

**Special Session on**  
**Biomedical Big Data Analytics and Mining**

**The 14th IEEE International Conference on Machine Learning and Applications  
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With the advent of high throughput biomedical technologies, large amount of data is accumulated. As a result, medicine and biomedical sciences have become data-intensive fields. These big biomedical data leads to the development of novel data integration and mining approaches, whose results ultimately support effective decision-making in clinics and translational research. With the development of modern biomedical science and informatics, novel data analytics are playing a crucial role in biomedical clinical decision making and translational medicine.

This session aims at novel data analytics methods, evaluating existing algorithms and methods, identifying and addressing emerging problems and challenges with regard to biomedical data integration and mining in the era of big data, and results in biomedical informatics, translational medicine, and other closely related areas. We invite the submission of high-quality, original and unpublished papers in these areas. Topics for this session include, but are not limited to:

- Translational bioinformatics
- Next generation sequencing
- Predictive models in precision diagnostics
- Machine learning in personal medicine
- Mobile disease diagnostics
- Healthcare informatics
- Disease gene network/pathway analysis
- Proteomics, and protein structure prediction
- Next generation sequencing data analysis, applications, and tools
- Drug discovery, design, and repurposing
- Integrative analysis of omics data
- Big data science including storage, analysis, modeling and visualization
- Biomarker discovery and decision making
- Proteomics
- Clinical informatics
- Cancer genomics
- Text Mining of Clinical Notes

- Computational systems biology
- Big biological data analytics
- Mathematical modeling of diseases

Selected papers from this special session will be published in a special issue in an international journal (e.g., BMC Bioinformatics, Cancer Informatics, etc.).

**Important Dates:**

Paper Submission Deadline	August 30 <sup>th</sup> , 2015
Notification of Acceptance	September 30 <sup>th</sup> , 2015
Camera-Read Papers	October 15 <sup>th</sup> , 2015

**Program Committee Members:**

York Chen	Duke University USA
Amir Foroushani	Texas State University, USA
Hung-Chung Huang	Jackson State University, USA
Joe Ji	Columbia University, USA
Chun Li	Bohai University, China
Feng Luo	Clemson University, USA
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