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CRISPR-Cas: Discovery, Function and Application

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Message from the Guest Editors

CRISPR-Cas systems are highly diverse in nature and recent efforts to optimize these systems through molecular engineering have converted CRISPR-Cas into a programmable “swiss-army” toolkit for biotechnological, therapeutic and diagnostic applications. With the increasing precision and safety of editing, CRISPR-Cas is not only being used for regular research but is also slowly approaching application in the clinic. In this special issue we will be interested but not limited to the following topics:

- Evolution and discovery of CRISPR-Cas systems
- Mechanisms of CRISPR-Cas function
- Natural regulation and control mechanisms of CRISPR activity
- Protein and RNA engineering approaches to achieve fine control of CRISPR-Cas activity
- Development of CRISPR-Cas based technologies for novel applications
- New and improved methods for the delivery of CRISPR tools
- Advances in alternative methods for genome editing



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