



## Recent Advances in Genetic Mechanism and Evolution of Sex Determination and Chromosomes

Guest Editor:

**Dr. Yukako Katsura**

Center for the Evolutionary  
Origins of Human Behavior,  
Kyoto University, Inuyama-shi,  
Japan

Deadline for manuscript  
submissions:

**closed (30 April 2024)**

### Message from the Guest Editor

Dear Colleagues,

Sex determination is essential for sexual reproduction and it has evolved differently depending on the organism. Genetic and evolutionary mechanisms, such as the evolution and origin of sex chromosomes that genetically determine sex, turnover of sex chromosomes and mechanisms of environment-dependent sex determination, have recently been studied through the fusion of genomics, molecular biology and evolutionary genetics. Through this Special Issue, we would like to report recent progress on the genetic mechanisms of diverse sex determination factors and sex chromosomes, and their evolutionary mechanisms.

The issue focuses on recent advances in genetic mechanisms, and the evolutionary processes of sex chromosomes and sex determination in animals. The scope of the issue is broad, and topics on various animals, vertebrate and invertebrate will be accepted. This issue aims to help a diverse readership gain a comprehensive understanding of the latest knowledge on the evolution of sex determination, complementing integrated knowledge on the genetic mechanism of sex determination and its evolutionary mechanisms.





an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Clive J. C. Phillips

1. Institute of Veterinary Medicine  
and Animal Sciences, Estonian  
University of Life Sciences,  
Kreutzwaldi 1, 51014 Tartu,  
Estonia

2. Curtin University Sustainability  
Policy (CUSP) Institute, Kent St.,  
Bentley 6102, Australia

## Message from the Editor-in-Chief

*Animals* is an on-line open access journal that was first published in 2011. *Animals* adheres to rigorous peerreview and editorial processes and publishes only high quality manuscripts that address important issues in the many varied disciplines that involve animals, with a focus on animal science, animal welfare and animal ethics. *Animals* is covered in the Science Citation Index Expanded (SCIE) in Web of Science, with the latest Impact Factor: 3.0 (2022, ranks 12 /62 (Q1) in ‘Agriculture, Dairy & Animal Science’; 13/143 (Q1) in ‘Veterinary Sciences’), 5-Year Impact Factor: 3.2.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Embase, PubAg, AGRIS, Animal Science Database, CAB Abstracts, and other databases.

**Journal Rank:** JCR - Q1 (Veterinary Sciences) / CiteScore - Q1 (General Veterinary)

## Contact Us

---

*Animals* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/animals](http://mdpi.com/journal/animals)  
[animals@mdpi.com](mailto:animals@mdpi.com)  
[X@Animals\\_MDPI](https://twitter.com/Animals_MDPI)