

## BIOMEDICAL AND HEALTH INFORMATICS

**J-BHI Special Issue on****“Integrating Informatics and Technology for Precision Medicine”**

In the majority of medical conditions common therapeutic approaches are usually effective in only a small percentage of the patient population. Recent scientific discoveries implicate as possible causes of this lack of effect the multifactorial nature of most diseases and the patient variability in disease expression, genetic disposition, and environmental exposures. It has become apparent that in order to improve the response to therapy and long term prognosis, treatment must be specifically tailored to the disease and the patient. Precision medicine is an attempt to maximize effectiveness by taking into account individual variability in clinical presentation, medical history, genes, environment, and lifestyle. It is a leap beyond the promise of “personalization” empowered by recent technological advances. However, progress in precision medicine has been slow due to the lack of “precision” in the traditional research, translation, and clinical practise. Current approaches are largely empirical, fragmented, lack integration, and rely on population statistics, with inadequate feedback between disciplines. In addition, most of the information required for personalization is either missing or unutilized. New technological developments can help overcome these hurdles of imprecision to achieve the full promise of precision medicine.

The purpose of this special issue is to report the latest advances in the field of integrated precision medicine technologies *to further enable, drive and accelerate the development, translation, and application of precision medicine*. Topics for this special issue include, but are not limited to:

- (i) Bioinformatics
- (ii) Imaging Informatics
- (iii) Sensor Informatics
- (iv) Medical Informatics and Public Health Informatics.

Priority will be given to papers reporting original work supported by long-term analysis, carefully designed studies, large cohort validation, and supplemented by on-line data or resources that can be shared by the research community.

**Guest Editors**

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**Key Dates**

Deadline for Submission: 15<sup>th</sup> January, 2018  
First Reviews Due: 25<sup>th</sup> February, 2018  
Revised Manuscript Due: 25<sup>th</sup> March, 2018  
Final Decision: 25<sup>th</sup> April, 2018