

Meet Guest Editors



Dr. Carles Soler



Dr. Jesús L Yániz



Dr. Anthony Valverde

Dr. Carles Soler

Major Research Interests CASA technology development and applications, spermatology, epididymal function, physical anthropology.

With a BSc in Biology (University of València, 1980), Carles Soler worked for a PhD (1981–1985) with the professor Antonio Núñez on epididymal physiology. After six years as a secondary school teacher, in 1988 Carles became a University Professor in the Department of Zoology and Animal Physiology of the University of València. In addition to his teaching and research activity, he signed his first contract with a company for the development of CASA (Computer-Assisted Semen Analysis) technology in 1989. After working in collaboration with other companies, in 2004 he joined Paco Blasco (Informatics engineer) to found Proiser R+D, S.L., a company dealing with the development of semen analysis technologies. Now he continues being a professor at the University of Valencia and Scientific Director of Proiser R+D.

In 1993 Dr. Soler did research in Münster (Germany) where he had the opportunity to meet and work with Dr. Trevor G Cooper. This was another determining point in his career. From that time they have been in continuous collaboration. Also important was the invitation to stay in Costa Rica in 2014, where he met Anthony Valverde, with whom he has started applying new statistical approaches to sperm function.

Dr. Soler's view includes an integrative point of view, teaching on the basis of experience, researching to acquire new knowledge, and developing new technical solutions. The results from all this have been more than 100 published manuscripts, including book chapters, one patent and several conferences around the world.

Relation to AJA Dr. Soler's first article in AJA was in 2005.

Dr. Jesús L Yániz

Major Research Interests Sperm quality, sperm function, semen preservation, artificial insemination, male and female fertility.

Jesús Yániz holds a degree in Veterinary Medicine from the University of Zaragoza (2003) and a PhD in Animal Science from the University of Lérida (2000). The PhD was directed by Fernando López Gatus and Pilar Santolaria Blasco, and focused on the anatomy and physiology of the bovine oviduct and on artificial insemination.

During his PhD period, Dr. Yániz participated in several research visits and was introduced to

semen encapsulation technologies by Richard Saacke and Ray Nebel from Virginia Polytechnic Institute and State University (Blacksburg, USA, 1998), and to the *in vitro* embryo production and freezing technologies by Dr. Alban Massip, from the Catholic University of Leuven (Belgium, 1999). In 2008, he also did research at the University of Liverpool, to study different aspects of bovine reproduction, with Hilary Dobson and Robert Smith.

Dr. Yániz has been working in the Department of Animal Production and Food Sciences at the University of Zaragoza since 2000, becoming a Lecturer in 2003, and being recognised by the Spanish Government as accredited Professor since 2010. In 2002, together with Pilar Santolaria, he created and equipped a new laboratory orientated to animal reproduction in the Agronomic School of the University of Zaragoza. In 2003, with others they created the Gamete Manipulation Technologies (TECNOGAM) research group, headed by Dr. Yániz since 2009, which is incorporated into the Environmental Sciences Institute of the University of Zaragoza (IUCA). They maintained an intense collaboration with Fernando López-Gatius until 2011, working on the cow's reproductive physiology and associated biotechnologies, such as oestrus detection, oestrus synchronization, artificial insemination and embryo production. Dr. Yániz has also performed one of the more detailed descriptions of the microscopic anatomy of the oviductal mucosa of the cow, sheep and sow.

In the last decade, he has specialized on spermatology and artificial insemination, and studied various aspects of semen preservation, sperm quality and the factors affecting fertility after artificial insemination. He has also established an international partner network. The study of sperm morphometry with a self-developed method, using fluorescence labelling instead of traditional staining methods, has been the main research activity during the last five years.

Dr. Yániz has led 18 research projects and has also obtained funding for his research from the private sector, as much of his investigation has a practical orientation. Since 2000 Dr. Yániz has published over 90 research articles on SCI Journals (51 as first/last author) and 8 book chapters.

Relation to AJA Dr. Yániz's first article in the AJA was in this special issue, of which he is also an associate editor.

Dr. Anthony Valverde

Major Research Interests Animal science, spermatology, biostatistics, farm animal reproduction.

Graduating as an agronomy engineer (Animal Sciences, University of Costa Rica, 2007), Anthony Valverde began his career at the School of Agronomy located at the Technological Institute of Costa Rica (TEC) in 2008, specifically in the department of Animal Science. After that, and with a scholarship from the International Center for Advanced Mediterranean Agronomic Studies (CIHEAM), he initiated studies of animal breeding and reproduction biotechnology at the Polytechnic University of València, and Barcelona Autonomous University, where he earned an M.Sc. (2009–2011) on Animal Reproduction.

From 2012 to 2014, he worked on the management of beef cattle and buffalo production systems at the University, and started production of *in vitro* embryos of the Brahman breed. As part of his stay in the Department of Reproduction and Obstetrics of the University of Murcia in 2011, he worked on the issue of the quality of boar ejaculates and the effect of nonfunctional spermatozoa on functional sperm cells. During this time he met Dr. Carles Soler from the University of València who was invited in 2014 as a visiting professor to the TEC. As a result of Dr. Soler's visit to Costa Rica, in 2015 Anthony was awarded a new scholarship, and started doctoral studies in biodiversity and evolutionary biology at the University of València under the direction of Dr. Soler, with the theme of environmental effects on reproduction of livestock species. In 2016 he was admitted to a master of science degree in Biostatistics at the University of València to concatenate the issue of semen analysis with large amounts of analyzed data.

In Costa Rica, as part of his hobby and tourism interests, he began to work on the reproduction of non-traditional species, such as crocodiles and alligators, with the purpose of studying the reproduction in captivity of these species.