DENALI Corporate Overview

January 2023

Disclaimers

Forward-Looking Statements. This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements do not relate strictly to historical or current facts and they may be accompanied by such words as "anticipate." "believe." "could." "estimate." "forecast." "intend." "may." "plan." "potential." "possible." "future." "will" and other words and terms of similar meaning. All statements other than statements of historical facts contained in this presentation, including, without limitation, statements regarding future results of operations and financial position of Denali Therapeutics Inc. ("Denali" or the "Company"); Denali's business strategy and business plans, expected progress and expansion, and expected key milestones for Denali's therapeutic portfolio in 2023 and beyond; Denali's ability to execute on its tailored commercial strategies and accelerate commercial launch readiness in key markets, including the US and China; expectations relating to the potential for Denali's product candidates to treat various neurodegenerative diseases including MPSI, MPS II (Hunter Syndrome), MPS IIIA (Sanfilippo Syndrome), ALS, MS, PD, AD, FTD-GRN, CLE, UC, and related peripheral inflammatory diseases, as well as expectations and timelines relating to the continued progress and potential of its small molecule programs; planned preclinical studies and clinical trials and the expectations regarding the timing and availability of results and data from such studies and trials: plans, timelines, expectations, and current and future therapeutic and commercial opportunities related to Denali's Transport Vehicle (TV) platform, including its Enzyme Transport Vehicle (ETV), Antibody Transport Vehicle (ATV), Protein Transport Vehicle (PTV), and Oligonucleotide (OTV) technologies, and other programs enabled by these platforms, as well as potential targets and differentiation strategies; plans, timelines, and expectations relating to DNL310, including safety profile and exploratory clinical outcomes data from the ongoing Phase 1/2 study, enrollment in the Phase 2/3 COMPASS study, and the initiation of future clinical trials; plans, timelines and expectations related to DNL126, including planned regulatory filings; Denali's and Takeda's plans and expectations regarding DNL593 and DNL919, including ongoing and future clinical trials, the availability of data, and planned regulatory filings; Denali's priorities, regulatory approvals, timing and likelihood of success and expectations regarding Takeda's option exercise to co-develop and co-commercialize DNL919: expectations relating to the ability of Denali's ATV technology to enhance the therapeutic efficacy of DNL919; expectations and potential benefits relating to ATV: Abeta for the potential treatment of AD; plans, timelines, and expectations relating to the Biogen-led development of DNL151, including a Phase 2b trial and Phase 3 trial, as well as other LRRK2 inhibitor molecules; expectations relating to LRRK2 inhibitor DNL201 for the treatment of PD; plans, timelines, and expectations related to DNL343, including the availability of data and the initiation of future clinical trials; Denali's and Sanofi's plans, timelines, and expectations related to DNL788 and DNL758, including with respect to the availability of data and the initiation of future clinical trials; the potential benefits and results of the collaborations with Denali's partners, including Biogen, Sanofi, and Takeda, and expected milestone payments; Company priorities, regulatory approvals, timing and likelihood of success and expectations regarding collaborations; and plans and expectations regarding Denali's global organization and clinical operations, the growth of its in-house clinical manufacturing capabilities, and the expected timing and likelihood of success of its commercial growth, are forward-looking statements. Denali has based these forward-looking statements largely on its current expectations and projections about future events.

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<u>Accuracy of Data</u>. This presentation contains statistical data based on independent industry publications or other publicly available information, as well as other information based on Denali's internal sources. Denali has not independently verified the accuracy or completeness of the data contained in these industry publications and other publicly available information. Accordingly, Denali makes no representations as to the accuracy or completeness of that data.

BUILDING DENALI TO DEFEAT DEGENERATION

Accomplishments to Date

Track Record of Invention & Execution



10 INDs across 6 indications,7 programs in clinical development with 3 in late-stage



Invented and validated BBB **Transport** Vehicle (TV) technology



Discovery engine with >14 programs in discovery stage, 20+ publications in toptier journals, and 90+ patents granted WW Productive discovery engine to deliver at least **3 additional NMEs** in the clinic

Mid-Term Goals (2023-2025)

Creating Value &

Delivering Medicines

Complete **3 - 4 late-stage** clinical

studies and establish commercial

Expand TV platform with OTV

candidates in the clinic

launch readiness

Long-Term Goals

Defeating Degeneration

Commercial **portfolio of products** in key markets

Solve BBB challenge for broad range of therapeutics and indications

Break open new science and fuel growth through invention



Strategic partnerships with Biogen, Sanofi and Takeda totaling **\$1.3B** in upfront payments and **>\$3B** in milestones

Selectively evaluate **new** partnering opportunities

Partner of choice in neurodegeneration

OTV: Oligonucleotide Transport Vehicle NME: New Molecular Entity WW: Worldwide

OUR FOCUS AND STRATEGIC PRINCIPLES

OUR FOCUS

Defeat Degeneration



Lysosomal Storage **Diseases**



Rare Neurodegenerative Diseases (ALS, FTD)



Parkinson's Disease



Alzheimer's Disease

OUR SCIENTIFIC PRINCIPLES

Increase Likelihood of Success



Degenogene **Pathways**



Brain Delivery



Biomarker-Driven Development



Strategic Partnering



Broad Portfolio

OUR BUSINESS PRINCIPLES

Create Value



Integrated Global **Capabilities**

OUR DEVELOPMENT PORTFOLIO

					DE	VELOPMENT STA	GE	
MODALITY	TARGET	BIOLOGY	DRUG CANDIDATE*	DISEASE INDICATION	IND-Enabling	Early Clinical	Mid/Late Clinical	PARTNER
	Iduronate 2-Sulfatase	Lysosomal Function	DNL310 (ETV:IDS)	MPS II (Hunter)				
	PGRN	Lysosomal Function	TAK-594/DNL593 (PTV:PGRN)	Frontotemporal Dementia- Granulin				Takeda
LARGE MOLECULE	TREM2	Glial Biology	TAK-920/DNL919 (ATV:TREM2)	Alzheimer's				Takeda
(TV-ENABLED)	Sulfamidase	Lysosomal Function	DNL126 (ETV:SGSH)	MPS IIIA (Sanfilippo)				
	Alpha-L- iduronidase	Lysosomal Function	DNL622 (ETV:IDUA)	MPS I (Hurler)				
	Multiple	Multiple	OTV:Multiple	Multiple				
	LRRK2	Lysosomal	BIIB122/DNL151	Idiopathic Parkinson's				
		Function	(LRRK2 inhibitor)	LRRK2+ Parkinson's				Biogen
SMALL MOLECULE	RIPK1 (CNS)	Glial Biology	SAR443820/DNL788 (RIPK1 inhibitor)	Neurodegeneration (ALS)				sanofi
	RIPK1 (Peripheral)	Other	SAR443122/DNL758 (RIPK1 inhibitor)	Systemic Inflammation (CLE, UC)				sanofi
	elF2B	Cellular Homeostasis	DNL343 (eIF2B activator)	ALS				

50/50 US Commercial Royalty *Investigational – not approved for treatment

Broad, diverse, and differentiated portfolio, including multiple TV-enabled and small molecule programs in discovery

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Biotherapeutics

Small Molecules

OUR STRATEGY: BROAD PORTFOLIO IN PARALLEL DEVELOPMENT



Goal is to achieve broad-reaching impact for patients across our therapeutic focus areas

* Denali estimates of world-wide aggregate prevalence

6

OUR VISION: COMMERCIAL ORGANIZATION TO SERVE PATIENTS



Accelerate commercial launch readiness in key markets

* Denali estimates of world-wide aggregate prevalence

OUR TV PLATFORM FOR BRAIN DELIVERY OF BIOTHERAPEUTICS

ADDRESSING THE CHALLENGE OF DELIVERING THERAPY TO THE BRAIN

The Transport Vehicle (TV) is engineered to deliver efficacious concentrations of biotherapeutics (large molecules) to brain cells via receptor mediated transcytosis



https://www.denalitherapeutics.com/patients

TRANSPORT VEHICLE ENABLES MODALITY-OPTIMIZED BRAIN DELIVERY



Each TV modality is a platform opportunity

JENNLI

TV PLATFORM OPPORTUNITIES DRIVE SUSTAINABLE VALUE CREATION Each TV modality is a platform opportunity



JENNLI

DNL310 (ETV:IDS): LEAD ETV PROGRAM TARGETING MPS II

Addressing cognitive, behavioral & physical manifestations of MPS II (Hunter syndrome)

- ~2,000 MPS II patients, mainly boys, worldwide
- Delivery of IDS enzyme to the brain is a critical unmet need of MPS II therapy
- Elevated heparan sulfate (HS) in CSF is a key biomarker of neurocognitive involvement
- DNL310 normalized CSF HS and further reduced urine HS after patients switched from ERT
- Open label data suggest improvement or stabilization of clinical symptoms in majority of Phase 1/2 participants
- Safety profile consistent with standard of care ERT

ETV:IDS=Enzyme Transport Vehicle Iduronate-2-Sulfatase; MPS=mucopolysaccharidoses; CSF=cerebrospinal fluid; ERT=enzyme replacement therapy; TV=Transport Vehicle

Rapid and durable normalization of heparan sulfate in CSF ongoing Phase 1/2 study



Preliminary normal range (10th and 90th %ile) determined using 30 healthy adult CSF samples (age range 18-81 years, median 52 years). Total CSF GAG levels are similar in adults and children (Hendriksz et al., 2015). Normal range for CSF Heparan Sulfate (ng/mL): (39.1 - 92.51).

Drug	Mechanism	Therapeutic	Stage	Expected
Candidate	of Action	Area		Milestone
DNL310	ETV:IDS	MPS II (Hunter)	Phase 2/3 (COMPASS)	Additional interim Ph 1/2 data Early/Mid 2023

DNL126 (ETV:SGSH): EXPANDS ETV PLATFORM FOR MPS IIIA

Addressing cognitive, behavioral & physical manifestations of Sanfilippo syndrome Type A

- Rare lysosomal storage disease (LSD) that causes neurodegeneration; no treatments
- Caused by genetic mutations that result in a reduction in the activity of SGSH
- SGSH is an enzyme responsible for degrading heparan sulfates (HS) in the lysosome
- HS accumulation leads to lysosomal dysfunction
- DNL126 is designed to replace SGSH in the brain and throughout the body

ETV:SGSH=Enzyme Transport Vehicle N-Sulfoglucosamine Sulfohydrolase; MPS=mucopolysaccharidoses; CSF=cerebrospinal fluid; IND=investigational new drug

IV DNL126 treatment reduces HS in a dosedependent manner in brain and CSF



Drug Candidate	Mechanism of Action	Therapeutic Area	Stage	Expected Milestones
DNL126	ETV:SGSH	MPS IIIA	IND-	Submit IND application 1H:23 and recruitment activities 2H:23
	DNL126 ETV:SGSH (Sa	(Sanfilippo)	enabling	Preclinical data at WORLD <i>Symposium</i>

DNL593 (PTV:PGRN): PGRN BRAIN DELIVERY FOR FTD-GRN

Brain delivery of progranulin (PGRN) designed to treat frontotemporal dementia-granulin (FTD-GRN)

- FTD is the most common dementia in people under 60; no approved therapies
- FTD-GRN is associated with progranulin (PGRN) deficiency; accounts for 5-10% of FTD
- Single doses of DNL593 in healthy volunteers led to dose-dependent increases in CSF PGRN and were generally well tolerated
- Data support enrolling participants with FTD-GRN in Part B of the Phase 1/2 study
- Co-development and co-commercialization with Takeda





PTV:PGRN=Protein Transport Vehicle:Progranulin; 14 CSF=cerebrospinal fluid; HV=healthy volunteer





Dose-dependent increase in CSF PGRN in HV with IV DNL593 further validates TV for BBB crossing

Drug Candidate	Mechanism of Action	Therapeutic Area	Stage	Expected Milestones & Activities
DNL593			Db 1/2	Final Ph 1/2 Part A (HV) data Mid 2023
(TAK-594)	PTV:PGRN	FTD-GRN	Ph 1/2	Recruit Part B of Ph 1/2 ongoing

ATV: TARGETING TREM2 AND ABETA FOR ALZHEIMER'S DISEASE (AD)



ATV:TREM2 shifts most microglia to responsive states ATV:Abeta shows broad parenchymal plaque binding with minimal perivascular distribution



Single cell RNAseq UMAP plots of brain microglia 24h post 10 mg/kg dose



*The Investigational New Drug (IND) application of DNL919 is on clinical hold in the U.S; Denali initiated a Phase 1 single ascending dose study in healthy volunteers in the Netherlands



iDISCO whole brain image 24h post 10mg/kg single dose in AD mouse model

Drug Candidate	Mechanism of Action	Therapeutic Area	Stage	Expected Activities
ATV:Abeta	ATV:Abeta**	AD	Preclinical	Continue preclinical studies

**Biogen has certain rights to license ATV:Abeta

OTV IS DESIGNED TO ENHANCE CNS DELIVERY OF OLIGONUCLEOTIDES

Therapeutic oligonucleotides have the potential to address challenging targets

- Oligonucleotide Transport Vehicle (OTV) is designed to:
 - Enable superior biodistribution of ASOs across brain regions
 - Provide superior knockdown of target gene expression across all cell types
 - Enable IV dosing
- OTV opens a large potential indication space in neurodegeneration and beyond
- Multiple OTV programs progressing toward INDenabling studies

OTV has potential to revolutionize ASOs/oligos for treating CNS disease



^{*3} approved therapies - ASO, AAV, & Small Molecule

OTV PROVIDES UNIFORM ASO DEPOSITION ACROSS THE CNS WITH IV DELIVERY



OTV INTRAVENOUS (IV) DELIVERY



17 anti-ASO

OTV PROVIDES UNIFORM ASO DEPOSITION ACROSS THE CNS WITH IV DELIVERY

NAKED ASO INTRATHECAL (IT) DELIVERY Limited ASO Biodistribution



OTV INTRAVENOUS (IV) DELIVERY

Widespread ASO Biodistribution

CORTEX

STRIATUM



CEREBELLUM

WHITE MATTER



OTV ENABLES MORE UNIFORM KNOCKDOWN OF TARGET GENE EXPRESSION



IV OTV shows uniform knockdown across the CNS compared to IT ASO

OTV TARGET SELECTION



*3 approved therapies - ASO, AAV, & Small Molecule

OTV in IND-Enabling stage with nearterm focus on acceleration of two targets to clinical testing

DIFFERENTIATION TARGET **INDICATION** PREVALENCE **STRATEGY COMMON NEURODEGENERATIVE DISEASES** MAPT Alzheimer's Disease 6-10M cases US Uniform knockdown of MAPT across the CNS to effectively reduce all forms of Tau protein & decrease aggregates Uniform knockdown of SNCA **SNCA** Parkinson's Disease 1M cases US across the CNS to effectively reduce all forms of a-Syn protein & decrease aggregates **RARE CNS DISEASES UBE3A-ATS** Angelman's Syndrome 1.5-3K cases US Uniform knockdown of UBE3A-(<8yo) ATS via systemic route to

NEUROMUSCULAR DISEASES

Epilepsy

Epilepsy

Target 1

DMPK Myotonic Dystrophy Type 1	Adult 40K cases US <i>Congenital</i> ~600 cases US	Knockdown of DMPK in periphery and CNS to reduce toxic RNA foci & allow MBNL proteins to resume normal splicing
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1-15K cases US

increase normal UBE3A protein

levels throughout the CNS

Undisclosed

OUR BRAIN-PENETRANT SMALL MOLECULE PROGRAMS

BIIB122 (LRRK2 INHIBITOR): TARGETING THE LYSOSOME IN PD

Targeting LRRK2 may impact the underlying biology and slow the progression of PD

- 10M+ people with Parkinson's disease (PD) WW
- Mutations in LRRK2 are one of the most common genetic risk factors for PD
- Increased LRRK2 kinase activity is thought to impair lysosomal function and contribute to PD
- Denali conducted extensive Phase 1/1b testing with LRRK2 inhibitors in 300+ individuals*
- BIIB122 achieved ≥80% pS935 inhibition (target engagement biomarker) at doses of ≥ 225 mg
- Biogen is leading operational execution of the LUMA and LIGHTHOUSE studies

Rigorous development program to evaluate BIIB122 in patients with and without LRRK2 mutations

	Phase 2b LUMA Study	Phase 3 LIGHTHOUSE Study		
PD patient pop.	No pathogenic LRRK2 variant	Confirmed pathogenic LRRK2 variant		
Dosing	225 mg oral once daily	y BIIB122 vs. placebo		
Primary endpoint	Assessed using MDS-UPDRS			
No. participants	640 (320 per arm)	400 (200 per arm)		
Treatment period	48 weeks (min)	96 weeks (min)		
Study initiation	May 2022	September 2022		

Drug Candidate	Mechanism of Action	Therapeutic Area	Stage	Expected Activities
BIIB122	LRRK2	Idiopathic PD	Ph 2b (LUMA)	Recruit Ph 2b ongoing
(DNL151)	inhibition	LRRK2 positive PD	Ph 3 (LIGHTHOUSE)	Recruit Ph 3 ongoing

*Phase 1/1b program for BIIB122 and DNL201

LRRK2=leucine-rich repeat kinase 2; WW=worldwide; MDS-UPDRS=Movement Disorder Society Sponsored Revision of the Unified Parkinson's Disease Rating Scale





DNL343 (eIF2B ACTIVATOR): INHIBITING THE ISR PATHWAY IN ALS

By inhibiting the ISR pathway, DNL343 is intended to prevent or slow ALS progression

- ~250,000 people with ALS WW
- eIF2B regulates protein synthesis and is required for neuronal health and function
- When neurons experience stress, activation of the ISR pathway leads to suppression of eIF2B
- Suppression of eIF2B leads to impaired protein synthesis and formation of stress granules
- Stress granules are thought to be a precursor of TDP-43 aggregation, a hallmark pathology of ALS
- DNL343 is designed to activate eIF2B and avert the deleterious effects of chronic ISR activation

eIF2B=eukaryotic initiation factor 2B; ISR=integrated stress response; ALS=amyotrophic lateral sclerosis; WW=worldwide;

23 TDP-43=TAR DNA-binding protein 43

28-day dosing with DNL343 reduced ISR biomarkers in blood samples* from ALS patients



*Fresh PBMCs were collected and stimulated ex vivo for each time point indicated for a subset of patients (per dose group: n=4-5 through day 28 and n=2-3 for day 42)

Drug Candidate	Mechanism of Action	Therapeutic Area	Stage	Expected Milestone
	elF2B		Ph 1b	Final 28-day Ph 1b data Mid 2023
DNL343	agonist	ALS	Philo	Initiate Ph 2/3 HEALEY study Mid 2023

RIPK1 INHIBITORS: TARGETING INFLAMMATION AND CELL DEATH

RIPK1 is a critical signaling protein in a canonical inflammatory and cell death pathway

- Increased RIPK1 activity drives neuroinflammation and cell necroptosis and contributes to neurodegeneration
- RIPK1 inhibition achieved beneficial effects in preclinical models of ALS, multiple sclerosis and other diseases
- Denali and Sanofi have a strategic collaboration to develop and commercialize RIPK1 inhibitors
- Robust target engagement goals and safety goals were achieved in Phase 1 studies for SAR443820 and SAR443122 (eclitasertib)

RIPK1= receptor-interacting serine/threonine-protein kinase 1; ALS=amyotrophic lateral sclerosis; MS=multiple sclerosis; CLE=cutaneous lupus erythematosus; UC=ulcerative colitis



*According to current posting on ClinicalTrials.gov

OUR PRIORITIES

Clinical Execution

2 TV Expansion

- 4 late-stage programs enrolling studies in MPS II, ALS, and PD
- Multiple earlier-stage trials designed for biomarker PoC
- Expansion of clinical operations and medical affairs in Europe
- Building out clinical manufacturing capabilities

- Clinical data expected from 3 TV-platform enabled programs
- Fourth TV-enabled program advancing towards clinical testing
- Selected OTV targets provides broad range of opportunities
- Expand TV platform potential with additional BBB transporter

 Define go-to-market strategies in the US and key global markets

Commercial

Readiness

- Outreach to patients and communities in MPS II and ALS to understand unmet needs
- Establish critical medical affairs and commercial capabilities to prepare for early filing scenarios

TV=Transport Vehicle; OTV=Oligonucleotide Transport Vehicle; MPS= mucopolysaccharidoses; ALS=amyotrophic lateral sclerosis; PD=Parkinson's disease; PoC=proof of concept

\$1.11B in cash and investments (as of 9/30/22) plus capital raise \$316M in October 2022

OUR PURPOSE: DEFEAT DEGENERATION

Thank you to all those who are part of Denali's purpose, especially our patients and their families





Denali

The name captures the formidable challenges in fighting neurodegenerative diseases but also the unprecedented opportunities enabled by new scientific insights and technologies. With a relentlessly committed team and rigorous effort, breakthroughs appear to be within reach.

