



2019 World Conference on Access to Medical Products: Achieving the SDGs 2030

19–21 November, 2019 | New Delhi, India

Exhibits

There will be an exhibit area for Member States, NGOs and universities. Please note the following information about the exhibition:

- No Commercial/Industry Branding of any kind is allowed. Logos from non-commercial entities, such as universities and NGOs, are acceptable. Company brochures, if they are to be displayed, will need to be printed without any commercial logos and branding on devices will need to be covered.
- Exhibition space consists of one table (1.8 m by 0.6 m)
- It is important that you or another designated representative be present at your table during the exhibit times (coffee breaks and lunch).

Exhibit Number and date allotted	Name	Exhibition Brief
1. 19 November 2019	Ms Heather Stone, Public Health Analyst, United States Foods and Drug Administration, United States of America	We have created a mobile app and website for clinicians to use to share their experiences repurposing drugs. The hope is that this data can eventually help to identify new effective treatments by generating hypotheses for study in more formal clinical trials and data collection methods. We frequently have an exhibit booth where we display the app at major international conferences (like IDWeek and ASTMH). (https://cure.ncats.io)



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2. 19 November 2019	Mr Arun Agarwal, India, Founder & Director, Janitri Innovations	KEYAR is an easy to use and wearable fetal heart rate and uterine contraction monitoring device which communicates with an intrapartum monitoring mobile application for automated WHO partograph
3. 19 November 2019	Mr Vinay Joshi, India Country Manager, D-Rev Co-presenter: Ms Gauri Singh India, Manager, D-Rev	We are working on an innovative newborn CPAP especially made for resource constraint areas, which are easy to use and can provide similar outcomes even with a high patient to nurse ration
4. 19 November 2019	Dr Avijit Bansal, India, Founder, Windmill Health Technologies Co-presenters: Mr Nurul Mr Jogender Chandra	A novel EASY TO USE pedal operated newborn resuscitator to empower frontline health workers in LMICs to resuscitate newborns effectively.
5. 19 November 2019	Mr Mohammad Ameer, India, Senior Consultant, Healthcare Technologies National Health Systems Resource Centre, India	The exhibit would be about the Healthcare Technology Division of National Health Systems Resource Center, a WHO Collaborating Centre for Priority Medical Devices and Health technology Policy and display its publications.



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6. 19 November 2019	<p>Dr. Suchita Markan, Asst.General Manager, BCIL</p> <p>Dr.Vasundara Shukla, SPE, BCIL</p> <p>Ms.Reema Sahni, SPE, BCIL</p>	<p>To enable and accelerate the most-promising health care innovations towards further development, market access and penetration is a huge challenge. BCIL provides a single window platform for effective IP protection, regulatory strategy formulation, funding guidance, technology-transfer, validation and commercialization. The School of International Biodesign- a DBT, Gol supported Program managed by BCIL since 2009 has been instrumental in fostering medical device innovation through integrated Biodesign Fellowship program. The Program facilitated the development of 41 technologies, creation of IP portfolio including more than 70 National and International patents, multiple trademark and design applications. It led to development of 12 Start-ups and commercialization of 5 technologies. Seven (7) technologies are at advanced stage of development with holistic handholding support provided by BCIL towards regulatory pathway clarity, funding, strategic IP advisory and techno-legal mentoring.</p> <p>The healthcare technologies are known to have longer gestation time due to regulatory requirements and compliance to quality standards. The technologies generated in the lab are early stage and need an Industry partner for further development, validation and commercialization. BCIL by working closely with IITs, ICMR, DBT and other public funded institutions has facilitated transfer of more than 60 technologies in various technology domains for facilitating healthcare access. The Faecal Management Device and Neobreathe is now accessible to patients/paramedical staff in India as well as in foreign countries. The Shigella vaccine – a vaccine which is not available world over is now being developed in India through industry partnership, facilitated by BCIL. Another technology licensed for HPV prevention and treatment is now helping patients globally. Biotech Consortium India Limited (BCIL) set up by the Department of Biotechnology (DBT), Ministry of Science and Technology, Government of India has been playing a pivotal role in facilitating commercialization of biotechnologies including healthcare technologies since 1991.</p>
7. 19 November 2019	<p>Dr Pankaj Chhatrala CEO/MD, JC OrthoHeal Pvt Ltd., India</p>	<p>FlexiOH- The Next Generation Orthopedic Immobilization Technology</p> <p>FlexiOH is the first of its kind- an orthopedic cast that has the rigidity to hold the fractured part as well as ensuring proper skin ventilation. FlexiOH comes as an easy to fix wearable material on the fractured part. After wearing, light treatment completes the curing process and makes the FlexiOH</p>



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		<p>cast rigid. This process is quick and hardly takes 10 minutes. After a course of therapy, FlexiOH can be removed without the use of any other external cast cutter or spreader. The design and the material of FlexiOH are engineered to provide superior comfort to the patient. A foam, which is in contact with the skin, is bio-compatible (ISO 10993-10 certified) and provides cushioning against the hardened polymer. The cast is so designed that the intermittent hollow spaces facilitate circulation of air and evaporation of sweat or water from the skin surface. Radiolucency of FlexiOH short arm cast shows that it does not interfere with the radio logical imaging and diagnosis. Compared to conventional casts FlexiOH provides these robust solutions for major issues like it's breathable, washable, easy to apply, light-weight, safer and more comfortable than conventional casts. Key words: FlexiOH, immobilization, breathability, washability</p>
<p>8. 19 November 2019</p>	<p>Dr Ameya Bondre, India, Head: Clinical Research and Development, CareNX Innovations Private Limited, India</p> <p>Presenters: Ms. Surabhi Mittal, Business Development Manager Mr. Shirish Wasu, Sales Manager Prince Nadar, Embedded Hardware Developer</p>	<p>Using AI To Monitor Fetal Health For The Millions Of Pregnancies In Need</p> <p>In India, there are 0.5 million still births and 3.5 million premature births annually, which is linked to the quality of antenatal care. Yet, there are only 60,000 gynaecologists that cannot serve 30 million annual pregnancies (5 million high-risk). Regular fetal monitoring is critical but absent at the grassroot level, thanks to present tools such as Cardiotocography (Toco) machines that are expensive, bulky and not portable. Our solution, 'Fetosense', is an AI-based, smartphone-linked, wireless, and portable fetal monitor, with a design customized to the health worker's skill-set - she only needs to strap the belt around the mother's abdomen to obtain auto-interpreted data. Fetosense uses Dawes-Redman criteria for autointerpretation of Fetal Heart Rate (FHR) parameters, indicating fetal distress and future neonatal complications. We have validated Fetosense against the standard (n=50) to show: Comparable average baseline FHR between Fetosense and Toco (p=0.0697); 94% Sensitivity in FHR assessment; Excellent clinical interpretability in 40% of cases compared to Toco; Convenient printing using wireless A-4 printer (compared to expensive thermal paper); Operational for 6 hours to perform ~40 tests once fully charged. Physicians, midwives and health workers should be empowered with Fetosense for first-level FHR screening to report red flags to remote gynaecologists, to enable remote monitoring, early risk-identification and management of high-risk pregnancies.</p>



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21. 19 November 2019	Dr Roli Mathur, Scientist F and Head, ICMR Bioethics Unit, National Centre for Disease Informatics and Research (NCDIR), ICMR	<p>ICMR Bioethics Unit, NCDIR, Bangalore is involved in the development of various Ethical Guidelines, Policies and related documents pertaining to Biomedical and Health Research in India. The Unit is also conducting programs for training and capacity building of ethics committees and relevant stakeholders by supporting initiatives for implementing ethical conduct of research in the country.</p> <p>In view of this, the following documents will be displayed:</p> <ol style="list-style-type: none"> 1. ICMR National Ethical Guidelines for Biomedical and Health Research Involving Human Participants, 2017 2. Handbook on National Ethical Guidelines for Biomedical and Health Research Involving Human Participants, 2018 3. ICMR National Ethical Guidelines for Biomedical Research Involving Children, 2017 4. ICMR Policy on Research Integrity and Publication Ethics (RIPE), 2019 5. ICMR Report - "Definition of Terms Used in Limitation of Treatment and Providing Palliative Care at End of Life", 2018 6. ICMR Common Forms for Ethics Committee Review, 2018 7. DHR-National Ethics Committee Registry for Biomedical and Health Research (NECRBHR) - pamphlets for display & distribution, 2019
1. 20 November 2019	Ms Heather Stone, Public Health Analyst, United States Foods and Drug Administration, United States of America	<p>We have created a mobile app and website for clinicians to use to share their experiences repurposing drugs. The hope is that this data can eventually help to identify new effective treatments by generating hypotheses for study in more formal clinical trials and data collection methods. We frequently have an exhibit booth where we display the app at major international conferences (like IDWeek and ASTMH). (https://cure.ncats.io)</p>



<p>9. 20 November 2019</p>	<p>Mr Amit Bhatnagar, Managing Director, Accuster Technologies Pvt Ltd, India</p>	<p>Universal Health coverage (UHC) can be empowered only when society will be engaged for implementation in Hollistic framework. UHC has to be driven according to the society current status, which means solution which are being developed to provide UHC in a developed nation may not empower UHC in developing nations. UHC can trigger empowering answer if we are able to use. UHC has to be brought in with sustainable solutions which can trigger overall empowerment of society by creating livelihood answers, doorstep coverage of Health services and Making sure that solutions are able to answer the challenge of PAAA (Psychological challenge of engaging healthy people with health centers, Affordability, Awareness, and Accessibility). We must not ignore that UHC must involve the dimension of engaging Healthy people who are least interested to engage with medical facility. Psychological challenge is new dimension which need to be actively discussed, because this becomes the biggest hidden challenge. There is a very strong example which was Polio eradication program which become successful after delivery of door to door campaign. Same way Preventive care also need to delivered at doorstep. Conclusion: Hollistic engagement of society can provide sustainable, long term and uninterrupted answer to UHC.</p>
<p>10. 20 November 2019</p>	<p>Mr Sanjay Bhardwaj, Director – Strategy, RIJUVEN Corp, India</p>	<p>Primary healthcare solution with embedded AI & ML tools providing Evidence Base Medicine for remote communities and patients</p>
<p>11. 20 November 2019</p>	<p>Dr Natarajan Sriraam India, Professor and Head, Dept of Medical Electronics, Ramaiah Institute of Technology</p>	<p>An External Cardiac Loop Recorder[ECLR] is proposed with Wearable textile sensors for real-time recording of cardiac signals and early screening of episodes for beat classification as well as Arrhythmia detection</p>
<p>12. 20 November 2019</p>	<p>Mr Aniruddha Atre India, Director/ CTO, Jeevtronics Pvt Ltd</p>	<p>We have developed the world's first hand cranked defibrillator, which works even in areas without electricity. It never needs a battery change. Designed for rural hospitals, ambulances, disaster relief etc. It is priced at 1/4th of that of existing defibrillators and requires no maintenance. Deployed in India in 3 states.</p>



<p>13. 20 November 2019</p>	<p>Mr Vishesh Sinha Chief Administrative Officer, Ayu Devices Pvt. Ltd, Mumbai, Maharashtra, India</p>	<p>Medical Innovation for a Healthier Tomorrow (for poster and exhibit)</p> <p>"Health is a fundamental Human Right" - as adopted in WHO Constitution. The rapid increase in heart and lung diseases which are the top two killers in India, requires an effective yet low-cost solution for early screening. We have tried our bit to help control the number of cases of misdiagnosis of the heart and lungs problems especially at an early stage. AYU DEVICES is our startup spun out of BETIC, IIT Bombay . We have developed an electronic device which can be connected to any normal analog stethoscope thus converting it into a digital stethoscope. Our electronic stethoscope facilitates amplification of Heart Sounds up to 16 times, recording and playback, noise filtration and sharing of auscultated sounds. Our stethoscopes can be used in Primary Health care Centers to record abnormal auscultated sounds which can be sent to expert physicians for further diagnosis, thereby overcoming the problem of low ratio of doctors to the number of people in India (1:1800) which is considerably low when compared to the minimum recommended doctor to population ratio of 1:1000. Our Digital Stethoscope will create a repository of recorded abnormal sounds, thus providing a rapid learning curve to the medical students who are the future to a Healthier Tomorrow.</p>
<p>14. 20 November 2019</p>	<p>Mr KMK Rajendran India, Head Sales, Forus Health Pvt Ltd</p>	<p>The 3nethra series of eye imaging devices are AI-enabled medical devices that can effectively help clinicians diagnose common eye problems. The products are used in mass screening programs globally with the intend to eradicate preventable blindness.</p>



<p>15. 20 November 2019</p>	<p>Dr Suman Kapur India, Senior professor and Dean, Birla Institute of Technology and Science, Pilani</p> <p>Delegates presenting are: Dr Ikram Khan Mr Prashant Mr Pavan Kr Mujawdiya</p>	<p>A portable field operable bacterial culture and Antibiotic Sensitivity System, which provides the antibiogram for the pathogenic bacteria in 4hours time ensuring evidence prescription of antibiotics and assist in combating irrational use of antibiotics which is progressively fueling emergence of antimicrobial resistant bacteria and amplification and antimicrobial genes</p>
<p>21. 20 November 2019</p>	<p>Dr Roli Mathur, Scientist F and Head, ICMR Bioethics Unit, National Centre for Disease Informatics and Research (NCDIR), ICMR</p>	<p>ICMR Bioethics Unit, NCDIR, Bangalore is involved in the development of various Ethical Guidelines, Policies and related documents pertaining to Biomedical and Health Research in India. The Unit is also conducting programs for training and capacity building of ethics committees and relevant stakeholders by supporting initiatives for implementing ethical conduct of research in the country.</p> <p>In view of this, the following documents will be displayed:</p> <ol style="list-style-type: none"> 8. ICMR National Ethical Guidelines for Biomedical and Health Research Involving Human Participants, 2017 9. Handbook on National Ethical Guidelines for Biomedical and Health Research Involving Human Participants, 2018 10. ICMR National Ethical Guidelines for Biomedical Research Involving Children, 2017 11. ICMR Policy on Research Integrity and Publication Ethics (RIPE), 2019 12. ICMR Report - "Definition of Terms Used in Limitation of Treatment and Providing Palliative Care at End of Life", 2018 13. ICMR Common Forms for Ethics Committee Review, 2018 14. DHR-National Ethics Committee Registry for Biomedical and Health Research (NECRBHR) - pamphlets for display & distribution, 2019



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16. 21 November 2019	Prof Akshay Dvivedi India, Associate Professor, Indian Institute of Technology Roorkee Presenter: Mr. Rajendra Arya	The electric hydro dissection device with adaptive feedback control for cleft palate surgery will be demonstrated. The feedback control senses the restriction occurred during the injection for hydro dissection procedure.
17. 21 November 2019	Dr Aseem Mishra, CEO, Prantae Solutions Private Limited, India Co-presenters: Dr Sumona Karjee Mishra, Dr Aseem Mishra	Smart Devices And Diagnostics To Determine Kidney Health Status At Resource Limited Settings And Health Self Monitoring Segment Chronic kidney disorder is one of the major challenges world is facing in the domain of non-communicable disorders. The silent progression and lack of early diagnosis is one of the driving force for its huge prevalence (according to who report the disturbing figure is around 1 out of 10) that is increasing with each passing year. In this work we present a novel method and device of urine albumin analysis from micro-albuminuria to proteinuria range that can be easily deployable and used at resource limited settings and health self monitoring segment. Urine albumin content is one of the cardinal biomarkers, however, due to lack of precise, reliable and sensitive diagnostic yet simple and affordable, it is often been neglected under resource limited settings. We have developed a novel fluorescence based method that preferentially couple with albumin to give fluorescence that can be converted into concentration through a mathematical equation. The optical device has been designed to create low cost alternate to fluorescence spectrophotometer



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		to make it affordable and simple to operate. The device and diagnostics can be upscaled to address the need of the early diagnosis of ckd with urine albumin as biomrker as an initiative to address the sdg-3.
18. 21 November 2019	<p>Dr. Neelesh Kumar, Principal Scientist, CSIR- CSIO</p> <p>Harpreet Singh Aarti Chauhan Neelesh Kumar*</p>	<p>ORGAN: Low cost Biomechatronic Rehabilitative Solutions for Children with Congenital Hemiparesis Background: Hemiparesis is unilateral paresis, that is, weakness of the entire left or right side of the body (hemi- means "half"). Hemiparesis and hemiplegia can be caused by different medical conditions, including: Congenital causes; Trauma; Tumors; Stroke. According to statistics, up-to one child in 1,000. About 80%-Congenital, 20% acquired. Due to Spasticity, weakness, and reduced joint range of motion (ROM), associated with a decrease in speed and accuracy of movements with patients. This also induce severe reduction in using the paretic arm in everyday activities.</p> <p>Methods: The Present Methods of treatment/rehabilitation includes: Static hand orthotic devices and Ankle foot Orthosis. Limitations of such devices are: non-functional; growth of kids; weight and aesthetic issues; assessment. The Proposed method involves 3D printed passive and Active orthotic device with biofeedback therapy modules. Anthropometric measurement technique using 3D scanning and computational methods for measurement of body parts in children. This was used to develop three dimensional computer aided design data of the orthotic and exoskeleton devices using 3D modelling software and manufacturing using rapid prototyping techniques. Passive elements including elastic bands, cords and springs to effectively utilize the residual movements in the paretic limb. Schuee scale was used to evaluate the developed rehabilitation system on children with congenital hemiparesis, which will take place in collaboration with PGIMER Chandigarh.</p> <p>Results and Conclusions: Anthropometrically stable, 3D printed orthosis of hand orthosis with capabilities of dynamic cockup splint is depicted in figure below. With the present method, successful demonstration of 3D printed orthosis for children age between 04-12 years is demonstrated. With the limited undergoing trials, the devices are helpful in faster and efficient</p>



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19. 21 November 2019	<p>Dr. Prasant Kumar Mahapatra, Principal Scientist, CSIR-CSIO</p> <p>Amit Laddi* Sanjeev Verma Shashi Sharma</p>	<p>Image-Guided Vascular Vein Visualizer: VeinViz</p> <p>Abstract: The development work includes an indigenous, affordable, non-contact and portable device for vascular vein detection and visualization in real-time through infrared imaging technique towards precise catheter insertion or piercing of peripheral veins for persons with hidden and difficult to access veins</p> <p>Background: Traditional methods employed by Phlebotomists are manual inspection using naked eye usually fail to locate the veins in subjects with difficult intravenous access such as deep or hidden veins, especially neonatal, obese and elderly population. It causes distress to the patients and frustration to the clinicians during venipuncture procedures causing multiple punctures. The prospective beneficiaries are millions of subjects with difficult venous access. The proposed technology will fill the gap for vein visualization devices that are currently imported at premium prices in India.</p> <p>Methods: The proposed method of finding venous structure uses infrared imaging wherein, the infrared light projected over the skin surface and the hemoglobin in the blood absorbs the projected light, so there is a reduced amount of light reflection from the veins. The custom detection system uses this change in reflection to determine vein location and pattern. The magnified view of vein pattern visualized on large screen in real-time will assist Phlebotomists to locate and assess patient veins while avoiding valves and bifurcations.</p> <p>Results and Conclusions: Successfully designed and developed algorithms sensitive towards detection, extraction, localization, and visualization of veins acquired by Infrared illumination sensitive embedded vision module. A working prototype of the handheld variant to view vein information in real-time has been demonstrated. Clinical trials are undergoing towards optimization of the device towards higher accuracy and ease of use for the Phlebotomists and the patients.</p>



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20. 21 November 2019	Dr. Sanjeev Soni, Principal Scientist, CSIR-CSIO	<p>Plasmonic Photothermal Cancer Therapeutics</p> <p>Background: Prevailing cancer treatments possess severe side effects and the efficacy of a treatment is strongly influenced by the molecular biology of the tumor. There is need for new techniques which can selectively damage a tumor and spare surrounding healthy tissues as well as can be versatile to cure a variety of tumors irrespective of the tumor biology. Currently, plasmonic photothermal therapeutics is emerging as a promising, one of such, technique for cancer treatment. Aim is to develop such medical device and pre-treatment planning module to quantify the modality to arrive at the clinical/therapeutic parameters for treatment of a tumor.</p> <p>Methods: The method involves delivery of nanoparticles to a tumor through localized or intravenous means and subsequent irradiation within near infrared wavelength band. This light-nanoparticle interaction results in highly localized temperature required for thermal ablation of a tumor. The developed device involves use of a light source along with optical beam manipulation elements to irradiate a tumor comprising of gold nanoparticles. The localized temperature rise is measured through infrared thermal camera and the treatment duration is controlled in reference to the set temperature. The device is tested in-vitro and further the in-vivo trials will be conducted in collaboration with CSIR-IIIM Jammu.</p> <p>Results and Conclusions: In-vitro performance of the device is demonstrated through chicken samples injected with gold nanoparticles. The temperature rise in the absence and presence of nanoparticles is shown in figure below. It is seen that sufficient temperature rise (increase of about 30°C) is attained within a duration of 10 minutes. It is observed that in the absence of nanoparticles, there is insignificant heating (~4°C) which is not harmful for a healthy tissue. In vitro trials successfully confirm the usefulness of the device for thermal ablation of a tumor. Also a pre-treatment planning module is developed to quantify the nanoparticle dose requirement specific to a tumor for use of clinicians during administration of such therapy.</p>



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