NeuroScientific
BIOPHARMACEUTICALS
ASX:NSB

ASX ANNOUNCEMENT
22 June 2022

NEUROSCIENTIFIC TO PRESENT AT GOLD COAST INVESTMENT SHOWCASE

NeuroScientific Biopharmaceuticals Ltd (ASX: **NSB**) (**"NeuroScientific"** or **"the company"**) is pleased to advise shareholders and investors that CEO and Managing Director Matt Liddelow will be presenting at the Gold Coast Investment Showcase being held on 22- 23 June 2022.

Organised by Vertical Events, the Gold Coast Investment Showcase involves a diverse range of presentations from both pre-listed and listed ASX companies from all sectors.

NeuroScientific's most current company presentation will follow this announcement.

This announcement is authorised by the Board of NeuroScientific Biopharmaceuticals Ltd.

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About NeuroScientific Biopharmaceuticals Ltd
NeuroScientific Biopharmaceuticals Limited (ASX: NSB) is a company developing peptide-based pharmaceutical drugs that target a number of neurodegenerative conditions with high unmet medical demand. The company's product portfolio includes EmtinB™, a therapeutic peptide initially targeting Alzheimer's disease and glaucoma, as well as other Emtin peptides (EmtinAc, EmtinAn, and EmtinBn) which have demonstrated similar therapeutic potential as EmtinB™. For more information, please visit www.neuroscientific.com

About EmtinB™
EmtinB™ is a peptide-based compound that binds to surface-based cell receptors from the LDLR family, activating intracellular signalling pathways that stimulate neuroprotection, neuroregeneration and modulate neuroinflammation. EmtinB™ is modelled on a specific active domain of the complex human protein called Metallothionein-IIA, which is produced as part of the human body's innate immune response to cell injury.

Our preclinical research has established that EmtinB™ is highly specific and selective for its target receptor, safe and well tolerated at high concentrations, and is able to penetrate the blood brain barrier. A series of Phase I clinical studies will be conducted to establish the safety profile of EmtinB™ in humans.

NeuroScientific
BIOPHARMACEUTICALS

NOVEL DRUG THERAPIES FOR
NEURODEGENERATIVE CONDITIONS

COMPANY PRESENTATION

JUNE 2022 · ASX: NSB

neuroscientific.com

DISCLAIMER

The purpose of the presentation is to provide an update of the business of NeuroScientific Biopharmaceuticals Ltd ("NeuroScientific", or "the Company"). These slides have been prepared as a presentation aid only and the information they contain may require further explanation and/or clarification. Further information is available upon request.

The views expressed in this presentation contain information derived from publicly available sources that have not been independently verified. No representation or warranty is made as to the accuracy, completeness or reliability of the information. Any forward looking statements in this presentation have been prepared on the basis of a number of assumptions which may prove incorrect and the current intentions, plans, expectations and beliefs about future events are subject to risks, uncertainties and other factors, many of which are outside NeuroScientific's control. Important factors that could cause actual results to differ materially from assumptions or expectations expressed or implied in this presentation include known and unknown risks. Because actual results could differ materially to assumptions made and NeuroScientific's current intentions, plans, expectations and beliefs about the future, you are urged to view all forward looking statements contained in this presentation with caution.

This presentation should not be relied on as a recommendation or forecast by NeuroScientific. Nothing in this presentation should be construed as either an offer to sell or a solicitation of an offer to buy or sell shares in any jurisdiction.

COMPANY HIGHLIGHTS

DEVELOPING NOVEL PEPTIDE-BASED THERAPEUTIC DRUGS

Developing peptide-based drugs with disease modifying potential for neurodegenerative conditions

EMTINB™: LEAD DRUG CANDIDATE WITH DISEASE MODIFYING POTENTIAL

A first-in-class treatment for Alzheimer's disease, Multiple Sclerosis and Glaucoma

CLINICAL DEVELOPMENT COMMENCING IN 1H CY2022

HREC approval has been received for early-phase clinical trial of EmtinB™

CORPORATE OVERVIEW

CAPITAL STRUCTURE

NSB
ASX Code

$0.17
Share price (20/06/22)

143.5m
Shares on issue

16.8m
Unlisted options

$25m
Market capitalisation

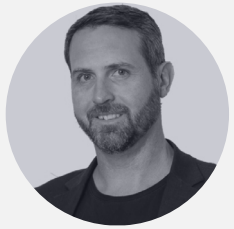
$7.3m
Net cash position

48%
Top 20 shareholders

SHARE PRICE CHART

BOARD & MANAGEMENT

Paul Rennie
Chairman
- Founder of Paradigm (ASX: PAR)
- Former COO of Mesoblast (ASX: MSB)



Matt Liddelow
Managing Director
- Experienced pharma executive
- 14+ years industry experience

Dr Anton Uvarov
Executive Director
- Founding Director of Actinogen (ASX: ACW)
- Former equities analyst with Citigroup, US

Stephen Quantrill
Non-Executive Director
- 20+ years corporate advisory
- Managing Director of McRae Investments

ADDRESSING GLOBAL UNMET MEDICAL NEED IN NEURODEGENERATIVE CONDITIONS

ALZHEIMER'S DISEASE

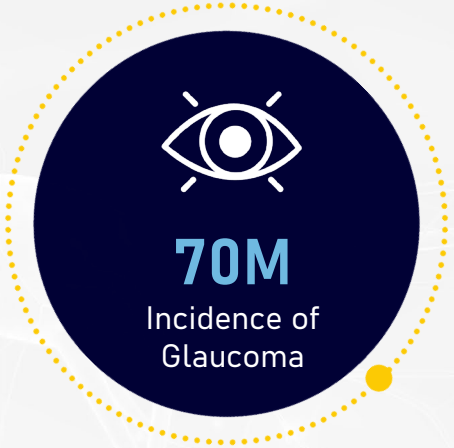
MOST SEVERE TYPE OF DEMENTIA

NO DISEASE MODIFYING DRUGS AVAILABLE

MULTIPLE SCLEROSIS

AGE OF ONSET – 20-50YEARS

NO EFFECTIVE DRUGS TO TREAT LATER STAGE OF DISEASE



OPTIC NEUROPATHIES

2ND LEADING CAUSE OF BLINDNESS

CURRENT TREATMENT OPTIONS NOT SUITABLE FOR ALL PATIENTS

The underlying cause of most neurodegenerative conditions is not known

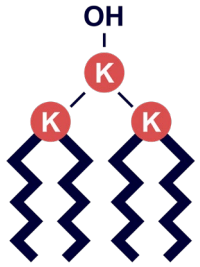
Developing a solution is challenging when the cause is not fully understood

NSB's research is a potential solution by harnessing the body's defence mechanisms to combat neurodegenerative diseases

EMTINB™: LEAD DRUG CANDIDATE WITH DISEASE MODIFYING POTENTIAL

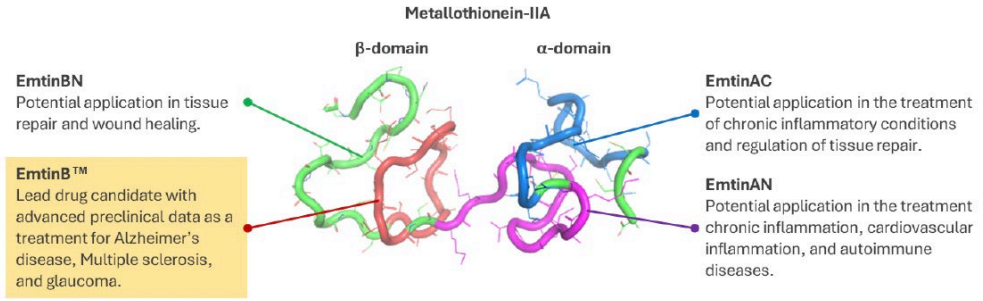
EmtinB™ promotes cell survival and regeneration, and reduces inflammation in neurodegenerative conditions

EMTINB™



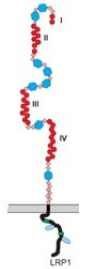
- Advanced peptide structure, synthetically manufactured
- Low potential for off-target effects – highly specific for target receptor
- Crosses the blood brain barrier

MODELLED ON HUMAN PROTECTIVE PROTEIN MT-II



- Large body of published data demonstrating protective and regenerative activity
- Commercialisation of MT-II limited by complex structure, not able to be synthetically manufactured

EMTINB™ TARGETS LRP-1



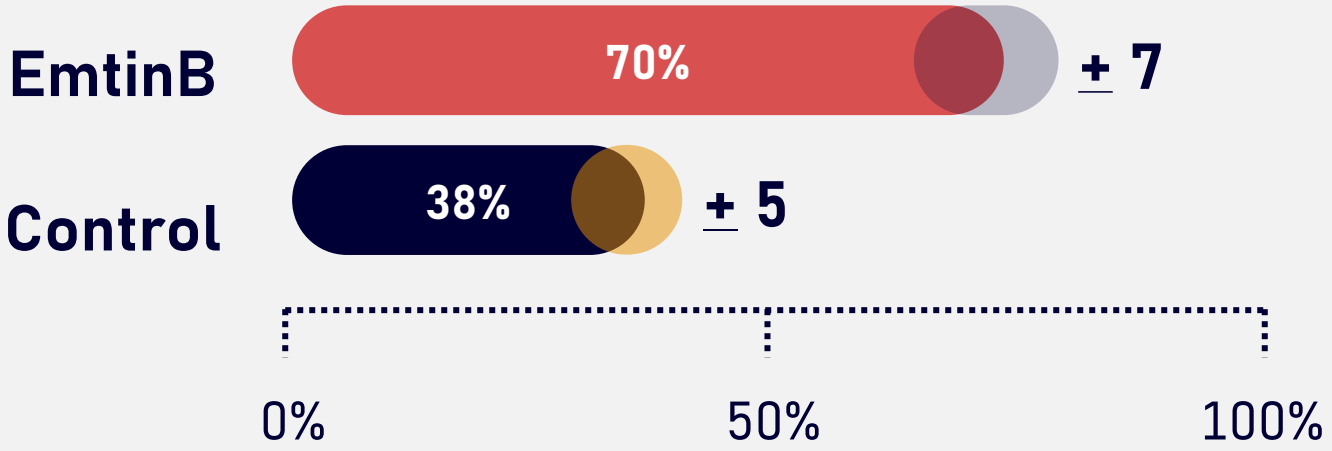
- LRP-1 receptor is expressed by most cells of the nervous system
- EmtinB activates LRP-1 pathways that stimulate cell survival, induce regeneration, and downregulate inflammation

EMTINB™ DISEASE MODIFYING EFFECT IN ALZHEIMER'S DISEASE

ALZHEIMER'S DISEASE – PREVENTING COGNITIVE DECLINE

AD MOUSE MODEL

Cognition: treatment for 48 days



Validated in the gold-standard animal model

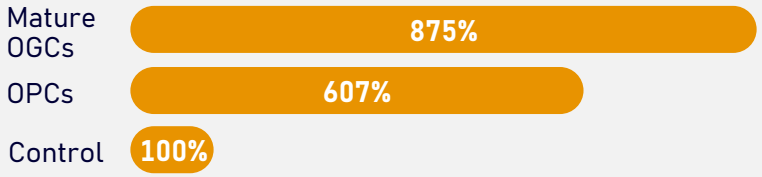
Protected tissue of the brain and improved memory

Reduced inflammation

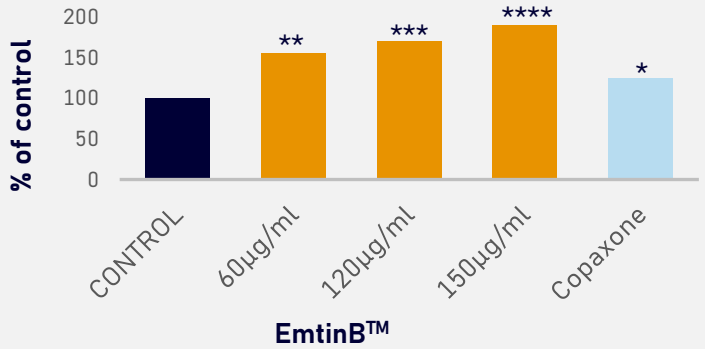
EMTINB™ DISEASE MODIFYING EFFECT IN MULTIPLE SCLEROSIS

MULTIPLE SCLEROSIS – POTENTIAL TO TREAT ALL STAGES

EFFECT OF EMTINB™: % INCREASE IN OLIGODENDROCYTES



INCREASE IN MYELIN VS COPAXONE



Increased the number of myelin-forming cells (oligodendrocytes)

Increased myelin production

Increased survival and regeneration of neurons

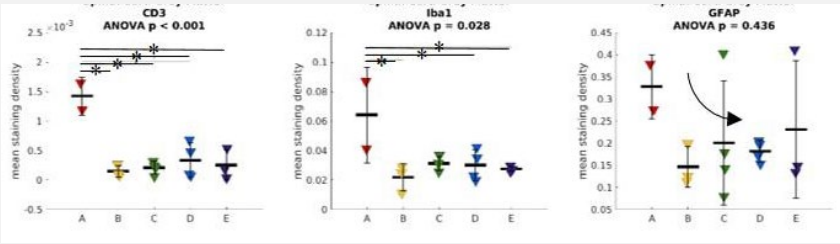
EFFECT OF EMTINB™: PRELIMINARY RESULTS FROM ANIMAL STUDY

77%

Lowered clinical scores (severity of disease) at 10mg/kg & 20mg/kg

Decrease in marker for nerve cell damage (NfL) in CSF

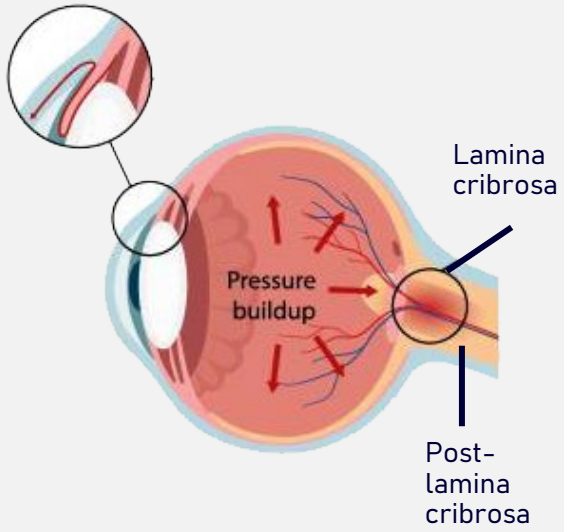
DECREASED INFLAMATORY RESPONSES



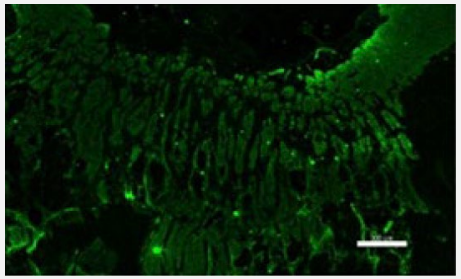
Significantly decreased proinflammatory immune cells associated with MS

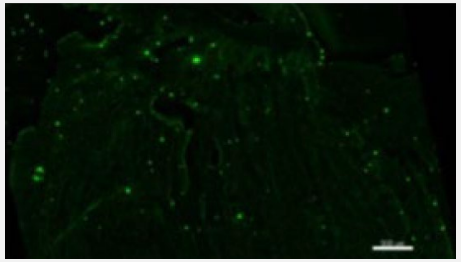
EMTINB™ DISEASE MODIFYING EFFECT IN GLAUCOMA

GLAUCOMA – PROTECTING THE OPTIC NERVE AND PREVENTING VISION LOSS

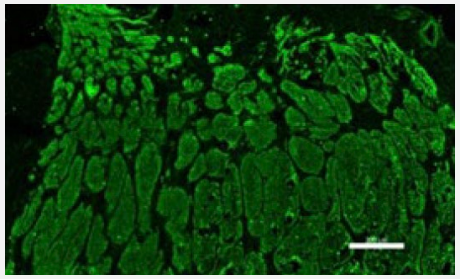


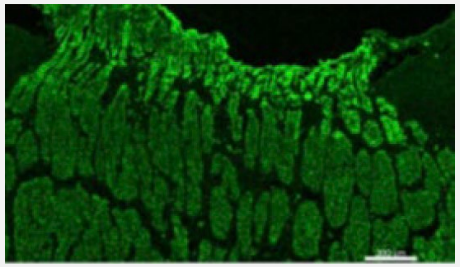
NOT TREATED





EMTINB TREATED





Performed in pig model; structure of the eye very similar to humans

Prevented damage to retinal cells

Prevented damage to the optic nerve

EMTINB™ – DEVELOPMENT OVERVIEW

	INDICATION	RESEARCH	SAFETY & TOX	CLINICAL DEVELOPMENT
NERUOLOGY	ALZHEIMER'S DISEASE			1H CY2022
	MULTIPLE SCLEROSIS		The same safety & toxicology data from the indication above will be used to support MS	
OPHTHALMOLOGY	GLAUCOMA			2H CY2022
	ISCHEMIC NEUROPATHY			
EXPLORATORY	PULMONARY FIBROSIS			
	CHRONIC INFLAMMATION			

PARTNERING WITH LEADING RESEARCH ORGANISATIONS

NON-CLINICAL RESEARCH

labcorp

mdbiosciences.

neuron experts

Biospective

eurofins

imeka

BioAgilytix

Lions Eye Institute

CLINICAL RESEARCH

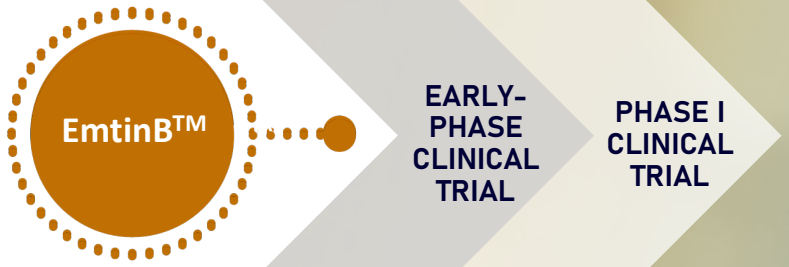
linear

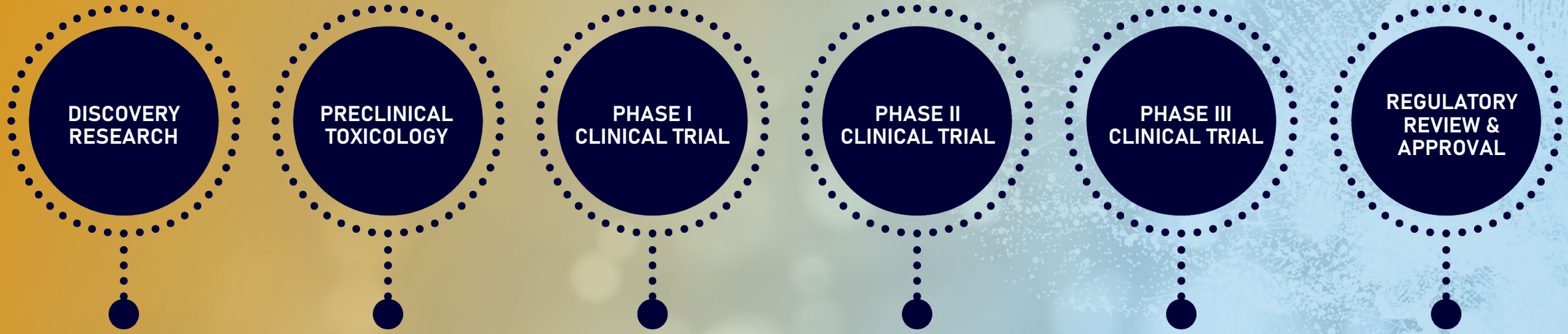
AGILEX BIOLABS

imeka

TRANSITIONING TO CLINICAL DEVELOPMENT

NSB is progressing EmtinB™ into clinical trials in 1H CY2022





Basic validation of drug candidate

GLP safety and toxicology studies in animals

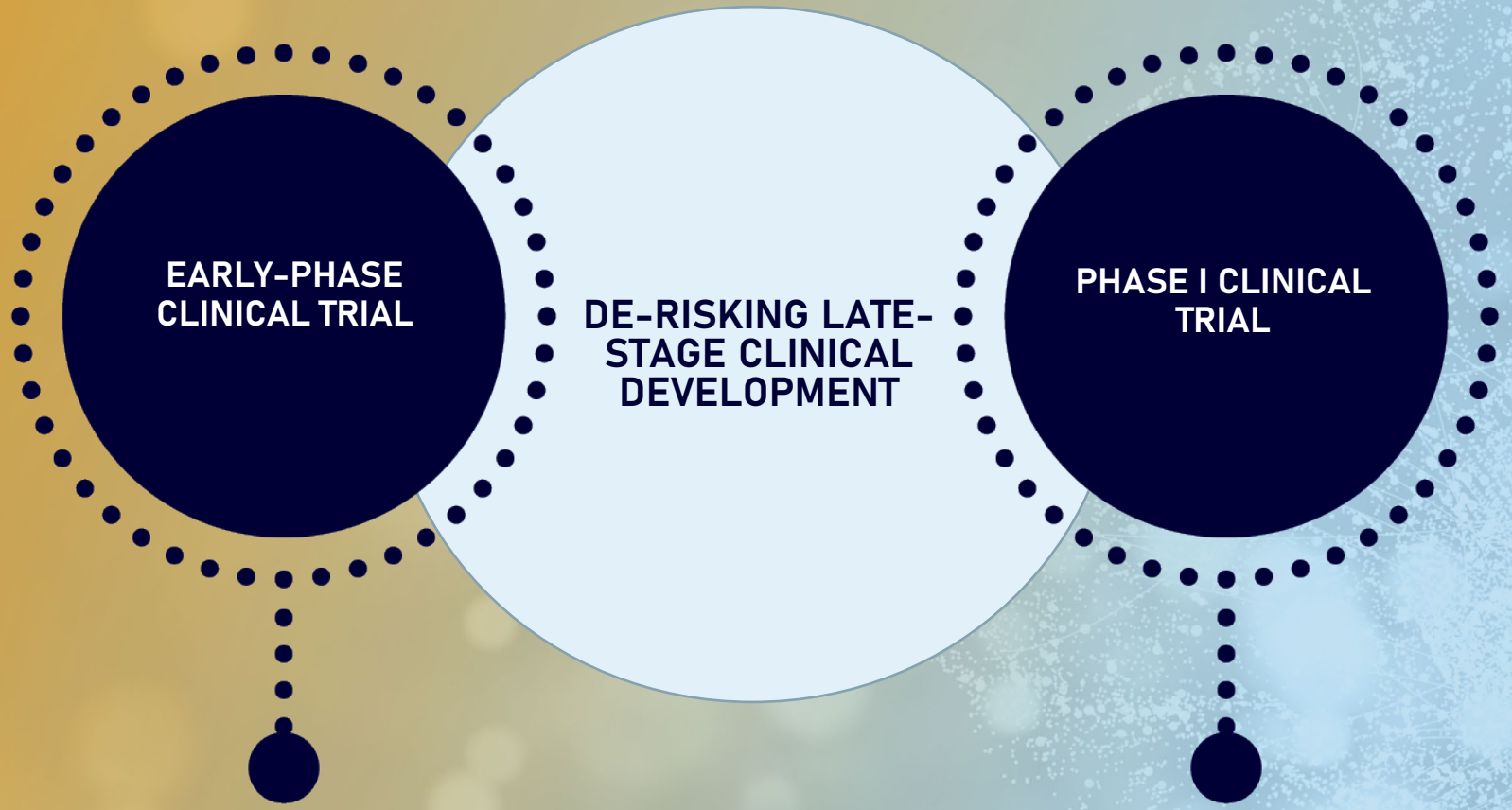
Assessment of safety in healthy human subjects

Assessment of safety and efficacy in patients

Assessment of efficacy and safety in large patient groups

Assessment of safety and efficacy in patients

EARLY-STAGE CLINICAL DEVELOPMENT PROGRAM



30 healthy volunteers

Development of pharmacodynamic (PD) biomarkers to confirm the MOA of EmtinB™ in humans

Important for Phase II and Phase III clinical trials

Up to 80 healthy volunteers

Assessment of safety and tolerability of EmtinB™ in single ascending dose (SAD) and multiple ascending dose (MAD) studies

PIVOTAL MILESTONES

KEY MILESTONES COMPLETED

- SAFETY & TOXICITY STUDIES IN ANIMALS (NEUROLOGY INDICATIONS)
- PRECLINICAL BIOMARKER PROGRAM – IDENTIFIED POTENTIAL PD & EFFICACY BIOMARKERS
- MANUFACTURING OF CLINICAL-GRADE (GMP) EMTINB™
- HREC APPROVAL TO COMMENCE EARLY-PHASE CLINICAL TRIAL

NEAR-TERM KEY MILESTONES

- COMMENCE EARLY-PHASE CLINICAL TRIAL
- HREC APPROVAL TO COMMENCE PHASE I CLINICAL TRIAL
- RECRUITMENT OF FIRST COHORT FOR PHASE I CLINICAL TRIAL
- FINAL OUTCOMES FROM PRECLINICAL MULTIPLE SCLEROSIS PROGRAM – UNDERTAKEN IN GOLD STANDARD ANIMAL MODELS FOR MS

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