

## Special Issue

# Bilirubin: Health Challenges and Opportunities

### Message from the Guest Editor

Bilirubin, once seen merely as a waste product, is now recognized for its roles beyond metabolism. It functions as a hormone, regulator of signaling pathways, and a protective agent against redox stress and inflammation. It may also aid in aging-related diseases and athletic performance. Current research is exploring its potential as an antibacterial agent and in nanotechnology applications for anti-inflammatory, antioxidant, and neurological purposes. Additionally, there is growing insight into its role in brain damage from Crigler–Najjar syndrome and neonatal hyperbilirubinemia. Despite advances, traditional phototherapy remains inadequate for pre-term neonates, highlighting the need for innovative therapeutic approaches. Understanding bilirubin's molecular functions and the enzymes involved is crucial for both human health and technological advancements. We invite papers that explore these aspects of bilirubin and its metabolic pathways.

### Guest Editor

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### Deadline for manuscript submissions

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