



# Medical Technologies Pipeline

## November 2024

Product Name	Application	Up to Experimental Proof of Concept (TRL 1-3)	Technology Demonstration / Prototype (TRL 4-5)	Technology Validation (TRL 6-7)	Commercial Production (TRL 8-9)	Market
<b>Diagnostic Technologies</b>						
PRECURSOR	Chronic obstructive pulmonary disease (COPD) risk prediction tool.					
In vivo confocal microscopy	A new method to dynamically image and assess immune cells in the living human cornea using a minimally-invasive clinical instrument called an in vivo confocal microscope.					
Serum miRNA biomarker for monitoring brain cancer (glioma)	A qPCR based test measuring miRNA genes to monitor GBM patients and predict development of Glioblastoma.					
Molecular model for endometrial staging	A bioinformatics approach to precisely determine which stage of menstrual cycle an endometrial sample is from.					
Online calculator for kidney function assessment	An AI/ML model for prediction and staging of CKD in diabetic patients .					
FeBI	Quantum sensing method for clinical quantification of iron loading in serum ferritin for human iron status.					
Biomarker for early diabetic neuropathy	Ocular tear fluid neuropeptide as a novel non-invasive biomarker for detecting and monitoring corneal neuropathy.					
Preeclampsia identification factors	Method of predicting late-onset preeclampsia during term.					
Biomarker of poor placental function	Circulating SPINT1 as a biomarker of pregnancies with poor placental function and fetal growth restriction.					
<b>Biomedical Devices</b>						
ADMiER	Method and use of a device for diagnosing dry eye disease based on viscoelastic properties of tears.					
Axcelda	One-step method for human articular cartilage repair treatment using a tissue engineering approach.					
ReResp	Reusable mask apparatus for effective inhalation filtration and speech transmission.					
Dental Implant	Rectangular implant which improves the effectiveness of implants especially in molars and areas of low bone volume.					
CorGel	PEG Hydrogel Films for Transplantation of Corneal Endothelium for Improved Restoration of Sight.					
Engineered biomaterial for enhanced cell engraftment performance	Engineered biomaterial that is designed to provide a supportive environment for the transplanted stem cells.					

For further information regarding any of these assets, please contact the Knowledge and Technology Transfer team:  
[research.unimelb.edu.au/commercialisation/business-and-investors/solutions-available-for-licensing](mailto:research.unimelb.edu.au/commercialisation/business-and-investors/solutions-available-for-licensing)  
[ip-mailbox@unimelb.edu.au](mailto:ip-mailbox@unimelb.edu.au)



# Medical Technologies Pipeline

## November 2024

Product Name	Application	Up to Experimental Proof of Concept (TRL 1-3)	Technology Demonstration / Prototype (TRL 4-5)	Technology Validation (TRL 6-7)	Commercial Production (TRL 8-9)	Market
<b>Biomedical Devices</b>						
BloodyEasy	Next generation blood collection device providing greater flexibility in drawing blood for difficult to collect samples.					
Accusalt	Wearable hyponatraemia measurement device.					
Se Nanoparticles	Se Nanoparticles for antimicrobial applications.					
Bublonix	The world's fastest known 3D bioprinter – advancing drug discovery through organ printing.					
Chromos Labs	NextGen multi-electrode array (MEA) for neuronal activity measurement with 100x higher resolution through quantum sensing.					
Vascular Grafts	Spontaneous alignment of cells for tissue-engineered vascular grafts.					
Bruxism Magnetic Splint	Method of treating bruxism by eliminating heavy occlusal forces via magnetic splints.					
<b>Digital Technologies</b>						
Spinal Cord Injury Exercise program	An online training program for fitness instructors to provide improved accessibility for people with spinal cord injury within gyms.					
My Exercise Messages	A mobile phone application with in-built patient-facing behaviour techniques and personalised messages to improve outcomes of prescribed exercise therapy for people with osteoarthritis.					
My Knee Exercise	Mobile phone application-based intervention for people with knee osteoarthritis that prescribes exercises based on behaviour.					
BIO-DASH	A wellbeing and performance optimisation program using biofeedback to reinforce the mind-body connection.					
MATCH Program	Mobile phone application providing home-based family caregiver-delivered music interventions for people living with dementia.					
MyNE	Digital tool to assess social functioning, capital and wellbeing to predict disease and guide intervention.					
PredictX	An AI tool for predicting the dose limiting toxicity (DLT) of chemotherapy drug(s).					

For further information regarding any of these assets, please contact the Knowledge and Technology Transfer team:  
[research.unimelb.edu.au/commercialisation/business-and-investors/solutions-available-for-licensing](mailto:research.unimelb.edu.au/commercialisation/business-and-investors/solutions-available-for-licensing)  
[ip-mailbox@unimelb.edu.au](mailto:ip-mailbox@unimelb.edu.au)