

## Invited speakers



**Dr. Filippa Addis** is Associate Professor of Veterinary Infectious Diseases at the University of Milan, Italy, Department of Veterinary Medicine. She graduated in Biology (University of Sassari), has a PhD in Microbiology (University of Pisa) and a Specialization in Microbiology and Virology (University of Sassari). During her early career, she was Research Fellow at the University of Texas at San Antonio, Department of Microbiology, and at the University of Sassari, first in the Department of Biomedical Sciences and then in the Department of Veterinary Medicine. From 2006 to 2016 she was Senior Researcher at Porto Conte Ricerche, the research institution managing the Science and Technology Park of Sardinia, Northern Branch. Her

research activity has focused mainly on the development and application of proteomic technologies for the understanding of disease dynamics, the identification of new biomarkers and their implementation in laboratory and field immunodiagnosics. Among other topics, she worked on characterization of microbial agents and pathogenicity mechanisms in veterinary infectious diseases (with a focus on small ruminant mastitis and paratuberculosis), characterization of innate immunity pathways and their mediators as disease biomarkers, development of methods and pipelines for enabling proteomic characterization of complex biological matrices, proteomic analysis of food of animal origin, and, most recently, application of omic strategies for understanding microbial communities. She is currently involved in several national and international research projects, holds European and Italian patents, and is author of 75 peer-reviewed scientific papers, several book chapters, and over 150 abstracts at scientific meetings.



**Dr. André M. de Almeida** was born in Lisbon (Portugal), December 1974. AM Almeida obtained a Degree in Animal Science by the University of Évora (1998), an MSc in Tropical Veterinary Medicine by the Faculty of Veterinary Medicine (Lisbon, 2000) and a PhD in Biology by the Instituto de Tecnologia Química e Biológica (ITQB, 2005). AM Almeida was a Researcher with the Instituto de Investigação Científica Tropical (Lisboa, Portugal) from 2008-2014, after a 3 year post-doc at the same institution. He was Associate Professor in Animal Production at the Ross University School of Veterinary Medicine in St. Kitts and Nevis (West Indies) during 2015 and 2016 and since January 2016 is an Assistant Professor at Instituto Superior de Agronomia (Universidade de Lisboa) where he teaches Animal Nutrition and Feeding and Ruminant Production. AM Almeida has

worked in several research institutions outside of Portugal: CSIC/IBMB Molecular Biology Institute Barcelona (Spain), University of the Free State (South Africa), Dryland Research Station (Australia), Rothamstead Research (UK) and Agresearch

(New Zealand), in addition to Ross University School of Veterinary Medicine in St. Kitts and Nevis (West Indies). Research interests are vast but are mainly dedicated to studies in the physiology, disease and production of farm animals, using Proteomics and Mass Spectrometry and Systems Biology as tools. He is primarily dedicated to Seasonal Weight Loss tolerance in Small Ruminants. AM Almeida participated in several international and national (FCT) Research projects in Portugal, Spain, Australia, St. Kitts and the EU and was awarded a visiting Scientist Research grant from the government of the State of Western Australia (Perth, WA, Australia). He was Vice-Chair of COST action FA1002 – Proteomics in Farm Animals, financed by the European Science Foundation. Research collaborations include: CSIC/IBMB (Spain), Dryland Research Station (Australia), AgResearch (New Zealand), University of Aarhus (Denmark), NOFIMA (Norway), University of Bonn (Germany), Canary Islands Agronomical Research, Institute (Spain), University of Las Palmas de Gran Canaria (Spain), University of the Free State (South Africa), Rothamstead Research and the University of Glasgow (UK), CIRAD/INRA (Guadeloupe, FWI, France), the Faculty of Veterinary Medicine in Košice (Slovakia), United States Department of Agriculture (USA), CERELA (Tucuman, Argentina); and in Portugal, the University of Évora, the Faculty of Sciences (Lisbon), the Faculty of Veterinary Medicine (Lisbon), the National Animal Science Research Station (Santarém) and the Marine Sciences Research Centre (Oporto), among others. AM Almeida has participated as a consultant to two Development Projects in Guinea Bissau, financed by the European Commission and is a frequent a member of COST evaluation committee. AM Almeida has published 13 international book chapters (including one edited by the Food and Agricultural Organization of the United Nations) and over 70 papers in international peer-reviewed journals. AM Almeida serves as associated editor of Tropical Animal Health and Production (Springer) and is a member of the board of Journal of Dairy Research (Cambridge Press) and Veterinary and Animal Science (Elsevier). AM Almeida supervised one Post-Doc, one PhD student and has supervised 7 MSc students, and has been a member of the jury of MSc and PhD thesis in Portugal, France, Spain and St. Kitts and Nevis.



**Dr. Burim Ametaj** is a Professor at Department of Agricultural, Food & Nutritional Science at University of Alberta, Canada. He received his doctorate degree in nutritional immunology from Iowa State University in 1999 and did three postdoctoral trainings at Iowa State University (1999-2001), Purdue University (2001-2002), and Cornell University (2002-2003) before joining University of Alberta in 2004. Prof. Ametaj's research interest is in the area of nutritional immunology. His long-term goals are to study the relationship between nutrition and immune responses

and their contribution in development of production diseases in ruminant animals as well as in developing new strategies to curb down the high incidence of transition diseases in dairy cattle. Prof. Ametaj's research areas include: 1) Developing new strategies for mitigating periparturient diseases of dairy cows, 2) developing new vaccine technologies for prevention of periparturient diseases of dairy cows, 3) determining dairy cattle metabolome in four major fluids including milk, plasma, urine, and rumen fluid, 4) identifying risk biomarkers for the most important periparturient diseases of dairy cows and developing pen-side tests for their early

identification, 5) using probiotics to lower the incidence of uterine infections and improve reproductive and productive performance of dairy cows, 6) developing cereal grain processing technologies to improve health and productivity of cattle, 7) studying cow's health during transitioning from conventional to organic system of management, and 8) studying the etiology and pathogenesis of transmissible spongiform encephalopathies and developing potential prevention treatments. Dr. Ametaj is the author of 85 peer-reviewed scientific articles and 180 abstracts and poster presentations, presented at various national and international scientific conferences. He also has been an invited speaker in 65 national and international scientific events and 40 industry communications in the form of agriculture press-releases, industry-oriented events, and professional events. Dr. Ametaj is the editor of a scientific book entitled: Periparturient Diseases of Dairy Cows: A Systems Biology Approach' with 7 chapters authored or co-authored by him and his graduate students and postdoctoral fellows. He also has been awarded 3 patents by USA Patent and Trademark Office for development of three technologies that help improve health of dairy cows.

### **Dr. Isabelle CASSAR-MALEK**

#### **Education/Training**

- 1989 : University of Montpellier (France), Master Degree MSc in Reproduction & Development
- 1994 : University of Montpellier (France), PhD Cellular & Molecular Biology
- 1994 - 1996: Post-doctoral training in the laboratory of Dr G. Cabello -INRA Montpellier (France)
- 2012 : University of Clermont-Ferrand (France), Certification thesis to supervise research



#### **Research Interest**

Dr Isabelle Cassar-Malek has a background in ruminant development and physiology *in vivo* and *in vitro*. She has conducted research on muscle beef quality, and is now developing *in silico* and genomic experiments for the identification of low invasive biomarkers of cattle feed efficiency and beef quality.

#### **Professional functions**

- Deputy Head of the Herbivore Research Unit (INRA)
- Research coordinator with experience of supporting projects on muscle development and cellular and molecular biology (AFM funding, ANR funding, contribution to work- package in EU programs)
- Research supervisor for undergraduate, MSc and PhD students
- Occasional reviewer for several journals or funding organisations
- Occasional lecturer to 5th year students in Biology & Health speciality Human Nutrition & Health)



Since 1991, **Dr. Jean François Hocquette** has been a research scientist at INRA (the French National Institute for Agricultural Research). His research interests mainly concern muscle biology and metabolism as well as functional genomics as relevant to muscle growth and beef eating quality. Dr Hocquette's scientific activities led to mentoring (27 graduates & scientists) and international collaborations especially with Australia regarding the MSA grading scheme to predict beef eating quality. He also teaches meat science or genomics at leading French Universities (Clermont-Fd, Dijon, Tours, Paris, Bordeaux). In 2014 and 2016, Dr Hocquette organized the French Meat R&D congress (200 people). So far, he has delivered talks at more than sixty international conferences. Dr Hocquette is strongly involved in the activities of the EAAP (European Federation of Animal Science). He is an editor of two EAAP books (#112 and #133), scientific Journals (BMC Genomics, Journal of Integrative Agriculture, Italian Journal of Animal Science) as well as editor-in-chief of the French Meat R&D Journal "Viandes et Produits Carnés", <http://www.viandesetproduitscarnes.fr/>). He evaluated about 50 PhD, many research projects or research laboratories since 2001. Dr Hocquette is indeed a Scientific Delegate of the French High Council for Evaluation of Research and Higher Education (HCERES). He is also involved in the activities of the French-Chinese R&D Center on beef production (since 2010). He was nominated to become member of the French Meat Academy in 2010 and received in 2014 the Animal Growth and Development Award from the American Society of Animal Science (ASAS).



**Dr. Nick Jonsson** graduated as a vet from the University of Sydney in 1987 and spent 7 years working in mixed practice in rural Australia, including a period as practice owner. He then completed a PhD at the University of Queensland in 1998 on factors influencing the postpartum resumption of cyclic bovine ovarian activity. Subsequently he took on a senior research scientist role with the Queensland Government on dairy cattle health, after which he moved to Glasgow University in 1999 to lecture in reproduction and farm animal medicine for two years before returning to Queensland in 2001 as senior lecturer in reproduction, then in farm animal medicine and where he was the Associate Dean for Research for the Faculty of Natural Resources, Agriculture and Veterinary Science. In 2009, Dr. Hocquette moved back to the School of Veterinary Medicine at Glasgow, where his teaching and research interests are in animal management, with strong interests in the development of systems for efficient management of cattle production. I work 25% of my time for Harbro Quality Livestock Nutrition, where he is currently the Head of Rumen Research. The main strands of his research are reticulo-ruminal function and pathology, the use of sensor technologies to optimize ruminal function and the genetics of adaptation in cattle.



**Dr. Mark McLaughlin** (BSc Hons, PhD) studied Biochemistry as an undergraduate at the University of Glasgow. He remained in Glasgow to conduct his PhD at the Wellcome Surgical Institute where he investigated the integrity of G-protein signalling pathways in Alzheimer's disease and graduated in 1993. Mark continued to explore signalling mechanisms examining tyrosine kinase pathways in oncogenic cell lines at the Glasgow Royal Infirmary, then as post doctoral researcher for 6 years at the Medical Science Institute, University of Dundee. While at Dundee, Mark developed an array of protein analysis skills required for investigating the mechanisms of

neurotransmitter release from synaptic terminals and the processing of amyloid precursor protein processing (APP). In 1999 Mark returned to Glasgow to work with Professor Ian Griffiths on the molecular and genetic basis of myelin related degenerative disorders and was awarded a project grant by the Wellcome Trust in 2005. In 2008 Mark was appointed as Lecturer in Cell Science and Veterinary Anatomy at the University of Glasgow, School of Veterinary Medicine. His research activity maintains a strong neuroscience theme with particular interest in canine degenerative myelopathy and the influence of steroid hormones on brain plasticity. In addition, he has broadened his research interests to encompass a variety of veterinary related disorders which has been due largely to the advancement of proteomic technology to facilitate the identification of potential biomarkers. His interest in the application of proteomic technology for biomarker identification (using tissue and biological fluid) and dissecting the mechanistic basis of disease, has developed through collaboration with Prof David Eckersall (Universities of Glasgow and Zagreb), as a member of a Cost Action on Farm Animal Proteomics and through collaborations with members of clinical staff at the School of Veterinary Medicine, University of Glasgow.



**Dr. Ingrid Miller** holds a PhD in environmental sciences from Wageningen University, The Netherlands, and works at the Institute for Medical Biochemistry, Department for Biomedical Sciences, at the University of Veterinary Medicine Vienna, Austria. Though originally trained in technical chemistry, she specialized early in protein chemistry and protein analytics, mainly on proteins of animal origin and from biological sources. Since more than two decades, her major focus is on proteomics and two-dimensional electrophoresis, with a special interest in methodology. She is a member of the editorial boards of several proteomic and analytical journals and a regular reviewer. She has been the Austrian representative in the EuPA General Council for several years and was one of the founding

members of the Austrian proteomics society as well as its vice present for four years.

Since September 2009 she is Executive Editor for Animal Proteomics in the Journal of Proteomics, where she has also acted as guest editor for thematic issues: one on farm animal proteomics (together with A. de Almeida and P.D. Eckersall), one on proteomics in ecotoxicology, and presently one on gender-related proteomics is in preparation. She is (co)author of more than 100 peer-reviewed papers and contributed chapters to several books in the field.



**Dr. Brigitte Picard** is a meat scientist, director of research at the French National Agronomical Research Center (INRA). She obtained a PhD degree in Biochemistry in 1990 and is currently developing research on muscle growth and cattle meat quality. She coordinates programs on biomarkers of Beef tenderness (Biological Integrative approach associating biochemical studies, functional genomics (proteomics) and modelling). She managed INRA teams working on beef quality during 25 years. Her competences are: muscle physiology, analysis of proteins (electrophoresis mono and two-dimensional, western-blot, ELISA, immunohistochemistry), primary cultures of muscle cells (myoblasts and satellite cells), proteomic analysis of muscle. She had written around 170 primary articles; 67 scientific reviews; and directed 12 PhD theses.

### Local speakers



**Petra Bilić** holds an MSc in Molecular biology (2013) by the Faculty of Science in Zagreb, Croatia. Currently, she is enrolled in the Biology PhD programme at the same Faculty, with a position of Research Assistant at the Faculty of Veterinary medicine in Zagreb (2015 - ). During her studies she was awarded several scholarships for excellence, as well as Zagreb University Rector's Award for Student research paper (2012). Her major research interest is biomarker discovery in canine kidney and cardiac diseases using proteomics approach. She performed a part of her research during scientific visits at the University of Veterinary Medicine and Pharmacy in Košice, Slovakia in 2015 and Institute of Biodiversity, Animal Health and Comparative Medicine, University of Glasgow, UK in 2016.



**Dr. Asier Galan** gained his master (Biochemistry and Molecular Biology) from the University of the Basque country, Leioa (Spain) and in 2003 he obtained his PhD in Biochemistry and Molecular Biology from the same university, Department of Biochemistry- Biophysics unit CSIC-UPV/EHU. In 2003 to 2004 he was a postdoctoral Marie Curie network (SMASHYBIO) fellow at the Technische Universität München, Munich (Germany). From 2005 to 2011

he worked as Head of Proteomics Department at OWL Metabolomics SL, a biotechnological company in Derio, Basque country (Spain), developing diagnostic procedures for liver metabolic disorders. Dr. Galan has followed up his career as senior postdoctoral fellow in diverse areas of proteomics at Palacky University Olomouc (Czech Republic) and recently at Ruđer Bošković Institute Zagreb (Croatia). He is author of more than 10 papers in peer-reviewed journals, a patent, delivered dozens of oral presentations in national and international conferences and his work has been cited around 200 times.



**Dr. Nicolas Guillemin** obtained a PhD in molecular physiology and genetics at the National Institute for Agricultural Researches (INRA) in 2010, about beef meat tenderness. He set up a new Dot-Blot technique for fast protein quantification. He completed a post-doctoral fellowship at the University Laval, Canada, in 2013. He set up a new methodology for SNP markers detection. He identified unknown SNPs related with fertility, and made genetic prediction models. Dr Guillemin integrated the ERA Chair team at the Faculty of Veterinary Medicine of Zagreb in July 2015, where he is currently in charge of genomics/bioinformatics

and biostatistics. He was rewarded by a price during the International Symposium for Young Scientist in Poland in 2008, and a Post-doctoral excellence scholarship at the University Laval in 2012.



**Dr. Anita Horvatić** gained her PhD in Chemistry (2014) from the Faculty of Science, University of Zagreb. From 2005 to 2009 she was employed in Pliva R&D in Laboratory for Liquid Chromatography and Mass Spectrometry. From 2009 to 2014 she was working as a research assistant at the Ruđer Bošković Institute, Division of Molecular Medicine, Laboratory for Systems Biomedicine and from 2015 as a postdoctoral researcher. Her scientific work has been focused on biomarker discovery, pathogen diagnostics and protein stability using high-throughput proteomic methods and mass spectrometry. In 2015 Dr Horvatić joined the ERA Chair team at the Faculty

of Veterinary Medicine, Zagreb. Her current scientific interest is focused to vector borne diseases and protein-protein interactions. She is author of several papers in peer-reviewed journals, dozen conference proceedings and the US patent. In 2012 she was honoured for the second place in Alltech Young Scientists competition (Eastern Europe Region). In 2013 she obtained the L'Oréal-UNESCO Award for Women in Science.



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**Dr. Josipa Kuleš** holds an MSc in Biochemistry by the Faculty of Pharmacy and Biochemistry of the University of Zagreb (2008) and a PhD in Veterinary Medicine by the Faculty of Veterinary Medicine of the University of Zagreb (2014). From 2008 to 2014 she was employed as assistant - scientific researcher at the Department of Chemistry and Biochemistry, Faculty of Veterinary Medicine of the University of Zagreb, and from 2014 as a postdoctoral researcher. In July 2015 Dr Kuleš joined the ERA Chair team at the Faculty of Veterinary Medicine of Zagreb. Her major research interests are vector borne diseases and clinical laboratory diagnostics in veterinary medicine. Dr Kuleš was awarded as the best young scientist in 2014 and



teaching in pathophysiology of domestic animals, veterinary laboratory diagnostics and specific hormonal and metabolic disorders of domestic animals. She is a supervisor for master and PhD students. Her main research interest is focused on the impact of heat stress and nutritional modulation on metabolic, antioxidant and reproductive performance of dairy cows as well as on biomarkers of oxidative stress and inflammation in reproductive and productive disorders of dairy cows, including periparturient metabolic diseases, subfertility and mastitis. She published several book chapters and a number of peer-review articles on those topics. She serves as an Associate Editor of per-reviewed journal *BMC Veterinary Research* and is a member of the International Society for Animal Clinical Pathology (ISACP) and the European Association of Animal Production (EAAP).

**Dr. Romana Turk**, PhD, is the Associate Professor of Pathophysiology at the Faculty of Veterinary Medicine University of Zagreb, Croatia. She earned her BSc (1993), MSc (2002) and PhD (2005) in Medical Biochemistry at the Faculty of Pharmacy and Biochemistry University of Zagreb, Croatia. Her MSc and PhD theses were devoted to the role of anti-oxidant enzymes in reproduction and fertility of dairy cows. From 1993-1994 she worked at the Clinical Laboratory for Hematology and Biochemistry, Hospital for Pulmonary Diseases and Tuberculosis and at the Biochemical Laboratory, General Hospital Varaždin, Croatia. In 1994, she moved to the Faculty of Veterinary Medicine University of Zagreb and have started with research at the Department of Pathophysiology and