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## Developmental Biology in Cyanobacteria

Guest Editors:

**Prof. Dr. Antonia Herrero Moreno**

Instituto de Bioquímica Vegetal y Fotosíntesis, CSIC and Universidad de Sevilla, 41092 Seville, Spain

**Prof. Dr. Enrique Flores García**

Instituto de Bioquímica Vegetal y Fotosíntesis, Consejo Superior de Investigaciones Científicas, Universidad de Sevilla, Seville, Spain

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**closed (30 September 2018)**

### Message from the Guest Editors

Filamentous, heterocyst-forming cyanobacteria constitute a genuine example of bacterial multicellularity. During cell division, the resulting daughter cells do not separate as in unicellular bacteria, but they remain bound by an unsplit outer membrane, which determines the presence of a continuous shared periplasm, and by proteinaceous structures—Septal junctions—that in addition to adhesion provide conduits for intercellular exchange of metabolites and regulatory molecules. Additionally, these cyanobacteria can undertake different developmental paths in response to diverse environmental cues. One of them is the differentiation of some cells of the filament into heterocysts, cells specialized in the fixation of atmospheric nitrogen, that takes place under conditions of nitrogen scarcity.

This Special Issue of *Life* includes review and original research articles dealing with the complexity of heterocyst-forming cyanobacteria, gene expression regulation during heterocyst differentiation, heterocyst patterning and intercellular communication.



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### **Prof. Dr. Lluís Ribas de Pouplana**

Institute for Research in Biomedicine (IRB Barcelona), The Barcelona Institute of Science and Technology, 08028 Barcelona, Spain

## Message from the Editor-in-Chief

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*Life* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

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