



Bioluminescence Imaging and Sensing: Applications in Basic and Applied Sciences

Guest Editors:

Dr. Sung-Bae Kim

Environmental Management
Research Institute, National
Institute of Advanced Industrial
Science and Technology (AIST),
Tsukuba West, 16-1, Onogawa,
Tsukuba, Ibaraki 305-8569, Japan

**Prof. Dr. Ramasamy
Paulmurugan**

Department of Radiology,
Molecular Imaging Program at
Stanford, Canary Centre for
Cancer Early Detection, Bio-X
Program, Stanford University
School of Medicine, Palo Alto, CA
94304, USA

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Message from the Guest Editors

Bioluminescence (BL) is a cold body radiation of light generated by a luciferase-catalyzed oxidation of a luciferin in living organisms. To date, BL has been rapidly emerging in the applications to bioassays and molecular imaging. It has been greatly harnessed by its distinctive advantages, such as the long dynamic range, high signal-to-noise ratios, and no need for external light source for excitation. Reviewing the recent BL studies, a great diversity has been witnessed in the study landscape from the basic to applied sciences: e.g., organic synthesis of luciferins, genetic mutations of luciferases, investigations on the light-emitting mechanisms, development of new bioluminescent probes, and even imaging of molecular events in animal models. This Special Issue of *Sensors* is intended to provide a communication platform for the latest developments in basic and applied science applications in BL studies, and showcases the bioanalytical utilities in cells and animal models. This Special Issue opens the opportunity for communication and welcomes the broad range of research articles.





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Editor-in-Chief

Prof. Dr. Vittorio M. N. Passaro

Department of Electrical and
Information Engineering,
Politecnico di Bari, Via Orabona
4, 70126 Bari, Italy

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Sensors Editorial Office
MDPI, Grosspeteranlage 5
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