

Special Issue on
**New Biomarkers of Innate and Adaptive Immunity in
Infectious Diseases**

CALL FOR PAPERS

Infectious diseases remain the leading cause of morbidity in the world. In some respect, this situation persists because we still do not have good diagnostic biomarkers for many infectious agents. Latest advances in molecular biology and immunology resulted in a rapid expansion in the field of immune biomarkers in recent years. These biomarkers can help to provide early diagnosis, evaluate the efficacy of treatment, and improve the disease outcome. Emerging infections and rapid spread of the antibiotic resistant strains of bacteria make further search for biomarkers especially urgent. Recently, FDA addressed the issue of the need for immune biomarkers, where developing and approval of the new diagnostics were regarded as essential for improving treatment of infectious diseases. Current search for novel biomarkers includes correlation analysis between clinical presentation and genetic mutation, cytokines, receptors, and growth factors found in the host and/or infectious agent.

Despite extensive research, the need for novel biomarkers remains critical. For instance, little is known about immune biomarkers for such emerging infections as Ebola and Zika. There is an ongoing search for biomarkers of the immune dysfunction in HIV and severe dengue disease. Also, novel biomarkers for *Cytomegalovirus* and *Mycobacterium tuberculosis* promise to provide useful information on the response to infection.

For this special issue, we invite potential authors to contribute original manuscripts, clinical trial results, and reviews focused on genetic aberrations, cytokines, growth factors, and other small biologically active molecules as potential biomarkers in infectious disease.

Potential topics include but are not limited to the following:

- ▶ Recent discoveries in biomarkers (genetics, proteomics, cytokines, growth factors, hormones, etc.) of infectious disease contributing to diagnosis, treatment, and prophylaxis
- ▶ *In vitro* and *in vivo* studies aimed at identifying biomarkers of bacterial and viral pathogens
- ▶ Transcriptome and proteome analysis of biomarkers related to infectious disease pathogenesis
- ▶ Bioinformatics approaches aimed at characterizing biomarkers related to clinical presentation, severity, and treatment efficacy of infectious disease
- ▶ Novel therapeutic approaches for treatment of infectious disease using novel and currently used biomarkers
- ▶ Biomarkers of interaction of the bacterial and viral pathogens with immune system, evasion, and development of resistance

Authors can submit their manuscripts through the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/jir/nbia/>.

Lead Guest Editor

Sergey Morzunov, University of Nevada,
Reno, USA
smorzunov@medicine.nevada.edu

Guest Editors

Levon Abrahamyan, Université de
Montréal, Saint-Hyacinthe, Canada
levon.abrahamyan@umontreal.ca

Varough Deyde, US Centers for Disease
Control and Prevention, Pretoria, South
Africa
che5@cdc.gov

Manuscript Due

Friday, 3 March 2017

First Round of Reviews

Friday, 26 May 2017

Publication Date

Friday, 21 July 2017