

Special Issue on Biomarkers in Cardiovascular Diseases

CALL FOR PAPERS

Despite a considerable improvement in the mortality rate associated with cardiovascular diseases (CVD), they remain a major cause of death worldwide, with an increasing prevalence leading to an unsustainable economic and social burden. Considering the increasing average age of the global population, this trend is set to become increasingly more serious within the next decade.

Classically, three categories of biomarkers in CVD have been described, reflecting the different roles that they could have in disease management: screening, diagnosis, and prognosis. Biomarkers have an important role in the diagnosis and prognosis of CVD (e.g., natriuretic peptides in heart failure or troponins in ischemic disease), as well as in identifying individuals who exhibit a high risk for CVD development (e.g., imaging biomarkers of preclinical stage of CVD). In addition, they can be effectively used to identify patients at high risk of related comorbidities. Further, biomarkers are also used as surrogate endpoints in clinical studies.

Growing evidence supports a key role of novel noncardiac pathophysiological pathways (e.g., the gastrointestinal system, the anabolic/catabolic imbalance, and multiple hormonal deficiency syndrome) in CVD, with ever-increasing identifications of novel biomarkers that demonstrate their importance in CVD management.

In this context, a growing interest has been observed in multimarker approaches to examine biomarker panels that assess multiple pathophysiologic pathways, including the combined use of proteins, lipids, metabolites, hormones, and genetic markers. Using this approach, even more clinical scores have been validated in the last years combining clinical information and biomarkers.

The aim of this special issue is to attract submissions focusing on the role of biomarkers in CVD and associated diseases. We invite researchers to submit original research as well as review articles related to the scientific advances in the area of biomarkers in CVD. This issue intends to provide an insight into recent scientific and clinical advances that highlight the importance of biomarkers in CVD and to indicate gaps in our current understanding.

Potential topics include but are not limited to the following:

- ▶ Natriuretic peptides and CVD (e.g., BNP, NT-proBNP)
- ▶ Hormonal models in CVD
- ▶ Anabolic/catabolic imbalance
- ▶ Gut-heart axis, e.g., TMAO and related metabolites
- ▶ Inflammation and CVD
- ▶ Sex differences determining biomarker utility in CVD
- ▶ Biomarkers in CVD associated diseases (e.g., metabolic disorders, chronic obstructive pulmonary disease)
- ▶ Disease markers in prediction of survival
- ▶ Chronobiology of biomarkers in CVD
- ▶ The use of 'omics in CVD, e.g., metabolomics, proteomics, and transcriptomics
- ▶ The use of exosomes in CVD
- ▶ Imaging biomarkers in CVD

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/crp/bicard/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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