

Therapeutic Pipeline November 2023

Product Name	Indication	Modality	Mechanism of Action	Target Validation	Hit to lead	Lead	Pre-clinical	Clinical	Market
Oncology									
Targeting Nkp44/ PDGF-D axis	Cancer	Biologic	Novel NK-focused immune checkpoint target for cancer therapy						
Novel method of PD1/PDL1 axis modulation	Cancer	TBC	Novel method of PD1/PDL1 axis modulation by targeting "Factor X" protein on the surface of monocytes						
Infectious Disease									
Ultra-potent and broadly neutralising anti-HIV antibodies	HIV	Biologic	CD4 binding site						
Inhibitor of SARS-CoV2	COVID-19	Small molecule	Confidential						
Chimeric trimeric RBD (CTR) COVID vaccine	COVID-19	Vaccine	A highly immunogenic second generation COVID-19 vaccine strategy to overcome imprinted immune response issues						
SARS-CoV2 virus like particle (VLP) vaccine	COVID-19	Vaccine	Multigene variant proof vaccine for long lasting memory and neutralising antibody response						
SARS-CoV2 vaccine (successfully completed phase 1 Clinical Trial)	COVID-19	Vaccine	Second generation recombinant protein RBD SARS-CoV-2 vaccine					*	
Monoclonal antibodies against COVID-19	COVID-19	Biologic	Confidential						
Attenuation strategies for live rabies vaccine	Rabies	Vaccine	Combination of attenuating site-specific mutations in the highly conserved lyssavirus phosphoprotein (P-protein)						
Method(s) of conferring antibiotic sensitivity to antibiotic resistant bacteria	Antibiotic resistance	Small molecule	Confidential						
Monoclonal antibodies against alphacoronaviruses	Alphacoronavirus (seasonal coronavirus)	Biologic	Human monoclonal antibodies specific to NL63 alphacoronavirus RBD and non-RBD epitopes						
Rare Disease									
Novel mRNA treatment for NP-C	Niemann-Pick Disease Type C	Gene Therapy	Endogenous engineered <i>NPC1</i> mRNA normalizes protein levels and rescues the downstream disease phenotype						

* Phase 1 clinical trial has been completed

For further information regarding any of these assets, please contact the Knowledge and Technology Transfer team:

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Metabolic Disease									
Small molecule inhibitors to promote remission of metabolic disease(s)	Metabolic diseases	Small molecule	Confidential						
Inflammation and Autoimmune									
Novel therapeutics for systemic lupus erythematosus (SLE)	Systemic Lupus Erythematosus (SLE)	Small molecule	Confidential						

Technology Platforms

Product Name	Application	Experimental Proof of Concept (TRL 3)	Technology Demonstration / Prototype (TRL 4-5)	Technology Validation (TRL 6-7)	Commercial Production (TRL 8-9)	Market
Vaccine and Drug Delivery Platforms						
Adaptable self-cleaving VLP vaccines	Method of generating vaccine constructs comprising nucleic acid sequences encoding self-cleaving polyproteins capable of self-assembling into virus-like particles (VLPs)					
Self-adjuvanted VLP vaccines	Method of integrating gene responsible for adjuvant within virus-like particles (VLPs) to produce VLP based vaccines for viral infections					
Selective Organ Targeting	mRNA delivery platform capable of being tuned to target selective organs, including the brain.					
Radiopharmaceutical Technologies						
Bifunctional chelator for actinium radiopharmaceuticals	A variant of a known chelator that binds to actinium-225 with high avidity that can be used to label antibodies or peptides					
Antibody pre-targeting for diagnostic imaging	Diagnostic imaging of neurodegenerative diseases by antibody pre-targeting of plaques and tangles					
Process for the synthesis of radiolabelled biological polymers	Process for the synthesis of ⁸⁹ Zr radiolabelled biological polymer-chelate agent conjugates. Automation of the process is also described.					

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