

Special Issue

Advances in Cold Therapies: Novel Physical Approaches for Musculoskeletal Repair— Molecular Insights

Message from the Guest Editor

Musculoskeletal disorders, including osteoarthritis, soft tissue injuries, and post-surgical complications, represent a major global health burden. Traditional management strategies, ranging from pharmacologic interventions to surgical repair, often fall short in restoring full function and alleviating chronic inflammation or pain. Recently, cold therapies have gained renewed interest as non-invasive, biophysically driven approaches that modulate local inflammation, cellular signaling, and tissue repair. This Special Issue aims to explore cutting-edge advancements in cold-based interventions, including cryotherapy, cold plasma, cryoablation, and cold shock proteins and their mechanistic effects at the molecular and cellular levels. We welcome original research articles, reviews, and translational studies investigating novel cold modalities, mechanisms of action, therapeutic windows, and clinical applications across orthopedics, sports medicine, and rehabilitation.

Guest Editor

Dr. Fackson Mwale

1. Department of Surgical and Interventional Sciences, McGill University, Montreal, QC H3T 1E2, Canada
2. Orthopaedic Research Laboratory, Lady Davis Institute for Medical Research, Montreal, QC H3T 1E2, Canada

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
biomolecules@mdpi.com

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Message from the Editorial Board

Biomolecules is a multidisciplinary open-access journal that reports on all aspects of research related to biogenic substances, from small molecules to complex polymers. We invite manuscripts of high scientific quality that pertain to the diverse aspects relevant to organic molecules, irrespective of the biological question or methodology. We aim for a competent, fair peer review and rapid publication. Please look at some of the exciting work that has been published in *Biomolecules* so far. We would be delighted to welcome you as one of our authors.

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Prof. Dr. Peter E. Nielsen

Department of Cellular and Molecular Medicine, Faculty of Health and Medical Sciences, University of Copenhagen, Blegdamsvej 3C, DK-2200 Copenhagen, Denmark

Prof. Dr. Lukasz Kurgan

Department of Computer Science, Virginia Commonwealth University, Richmond, VA 23284, USA

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