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C-CAMP nominates 13 near deployment-ready COVID-19 products

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From across critical categories such as Ventilators and Air and Surface Sanitizers



C-CAMP COVID-19 Innovations Deployment Accelerator or C-CIDA has nominated 13 Stars for Impact in its Week 2 round-up. The 13 near deployment-ready COVID-19 products from across critical categories such as Ventilators and Air and Surface Sanitizers have tremendous potential for impact in India's COVID-19 pandemic combat. They are among C-CIDA's prime candidates for Industry and Government support towards quick on-ground deployment and integration into existing healthcare systems.

The group of 13 are Biodesign Innovation Labs and Aerobiosys Innovations Pvt. Ltd. in **assisted respiratory devices**, MedIoTek Heath Systems Pvt. Ltd, Cardiac Design Labs, Nemocare and Dozee in **remote vital parameter monitoring systems**, LeafBox Technologies, Biomoneta and Clensta in **air and surface sanitising technologies**, Blackfrog Technologies Pvt. Ltd. and Tessol-Thermal Energy Service Solutions in **cold chain viral swab sample transport for better diagnostics in remote locations**, and Omicsgen Life Sciences Pvt. Ltd. and OMG Innovations LLP under **preventative interventions that are also Ministry of AYUSH certified.**

Given the magnitude of the global health challenge that has been the COVID-19 pandemic, scope for importing solutions to address these outstanding needs becomes more and more unlikely. These indigenous innovations above, that may have been gestating over the last 8 or 9 years are now emerging as solutions that are 1) timely 2) affordable and 3) effective. C-CIDA will now facilitate immediate uptake of these innovations by Government and private sectors after the customary certifications and scale up support wherever necessary.

C-CIDA, a COVID-19 focused innovations accelerator aimed specifically at COVID innovations that are the need of the hour, was launched by C-CAMP on 26th March. It has earlier selected five technologies as its Week 1 stars. This latest batch of Week 2 Stars come from an aggregate of over 740+ submissions received over first two weeks. Many more are expected to be announced in the coming weeks.

Of the 13 startups in Week 2's line-up, Respiraid by Biodesign Innovation Labs, Bengaluru and Jeevan Lite by Aerobiosys Innovations, Hyderabad are assisted respirators, both invasive and non-invasive. Respiraid is a portable, emergency and transport ventilation system which is based on automated respiratory assist. It is an easy-to-use alternative to prolonged manual ventilation. Jeevan Lite on the other hand is a full-fledged low-cost portable ventilator that can be operated in multiple modes of ventilation, capable of CPAP as well as standard invasive ventilation. Being IoT enabled, Jeevan Lite will also have the capacity for real-time data transfer and remote operation, opening up possibilities of telemedicine and tele-support.

MedIoTek's Vincense (Chennai), Cardiac Design Labs (Bengaluru) Nemocare (Hyderabad) and Dozee (Bengaluru) are variations of wearable devices capable of real-time remote monitoring of vital stats. With India set to enter community transmission in multiple hot spots, the likelihood of hospitals and ICUs becoming severely congested is very high. Exposure rates among healthcare professionals are high and resources are quickly running short. Remote monitoring with a unified central platform could be a potential game changer in such scenarios, especially in isolation wards and quarantine facilities.

An emerging innovation area in light of the COVID concern has been air and surface sanitising technologies that can integrate with existing air purifiers or even air conditioners. Leafbox Technologies (Bengaluru) among C-CIDA's Week 2 Stars has developed a UVC based air purifier that is also HEPA and activated carbon filter functionalized with a coverage area of 900 Sq Ft. Their other product is a UVC steriliser box to be used for dry sanitisation of gadgets and medical instruments like phones, masks etc. Biomoneta (Bengaluru) is another startup in this category with Zebox, a standalone plug and play decontamination technology best suited for hospitals. Zebox utilises the best in electronics and airflow design to trap and kill microbes within 10 minutes. Each unit sterilises up to 150 Sq Ft at any given time. The third startup in this category, Clensta Technologies (Delhi) is a hygiene-centric healthcare startup that has repurposed its zero-water personal hygiene solutions for a waterless, antiseptic and antimicrobial rub that can kill viruses within minutes. With summer dawning upon us, some parts of India will stare at water shortage. Hygiene maintenance solutions that require no water will soon be of critical importance.

As the pandemic makes inroads into India's rural hinterland, it will become imperative in the days to come to have viable transport options for samples especially because the ICMR approved diagnostic centres are still mostly concentrated in urban / semi-urban regions. Blackfrog (Manipal) and Tessol (Navi Mumbai) with their temperature controlled medical grade cold chain systems are addressing this critical need. Their innovations will ensure that swab samples remain viable by the time they reach the lab thereby preventing false negatives, a very crucial factor in checking the outbreak.

India's ministry in alternative medicine, AYUSH has been at the centre of the fightback against COVID-19 especially in the preventatives sector. In keeping with that are two of the most interesting innovations in this mix, both Ministry of AYUSH certified preventatives by Kerala based Omicsgen and Delhi-based OMG Innovations LLP. Gadget sanitisation methods that are 100% anti-infective while at the same time safe for gadgets are an unmet need in India. Omicsgen's Smartlyse, a gadget smart wipe for microbes with a lysis buffer at its heart can lyse protein and lipid bilayers in viruses or bacteria within 5 minutes.

Smartlyse is further boosted by a staying power of months. Whiff Biospray by OMG Innovations meanwhile is a completely herbal, antimicrobial and antiviral spray that can be sprayed in the air, both indoors and outdoors for sanitisation purposes. Only a tiny amount of 1.5/2ml is required to sterilise 150 sq ft or more making a 200 ml bottle perfect for home use. The product being 100% natural has the potential to be a long-term solution for high-traffic closed spaces including offices, schools and others.