



## Actinomycetes: The Antibiotics Producers

Guest Editors:

### Dr. Evi Stegmann

Department of  
Microbiology/Biotechnology,  
Interfaculty Institute of  
Microbiology and Infection  
Medicine, University of Tübingen,  
72076 Tübingen, Germany

### Prof. Dr. Yvonne Mast

Department Bioresources for  
Bioeconomy and Health  
Research Inhoffenstraße 7B,  
DSMZ-German Collection of  
Microorganisms and Cell Cultures  
GmbH, Leibniz Institute, 38124  
Braunschweig, Germany

Deadline for manuscript  
submissions:

**closed (28 February 2018)**

### Message from the Guest Editors

Actinomycetes are well-known as an inexhaustible source for antibiotics. Most of the identified antimicrobials have been isolated from the genus *Streptomyces*, however, not the least, next-generation sequencing techniques with genome mining analyses, revealed that there are far more potential antibiotic producers in nature, belonging to other genera of Actinomycetales. Some of them have not been identified as they live in extreme or rare habitats, others have not been made accessible due to the impossibility of cultivating them in a lab. Today, around 75 years after Selman Waksman introduced the genus of *Streptomyces* for the first time, these bacteria still are a treasure chest for identifying novel antibiotics. This is more important since new antimicrobials are urgently needed, as resistances of live-threatening pathogens are rising. Novel cultivation strategies, elaborated screening techniques, new genetic manipulation tools, more insights in physiological aspects of actinobacterial life style and knowledge on new secondary metabolite biosynthetic pathways may open up a new era of antibiotic discovery. In this Special Issue we highlight the latest findings in the field.





an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Nicholas Dixon

School of Chemistry and  
Molecular Bioscience, University  
of Wollongong, Wollongong, NSW  
2522, Australia

## Message from the Editor-in-Chief

There are very few fields that attract as much attention as scientific endeavor related to antibiotic discovery, use and preservation. The public, patients, scientists, clinicians, policy-makers, NGOs, governments, and supra-governmental organizations are all focusing intensively on it: all are concerned that we use our existing agents more effectively, and develop and evaluate new interventions in time to face emerging challenges for the benefit of present and future generations. We need every discipline to contribute and collaborate: molecular, microbiological, clinical, epidemiological, geographic, economic, social scientific and policy disciplines are all key. *Antibiotics* is a nimble, inclusive and rigorous indexed journal as an enabling platform for all who can contribute to solving the greatest broad concerns of the modern world.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Embase, CAPUS / SciFinder, and other databases.

**Journal Rank:** JCR - Q1 (*Pharmacology & Pharmacy*) / CiteScore - Q1  
(*General Pharmacology, Toxicology and Pharmaceutics*)

## Contact Us

*Antibiotics* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/antibiotics](http://mdpi.com/journal/antibiotics)  
[antibiotics@mdpi.com](mailto:antibiotics@mdpi.com)  
[X@antibioticsmdpi](https://twitter.com/antibioticsmdpi)