In early 2020, a new virus named severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), which causes COVID-19 disease, has spread worldwide, leading to a pandemic and becoming a global health emergency. Since then, COVID-19 has had a significant impact on the global economy, public health, culture, and ecology, among others. Therefore, considerable efforts have been made to develop accurate diagnostic and therapeutic procedures, safe and effective vaccines and small molecule drugs. These efforts led to a great and unprecedented success as the first mRNA vaccine has gained market approval while authorization of Pfizer’s first small molecule COVID-19 drug, Paxlovid, is underway. Despite this success, the scientific community will face many other challenges, in the coming years, some of which have yet to be identified. Taking this into account, Pharmacological Reports issues a special edition entitled “The Post–COVID Era – Advances and Challenges in Pharmacology”. The purpose of this issue is to present the latest findings and future perspectives on various aspects of COVID-19 disease and SARS-CoV-2 virus, ranging from organic chemistry, biochemistry, chemical biology, to pharmacology, molecular biology, genetics, and medical and clinical practice. We will accept research articles, reviews and perspectives.

Potential topics include, but are not limited to:

- Research directly related to COVID-19, including current and future avenues for diagnosis, treatment, or prevention of the disease.
- Long–term studies focusing on the impact of SARS–CoV–2 infection on the recovery of COVID–19 patients.
- New directions in medicine and pharmacology toward diseases beyond COVID–19 that have been widely opened due to the rapid development of new technologies and research concepts during the COVID–19 pandemic, such as mRNA vaccines, in vitro and in silico screening platforms, drug repurposing.