

# C-CAMP Indigenisation of Diagnostics Program 2023

National Diagnostics Catapult

TOWARDS ATMANIRBHAR BHARAT FOR MOLECULAR DIAGNOSTICS

GUIDED BY



Office of the Principal Scientific Adviser  
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## C-CAMP InDx 2.0

# National Diagnostics Catapult

Capitalising on the gains from C-CAMP InDx 1.0, the next phase, C-CAMP InDx 2.0, aims to boost India's preparedness for current and future epidemics and pandemics and scale up India's diagnostics space for all infectious diseases, COVID-19 and beyond. C-CAMP InDx 2.0, will be positioned as the National Diagnostics Catapult, to help build a template that can be emulated to build capacity for accessible and affordable diagnostics in LMICs.

### Vision



**Global Leadership:** To create a nation-wide diagnostics platform establishing India as a global leader in diagnostics & surveillance capabilities.

**Robust Diagnostics & Surveillance:** To catalyze innovation, development and commercialization of high-quality, affordable technologies for infectious disease diagnostics and surveillance, for India and beyond.

### Mission



The mission of C-CAMP InDx 2.0 would be two-fold:

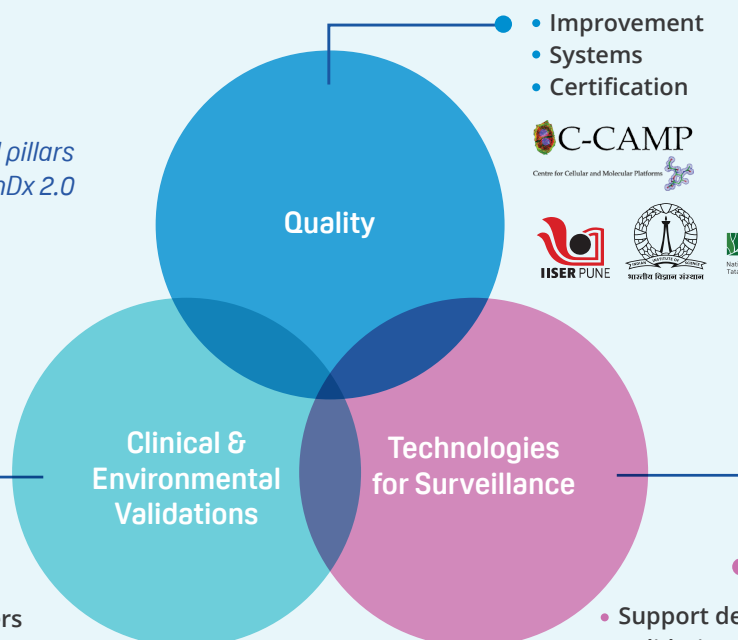
**Enable and support** Indian diagnostic ecosystem to achieve self-sufficiency in manufacturing of molecular diagnostics kits for infectious diseases while also gaining export capabilities.

**Ensure** that Indian companies can build, world class environmental surveillance technologies for sample collection, storage, processing, analysis, and informatics.

For both clinical diagnostics as well as for environmental surveillance, C-CAMP InDx 2.0 will work with MSMEs, academic institutions, civic bodies, hospitals, data and informatics teams to:

- ensure that international standards of quality are met.
- capacities are scaled-up.
- optimisation support is offered.
- indigenous component substitution is encouraged.

*The 3 integrated pillars  
of C-CAMP InDx 2.0*



- Establish validation centers
- Offer validations
- Offer reference materials/ EQAS



- Support development of tests for surveillance
- Validation across environmental samples, technologies & infectious diseases



## Focus Areas

Sustained scientific and technical support will be necessary to lead the 200+ strong cohort of C-CAMP InDx across the product development value chain to catalyse growth and global competitiveness. The C-CAMP InDx program will continue to play a significant role supporting exploratory research, development, analytical/clinical validations, and commercialization as outlined below:

### Quality

The first priority of the “future” initiative will be to ensure that Indian diagnostics can excel on the world stage. Readiness to face and clear global regulatory standards is essential for Indian MSMEs. Setting up quality systems, standards and testing labs will be critical. It is important to keep investing in research to improve diagnostic safety and reduce diagnostic error.

### Globalization

C-CAMP InDx 2.0 is placed in a position of advantage as the infrastructure for molecular diagnostics increases across India and LMICs.

### Novel Technologies

For several infectious diseases, biomarkers from pathogens and hosts can serve as guides to disease management. The program will focus on development and validation of therapeutic, and companion diagnostics, creating repositories of samples and, clinical data, and increasing databases, Informatics, AI/ML support.

### Pandemic Preparedness

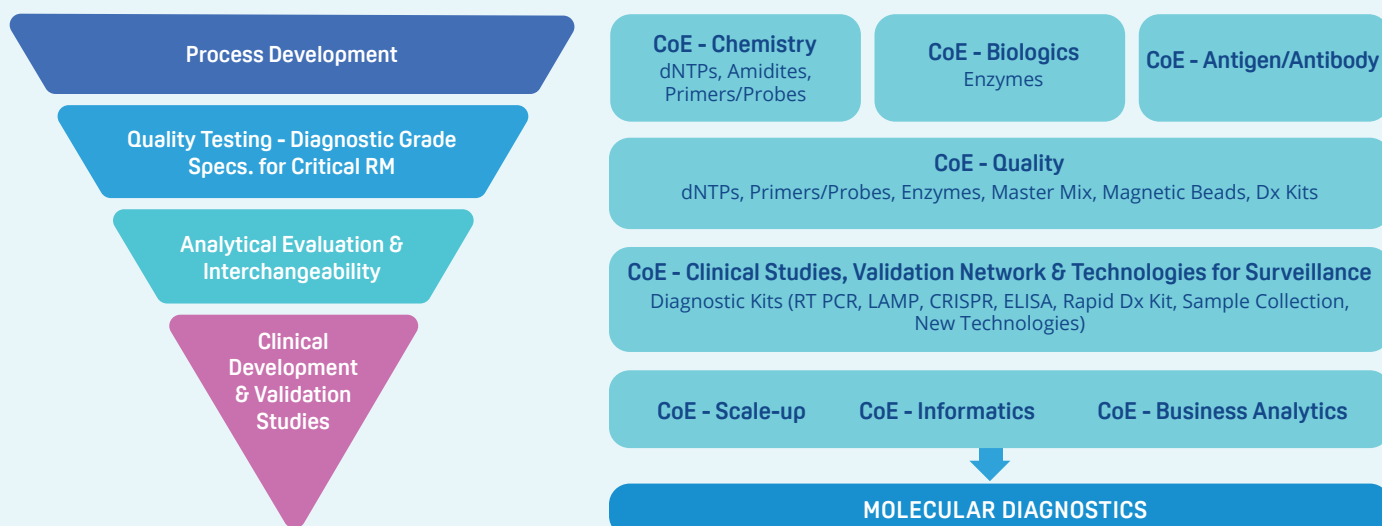
C-CAMP InDx 2.0 will focus on diagnostic readiness, connected supply chain and timely supply of raw materials besides defining and establishing regulatory pathways. This will accelerate production capacity, variant analysis, quick regulatory approval and fast deployment processes for emerging variants.

### Enabling Surveillance

Rigorous surveillance for infectious diseases is critical not only for containing spread but also to assess vaccine efficacy, booster requirement and antibody characterization. C-CAMP InDx 2.0 will work with academia and industry players towards development, testing and validation of RAPID diagnostics, assurance testing, pooled testing methodologies and kits in the environmental surveillance area.

### Multiplex Diagnostic Kits

Rapid and specific detection of pathogen is crucial for targeted interventions and therapy. Development of multiplex kits capable of detecting multiple pathogens concurrently with desired specificity and sensitivity will be a focus. C-CAMP InDx 2.0 will support with design and validations of multiplex diagnostics.



## Expected Outcomes



Through C-CAMP InDx 2.0, we aspire to make a strong impact towards India's preparedness, capacity and diagnostics prowess.

### Technology

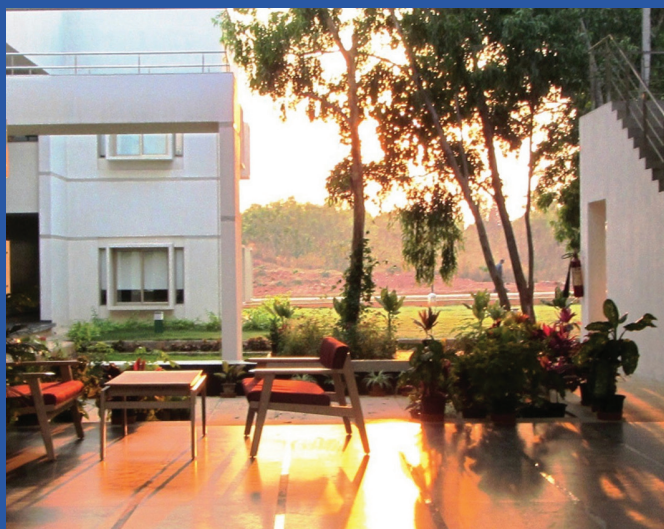
- Indigenously developed kits, novel technologies, devices and sample collection methodologies for infectious disease diagnostics and surveillance.
- Evolution of a global quality paradigm and development of standards and validation protocols.
- Pandemic preparedness towards rapid response in disease management.

### Commercial

- Increased revenue for indigenous manufacturers of diagnostic and surveillance solutions through enhanced local and global consumption.
- Robust supply chain of high-quality reagents, components and diagnostic kits.

### Social

- Development of a path to self-reliance that can be replicated across all LMICs.
- Increased quality, reduced costs and increased accessibility to diagnostics.



## About C-CAMP

C-CAMP – an initiative with foundational support from the Department of Biotechnology, Government of India in 2009 – is a catalyst of cutting-edge research and innovation in life sciences. We're an integral part of the Bangalore Life Sciences Cluster (BLiSC). Along with NCBS and inStem, we've been working towards enabling BLiSC to emerge as a centre of excellence.

We encourage researchers and entrepreneurs to develop homegrown scientific tools and solutions; our C-CAMP-InDx programme is a major step in that direction.

## Contact us

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### C-CAMP InDx Program

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- Submit test request: <https://www.ccamp.res.in/tps/>

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