UNIQUEST Biotech & Medtech Innovation Pipeline | October 2016

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THERAPEUTIC ASSETS

Therapeutic asset name	Indication	Molecule Type	MOA	Company/Faculty	Status	Discovery	Hit to lead	Lead optimisation	Pre-clinical	Clinical	Registration
Oncology											
Gardasil	Cervical cancer	Vac	HPV VLPs	Merck, CSL	Partnered						
Q-202	Breast cancer	SM	CRAC inhibitor	QUE Oncology	Partnered						
BARF-1	EBV+ Lymphoma, Gastric and Nasopharangeal cancer	Bio	ADCC and CDC	UQDI	Available-M						
Combination therapy for enhanced ADCC	Cancers treated with targeted antibody therapies	SM	Dynamin inhibition	UQDI	Available-M						
Immunotherapy	Personalised tumour vaccine	LF	Dendritic cell targeted nanoparticle	UQDI	Available-M						
RNAi	Any viral antigen related to cancer especially HPV, RNAi	Vac	RNAi-based therapeutic vaccine	UQDI	Available-C						
Pain											
EMA401	Neuropathic	SM	AT_2 antagonist	Spinifex	Partnered						
Q-201	Neuropathic	SM	Nitric oxide donors	QUE Oncology	Partnered						
ORL-1 Modulator	Nociceptive	Pep	ORL-1 agonist	IMB	Available-S						
IMB007	Neuropathic	Pep	$GABA_B$ antagonist	IMB	Available-S						
CVIE	Chronic & neuropathic	Pep	Cav 2.2 antagonist	IMB	Available-S						
GlyR	Chronic inflammatory	SM	a3 GlyR potentiator	IMB	Available-S						
Nav1.7	Acute & chronic	Pep	Nav1.7 antagonist	IMB							
Inflammation and Autoimmune											
Dendright	Autoimmune (rheumatoid arthritis)	LF	NFκB inhibitor	Dendright	Partnered						
Inflammasome inhibitor	Inflammation	SM	NLRP3 inhibitor	Inflazome	Partnered						
Slow release formulation of 6-TG	Inflammation	R	Prodrug for 6-TGTP	UQMed	Available-B						
PGD2	Asthma & allergic rhinitis	SM	PGD2 synthase inhibitor	IMB	Available-S						
PAR2 Modulator	Inflammation (IBD, Psoriasis)	SM	PAR2 antagonist	IMB	Available-S						
C3a Modulator	Inflammation (arthritis, asthma and IBD)	SM	C3a antagonist	IMB	Available-S						
Neurestore	Inflammation (sepsis & ischaemia-reperfusion injury)	Bio	EphA4 antagonist	MABS	Available-S						
Diabetes and Obesity											
FGF1 Obesity	Obesity	Bio	Antisense inhibition of FGFR	Verva	Partnered						
PAR2 Modulator	Obesity & type 2 diabetes	SM	PAR2 antagonist	IMB	Available-S						
IL-22 Modulator	Type 2 diabetes	Bio	IL-22 Modulator	Mater-UQ	Available-B						
T1D tolerising immunotherapy	Type 1 diabetes	LF	T1D specific antigen immunotherapy	UQDI	Available-C						
CNS											
Neurestore	CNS	Bio	EphA4 antagonist	NuNerve	Partnered						
Triheptanoin	CNS (epilepsy)	OF	Triheptanoin	UltraGenyx	Partnered						
NeuroProtex	CNS (Alzheimer's disease, amyotrophic lateral sclerosis)	Pep	Trk modulator	QBI	Available-S						
ASIC1a	Stroke & spinal cord injury	Pep	Selective ASIC1a inhibitor	IMB	Available-S						
Nav1.1	Epilepsy	Pep	Nav1.1 activator	IMB	Available-S						
Infectious Diseases											
Vancapticin	MDR Gram positive bacteria	Pep	Membrane Disruption	IMB	Available-C						
BTZ Analogues	Mycobacteria – Tuberculosis	SM	Cell Wall Biogenesis	IMB	Available-S						
COLOP	MDR Gram negative bacteria	Pep	Membrane disruption	IMB	Available-S						
Prevenquito	Malaria & Tuberculosis	SM	PRTase inhibitor	UQSc	Available-G						
Fruilimicin Analogues	MDR Gram positive bacteria	Pep	Cell Wall Biogenesis	IMB	Available-S						
Carbapenem antibiotics	UTI	SM	Restore metalo-beta-lactamase inhibition	UQSc	Available-C						
Molecular Clamp	Flu, RSV, ebola and others	Vac	Viral pre-fusion protein	UQSc	Available-C						
TLR4 Dengue	Dengue or other Flavivirus infectious agents	SM & Bio	TLR4 antagonist	UQSc	Available-C						

Molecule Type

Bio Biologic | **CT** Cell therapy
LF Liposome formulation
OF Oil-based formulation
PEP Peptide | **R** Reformulation
SM Small molecule | **Vac** Vaccine

UQ Faculty/Institute

AIBN Australian Institute for Bioengineering & Nanotechnology
IMB Institute for Molecular Bioscience | **Mater-UQ** Mater Research Institute-UQ
QBI Queensland Brain Institute | **UQ** The University of Queensland | **UQDI** Diamantina Institute
HABS Faculty of Health Behavioural Sciences | **UQSc** Faculty of Science
UQMed Faculty of Medicine

Licensing Status (See over for contact details)

Available-C Contact Craig Belcher | **Available-B** Contact Ben Phillis
Available-S Contact Stephen Earl | **Available-M** Contact Maher Khaled
Available-M Contact George Adamson | **Available-AB** Contact Anne Bannister
Available-PS Contact Paul Stockwell

CELL BASED ASSETS

Therapeutic asset name	Indication	Molecule Type	MOA	Company/Faculty	Status	Discovery	Hit to lead	Lead optimisation	Pre-clinical	Clinical	Registration
Regenerative Medicine and Cell Therapies											
TheraPhil	Neutropenia	CT	Neutrophils	CCRM	Partnered						
Placental Stem Cells	Wound and cardiac repair	CT	Stem cells	AngioStem	Partnered						
iPSC-derived MSCs	Proprietary process for scalable production of mesenchymal stem cells	CT	Stem cells	UQMed	Available-C						

Asset Name	Description/Field	Company/Faculty	Status	POC validated	Prototype	Lead product	Sales
Research and Development Tools							
Growth hormone assay	*in vitro* bioassay for growth hormone and analogues	IMB	Available-S				
Na_v 1.7 Assay	Human cell functional screen	IMB	Available-S				
Conditions Optimiser	Device to optimise stem cell culturing conditions	AIBN	Available-G				
Release Media	Enables culturing of difficult stem cells	AIBN	Available-C				
Cardiac organoids	Maturation media and screening device for mature cardiomyocyte tissues	UQSc	Available-G				

BIOMEDICAL DEVICES

Asset Name	Description/Field	Company/Faculty	Status	POC validated	Prototype	Lead product	Sales
Devices							
ImpediMed	Lymphoedema bioimpedance	ImpediMed	Partnered				
ResApp	Mobile health for respiratory disease diagnosis	ResApp	Partnered				
Q-Sera	Serum preparation tubes	Q-Sera	Partnered				
SMART Arm	Stroke rehabilitation	SMART Arm	Partnered				
Protease biosensor	Rapid detection of functional proteases	Molecular Warehouse	Partnered				
Micropunch	Pain-free skin biopsy	UQMed	Available-B				
Lymphoma prognostic	Prediction of response to standard R-CHOP therapy indicating alternate first-line drugs as first line	UQDI	Available-M				
Brain scanning ultrasound	Scanning ultrasound for treating Alzheimer's Disease	QBI	Available-B				
Enhanced laser diffusion	Laser radiation with wide divergence for odontology applications	HABS	Available-B				
SCC theranostic	Prediction of response to antibodies that target tumour cell surface receptors	UQDI	Available-M				
Oesophageal adenocarcinoma diagnostic	Blood-based lectin immunoassay for high risk patients	UQDI	Available-M				
Vaccine and Drug Delivery Platforms							
Nanopatch	Needle-free vaccine delivery	Vaxxas	Partnered				
ProGel	Oral stable to small intestine	ProGel	Partnered				
Pepfactants	Controllable peptide surfactant	Pepfactants	Partnered				
Foroderm	Cutaneous drug delivery technology	UQMed	Available-B				
Caveospheres	Membrane enclosed vesicles	IMB	Available-S				
VLP Vaccines	Fast, scalable and adjuvant free	AIBN	Available-G				
Bi-specific antibody	Multi-specific targeting constructs	AIBN	Available-B				
Ultrasound back of eye retinal delivery	Ultrasound assisted delivery of drug by nano-bubbles for macular degeneration	HABS	Available-C				
Nano-emulsions	Tailored stable emulsions with targeting capability	AIBN	Available-G				
Healthcare Assessment Programs							
CeGa Online	Acute care remote	UQMed	Available-B				
GAI	Geriatric Anxiety Inventory via eShop	SBS	Available-AB				
CHAP	Health assessment tool via eShop	UQMed	Available-AB				

UniQuest is the main commercialisation company of The University of Queensland

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