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Synthetic Genetic Elements, Devices, and Systems

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Message from the Guest Editors

From the limited modification of characteristics of natural elements to originally designed elements, various synthetic genetic elements have been reported. “Genetic devices”, such as logic gates and memory elements, and higher order “genetic systems”.

This Special Issue “Synthetic Genetic Elements, Devices, and Systems” will explore the current state-of-the-art in this growing field. We hereby invite articles (full articles, short communications, and reviews) covering a broad range of topics.

Topics for this Special Issue include, but are not limited to:

- a) Synthetic genetic elements in prokaryotes and eukaryotes (promoters, transcription factors, RBS, degradation tags, transcriptional terminators, sensors, indicators, ribozymes and riboswitches, enzymes such as recombinases and proteases as regulatory elements, etc.).
- b) Synthetic genetic circuits as devices and systems (either involving or not involving synthetic genetic elements, but with the purpose of eliciting designed behavior).
- c) Methods to develop synthetic genetic elements, devices, and systems.
- d) Applications for laboratory and industrial use.
- e) History and future perspectives.



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Special Issue



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Message from the Editor-in-Chief

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