Review Statement to be laid on the table of the Lok Sabha / Rajya Sabha along with the Annual Report and Annual Accounts together with Audit Report thereon for the year 2020-21 in respect of Indian Council of Medical Research, New Delhi

The Indian Council of Medical Research (ICMR) is an autonomous body under Department of Health Research, Ministry of Health and Family Welfare, Government of India. It is the apex and premier medical research organization in the country which spearheads planning, formulation, coordination, implementation and promotion of biomedical research. It is one of the oldest medical research bodies in the world. In 1911, Government of India made a historic decision to establish Indian Research Fund Association (IRFA) with the specific objectives of sponsoring and coordinating medical research in the country. After Independence, in 1949, the IRFA was re-designated as the Indian Council of Medical Research (ICMR) with considerable expansion in its functions and activities. The following are the activities undertaken by ICMR during 2020-21:

- 1. ICMR played a pivotal role at each step during COVID-19 pandemic, right from isolating virus, diagnostic labs establishment, development & validation of kits, policy framing, data collection & maintenance, formulating guidelines for prevention & treatment for all age groups, vaccine development and scientific knowledge publication.
- 2. ICMR-National Institute of Virology (NIV), Pune, the standalone lab for COVID testing then, standardized the RT-PCR based diagnostic test. On January 30, 2020, ICMR-NIV, Pune reported first case of COVID-19. The capacity for COVID-19 testing was exponentially increased across the country reaching to 2435 laboratories by March, 2021. Immense efforts were put in to establish labs in difficult terrains like Ladakh, Sikkim, Arunachal Pradesh, Nagaland, other North Eastern Region (NER) states and islands like Lakshwadeep and Andaman & Nicobar.
- 3. Multiple mentor institutes (institutes of national standing like All India Institute of Medical Sciences (AIIMS) and Postgraduate Institute of Medical Education and Research (PGIMER)) were roped in to train and hand-hold multiple government labs to enable them to start COVID-19 testing. As a result, a COVID-19 testing lab was made operational in all the medical colleges of the country. A common specimen referral form (SRF) was developed and deployed with the help of National Informatics Centre (NIC) through the RTPCR application.
- 4. To understand the disease trend in a real time manner, ICMR developed nationwide COVID-19 testing data portal which facilitated the COVID-19 testing data entry across the country. Apart from deploying infrastructure for COVID-19 testing and implementation of technologies, a systematic platform for validation of diagnostic commodities was developed by setting up of 24 validation centres. Taking India's agenda forward of self-reliant India, ICMR approved 72% of the indigenous test kits which resulted in cost reduction of single RT-PCR test.
- 5. Ten COVID-19 biorepositories for helping industry/academia with appropriate samples of SARS-CoV-2 for developing indigenous diagnostics etc. have been established. The

National Task Force (NTF) on COVID-19 was constituted to guide the Ministry of Health & Family Welfare, Government of India in prevention and control activities for COVID-19 in the country. A rapid response team of ICMR was formed to formulate public health response for combating COVID-19 pandemic.

- 6. ICMR-NIV (National Institute of Virology), Pune and Bharat Biotech International Pvt. Ltd jointly developed India's first inactivated whole-virus COVID-19 vaccine (COVAXIN). The vaccine has been approved by Drugs Controller General of India (DCGI) for human use and is being used in the national immunization program.
- 7. ICMR-NIE (National Institute of Epidemiology), Chennai conducted three rounds (round 1: April May 2020; round 2: August September 2020; round 3: December 2020 January 2021) of nationwide community based serosurveys between April 2020 and January 2021, to measure the extent of SARS-CoV-2 infection and track the progress of pandemic in India.
- 8. Lieutenant Governor's commendation certificate was awarded to ICMR-RMRCPB (Regional Medical Research Centre Port Blair) in view of exceptional contributions provided to the whole Islands diagnosis, contact screening and Identification of hot spots SARS-COV-2 / COVID-19.
- 9. ICMR initiated a National Clinical Registry for COVID-19 (NCRC) in collaboration with Ministry of Health & Family Welfare (MoHFW), All India Institute of Medical Sciences (AIIMS), Delhi and ICMR- National Institute of Medical Statistics (ICMR-NIMS) with an objective to collect data regarding clinical and laboratory features, treatments, and outcomes of hospitalized COVID-19 patients in 42 hospitals, spread across all geographical zones of the country. Daily testing scaled up tremendously to the extent that by March 2021, 244 million samples were tested.
- 10. Under the Atmanirbhar Bharat program, ICMR-NIV (National Institute of Virology), Pune evaluated 168 real time RT-PCR kits, 164 RNA extraction kits, 99 VTMs & swabs; validated Truenat Beta COV E-gene screening assay and Truenat SARS-CoV-2 RdRp gene-confirmatory assay (Molbio Diagnostics, India); evaluated 225 commercial serodiagnostic kits (Rapid Diagnostic Test, ELISA & CLIA) for SARS-CoV-2 and validated forty-six products; validated two out of three commercial technologies based on ozone and negative ion generation systems for surface decontamination of SARS-CoV-2 virus.
- 11. A high throughput COBAS8800 automated system in the COVID-19 testing facility was inaugurated by Hon'ble Prime Minister of India that tremendously boosted the capacity of screening samples for SARS-CoV-2. ICMR coordinated COVID-19 testing of the Members of Parliament of India during all three sessions.
- 12. India also developed National Guidelines for Ethics Committees reviewing research during COVID-19 pandemic along with SOP's for emergency review. Guidance document for

appropriate recording of COVID-19 related deaths in India was developed to ensure the correct reporting of deaths due to COVID-19.

- 13. ICMR-RMRCPB (Regional Medical Research Centre Port Blair) is also working on control of Tuberculosis among the Nicobarese Tribe of Car Nicobar. A Truenat micro real time-PCR for rapid diagnosis of leptospirosis at minimal resource settings was evaluated. The centre also demonstrated the advantage of novel strategy that supplementing Mass Drug Administration (MDA) with mass double fortified salt (DEC+iodine) for eliminating diurnally sub-periodic *Wuchereria bancrofti* in two Islands.
- 14. Ministry of Health and Family Welfare, Govt. of India launched a scheme "Strengthening of Intersectoral Coordination for Prevention and Control of Zoonotic Diseases" with an objective to strengthen Intersectoral coordination between the different sectors.
- 15. ICMR-NIN (National Institute of Nutrition), Hyderabad released the latest Nutrient Requirements for Indians and Recommended Dietary Allowances. What India Eats? Report, for the first time, analyzed the data from earlier diet surveys and provided an overview of the dietary patterns across the country projected based on food groups.
- 16. As the government is moving ahead with the mantra of "monetize and modernize", ICMR has formulated "Technology Transfer and Revenue sharing guidelines". These guidelines endeavour to disseminate ICMR technologies through a framework that ensures seamless transfer of technology to industry(ies) leading to indigenous product development and commercialization as per Make-in-India initiative of the Government.
- 17. Leprosy Data Management System (Nikusht) has been handed over to National Leprosy Eradication Program (NLEP). The web-based and mobile app solution for Jal Jeevan Mission is being implemented in partnership with States, to enable every household in villages to have functional household tap connection by 2024. A centre for rabies diagnosis and research was established about Management System (Nikusht) Rune.
- 18. During this period, ICMR also initiated a Centre for Innovation and Bio-Design (CIBioD) at PGIMER, Chandigarh, which will create a platform for collaboration of clinicians and domain experts to share the idea and evolve the innovative and patent-oriented research. The centre has started a Promotion of Innovation & Entrepreneurship (PIE) programme and a Journal named 'E-Avishkar'. ICMR has done an agreement with Federation of Indian Chambers of Commerce and Industry (FICCI) for both national and international commercialization of health technologies under Health Technology Accelerated Commercialization (HTAC) program. HTAC program has three components viz. Commercialization component, training component and exposition components.
- 19. ICMR has formulated "Policy document for Innovation and Entrepreneurship for Medical Professionals, Scientists and technologist at Medical /Dental/ Para Medical Institutes/ Colleges and allied Biomedical Research and Academic Institutions". This initiative will

201

promote Medical Device Innovations in the Country and thus promoting Make-in-India, Skill India and Start-up-India initiatives of the Government of India.

- 20. A total of 15 patents applications were filed, 4 Indian patents and 2 foreign patents have been granted. A total of 36 patents were maintained. ICMR has established "Medical Device and Diagnostics Mission Secretariat (MDMS)". This will promote innovative technology development, skill development and will foster indigenous manufacturing of medical devices to decrease import dependency of India. Two biodesign programs were initiated at Indian Institute of Technology (IIT) Kharagpur and IIT Hyderabad.
- 21. A total of 773 Adhoc proposals, 815 Fellowships, and 237 DHR-GIA proposals were processed. A total of 21 Scientists and young researchers were awarded in 14 different ICMR Awards/Prizes categories in the field of biomedical research. A special edition on ICMR Women warriors was published. The history timeline of ICMR depicting 108 year journey of the Council since the day of its inception in 1911, was developed.
- 22. In view of the increasing danger of COVID-19 pandemic, the WHO FCTC Global Knowledge Hub on Smokeless Tobacco at ICMR-National Institute of Cancer Prevention and Research (NICPR), Noida issued an appeal for tobacco control and prohibiting public spitting, due to which MoHFW, GoI has issued an advisory to control tobacco and prohibit spitting in public places. ICMR-NICPR played a pivotal role in the establishment of Covid-19 testing laboratory at Leh.

Authenticated

(Dr. Bharati Pravin Pawar)
Minister of State for Health & Family Welfare

Or. Bharatt Pravir: Pawar Moister of State for Health & Family Welfare Government of India