

**Council of Scientific & Industrial Research**  
**Project Proposals related to Corona Virus Pandemic**

**Call for Proposal**

**Background:**

A pandemic of respiratory disease spreading from person-to-person caused by a novel (new) coronavirus. The disease has been named “coronavirus disease 2019” (abbreviated “COVID-19”). This situation is posing a serious public health risk. COVID-19 can cause mild to severe illness; most severe illness occurs in older adults.

COVID-19 cases include:

- Imported cases in travellers;
- Cases among close contacts of a known case; and
- Community-acquired cases where the source of the infection is unknown.

The Director-General, WHO has declared that the outbreak of 2019-nCoV constitutes a Procedures concerning Public Health Emergencies of International Concern (PHEIC). The COVID-19 viral disease that has swept into more than 188 countries and has killed more than 16,000 has been officially declared a pandemic by World Health Organization. In the wake of spurt in cases of coronavirus pandemic in the country, the Ministry of Home Affairs, Government of India on March 14, 2020 has decided to treat Covid-19 as a Notified Disaster. CSIR endeavours to help the country in fighting corona virus through quick technology / product development and deployment.

**A: Diagnostics for COVID 19**

Currently, RT-PCR probes for diagnosis of COVID-19 are procured from USA and Germany by ICMRNIV and are distributed to the testing laboratories across the country. US FDA EUA/CE IVD approved kits can be used directly after due approval from DCGI and intimation to ICMR. ICMR has established a fast-track mechanism for validation of on US FDA EUA/CE IVD approved kits at ICMR NIV.

Test kits with 100% concordance among true positive and true negative samples will be approved for commercial use in India. One of the diagnostic platforms namely Truenat developed with support of CSIR-NMITLI is at final validation stage at NIV, Pune.

Proposals from CSIR labs are invited to develop cost effective, rapid diagnostics to test COVID cases on mass scale. Following categories of diagnostics to test coronavirus may be proposed:

1. Crispr/ Cas based Paper Diagnostics;
2. PCR or any RNA/DNA based diagnostics;
3. Antigen-antibody based diagnostics;

## **B: Drugs and APIs for COVID 19**

Viruses are generally difficult to treat, because antibiotics do not kill them. For this reason, elderly and immunocompromised individuals are at high risk. The best natural defence and treatment of Coronavirus (and viruses in general) is a strong immune system. Some molecules and APIs such as hydroxychloroquine, Azithromycin, Remdesivir, Lupinivir etc. have been found to be useful in the treatment of corona virus disease. The repositioning of launched or even failed drugs to viral diseases provides unique translational opportunities, including a substantially higher probability of success to market as compared with developing new virus-specific drugs and vaccines, and a significantly reduced cost and timeline to clinical availability.

The repurposing of antivirals or APIs would be a welcome approach and would be supported if the Proof of Concept strongly justifies its mechanism of action.

Proposals from CSIR labs are invited for developing and deploying drugs for the treatment and control of Covid-19. Following categories of drugs may be proposed:

1. Prophylactics such as Hydroxy-chloroquine;
2. Repurposing, including past CSIR leads from phytopharma/ drugs from sea; and
3. Intermediates, API, Formulations.

## **C: Vaccine for COVID-19**

An experimental COVID-19 vaccine is being tested Moderna Therapeutics. Although clinical trial on the vaccine will take at least a year to complete, the work could provide valuable information about how the immune system can fight coronaviruses and could give scientists a head start if any new outbreaks of the virus were to occur. Whole world including India is attempting to develop a vaccine against corona virus.

Further, though a vaccine for COVID-19 is a long approach but novel cost effective ways of repurposing the known vaccines/molecules that can boost the immunity in suspected COVID cases or can revive the serious COVID cases are welcome. The Proof of Concept is however required to be in place to justify the fast track development of such vaccines.

Proposals from CSIR labs are invited for developing vaccine to control Covid-19. Following categories of vaccines may be proposed:

1. Novel vaccines; and
2. Repurposed vaccines.

**Proposals in attached format may be submitted by April 5, 2020 to In-charge Mission Directorate at [rpsingh@csir.res.in](mailto:rpsingh@csir.res.in). If need be help from external institutions / industries may be taken in outsourcing mode.**

## Proforma for Call for Proposal (One-year duration)

1. Title
2. Laboratory:
3. Name of Project investigator and Team
4. Background/ Proof of Concept in place
5. Objectives
6. Deliverables (quarterly)
7. Final Deliverable (Technology/Product)
8. Industry Connect
9. Recurring Budget:

Recurring Budget Head (Rs in lakh)	First quarter (April- June 2020)	Second quarter (July-Sep 2020)	Third Quarter (October-Dec 2020)	Fourth quarter (Jan-March 2021)	Total (Rs in lakh)
Consumables					
Technical Manpower					
Travel					
Contingency					
ORE including outsourcing					
Total (Rs in lakh)					