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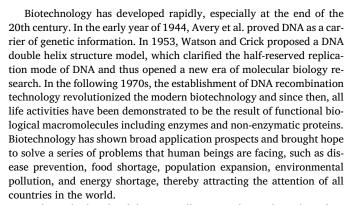


Editorial

Advanced Biotechnologies

Shuo Li^{a,*}, Xuelian Feng^{a,*}, Yun-Gui Yang^{b,c,*}

- ^a Department of Life Sciences, National Natural Science Foundation of China, Beijing 100085, China
- ^b Beijing Institute of Genomics, Chinese Academy of Sciences, Beijing 100101, China
- ^c China National Center for Bioinformation, Beijing 100101, China



In the early decade of the new millennium, the total number of reports on life sciences, biotechnology and related fields accounted for more than 50% of the global natural science publications. With the completion of genome sequencing on more and more biological samples, human understanding of the living world has undergone a qualitative change. Moreover, scientists have turned their focus from the function of individual genes to the delicately regulated gene networks, while a better knowledge of all these will inevitably bring humans closer to the goal of manipulating the whole organism.

At present, the world is facing "great changes unseen in a century." From the perspective of science and technology, it is ushering in a historic intersection of a new round of scientific and technological revolutions. As one of the fastest-growing cutting-edge technology fields in the 21st century, biotechnology has become an important engine for this technological revolution. The development and transformation of biotechnology will not only bring huge benefits to human society through subversively changing the fields of scientific research, public health, agriculture, energy and environmental protection, but also affect the global technological, political, and economic structure, and even profoundly the development process of human mankind. As such, opportunities and challenges coexist along with the development of biotechnology.

The theme of this special issue of *Fundamental Research* is the Advanced Biotechnologies. This special issue collects five original research articles and one perspective. The topics cover RNA methylation, RNA probing, phase separation, live cell imaging, personalized vaccines and

biomolecule manipulation. We hope this issue will initiate and promote wider scientific communication in the advanced biotechnologies and their related frontier research areas.

Finally, as guest editors of this special issue, we cordially thank all the authors for their contributions as well as the editorial board members and the referees for their thoughtful advice. We also acknowledge the excellent editorial assistance of Dr. Can Liu and Dr. Mei Han during the whole process.

Declaration of Competing Interest

The authors declare that they have no conflicts of interest in this work.



Shuo Li, Ph.D., is the Deputy Director in the Division of Interdisciplinary Research and Project Director of Biophysics and Biochemistry, Department of Life Sciences, National Natural Science Foundation of China.



Xuelian Feng, Ph.D., is the Executive Deputy Director in Department of Life Sciences, National Natural Science Foundation of China.



Yun-Gui Yang, Ph.D., is a foreign member of the Academia Europaea. He is a professor from Beijing Institute of Genomics, Chinese Academy of Sciences and China National Center for Bioinformation. His research interest is to dissect the role and biological significance of epitranscriptomics with focus on dynamic RNA methylations. He together with his collaborators have made discovery series of RNA methylation summarized in a book "RNA Methylation Epitranscriptomics", which has been selected for the Frontier series of Basic Research in China.

E-mail addresses: lishuo@nsfc.gov.cn (S. Li), fengxl@nsfc.gov.cn (X.L. Feng), ygyang@big.ac.cn (Y.-G. Yang).

^{*} Corresponding authors.