DNTH103, a Potentially Safer and More Convenient Novel Therapy for Generalised Myasthenia Gravis

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- John Vissing is a consultant on advisory boards/speaker honoraria and receives research support related to MG from Roche, Regeneron, Argenx BVBA, UCB Biopharma SPRL, Horizon Therapeutics, Dianthus Therapeutics, NMD Pharma, Alexion Pharmaceuticals, Janssen Pharmaceuticals, Toleranzia. He is a Principal Investigator in MG clinical trials for Roche, Horizon Therapeutics, Argenx BVBA, Novartis Pharma AG, Alexion Pharmaceuticals, UCB Biopharma SPRL, Regeneron, and Janssen Pharmaceuticals, Dianthus Therapeutics
- Jeffrey Stavenhagen and Sankalp Gokhale are employees of Dianthus Therapeutics, Inc.

# Complement inhibitors are well established in gMG and other severe autoimmune disorders

Targeting C1s preserves immune activity of the lectin and alternative pathways, with the aim to provide a safe therapeutic option



DNTH103 – a picomolar-potent monoclonal antibody selectively targeting active C1s

- DNTH103 is a fully human IgG4 monoclonal antibody binding to active C1s, allowing low-volume SC self-administration
- Alternative and lectin pathways are left intact
- In a Phase 1 clinical trial in healthy volunteers, DNTH103 demonstrated an extended half-life of 60 days and potent complement inhibition, supporting potential for infrequent, low volume SC dosing

A global Phase 2 study in gMG is ongoing and global trials in CIDP and MMN are planned to start in 2024

#### Preclinical evaluation of DNTH103 in an established *in vitro* model of MG

- Serum from 3 AChR+ MG patients used in a validated commercially available humanized *in vitro* MG model<sup>1,2,3</sup>
- Endpoint: Fatigue index in response to anti-C5 antibody<sup>§</sup> or DNTH103
  - A reduction in fatigue index indicates improvement in neurotransmission and muscle contraction



DNTH103 improves neurotransmission and muscle contraction in an AChR+ MG model<sup>†</sup> (change from baseline)



Results provide further scientific rationale for DNTH103 in gMG

<sup>†</sup>Validated in healthy volunteer sera; <sup>§</sup>engineered using the ravulizumab patent sequence AChR+ MG, acetylcholine receptor-positive Myasthenia Gravis; MG, Myasthenia Gravis; gMG, generalized Myasthenia Gravis

Dianthus Therapeutics data on file

#### DNTH103 *in vitro* study demonstrates lower risk of *Neisseria meningitidis* infections



*N. meningitidis* bacterial killing is **unaffected** despite inhibition of the **classical pathway** 



In this assay, DNTH103 maintained bacterial killing, potentially leading to a decreased risk of infection vs. anti C5 antibody<sup>§</sup>

### Conclusions



DNTH103 is a highly potent picomolar inhibitor of active C1s that is as effective in neurotransmission and muscle contraction as an anti-C5 antibody in a preclinical model of Myasthenia Gravis

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DNTH103 selectively inhibits the classical pathway with the potential to be safer than complement therapies that also block the lectin and/or alternative pathways