

Attaining Product Differentiation through Improved Patient Segmentation and Efficiency

M. Scott Harris, MD
Chief Medical Officer
Altimmune, Inc.

GLP-1 Based Therapeutics Summit
16 May 2024

Forward-looking statements

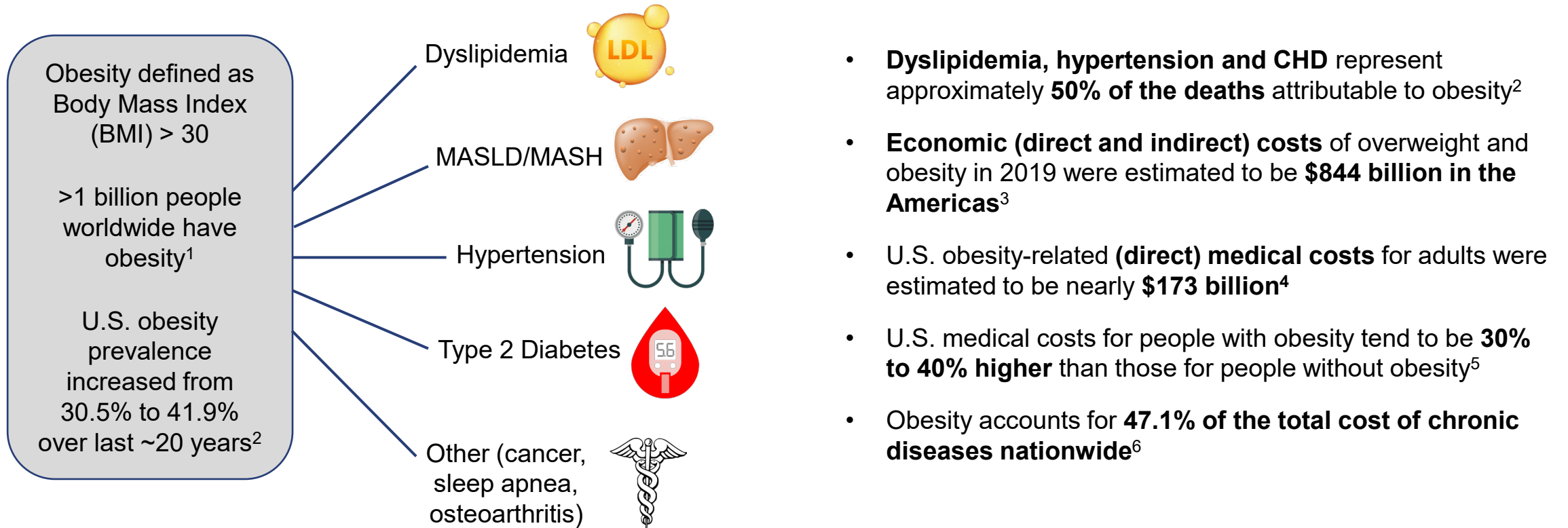
Safe-Harbor Statement

This presentation has been prepared by Altimmune, Inc. ("we," "us," "our," "Altimmune" or the "Company") and includes certain "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, including statements regarding the timing of clinical development and funding milestones for our clinical assets as well as statements relating to future financial or business performance, conditions, plans, prospects, trends, or strategies and other financial and business matters, and the prospects for commercializing or selling any product or drug candidates. In addition, when or if used in this presentation, the words "may," "could," "should," "anticipate," "believe," "estimate," "expect," "intend," "plan," "predict" and similar expressions and their variants, as they relate to the Company may identify forward-looking statements. The Company cautions that these forward-looking statements are subject to numerous assumptions, risks, and uncertainties, which change over time. Important factors that may cause actual results to differ materially from the results discussed in the forward looking statements or historical experience include risks and uncertainties, including risks relating to: potential impacts due to the COVID-19 pandemic such as delays in regulatory review, manufacturing and supply chain interruptions, adverse effects on healthcare systems and disruption of the global economy, the timing and reliability of the results of the studies relating to human safety and possible adverse effects resulting from the administration of the Company's product candidates; our lack of financial resources and access to capital; clinical trials and the commercialization of proposed product candidates (such as marketing, regulatory, product liability, supply, competition, dependence on third parties and other risks); the timing of regulatory applications and the regulatory approval process; dependence on intellectual property and reimbursement and regulation. Further information on the factors and risks that could affect the Company's business, financial conditions and results of operations are contained in the Company's filings with the U.S. Securities and Exchange Commission, including under the heading "Risk Factors" in the Company's annual reports on Form 10-K and quarterly reports on Form 10-Q filed with the SEC, which are available at www.sec.gov. The statements made herein speak only as of the date stated herein, and any forward-looking statements contained herein are based on assumptions that the Company believes to be reasonable as of this date. The Company undertakes no obligation to update these statements as result of new information or future events.

BURDEN OF OBESITY AND ITS COMORBIDITIES

Medical Impact

Social Impact



1) World Health Organization. (2022, March 4). *World Obesity Day 2022—Accelerating action to stop obesity*. <https://www.who.int/news/item/04-03-2022-world-obesity-day-2022-accelerating-action-to-stop-obesity>

2) Lopez, Claude, et al. (2020) *Weighing Down America: 2020 Update*. Milken Institute. <https://milkeninstitute.org/report/weighing-down-america-2020-update>

3) Okunogbe A, Nugent R, Spencer G, et al. Economic impacts of overweight and obesity: current and future estimates for 161 countries. *BMJ Global Health* 2022;7:e009773.

4) Ward ZJ, Bleich SN, Long MW, Gortmaker SL. (2021) Association of body mass index with health care expenditures in the United States by age and sex. *PLoS ONE* 16(3): e0247307. <https://doi.org/10.1371/journal.pone.0247307>

5) Tiwari A, Balasundaram P. Public Health Considerations Regarding Obesity. [Updated 2022 Sep 3]. In: StatPearls. <https://www.ncbi.nlm.nih.gov/books/NBK572122/>

6) Waters, H., et. al. (2018, October). Americas Obesity Crisis – The Health and Economic Costs of Excess Weight. Milken Institute. <https://milkeninstitute.org/report/americas-obesity-crisis-health-and-economic-costs-excess-weight>

How will the obesity market segment in the future?

How will the obesity market segment in the future?

“Obesity is the new hypertension.”

Lou Aronne, MD

Sanford I. Weill Professor of Metabolic Research and Director, Center for Weight Management and Metabolic Clinical Research, Weill-Cornell Medical College

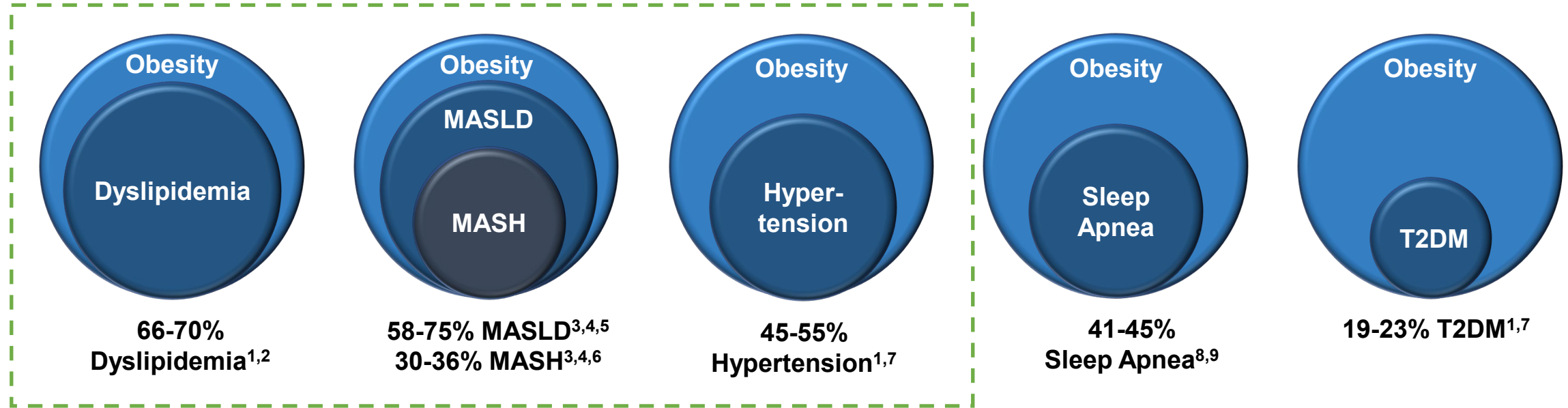
CO-MORBIDITIES AND HISTORICAL WEIGHT LOSS TARGETS

ALL MAJOR OBESITY-ASSOCIATED CO-MORBIDITIES ARE REDUCED OR ELIMINATED BY 15% WEIGHT LOSS

Co-morbidity	Target Weight Loss (%)	Impact
NASH	10	Reduce liver fat
Type 2 diabetes	5-15	Reduce insulin resistance
Hyperlipidemia	10-15	Lower LDL cholesterol
Hypertension	15	Reduce cardiac workload
Osteoarthritis	5-15	Reduce joint strain
Sleep apnea	10	Reduce airway resistance
Gastroesophageal reflux	10-15	Reduce abdominal pressure
Stress incontinence	10	Improve pelvic dynamics

Adapted from Cefalu, Diabetes Care 2015

US PREVALENCE AND SIGNIFICANCE OF OBESITY COMORBIDITIES



Most prevalent obesity comorbidities are Dyslipidemia, MASLD/MASH, and Hypertension

- 1) Bays, Harold, et al. (2013) Obesity, adiposity, and dyslipidemia: A consensus statement from the National Lipid Association. *Journal of Clinical Lipidology* 7(4):304–383.
- 2) Lim Y, Boster J. Obesity and Comorbid Conditions. [Updated 2023 Feb 8]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; <https://www.ncbi.nlm.nih.gov/books/NBK574535/>
- 3) Quek, Jingxuan, et al. (2023) Global prevalence of non-alcoholic fatty liver disease and non-alcoholic steatohepatitis in the overweight and obese population: The Lancet Gastroenterology & Hepatology 8(1):20-30.
- 4) Vernon, G, et al. (2011) Systematic review: the epidemiology and natural history of non-alcoholic fatty liver disease and non-alcoholic steatohepatitis in adults. *Aliment Pharmacol Ther* 34:274–285.
- 5) Le, Michael, et al. (2022) 2019 Global NAFLD Prevalence: A Systematic Review and Meta-analysis. *Clinical Gastroenterology and Hepatology* 2022;20:2809–2817
- 6) Dufour, Jean-François, et al. (2021) The global epidemiology of nonalcoholic steatohepatitis (NASH) and associated risk factors—A targeted literature review. *Endocrine and Metabolic Science* 3.
- 7) Pantalone KM, et al. Prevalence and recognition of obesity and its associated comorbidities. *BMJ Open* 2017;7:e017583. doi:10.1136/bmjopen-2017-017583
- 8) Romero-Corral, Abel, et al. (2010) Interactions Between Obesity and Obstructive Sleep Apnea. *Chest* 137(3): 711-719.
- 9) Garvey JF, Pengo MF, Drakatos P, Kent BD. Epidemiological aspects of obstructive sleep apnea. *J Thorac Dis* 2015;7(5):920-929.

TARGETS OF RECENT CLINICAL TRIALS

MAINLY FOCUSED ON THE BENEFITS OF GLP-1 AGENTS

- Cardiac MACE events
- HFpEF (heart failure with preserved ejection fraction)
- Chronic kidney disease
- Obstructive sleep apnea

LET'S NOT NEGLECT THE QUALITY OF WEIGHT LOSS

- Effects on serum lipids and liver fat
- Effects on energy expenditure
- Preservation of lean mass— prevention of bone fractures and loss of daily function

FOOD FOR THOUGHT—OTHER CRITICAL DIFFERENTIATORS

- Ease and route of administration
- Primary care readiness— time dispensing instructions, reimbursability
- Safety and tolerability
- Suppression of alcohol intake and substance abuse
- Suppression of cigarette smoking

HOW DO WE MAINTAIN THE WEIGHT LOSS?

- Excessive attention is being given to acute weight loss, but patients will spend the majority of their lifespan trying to maintain it, and this is where the majority of drug use will occur
- Can we identify agents that fundamentally alter metabolic tone and lower the chance of relapse?

THANK YOU

