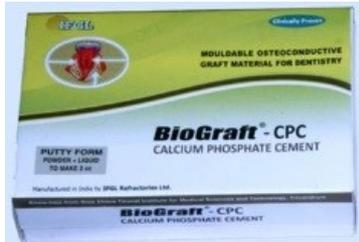




Calcium Phosphate Cement (CPC)



This is a mouldable self-setting material with powder and liquid components. On mixing, it will form a putty which will set into hydroxyapatite, the bone mineral.

CPC is highly useful in filling periodontal bony defects as it is easy to build up the contours. Also useful in filling cysts, as the cement could be transferred through minimal surgical opening.

Transferred to :

M/s. IFGL Bioceramics Ltd (2010)

Field Kit for Detecting Antibiotic Sensitivity of Mastitic Milk

Mastitis in dairy cattle is the persistent, inflammatory reaction of the udder tissue. This potentially fatal mammary gland infection is the most common disease in dairy cattle. The device is a field kit which is a cost-effective, quick and convenient solution for testing antibiotic sensitivity in mastitic milk.



Transferred to :

Institute of Animal Health & Veterinary Biologicals (IAHVB),
Department of Animal Husbandry (2007) , Govt. of Kerala.

Himedia Laboratories Pvt Ltd, Mumbai (2010)

Intrauterine System (IUS)



A new-generation contraceptive device that releases the drug Levonorgestrel inside the uterus. It is designed for long-term drug delivery to prevent pregnancy, for at least 3 years.

The Levonorgestrel Intrauterine Delivery System also can be used for the treatment of bleeding from uterus.

Marketed successfully in the brand name 'Emily'.

Transferred to :

HLL Lifecare Ltd, Trivandrum (2012)



Bioactive Calcium Sulfate Cement

Bioactive Calcium Sulfate is a bone filler material in cement form. It is supplied as powder-liquid combination which gives a self-setting putty upon mixing. This material is having bioactive and resorbing properties and it enables the remodelling of bone defects.

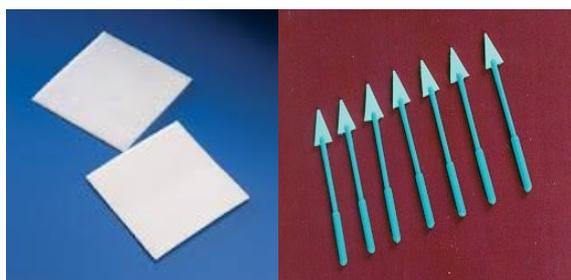


Transferred to :

M/s. G. Surgiwear Limited, Uttar Pradesh (2016)

M/s. Prevest Denpro Limited, Jammu (2019)

PVA-based Lint-free Sponge



This is a single use sterile material for tissue manipulation and fluid management, especially in ophthalmic surgery. Sheet form could be used with the help of tweezers or as a pointed sponge tips fitted onto a malleable handle. The material is designed as 'lint-free' so that no particles are shed in the surgical area, and hence more attractive than conventional gauze.

Transferred to :

M/s. G. Surgiwear Limited, Uttar Pradesh (2016)

Glutaraldehyde-treated Bovine Pericardium

The sheets of bovine pericardium are proven efficient in tissue engineering to augment or repair damaged tissues, especially the cardiac tissues. Technical know-how for the process of manufacture of glutaraldehyde cross-linked pericardium is the core of this product. It can be used as a cardiovascular patch or for application in right ventricular outflow tract reconstruction.



Transferred to :

M/s. G. Surgiwear Limited, Uttar Pradesh (2016)



Fibrin Sealant

This fractionated plasma product is made as per the European/Indian Pharmacopoeia and WHO regulations for efficacy and safety. The product kit comprises of lyophilized fibrinogen and thrombin, along with solvents. Dual syringe applicator assembly in the kit ensures optimum mixing and delivery. The sealant will clot within 2-5s and could be used as biological soft-tissue adhesive and also as adjunct to surgical sutures to promote haemostasis.



Transferred to :

M/s. Zum Heilen Healthcare Private Limited (2017)

Extracellular Matrix Scaffolds



Scaffolds for tissue engineering prepared out of extracellular matrices from cholecyst, jejunum and urinary bladder of animals. A unique non-detergent / enzymatic method has been developed for preparing extracellular matrix scaffold in sheet form with thickness less than 200 μ m. These scaffolds find application in fabricating wound healing matrix, skin-grafts, cornea-repair graft and hernia repair graft.

Transferred to :

M/s. Alicorn Medical Private Limited (2017)

Vein Viewer

Locating veins is the crucial step for a successful venipuncture procedure, and ambiguities may lead to multiple pricks and to the consequent chances of infection. The task becomes highly challenging for pediatric cases. The 'Chitra Vein Viewing system' is developed to cater the need of the nursing staffs to locate the veins for placing the needles. The system uses state-of-the-art technology to detect blood vessels and is handy with high quality display.



Transferred to :

M/s. Agappe Diagnostics Limited (2017)



Rapid Diagnostic Kit with Antibigram for Urinary Tract Infections

Urinary tract infections (UTIs) conventionally diagnosed by microbiological culture and it will take about 48 hours to receive the results. The Chitra Rapid Diagnostic Kit for detection of UTI, is a quick way to get an antibiogram to aid the selection of antibiotic for the treatment. It can be used in health centres with little or no sophisticated facilities and without a trained microbiologists.



Transferred to :

M/s. Agappe Diagnostics Limited (2017)

Biphasic Bioceramics for Bone Grafting



Bone fillers are in regular use in day-to-day orthopedics and dentistry to cover the additional gaps of implant or graft placement. Ceramics of calcium phosphate minerals, mainly hydroxyapatite and tricalcium phosphate, are proven useful for bone filling purpose. This product is a combination of Beta Tricalcium Phosphate and Hydroxyapatite so as to match the *in vivo* resorption with the new-bone formation.

Transferred to :

M/s. Onyx Medicals Pvt Ltd (2017)

Injectable Hydrogel for Cartilage Repair

The product is a bioactive gel matrix intended for the repair of damaged cartilages in knee joints. It is essentially packed as a two component system, which upon mixing, quickly forms a gel which will act as a tissue engineering scaffold. The kit includes an applicator system to deliver the gel easily to the site. The gel can be used independently as a matrix support for local cartilage repair or with cells for faster regeneration.



Transferred to :

M/s. Phraction Scientifics Pvt Ltd (2018)



Left Ventricular Assist Device

Congestive heart failure is a common cause of death world-wide and can set in when heart becomes terminally ill. A life support could be given for such patients with mechanical heart assist device called the LVAD. A third generation LVAD system has been developed by us. The “Chitra-LVAD” is a centrifugal pump based heart assist device with hybrid magnetic/hydrodynamic bearing, brushless DC motor, controller, battery pack, charger and software.



Transferred to :

M/s. Meril Lifesciences Pvt Ltd (2019)

Testing Device for Tuberculosis Diagnosis



One of the most challenging aspect of tuberculosis control is the early diagnosis. An accurate and rapid technique is needed which is affordable, simple and able to generate same-day result at point of care (POC). Our invention enables fast and accurate TB diagnosis. This is a cost effective POC set up for early diagnosis for TB and designed as rugged and easy-to-use machine so as to disseminate in primary health care setup.

Transferred to :

M/s. Agappe Diagnostics Limited (2019)

Calcium Phospho Silicate Composite

Calcium Phospho-silicate Composite (a patented combination of hydroxyapatite and bioactive glass composite) is a bioactive bone graft material having wide application in dentistry. In fine granule form (less than 1 mm size grade), it could be used for the defects in the alveolar, mandibular or maxillary bone. It is helpful for healing periodontal and furcal defects arising out of periodontitis, and also for periapical cysts and infra-bony lesions.



Transferred to :

M/s. Prevest Denpro Limited (2019)



PT/INR Monitoring Device

Anticoagulant therapy is the only available option for patients with heart diseases, heart valve replacement, history of strokes, deep vein thrombosis etc. In order to maintain the blood clotting, Prothrombin Time monitoring is very crucial. For the regular monitoring a handheld POC device is developed. This device works on a novel image processing technology and analyzes the blood clotting directly.



Transferred to :

M/s. Agappe Diagnostics Limited (2019)

Blood Flow Meter



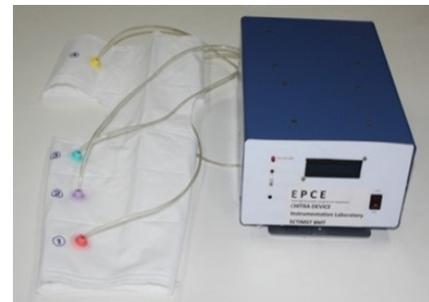
The device is a portable, battery-operated, fluid flow meter for measuring flow of blood or conductive fluids in an extracorporeal circuit during bypass surgeries. It has very high sensitivity, zero warm-up time, minimum signal drift, lower heat dissipation and minimal power losses. The blood flow meter consists of a flow tube sensor, which is attached to the extracorporeal circuit. The device displays the flow in its display unit as litres/min.

Transferred to :

M/s. enPRODUCTS Pvt Ltd, (2020)

External Pneumatic Compression Equipment (EPCE)

Deep Vein Thrombosis (DVT) is the formation of a blood clot (thrombus) in a deep vein, predominantly in the legs. The clot can detach (embolization) and travel to the lungs, thereby causing pulmonary embolism, a potentially life-threatening complication. An External Pneumatic Compression Equipment (EPCE) has been developed for prophylaxis treatment for DVT, which will give the sequential compression on the legs an using external cuff.



Transferred to :

M/s. enPRODUCTS Pvt Ltd, (2020)



Atrial Septal Defect Closure (Occluder) Device

Aortic Septal Defect is the most common type of heart disorder at birth. To manage with the defect, an occluder is designed as a double-umbrella stent-like structure using superelastic alloys. Novel hub-less design promotes better healing and a ridge is provided for softer edge. Delivery system has also been designed with a novel release mechanism to prevent any transmission of force to the device during its release. [A collaborative venture with CSIR-NAL, Bangalore].



Transferred to :

M/s. Biorad Medisys (2020)

Flow Diverter Stent



Aneurysm is the enlargement of an artery caused by weakness in the arterial wall. Though there will not be significant symptoms, its rupture could be fatal. An alternative method for the surgical correction is the placement of a blood-flow diverter stent. A novel flow diverter is designed with kink-resistance and improved radial strength, using superelastic alloys. It will divert the blood flow away from the aneurysms thereby reducing the local pressure. Also, it will help to promote the healing of the aneurysm [A collaborative venture with CSIR-NAL, Bangalore].

Transferred to :

M/s. Biorad Medisys (2020)

Infant Warming Wrapper and Bassinet.

Infant warming Wrapper/Bassinet is for maintaining the body temperature of low-birth-weight infants. The Bassinets are useful in hospital paediatric wards/ICUs and the portable wrappers are intended for transit. The devices are designed as self-standing with LED based infrared heater pads, rechargeable power packs and closed-loop controller for maintaining the temperature.



Transferred to :

M/s. Kerala State Electronics Development Corporation (KELTRON) (2021)



Drug Eluting Bioactive Calcium Sulfate Cement

The product is a modified calcium sulfate cement in which drugs of choice could be loaded and prepared as pellets desired size. Infection control could be achieved on implanting at the infected site. After the drug delivery action, the material will integrate with the local bone. It avoids the removal surgery and enhances defect healing. Useful in post-surgical and diabetic related bone infections.



Transferred to :

M/s. Onyx Medicals Pvt Ltd (2022)

Liquid Embolic Agent



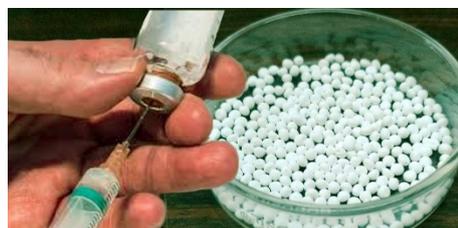
Liquid Embolic Agent (LEA) is a neurological implant device supplied in liquid form in a prefilled syringe. This biocompatible and non-degradable liquid is meant to be injected into the abnormal blood vessels of the brain through microcatheters. On injecting LEA, the vessels get embolized (or blocked) by precipitation of the polymer. The solvent will diffuse into the blood stream and escape through the lungs.

Transferred to :

M/s. Biorad Medisys Pvt Ltd (2022)

Bioceramic Beads for Drug Delivery and Bone Regeneration

The product is a specially designed globule-shaped bioceramic beads having multi-modal porosity (from micro to nano sized pores, in a graded manner) which can hold and release drugs for treating bone diseases like osteomyelitis. Biocompatible and osteoconductive calcium phosphate phases are converted into bioactive beads through a patented technique. This is a bioactive resorbable porous media for the local delivery of drugs for bone diseases, and also a bone graft material.



Transferred to :

M/s. Onyx Medicals Pvt Ltd (2022)