

WESTMEAD RESEARCH HUB INNOVATION PIPELINE

About Westmead Research Hub

The Westmead Research Hub combines the resources of three world-leading research institutes, two of the largest hospitals in the southern hemisphere, the largest pathology laboratory in NSW as well as an internationally renowned university to tackle many of the most common diseases affecting our community. The results of our research can rapidly affect the way we treat our patients and lead to better health outcomes. Westmead Research Hub offers a full spectrum of medical research from basic research to translational and clinical research, and population health studies. It has one of the largest concentrations of biomedical, scientific and healthcare focused minds in Australia. Westmead is home to over 1,400 full-time equivalent (FTE) research staff, across four major institutes and numerous research centres, groups and networks. The majority of these are full-time researchers, including 170+ leading clinician scientists, with the remainder being research support staff.

THERAPUTIC OR DELIVERY					Discovery	InvitroPOC	InvivoPOC	Lead optimisation	Pre-clinical	Clinical
Indication	Description	Lead / Owner	IP Status	Status						
HSCT transplantation	Methods & compositions for Adoptive T-cell therapy	USYD, WSLHD, WIMR	PCT	Available	•	•	•	•	•	•
HSCT transplantation	Adoptive T-cell therapy targeting fungal infections post-HSCT	USYD, WSLHD, WIMR	Nat Phase	Available	•	•	•	•	•	
Heart Failure	Biologic for heart failure after myocardial infarction	USYD, VCCRI, WSLHD, WIMR	Provisional	Available	•	•	•	•	•	
Hepatitis B & D	Novel composition and methods for treating Hepatitis B and D	USYD, WIMR, WSLHD	Provisional	Available	•	•		•		
Gene therapy	Stable gene transfer system to proliferating cells	CMRI, SCHN	Nat Phase	Available (non-excl)	•	•	•			
Gene therapy	AAV Mini-promotor for efficient delivery of large genes to liver cells	CMRI, SCHN	Nat Phase	Available (non-excl)	•	•	•			
Ventricular Arrhythmia	AAV Based gene therapy for Ventricular Arrhythmia	WSLHD, USYD, WIMR	Nat Phase	Available (non-excl)	•	•	•			
Gene therapy	Adeno-associated virus polynucleotides, polypeptides and virions	CMRI, SCHN	PCT	Available (non-excl)	•	•				
Gene therapy	Polyneucleotides and vectors for the expression of transgenes	CMRI, SCHN	PCT	Available (non-excl)	•	•				
Gene therapy	Novel AAV capsid peptide for gene delivery	CMRI	PCT	Available (non-excl)	•	•				
Gene therapy	Methods for codon optimisation	CMRI	PCT	Available (non-excl)	•	•				
Gene therapy	Marsupial AAV Capsid polynucleotides and polypeptides	CMRI, SCHN	PCT	Available (non-excl)	•	•				
Gene therapy	Nucleic acid molecules and methods for AAV vector selection	CMRI	PCT	Available (non-excl)	•	•				
Gene therapy	AAV Capsid polypeptides and AAV vectors	CMRI, SCHN	Provisional	Available (non-excl)	•	•				
Gene therapy	Methods and AAV vectors for in vivo transduction	CMRI, SCHN	Provisional	Available (non-excl)	•	•				
Multiple Myeloma	CAR T-Cell therapy	WSLHD, USYD, WIMR, CMRI	Nat Phase	Partnered	•	•	•	•	•	
Kidney Disease	Use of Dynamin Ring Stabilisers as therapeutic for kidney disease	CMRI	Nat Phase	Partnered	•	•	•			
AMD	AAV based gene therapy for Age Related Macular Degeneration	Cambridge CMRI, SCHN	Provisional	Partnered	•					
Oncology Therapeutics	Methods of treating ALT cancer	CMRI	Provisional	Available	•					
Oncology Therapeutics	Methods for treating cancer	CMRI	Provisional	Available	•					

MEDICAL DEVICES

Name	Description	Lead/Owner	IP Status	Status	Concept	POC	Prototype	Product Validation	Registration	Sales
Sure-Lock	Screw retention mechanism for orthopaedic screw drivers/handles	SCHN	PCT	Available	•	•	•			
Mu Catheter	Microwave catheter for renal artery denervation	WSLHD, USYD	1 x Nat Phase; 3 x Provisional	Available	•	•	•			
VT Catheter	Ventricular microwave ablation catheter for treatment of VT	WSLHD, USYD	Provisional	Available	•	•	•			
Monitoring Catheter	Catheter for monitoring and early detection of pericardial effusion	WSLHD	Provisional	Available	•	•	•			
TrueHeart	Cardiovascular patch/conduit for paediatric cardiac surgery	SCHN, USYD	In Progress	Available	•	•	•			
PediFrag	Wrist Fusion Plate for arthrodesis and fractures	SCHN	Design	Partnered	•	•	•	•	•	•
SyMaxys	Paediatric implant for osteogenesis imperfecta	SCHN	Nat Phase	Partnered	•	•	•	•		
Rifle Rod	Implantable device for correcting rotational deformities in children	SCHN	Nat Phase	Partnered	•	•	•	•		
Epic Plate	Implantable device for correcting angular deformities in children	SCHN	Nat Phase	Partnered	•	•	•			
PISTOL	Resorbable bone stent technology for fracture healing	SCHN	Nat Phase	Partnered	•	•	•			

DIAGNOSTICS

Name	Description	Lead/Owner	IP Status	Status	Concept	POC	Prototype	Product Validation	Registration	Sales
Fibrosis progression test	Genetic test for predicting rapid liver fibrosis progression	WSLHD, USYD	Nat Phase	Available	•	•	•	•		
ALT Assay (Cancer)	Alternative Lengthening of Telomeres (ALT) activity in cells	CMRI	Nat Phase	Available (non-excl)	•	•	•	•		
GENEie	Tools for detecting clinical splice variants	USYD, SCHN	In Progress	Available	•	•	•	•		
Motion correction software	Data-driven method for rigid motion correction in CT imaging	KUL, USYD, WSLHD	Nat Phase	Available	•	•				
Clusterin Diagnostic	Protein based diagnostic for allograft rejection	Mt Sinai, WSLHD, WIMR	Nat Phase	Available	•	•				
Telomere length (Cancer)	Methods for measurement of telomere length	CMRI	PCT	Available	•					
Analytical Methods	Peptide detection using data independent acquisition (DIA) mass spectrometric data	CMRI	Provisional	Available	•	•	•			
Noise reduction in mass spectrometry data	Reduction of noise from various sources in mass spectrometry data	CMRI	Provisional	Available	•	•	•			

WSLHD and SCHN

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