

Special Issue

Modern Reproductive Biotechnology Assists Farm Animal Conservation and Genetic Rescue

Message from the Guest Editors

The modern assisted reproductive technologies (ARTs) in farm animals are mainly based on in vitro embryo production (IVP) systems that include three inevitable steps. Similar to other ARTs such as classic artificial insemination (AI), IVF frequently requires the use of cryopreserved or lyophilized spermatozoa, and can either be accomplished by standard gamete co-incubation, or can be assisted microsurgically by intracytoplasmic sperm injection (ICSI) into meiotically matured oocytes. Innovative ART-mediated tools appear to be indispensable to genetically rescue and perpetuate the long-term ex situ conservation of biodiversity in indigenous breeds of various livestock species, including near-threatened, vulnerable, endangered, critically imperiled, vanishing and even extinct farm animal breeds. This SI opens the possibility of publishing research articles, comprehensive reviews and short communications aimed at research highlights encompassing the efficient approaches that enable the protection of genetic resources derived from endangered farm animal species from extinction and to successfully retain the ex situ and/or in situ conservation of biodiversity in livestock species.

Guest Editors

Dr. Monika Trzcińska

Department of Reproductive Biotechnology and Cryoconservation,
National Research Institute of Animal Production, Balice near Kraków,
Poland

Prof. Dr. Marcin Samiec

Department of Poultry Breeding, National Research Institute of Animal
Production, Balice near Kraków, 32-083 Balice, Poland

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Agriculture
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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Agriculture (ISSN 2077-0472) is an international, cross-disciplinary and scholarly journal on the science and technology of crop and animal production, and management of the natural resource base for agricultural production. We invite submissions from authors according to the aims and scope of the journal described in more detail on this page. *Agriculture* is published in an open access format – articles are published on the journal's website immediately after acceptance, giving the scientific community and the public unlimited and free access to the content.

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Prof. Dr. Les Copeland

Sydney Institute of Agriculture, School of Life and Environmental Sciences, The University of Sydney, Sydney, NSW 2006, Australia

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