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Expanding and Reprogramming the Genetic Code

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Message from the Guest Editor

Dear Colleagues,

The genetic code defines the fundamental rule of translating genetic information into proteins. Due to advanced knowledge and biotechnology, the genetic code has successfully been modified, even in animals. Engineered codes could produce proteins, molecular systems/pathways, and organisms never realized in the history of life, through either artificial design or the autonomous evolution of host cells. Expanded codes have found various applications in basic science and industry, and enabled the exploration of biosystems supported by non-natural proteins. This Special Issue will cover original reports and review articles on method developments, applications, and future perspectives of genetic code expansion, as well as natural variations in translational molecules and machinery, which can inspire new directions of engineering.

Dr. Kensaku Sakamoto

Guest Editor



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Special Issue



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Message from the Editor-in-Chief

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