

## Special Issue

# Cellular and Molecular Mechanisms in Inflammatory Bowel Disease

### Message from the Guest Editor

Inflammatory Bowel Disease (IBD) represents a significant and growing global health challenge. Recent advances underscore the multifactorial nature of IBD, implicating a complex interplay among genetic susceptibility, the dysregulation of the mucosal immune response, alterations in the gut microbiome, and diverse environmental and lifestyle factors. Systems biology and multi-omics approaches have revealed distinct molecular and cellular mechanisms underpinning IBD pathogenesis. Notably, transcriptomic and metatranscriptomic meta-analyses have identified robust pro-inflammatory signatures and disrupted epithelial and angiogenic pathways in IBD-affected tissues, providing novel insights into disease mechanisms and potential therapeutic targets. We particularly encourage submissions that leverage cutting-edge methodologies—such as integrated multi-omics, advanced imaging, and computational modeling—to elucidate disease mechanisms and identify novel therapeutic targets. While we prioritize human studies, we also welcome high-quality research utilizing animal models and in vitro systems, provided that the findings are translatable to human disease.

### Guest Editor

Dr. Michael Bording-Jorgensen

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### Deadline for manuscript submissions

30 October 2025



## International Journal of Molecular Sciences

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### Message from the Editor-in-Chief

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### Editor-in-Chief

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