

## Special Issue

# Molecular Advances in Assisted Reproductive Technologies

### Message from the Guest Editor

Since the birth of the first IVF baby in 1978, assisted reproductive technology (ART) has made tremendous strides, transforming the landscape of reproductive medicine. Key innovations in reproductive biology, including a better understanding of gametogenesis, fertilization, and embryo development, have led to more efficient and successful ART procedures. Techniques such as preimplantation genetic testing (PGT) enable the selection of genetically healthy embryos, which reduces the risk of genetic disorders, miscarriage, and enhances live birth rates. Furthermore, advancements in molecular diagnostics have greatly improved the diagnosis and treatment of reproductive diseases like endometriosis, premature ovarian failure, and preeclampsia. These molecular breakthroughs continue to shape and refine ART, offering new hope for individuals facing infertility and improving reproductive health outcomes. This Special Issue aims to explore various aspects of these molecular advancements in ART, using both human and animal models to deepen our understanding of these complex biological processes.

### Guest Editor

Dr. Sung Tae Kim

Division of Reproductive Endocrinology and Infertility, University Hospitals Fertility Center, Cleveland, OH 44106, USA

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Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[ijms@mdpi.com](mailto:ijms@mdpi.com)

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### Message from the Editor-in-Chief

The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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### Editor-in-Chief

Prof. Dr. Maurizio Battino

Department of Odontostomatologic and Specialized Clinical Sciences,  
Sez-Biochimica, Faculty of Medicine, Università Politecnica delle  
Marche, Via Ranieri 65, 60100 Ancona, Italy

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