Foreword

The year of 2020 is a very special year that witnessed the huge challenge to China and the entire world presented by COVID-19. The battle against COVID-19 has highlighted the significance of science innovations and development to human beings. It has also made us realize the intertwined bond between the scientific innovation achievements and the survival and development of the community of common destiny for all mankind.

Recording and distributing scientific innovations and discoveries is the main goal of science, technology, and medical (STM) journals and, in keeping with that goal, journals represent the shared values across the world's science community. In 2019, four organizations including Chinese Association for Science and Technology (CAST) issued "Recommendations on Deepening Reform and Developing World's First-Class STM Journals". To implement the policy, CAST has undertaken the "Chinese Action Plan for Journal Excellence" and a series of measures to elevate China's publications to among the world's best: lay a good foundation of providing local services, deepen the international exchange and co-operations, contribute the creative capability and innovation intelligence of China's technology to the world, and forge China's scientific and cultural soft power. We see that amidst all countries in the world helping each other and coping with the major public crisis of COVID-19 pneumonia, China's STM journals have played an increasingly important and unique role, and have become a primary showcase demonstrating China's wisdom and comprehensive management experience in the world anti-epidemic activities.

Blue Book on China's Scientific Journal Development 2020, the first publication of the second cycle of this series of books, aims to provide an overall picture of China's STM journals and papers with a comprehensive and systematic understanding. It presents data to illustrate the overall status quo of China's STM journals, analyzes the pending problems, and summarizes the rules for development. The Book presents applicable models and solutions that we can learn in order to develop world's first-class STM journals while maintaining Chinese characteristics.

Chapters 1 and 2 of this book contain analytical data based on domestic and international databases and first-hand official data. The data source includes the data from China Academic Journal Impact Factor Annual Report (Natural Science & Engineering Technology) and China Academic Journal International Citation Annual Report jointly produced by Chinese Academic Journals

(CD edition) Electronic Publishing House and Tsinghua University Library, Web of Science by Clarivate Analytics, InCites and Scopus by Elsevier, Dimensions, Ulrich's Periodicals Directory, etc. The main goal is to objectively illustrate the current status quo of China's STM journals. Nevertheless, compared to the improvement in the scientific research results, the development of STM journals still has some room for improvement. STM journals need to make more efforts to match the needs from the first-class scientific results for reporting and dissemination. Through the analysis of STM journals' influence both at home and abroad, and the parallel comparison between papers from China and those from other countries, we can better understand our current capability of China's scientific output and publications.

At the same time, it is also STM journals' obligations to improve people's scientific literacy and the overall development and management level, as well as creating good and supportive social environment for scientific innovations. Chapter 3 introduces in detail the current situation of popular science journals in China. It shows that, popular science journals have realized development and some typical journals have achieved positive results from the transformation and upgraded during the internet media integration. However, in general, the popular science journals are not strong yet. There are still no world-renowned Chinese popular science journal brands in the international community. Domestically, we should follow the frontiers of scientific innovations and improve our journal operation level to meet people's increasing needs of knowledge service for innovations and entrepreneurship.

Though this book focuses on the development of China's STM journals, it also hopes to provide some reference for the science and publishing community. It hopes to encourage professionals in scientific research and managers in scientific publishing to think about a path for developing China's STM journals, and to join efforts for innovations and the cultivation of world's first-class STM journals. If this book can lead people's efforts to gather, as trickles flow into rivers, then this book will be honored to achieve its mission.

With the support from the expert committee, and the compiling and editing committee, the compiling workgroup of this book has been working under the principles of objectivity and fairness. During the process of data gathering, literature search, problem analysis, and summarizing the rules, painstaking efforts were made to investigate the massive amount of data and references. The goal is to achieve accurate data, highlighted key points, reliable arguments, and standardized presentation. We hereby offer our heartfelt thanks to all the experts, scholars, and colleagues who have contributed to the compilation and publication of this book.

Science Press has undertaken the editing and publishing work of this book and accomplished the publishing and printing in time. Hence, we would like to express our thanks to all the institutions that have provided data and publishing services.

During the process of the compilation of this book, the huge amount of data, plus the different focus on source data, data selection, and statistical period, all brought quite some difficulties to the data retrieval, statistical analysis and editing work. Though we have devoted our best efforts, errors or omissions are inevitable. We sincerely hope the readers will be generous with their criticism and suggestions.

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