

## Special Issue on Actinomycetes: Role in Biotechnology and Medicine

### Call for Papers

Actinomycetes are one of the most diverse groups of filamentous bacteria capable of surviving in a number of ecological niches due to their bioactive potential. Actinomycetes are well recognized for their metabolic versatility that is frequently accompanied by the production of primary and secondary metabolites of economic importance. They are a promising source of wide range of important enzymes, some of which are produced on an industrial scale, but many other remained to be harnessed. They have the ability to degrade a wide range of hydrocarbons, pesticides, and aliphatic and aromatic compounds. They perform microbial transformations of organic compounds, a field of great commercial value. Members of many genera of actinomycetes have potential for use in the bioconversion of underutilized agricultural and urban wastes into high-value chemical products.

A large fraction of antibiotics in the market are obtained from actinomycetes. They produce enzyme inhibitors useful for cancer treatment and immunomodifiers that enhance immune response. Actinomycetes are also important in plant biotechnology as strains with antagonistic activity against plant pathogens are useful in biocontrol. Their metabolic potential offers a strong area for research. Accordingly, this special issue is dedicated to the role of actinomycetes in biotechnology and medicine. Contribution of research papers and review articles with focus on characterization and applications of novel biomolecules from actinomycetes will be considered after peer review. Preliminary data on screening for novel biomolecules will be acceptable if techniques used in screening are not reported previously and offer high throughput or rapidity over existing techniques. Potential topics include, but are not limited to:

- Biochemical characterization and/or applications of biomolecules from actinomycetes
  - Enzymes
  - Antibiotics
  - Enzyme inhibitors
  - Immunomodulators
- Actinomycetes and their products in plant and environment biotechnology

- Genetic improvement of actinomycetes

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First Round of Reviews	Friday, 4 January 2013
Publication Date	Friday, 1 March 2013

### Lead Guest Editor

**Neelu Nawani**, Dr. D. Y. Patil Biotechnology and Bioinformatics Institute, Tathawade, Pune 411033, India; [neelu.nawani@dpu.edu.in](mailto:neelu.nawani@dpu.edu.in)

### Guest Editors

**Bertrand Aigle**, Génétique et Microbiologie, UMR1128, Université Henri Poincaré, Vandœuvre-lès-Nancy, France; [bertrand.aigle@univ-lorraine.fr](mailto:bertrand.aigle@univ-lorraine.fr)

**Abul Mandal**, School of Life Sciences, University of Skövde, Box 408, 541-28 Skövde, Sweden; [abul.mandal@his.se](mailto:abul.mandal@his.se)

**Manish Bodas**, Dr. D. Y. Patil Biotechnology and Bioinformatics Institute, Tathawade, Pune 411033, India; [manish.bodas@dpu.edu.in](mailto:manish.bodas@dpu.edu.in)

**Sofiane Ghorbel**, Laboratoire de Génie Enzymatique et de Microbiologie, Ecole Nationale d'Ingénieurs de Sfax, Sfax, Tunisia; [so\\_fian@hotmail.com](mailto:so_fian@hotmail.com)

**Divya Prakash**, Department of Microbiology, University of Pune, Pune 411007, India; [divyanprakash@gmail.com](mailto:divyanprakash@gmail.com)