-28 2005.

Santos J.S. and Olsson I.A.S. 2005 Refinement – principle or practice in experimental infection research? Poster presentation at the SECAL/ECLAS International Meeting. Elche, Spain, October 5-7 2005.

Santos J.S. and Olsson I.A.S. 2005 Animal welfare in the facility: bringing science into practice. Poster presentation at the SECAL/ECLAS International Meeting. Elche, Spain, October 5-7 2005.

Santos J.S. and Olsson I.A.S. 2005. The responsible use of animals: What is the role of the veterinarian? Poster presentation at 3º Congresso da Sociedade Portuguesa de Ciências Veterinárias [3rd Congress of the Portuguese Society of Veterinary Sciences]. Santarem, Portugal. October 13-15 2005.

Olsson I.A.S. and Sandøe P. 2005. Ethics and animal biotechnology. Invited oral presentation at 3º Congresso da Sociedade Portuguesa de Ciências Veterinárias [3rd Congress of the Portuguese Society of Veterinary Sciences]. Santarem, Portugal. October 13-15 2005.

Alves, H; Valetim, AM; Olsson, A; Antunes, L .2006. Effects of propofol combined with fentanyl, sulfentanyl or remifentanyl in mice anaesthesia by intraperitoneal route. European Journal of Anaesthesiology, (in press in Suppl) Euroanaesthesia 2006 Meeting, 3-6 June - Madrid, Spain

Alves, H; Valetim, AM; Olsson, A; Antunes, L. 2006. Synergic effects between alpha2 agonist (medetomidine) and fentanyl with dissociative (tiletamine) and zolazepan in rats anaesthesia. European Journal of Anaesthesiology, (in press in Suppl) Euroanaesthesia 2006 Meeting, 3-6 June - Madrid, Spain.

Book reviews

Olsson, I.A.S. 2002. Review of 'Why Animal Experimentation Matters: The Use of Animals in Medical Research', edited by Frankel Paul, E. and Paul, J. Animal Welfare, 11:127-130.

Olsson, I.A.S. 2004. Review of 'Animal' by Fudge, E. Animal Welfare, 13:383-384.

Olsson, I.A.S. 2005. Review of 'Do animals have rights?' by Hills, A. Animal Welfare.