

# **Corporate Presentation**

# Inflammation & Immunology Platforms XPro<sup>™</sup> / CORDStrom<sup>™</sup> / INKmune<sup>®</sup>

**INMB** April 2025 Nasdag



This presentation contains "forward-looking statements" Forward-looking statements reflect our current view about future events. When used in this presentation, the words "anticipate," "believe," "estimate," "expect," "future," "intend," "plan," or the negative of these terms and similar expressions, as they relate to us or our management, identify forward-looking statements. Such statements, include, but are not limited to, statements contained in this presentation relating to our business strategy, our future operating results and liquidity and capital resources outlook. Forward-looking statements are based on our current expectations and assumptions regarding our business, the economy and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict. Our actual results may differ materially from those contemplated by the forward-looking statements. They are neither statements of historical fact nor guarantees of assurance of future performance. We caution you therefore against relying on any of these forward-looking statements. Important factors that could cause actual results to differ materially from those in the forward-looking statements include, without limitation, our ability to raise capital to fund continuing operations: our ability to protect our intellectual property rights: the impact of any infringement actions or other litigation brought against us: competition from other providers and products; our ability to our industry, our operations and services; changes in government regulation; any specific outcome will be achieved. Investment results are speculative and there is a risk of loss, potentially all loss of investments. Actual results may differ may emerge from time to time, and it is not possible for us to predict all of them. We cannot guarantee future results, levels of activity, performance or achievements. Except as required by applicable law, including the sec

# **Three Novel Platforms with Data in 2025**



- ➤ XPro<sup>™</sup>: Treating Neuroinflammation without Immunosuppression
  - Phase 2 Alzheimer's fully enrolled
  - Top-line cognition results, June 2025
- ➤ CORDStrom<sup>™</sup> Completed Blinded Randomized Trial in Recessive Dystrophic Epidermolysis Bullosa (RDEB)
  - o US BLA Submission in 2026
  - Granted Orphan Drug and Rare Pediatric Disease
    Designations from FDA; PRV Eligible
- > INKmune<sup>™</sup>: Creates memory-like NK Cells to Kill Cancer
  - $\circ~$  Phase I dose escalation cohorts complete
  - Open label Phase 2 Metastatic Castrate Resistant Prostate Cancer with ongoing data readouts in 2025



# **Programs with Data in 2025**

DN-TNF Platform	DISEASE FIELD	PRE-CLINICAL PHASE 1 PHASE II (POC) PIVO	TAL BLA
XPro™	Early Alzheimer's Disease		Top line cognitive data June 2025
Pooled MSC Platform			
CORDStrom™	Recessive Dystrophic Epidermolysis Bullosa		BLA 1H 2026
NK Priming Platform			
INKmune™	Metastatic Castrate Resistant Prostate Cancer		Complete Enrollment In 2025

XPro<sup>™</sup> program in TRD will enroll patients but not produce clinical data in 2025

**INmuneBio** 



Treating Alzheimer's as an Immunologic Disease Driven by Neuroinflammation



### **Treating Alzheimer's disease as an Immunologic disease** XPro<sup>™</sup> breaks the *"Doom Loop"* of Neuroinflammation and Cognitive Decline



Essential Pathologies of Cognitive Decline

- Synaptic
  Dysfunction
- Demyelination
- Nerve Cell Death



#### **STNF causes Neuroinflammation that causes AD** Prevention of chronic inflammation with anti-TNF therapy lowers risk of AD





Epidemiological studies including a meta-analysis of more than 60 million cases linking **TNF Blocking Agents** to reduced risk of AD



Phase I Results: Neutralizing sTNF with XPro<sup>™</sup> Decreases Neuroinflammation Dose-dependent reduction of CSF biomarkers of neuroinflammation in AD patients



\*1 mg/kg group (N=6)

Phase I results using Olink® Target 48 Cytokine assay in CSF

## XPro<sup>™</sup> Decreases Neurodegeneration

pTau217 is best biomarker for neurodegeneration in patients with AD\*

Phase I data: XPro<sup>™</sup> 1mg/kg subQ once a week for 12 weeks decrease pTau in CSF in patients with AD



\*https://jamanetwork.com/journals/jamaneurology/fullarticle/281375



## **XPro<sup>™</sup> Improves Synaptic Function**

Phase I studies demonstrated changes in synaptic proteins that correspond to improvements in synaptic function as measured by EEG Alpha waves





#### XPro<sup>™</sup>: a dominant-Negative selective inhibitor of <u>ONLY</u> soluble TNF



XPro<sup>™</sup> is identical to the human soluble TNF monomer with the exception of mutations in the receptor binding domain and another for pegylation.

#### **Dominant-Negative in genetics**: "A mutation producing a rogue protein that interferes with the function of the native protein."

# TNF: Two Cytokines, Same Name, Opposite Effects



Soluble TNF cause inflammation, cell death and demyelination Transmembrane TNF promotes immune function, is neuroprotective and improves synaptic plasticity

#### Currently approved TNF inhibitors block both types of TNF causing immunosuppression and demyelination





#### **XPro<sup>™</sup> unique Mechanism of Action** XPro neutralizes sTNF without affecting tmTNF using dominant-negative technology

#### Targeting sTNF

XPro<sup>™</sup> exchanges with sTNF monomers to form inactive heterotrimers

Inflammatory TNF eliminated No paracrine signaling through receptors



**DN-TNF** drug



Active TNF



#### Preserving tmTNF Function

tmTNF homotrimers are anchored to the cell membrane; XPro<sup>™</sup> <u>cannot</u> exchange

> Beneficial TNF signaling preserved Improved immune and CNS function



# Purpose Built for Treating CNS Disease:

XPro<sup>™</sup> neutralizes sTNF without affecting tmTNF



Myelin

Axons

- Currently approved TNF inhibitors are contraindicated in treatment of neurologic disease such as AD
  - promote demyelination (yellow arrow)
  - promote axon degeneration (white arrows)
- XPro<sup>™</sup> promotes remyelination and axonal regeneration

Etanercept XPro™

Karamita; Therapeutic inhibition of soluble brain TNF promotes remyelination by increasing myelin phagocytosis by microglia. https://doi.org/10.1172/jci.insight.87455

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#### Phase 2 Trial of XPro<sup>™</sup> in Patients with Early Alzheimer's Disease





## EMACC and CDR: Primary end-point for Early AD clinical trials

	CDR	EMACC
Clinically derived to stage AD	Ð	
Empirically derived to measure cognitive change in Early AD		Đ
Clinically validated measurements	Ð	Ð
No floor or ceiling effects		Ð
Lower variance and shorter retest intervals provides smoother measure of cognitive change		÷
Greater dynamic range allows measure of stable, worsening or improved cognition		Ð
Allows for shorter and smaller clinical trials		Ð

Webinar: "Why EMACC is the Optimal Tool for Measuring Cognitive Change in Early Alzheimer's Trials"

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# Phase 2 Trial Summary: Shorter || Smaller || Smarter

#### **Top Line Cognition Results Expected June 25**

- 208 patients enrolled
  - 56% mild AD, 44% MCI
- Enrichment for patients with elevated neuroinflammation (ADi) decreases risk
  - AD patients with inflammation progress faster and more reliably allowing for smaller trial size and shorter duration
- EMACC is purpose built for measuring cognitive decline in patients with Early AD
  - Objective tests eliminate caregiver bias
  - Enables measurement of cognitive improvement or decline



**INmuneBio** 

# CORDStrom<sup>™</sup> for RDEB

MSC Platform Technology with RDEB as Initial Indication

### ) RDEB – An Ultra-Rare Genetic Disease with Significant Unmet Need





- RDEB is a severe form of epidermolysis bullosa (EB), a rare disease that causes severe skin fragility, itch and chronic pain
- RDEB is caused by mutations in the *COL7A1* gene that makes type VII collagen, a protein that holds the layers of skin together
- Children with RDEB have skin that is damaged by even the smallest amount of friction which causes severe blistering, deep wounds, and scars
- There are limited options available for treatment, none that adequately meet the needs of patients, and the condition gets worse over time, with most children reliant on a wheelchair as they move into their teenage years
- Many of those with RDEB will also go on to develop aggressive life-threatening skin cancer in adulthood caused by the accumulated damage to their skin
- Krystal Biotech's VYJUVEK launch in DEB is off to an impressive start (~\$84M net revenue in Q3 '24); CORDStrom is potentially the first systemic therapy, with itch benefit as a key differentiating factor, potential for use as an adjunctive therapy
- It is estimated that more than 4000 people suffer from RDEB in the US, UK and EU, representing a > \$1B peak sales opportunity



## **CORDStrom Platform Overview**

Investigational disease-modifying treatment for recessive dystrophic epidermolysis bullosa (RDEB)

#### **CORDStrom Overview**

- CORDStrom is a patent-pending cell medicine comprising allogeneic, pooled human umbilical cord -derived mesenchymal stromal cells (hucMSCs) in suspension for injection or infusion
- Invented by Prof. Mark Lowdell's, CSO, leveraging INKmune staff and equipment
- Since 2020, INmune supplied CORDStrom hucMSCs to GOSH for the Mission EB trial in the UK
- CORDStrom has been granted RPDD and ODD by FDA and would be eligible to receive a PRV and seven years of market exclusivity after FDA approval
- INmune and GOSH entered into an exclusive commercial license agreement for the MissionEB clinical data

#### **Mission EB Phase 2 Trial**

- Completed by investigators at GOSH in the UK and primarily funded by grant from NIHR (National Institute of Health and Care Research)
- Double-blinded, randomized, placebo-controlled Phase 2 trial to evaluate the safety and efficacy of CORDStrom in 30 pediatric patients in the UK with intermediate and severe RDEB using a novel crossover clinical trial design
- Patients received two intravenous infusions two weeks apart and then followed for nine months; each child then crossed over to the other arm and received two doses of placebo or CORDStrom two weeks apart with a further nine-month follow-up
- Topline results showed CORDStrom was easily administered, well tolerated and there were beneficial effects with respect to Itch Man Scale, iscorEB clinician score and skin score and QOL
- Safe no CORDStrom-related serious adverse events were reported

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### **CORDStrom Next Steps and Milestones**

Productive conversations with FDA over the last few months have established a clear path forward



Completed Type C meeting with FDA; CORDStrom was granted RPDD and ODD by FDA for the treatment of EB

Publication of CORDStrom/MissionEB study in academic journal

Open label trial set to begin in the UK around mid-2025; INmune intends to file IND with FDA to include US patients

Submit BLA seeking approval of CORDStrom for the treatment of RDEB by YE 2025

Submit MAAs to MHRA and EMA seeking approvals in the UK and EU in 2026

Potential approval / launch of CORDStrom in the US, UK and EU in 2026; eligible to receive PRV upon approval in the US

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### **Mission EB Trial Design:**

**Double-Blind Randomized Crossover Trial in Children with RDEB** 



30 pediatric patients (age≤16 years) with RDEB confirmed by C7 testing were treated in a blinded, randomized placebo controlled cross-over design clinical trial at two university centers in the UK under MHRA authorization. All patients received all four doses of therapy (two each of CORDStrom or placebo) and completed the trial. Safety and efficacy data was collected. No drug related SAEs were reported. Disease related SAE and AE were equally balanced between treatment groups. Patient and caregiver interviews were performed in a subset of trial participants.

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# Itch: Clinically Meaningful Endpoint

- 100% of kids have itch as an important clinical problem
- FDA guidance highlights itch as a clinically important end-point\* for RDEB
  - Itch Man Scale is a validated scales used in pediatric patients
  - Itch is as an endpoint used to approve drugs (eg: atopic dermatitis)
- Itch has negative impact on QOL
- Itch-scratch cycle may worsen wounds and complicate wound management



 <u>https://www.fda.gov/regulatory-</u> information/search-fda-guidancedocuments/epidermolysis-bullosadeveloping-drugs-treatment-cutaneousmanifestations-guidance-industry

# ) Itch: Clinically Meaningful Endpoint



Itch improved at 3 months and remained stable at 6 months.

# **CORDStrom for RDEB: Clinical and Qualitative Summary**

### **Clinical Benefits**

- Improvement in itch in all patient groups the most common and complained of symptom in RDEB
- In some patient groups
  - Less pain
  - Better iSCOREB wound score
- Durable benefit of CORDStrom therapy for 6 months

### **Qualitative Benefits**

- 10 of 13 respondents confirm benefit of therapy on clinical problems of itch, wound care and QOL
- All patient/caregivers want to remain on therapy
- Excellent safety profile makes treatment easy

**Goals of open label trial:** i) correlate decrease in itch with improved wound healing; ii) demonstrate systemic benefits on extra-cutaneous manifestations of disease (e.g.: dysphagia, corneal blisters and scaring)



# **CORDStrom RDEB open label trial**

- 12-month open label trial intermediate/severe RDEB
- 3 cycles of CORDStrom (2 doses/cycle)
  - CORDStrom dosing at 0, 4 and 8 months
- Two sites in UK plus US sites (US sites TBD)

- Primary end-point: Itch
- Secondary End-points: pain, EBDASI, iscorEB, QOL, wound closure



## **CORDStrom for RDEB: systemic benefits for a systemic disease**



**iscorEB:** best clinical measure of systemic RDEB activity for therapeutic response

- Accurate: skin score measures activity not chronic damage based by age and BSA
- Clinician part of score purely objective every measure is quantifiable

# INmuneBio INNKARUARE INNUNEBIO

Off-the-Shelf NK Therapy Converts Patient's Resting NK cells into Cancer Killing memory like NK cells



#### Solution: Use INKmune<sup>®</sup> to Match Therapy with Cancer Biology INKmune<sup>™</sup> targets the immune cells most prominent in the Tumor MicroEnvironment (TME) of PC



#### INKmune<sup>®</sup> Primed NK Cells "Fitter" Than Cytokine Primed NK Cells



\*studies of human NK cells targeting human prostate cancer cells





## INKmune<sup>®</sup> mCRPC Phase I/II Trial Design



Trial will determine:

- Effective dose: safe with evidence of tumor effects
- Short and long-term safety no drug related serious adverse effects
- Immunologic efficacy converts patient's NK cells to mINK cells that kill tumor cells (ex vivo assay) with long-term persistence of mINK cells in patient's circulation
- Anti-tumor effects evidence of control of tumor burden by PSA, PSMA and/or ctDNA



#### Key Upcoming Clinical & Regulatory Milestones

	Event	Anticipated Timing
	Topline Cognition data Phase 2 AD	June 2025
APro	End of Phase 2 FDA Meeting AD	3/4Q 2025
CORDStrom™	<b>CORDStrom RDEB BLA submission</b>	1H 2026
INKmune™	Complete Phase 2 mCRPC Enrollment	3Q 2025
	Open Label Phase 2 mCRPC Data	Ongoing



# Inflammation and Immune Repair

#### **INmune Bio Inc.**

225 NE Mizner Blvd.Suite 640 Boca Raton, FL 33432 (858) 964-3720 info@inmunebio.com

Symbol: INMB (Nasdaq)