

TURKEY

The Scientific and Technological Research Council of Turkey (TÜBİTAK)

The response to the COVID-19 pandemic from the perspective of R&D and innovation based on the measures that are undertaken by TÜBİTAK involve a rapid mobilization of the research ecosystem. TÜBİTAK recognizes the critical importance of science-based approaches and novel developments in the process of combating the COVID-19 pandemic. For this reason, in addition to existing support programs and co-creation models, new coalitions have been formed in record time and the first new call has been launched. Together with the Ministry of Industry and Technology, a virtual scientific conference was also organized and a new portal was launched in support of co-creation processes and open science. In these ways, TÜBİTAK supports researchers in the ecosystem to work together while utilizing research infrastructures in efficient ways.

COVID-19 Turkey Research Platform

The importance that TÜBİTAK has given to the establishment of co-creation models has been represented in such initiatives as the TÜBİTAK 1004 Call for High Technology Platforms prior to the COVID-19 pandemic. The 17 High Technology Platforms that were already launched in the leadership of research universities and research centers with competence under Law 6550 on Supporting Research Infrastructure had also included platforms on drug and vaccine development.

As a fast track option with a particular focus on COVID-19, a sub-platform under the coordination of TÜBİTAK Marmara Research Center (MAM) Genetic Engineering and Biotechnology Institute has been established, namely the COVID-19 Turkey Platform. The sub-platform brings together projects and competencies that can be transformed for an effective response against the COVID-19 infection with a particular focus on medicine, vaccines, and innovative treatment approaches. Remarkably, the orchestration of researchers for the COVID-19 Turkey Platform and the time for the implementation of the projects has been completed in a record time of only 10 days.

Such a scientific coalition brings together researchers from universities, public R&D units, and the industry together to work on drug re-purposing, drug development, innovative treatment approaches and vaccine development against COVID-19. The platform involves 7 different vaccine and 8 different drug development projects where both chemical and biotechnological methods will be applied. Multiple methods that have the potential of enabling an effective response in support of combating the COVID-19 infection are undertaken. For the grand goal of supporting an effective, science-based response to the COVID-19 pandemic, hundreds of researchers from 24 universities, 8 public R&D units and 8 private sector organizations are focused working diligently. More specifically, there are currently 225 researchers with tasks in the platform of which 116 are from universities, 62 are from public R&D units and 47 are from the private sector. Overall, the platform involves a total of 15 projects that are being supported for a duration of up to 9-12 months.

Health Institutes of Turkey (TÜSEB) under the Ministry of Health will support the clinical trials of the platform developments. This collaboration will enable the projects supported under COVID-19 Research Platform to be translated into novel products and treatments.

Special Coronavirus Call under the Support Programme for SMEs

TÜBİTAK established a rapid funding mechanism for SMEs that have research activities on COVID-19 diagnosis, protective and medical equipment as well as ICT solutions. As another rapid response measure, the special, fast track call for effective for a duration of 2 weeks. The call focused on COVID-19 to support projects for the development of products that can be used in the diagnosis and treatment of COVID-19 and protective equipment that are effective in the prevention of the disease. The applications for the call was much higher than expected. Within the scope of projects from SMES for combating COVID-19, 444 project applications for the call were received. The call covered the following solutions but did not exclude other COVID-19 related proposals. The funded projects will receive support lasting up to 9 months, enabling a fast track to market.

- Disinfectants
- Masks
- Protective clothing
- Diagnostic kits with verification criteria (sensitivity, specificity, accuracy, precision, linearity) within internationally accepted limits
- Devices used in intensive care units, such as ventilators
- Equipment for improving ambient conditions
- Drugs
- Vaccines
- IT applications that may reduce the direct or indirect consequences of the epidemic

COVID-19 Turkey Web Portal

TÜBİTAK recognizes the importance of utilizing virtual environments effectively in the process of combating COVID-19. For this reason, a first of its kind web portal was established that includes scientific developments regarding COVID-19 as well as a clear and transparent reporting of daily statistics. The virtual scientific portal is established by the Ministry of Industry and Technology of the Republic of Turkey and TÜBİTAK, namely the “[COVID-19 Turkey Web Portal](#)”. The portal includes recent developments, the competences of the Turkish ecosystem in related disciplines and sectors, and a “Scientific Sharing Platform” for competent researchers. Open science resources with a particular focus on COVID-19, including open access publications, open access collections, and open data sets are included from both national and international databases. Related research calls of TÜBİTAK, TÜSEB and the EC are also published in the announcements section. The portal received more than 1.6 million visits from 210 thousand visitors since March 26, 2020.

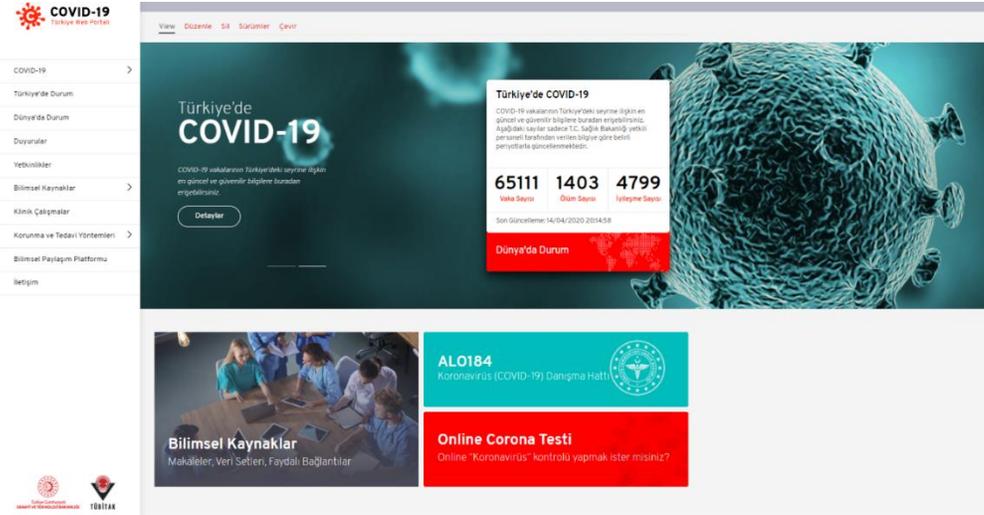


Figure 1. COVID-19 Turkey Web Portal

(<https://covid19.tubitak.gov.tr/>)

COVID-19 Turkey Platform Vaccine and Medicine Development Virtual Meeting

On April 2, 2020, The Ministry of Industry and Technology of the Republic of Turkey and TÜBİTAK organized “The COVID-19 Turkey Platform Vaccine and Medicine Development Virtual Meeting” that focused on drug repurposing, drug development, innovative treatment approaches and vaccine development. In total, 14 speakers attended the meeting that was arranged in 3 sessions. The meeting was livestreamed [online](#) via YouTube, Twitter and Facebook for the complete access of the public. The livestreaming received high interest with ~130.000 viewers.

The virtual conference included opening statements from the Minister of Industry and Technology and the President of TÜBİTAK. The opening remarks underlined the importance of science-based solutions based on co-creating together and achieving together within the research ecosystem. In particular, the first session of the virtual conference was held with a focus on “Drug-Repurposing and Drug Development,” which was followed by the second session on “Convalescent Plasma and New Generation Treatment Methods.” The third session included presentations on “Vaccines.”

Intern Researcher Scholarship Program (STAR) for COVID-19 Research Projects

Another important aspect of mobilizing the research ecosystem for supporting a science-based combat with the COVID-19 pandemic is through motivating human resources. A rapid call is launched with a focus on supporting the participation of young scholars in COVID-19 related research topics while reaching important milestones of the research projects. Undergraduate, graduate, doctorate and post-doctoral researchers are provided the opportunity of being supported with the Intern Researcher Scholarship Program (STAR) to participate in projects in the fight against COVID-19. The call aims to contribute to the fight against COVID-19, to minimize and control the spread of the epidemic in society, to protect public health, especially risk groups, and to mitigate the negative socio-economic effects of the epidemic. From the perspective that the

“coronavirus is not stronger than the measures that are taken,” the call aims to increase the potential of young researchers to cooperate in the research ecosystem. The COVID-19 Projects Scholar Demand Interface was also created on the COVID-19 Turkey Web Portal to provide an opportunity for candidates who wish to apply under the call to meet with demands in COVID-19 projects.

Mobilization of Social Sciences Research on the Impacts of the COVID-19 Pandemic

In addition to medicinal sciences, TÜBİTAK will launch a call to reveal the impacts of the COVID-19 pandemic on socio-economic, social and industrial developments. In the scope of social effects, the focus will include behavioral changes, equality of opportunity, accessibility of work, education, food supply, communication as well as psychological and sociological changes. R&D projects will cover studies that focus on determining the current status as well as short, medium, and long-term projections, forecasting and analysis studies and also foresight studies. These inputs are targeted to be used in creating solutions to be taken by public institutions, the private sector and research institutions regarding economic and social welfare in the future.