



# 2023 AAIC Lilly Alzheimer's Disease Update

July 17, 2023

*Lilly*

# Agenda

## **Introduction**

**Dr. Dan Skovronsky, Chief Scientific and Medical Officer**

## **Current Environment**

**Anne White, Executive Vice President and President Lilly Neuroscience**

## **Donanemab Update**

**Dr. Mark Mintun, Group Vice President of Neuroscience Research and Development and President of Avid Radiopharmaceuticals**

## **Closing Remarks**

**Dr. Dan Skovronsky, Chief Scientific and Medical Officer**

## **Q&A**

# SAFE HARBOR PROVISION



This presentation contains forward-looking statements that are based on management's current expectations, but actual results may differ materially due to various factors. The company's results may be affected by factors including, but not limited to, the risks and uncertainties in pharmaceutical research and development; competitive developments; regulatory actions; the extent and duration of the effects of the COVID-19 pandemic; litigation and investigations; business development transactions; economic conditions; and changes in laws and regulations, including health care reform.

For additional information about the factors that affect the company's business, please see the company's latest Form 10-K and subsequent filings with the Securities and Exchange Commission.

**The company undertakes no duty to update forward-looking statements**

# CLINICAL MEANINGFULNESS MEASURES



**Donanemab delayed disease progression up to 7.5 months<sup>1</sup>, in an 18-month trial**

**Estimate nearly half of participants on donanemab showed no significant change in clinical symptoms at 1 year<sup>2</sup>**

**39% reduced risk of progressing to the next stage of Alzheimer's disease**

<sup>1</sup> in CDR-SB and over 4 months in iADRS

<sup>2</sup> Progression free defined by no progression in CDR-SB. 29% were progression free on placebo.

# NEW ANALYSIS TO INFORM AD TREATMENT



## **Subgroup analyses suggest patients could have a greater benefit with earlier treatment:**

- Patients under the age of 75 could have the opportunity for greatest efficacy
- Earlier stage patients can yield larger treatment effects
- Results increase confidence that amyloid targeting therapies could be successful in delaying or potentially preventing Alzheimer's disease when used in pre-symptomatic individuals



## **Additional analysis of ARIA could help identify patients who are at higher risk:**

- Rates of ARIA were highest among participants who are homozygous for ApoE4
- Risk of ARIA increased with higher amyloid levels at baseline
- Participants with superficial siderosis at baseline had higher rates of ARIA occurrence



## **Participants continue to see widening benefits after completion of therapy, supporting limited duration of treatment:**

- In a post hoc analysis, the difference vs placebo continues to widen up to 76 weeks for participants who reached treatment completion criteria based on amyloid PET scans

# CURRENT ENVIRONMENT AND CHALLENGES



## PATIENT POPULATION

- Prevalence of 6 to 7.5 million people in the U.S. with early symptomatic Alzheimer's disease and the presumed presence of amyloid plaque
- Estimate only 20-30% of those patients are clinically diagnosed today
- The number of patients treated with amyloid-targeting therapies is likely to be significantly lower as the ecosystem evolves

## DISEASE JOURNEY

- Creating awareness and timely **detection** of symptoms is essential
- Utilization of cognitive assessment tools and advanced **diagnostics** needs to be built into physician practice
- Patients need broad and simple **access** with the removal of the CED registry requirement
- **Monitoring** of patients for safety and to determine when to stop therapy

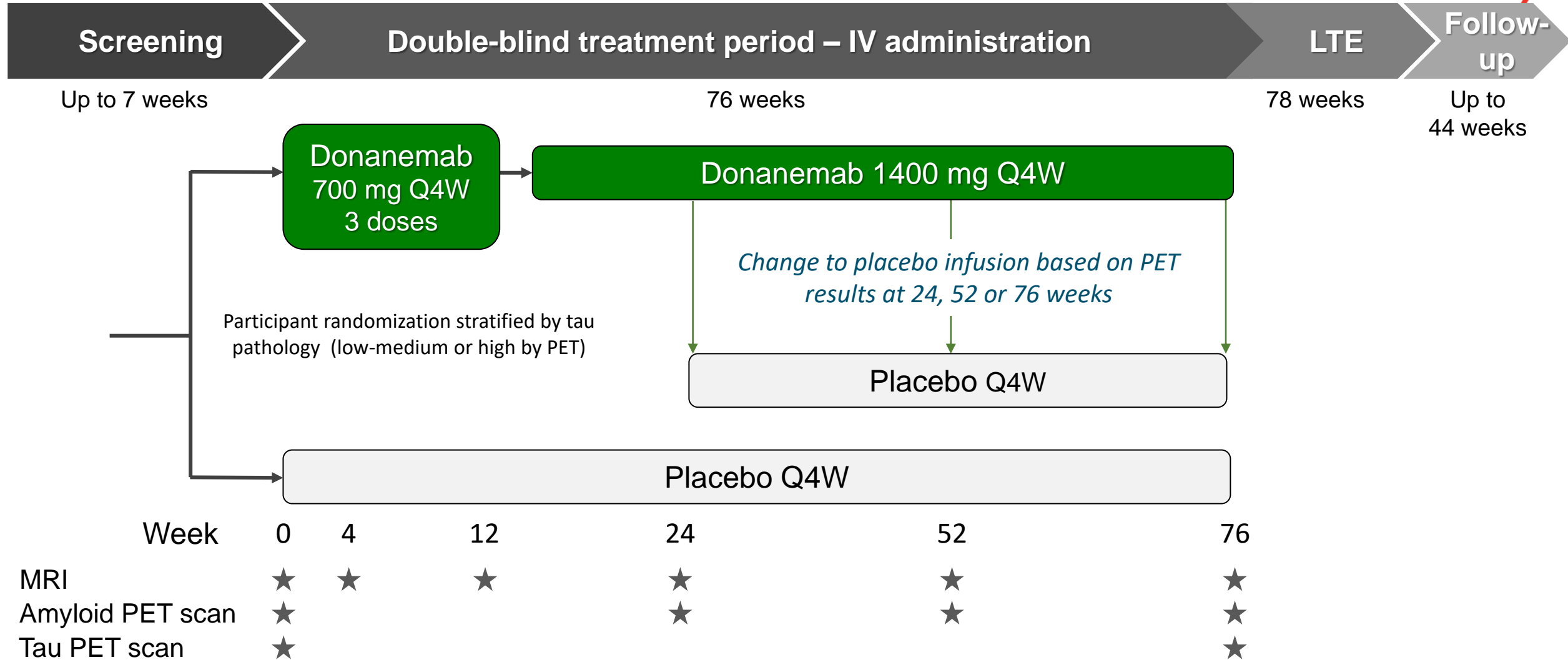
Restrictions on access would unnecessarily impede an already complex disease journey, and further slow progress for patients



# TRIAL DESIGN AND BASELINE CHARACTERISTICS



# TRAILBLAZER-ALZ 2 STUDY DESIGN



Abbreviations: IV=intravenous; LTE=long term extension; PET=positron emission tomography; Q4W=every 4 weeks



# BASELINE DEMOGRAPHICS



| Demographic   | Low-medium Tau Population |                      | Combined Population |                      |
|---|---------------------------|----------------------|---------------------|----------------------|
|   | Placebo<br>(N=594)        | Donanemab<br>(N=588) | Placebo<br>(N=876)  | Donanemab<br>(N=860) |
| <b>Sex, n (%) female</b>                            | 321 (54.0)                | 325 (55.3)           | 503 (57.4)          | 493 (57.3)           |
| <b>Age, mean (SD), in years</b>                     | 74.3 (5.8)                | 74.3 (5.7)           | 73.0 (6.2)          | 73.0 (6.2)           |
| <b>Race n (%)</b>                                   |                           |                      |                     |                      |
| % Asian   | 38 (6.4)                  | 48 (8.2)             | 47 (5.4)            | 57 (6.6)             |
| % Black or African American                         | 17 (2.9)                  | 17 (2.9)             | 21 (2.4)            | 19 (2.2)             |
| % Black or African American (US only) <sup>a</sup>  | 13 (3.1)                  | 17 (4.1)             | 16 (2.5)            | 18 (2.9)             |
| % White   | 539 (90.7)                | 522 (88.8)           | 807 (92.1)          | 781 (90.9)           |
| % American Indian or Alaska Native                  | 0                         | 1 (0.2)              | 0                   | 2 (0.2)              |
| % Multiple  | 0                         | 0                    | 1 (0.1)             | 0                    |
| <b>Ethnicity<sup>b</sup>, n (%) Hispanic/Latino</b> | 26 (6.3)                  | 24 (5.8)             | 36 (5.7)            | 35 (5.7)             |
| <b>Education of ≥13 years, n (%)</b>                | 421 (71.0)                | 407 (69.2)           | 637 (72.8)          | 606 (70.5)           |
| <b>APOE ε4 carrier, n (%)</b>                       | 427 (72.3)                | 421 (71.7)           | 621 (71.2)          | 598 (69.8)           |
| <b>AChEI and/or memantine use, n (%)</b>            | 341 (57.4)                | 332 (56.5)           | 538 (61.4)          | 521 (60.6)           |

Numbers of participants with non-missing data were used as denominators to calculate percentages.

<sup>a</sup>US population range of 415-417 for the low-medium tau population and 619-632 for the combined population.

<sup>b</sup>Ethnicity reporting was limited to participants in the United States/Puerto Rico only.

Abbreviations: AChEI=acetylcholinesterase inhibitors; APOE=apolipoprotein E; N, n=number of participants; SD=standard deviation

# BASELINE CLINICAL AND BIOMARKER MEASURES



| Scale/biomarker, mean (SD)                              | Low-medium Tau Population |                   | Combined Population |                   |
|---|---------------------------|-------------------|---------------------|-------------------|
|   | Placebo (N=594)           | Donanemab (N=588) | Placebo (N=876)     | Donanemab (N=860) |
| <b>iADRS</b>  | 105.5 (13.7)              | 105.7 (13.8)      | 103.6 (14.0)        | 104.1 (14.3)      |
| <b>ADAS-Cog<sub>13</sub></b>                            | 27.8 (8.4)                | 27.5 (8.5)        | 29.3 (8.9)          | 28.7 (8.8)        |
| <b>ADCS-iADL</b>  | 48.4 (7.9)                | 48.1 (7.9)        | 47.8 (7.8)          | 47.8 (7.9)        |
| <b>ADCS-ADL</b>   | 66.9 (8.5)                | 66.7 (8.5)        | 66.4 (8.3)          | 66.3 (8.6)        |
| <b>MMSE<sup>a</sup></b>                                 | 22.8 (3.8)                | 23.1 (3.6)        | 22.2 (3.9)          | 22.4 (3.8)        |
| <b>CDR-SB</b>   | 3.7 (2.0)                 | 3.7 (2.1)         | 3.9 (2.1)           | 4.0 (2.1)         |
| <b>CDR-G, n (%)</b>                                     |                           |                   |                     |                   |
| <b>0</b>  | 3 (0.5)                   | 2 (0.3)           | 4 (0.5)             | 2 (0.2)           |
| <b>0.5</b>  | 387 (65.5)                | 382 (65.9)        | 532 (61.2)          | 514 (60.8)        |
| <b>Amyloid PET, in Centiloids<sup>b</sup></b>           | 100.9 (35.1)              | 102.4 (34.7)      | 101.6 (34.5)        | 103.5 (34.5)      |
| <b>Tau PET AD signature weighted SUVR<sup>b,c</sup></b> | 1.21 (0.13)               | 1.21 (0.12)       | 1.35 (0.26)         | 1.34 (0.25)       |
| <b>Plasma P-tau217, in pg/mL</b>                        | 5.4 (11.3)                | 6.6 (17.7)        | 6.8 (15.4)          | 7.5 (18.5)        |

Numbers of participants with non-missing data were used as denominators to calculate percentages.

<sup>a</sup> Last non-missing MMSE score prior to or at the start of study treatment.

<sup>b</sup> Based on screening data.

<sup>c</sup> SUVR with respect to a reference signal intensity in white matter parametric estimation of reference signal intensity (PERSI)

Abbreviations: Alzheimer's Disease Assessment Scale–13-item Cognitive subscale; ADCS-ADL=Alzheimer's Disease Cooperative Study–Activities of Daily Living; ADCS-iADL=Alzheimer's Disease Cooperative Study–Instrumental Activities of Daily Living; CDR-G=Clinical Dementia Rating-global; CDR-SB=Clinical Dementia Rating Scale–Sum of Boxes; iADRS=Integrated Alzheimer's Disease Rating Scale; MMSE=Mini–Mental State Examination; N, n=number of participants; PET=positron emission tomography; P-tau217=phosphorylated tau 217; SD=standard deviation; SUVR=standardized uptake value ratio

# TRAILBLAZER-ALZ 2 POPULATION COMPARED TO OTHER AD TRIALS



| Trial  | Baseline Characteristics |             |             |                   | 18-month CDR-SB<br>Placebo<br>Progression |
|--|--------------------------|-------------|-------------|-------------------|---|
|  | MMSE                     | CDR-SB      | Age         | Amyloid           |   |
| EMERGE (aducanumab Phase 3)                              | 26.3                     | 2.48        | 70.7        | 86.7 <sup>a</sup> | 1.74                                      |
| ENGAGE (aducanumab Phase 3)                              | 26.4                     | 2.41        | 70.1        | 88.4 <sup>a</sup> | 1.56                                      |
| GRADUATE I (gantenerumab Phase 3)                        | 23.6                     | 3.71        | 71.6        | 93.4              | 2.32 <sup>b</sup>                         |
| GRADUATE II (gantenerumab Phase 3)                       | 23.7                     | 3.60        | 71.7        | 95.4              | 1.93 <sup>b</sup>                         |
| CLARITY-AD (lecanemab Phase 3)                           | 25.6                     | 3.20        | 71.2        | 76.5              | 1.66                                      |
| <b>TRAILBLAZER-ALZ 2 low-medium tau Phase 3</b>          | <b>22.9</b>              | <b>3.71</b> | <b>74.3</b> | <b>101.6</b>      | <b>1.88</b>                               |
| <b>TRAILBLAZER-ALZ 2 combined tau population Phase 3</b> | <b>22.3</b>              | <b>3.94</b> | <b>73.0</b> | <b>102.5</b>      | <b>2.42</b>                               |

**Participants in TRAILBLAZER-ALZ 2 had more progressed disease based on key baseline clinical and neuropathological characteristics than other clinical trials**

ENGAGE = NCT02477800; EMERGE = NCT02484547; GRADUATE I = NCT03444870; GRADUATE II = NCT03443973; CLARITY-AD = NCT03887455; TRAILBLAZER-ALZ 1 = NCT03367403; TRAILBLAZER-ALZ 2 = NCT04437511.

<sup>a</sup>Aducanemab arms only (no placebo included); <sup>b</sup>estimated

Abbreviations: AD = Alzheimer's disease; CDR-SB = Clinical Dementia Rating – Sum of Boxes; MMSE = Mini-Mental State Examination; n = number of participants



SAFETY



# SAFETY OVERVIEW: COMBINED POPULATION



## Summary of Adverse Events

## Treatment-Emergent AE ≥5%<sup>#</sup>

| Participants <sup>a</sup> , n (%)                                     | Placebo (N=874) | Donanemab (N=853) |
|---|-----------------|-------------------|
| Death <sup>b</sup>  | 10 (1.1)        | 16 (1.9)          |
| Death considered related to treatment                                 | 1 (0.1)         | 3 (0.4)           |
| Serious AE  | 138 (15.8)      | 148 (17.4)        |
| Study discontinuations due to AE                                      | 32 (3.7)        | 69 (8.1)          |
| Treatment discontinuations due to AE                                  | 38 (4.3)        | 112 (13.1)        |
| Treatment-emergent AEs  | 718 (82.2)      | 759 (89.0)        |
| Treatment-emergent AEs deemed related to study treatment <sup>c</sup> | 173 (19.8)      | 410 (48.1)        |

| Preferred Term, n (%)               | Placebo (N=874) | Donanemab (N=853) |
|-------------------------------------|-----------------|-------------------|
| Participants with ≥1 TEAE           | 718 (82.2)      | 759 (89.0)        |
| <b>ARIA-E</b>                       | <b>17 (1.9)</b> | <b>205 (24.0)</b> |
| <b>ARIA-H</b>                       | <b>65 (7.4)</b> | <b>168 (19.7)</b> |
| COVID-19                            | 154 (17.6)      | 136 (15.9)        |
| <b>Headache</b>                     | <b>86 (9.8)</b> | <b>119 (14.0)</b> |
| Fall                                | 110 (12.6)      | 114 (13.4)        |
| <b>Infusion-related reaction</b>    | <b>4 (0.5)</b>  | <b>74 (8.7)</b>   |
| <b>Superficial siderosis of CNS</b> | <b>10 (1.1)</b> | <b>58 (6.8)</b>   |
| Dizziness                           | 48 (5.5)        | 53 (6.2)          |
| Arthralgia                          | 42 (4.8)        | 49 (5.7)          |
| Urinary tract infection             | 59 (6.8)        | 45 (5.3)          |
| Diarrhea                            | 50 (5.7)        | 43 (5.0)          |
| Fatigue                             | 45 (5.1)        | 42 (4.9)          |

<sup>#</sup> in donanemab group after rounding

<sup>a</sup> Participants may be counted in more than one category.

<sup>b</sup> Deaths are also included as serious AEs and discontinuations due to AEs.

<sup>c</sup> Includes events that were considered related to study treatment as judged by the investigator.

Treatment-emergent adverse event is defined as an event that first occurred or worsened after the treatment initiation date and up to either the first visit date of long-term extension phase - 1 day or end of treatment period in double-blinded phase + 57 days, whichever occurs first.

Abbreviations: AE = adverse event; ARIA-E = amyloid-related imaging abnormalities-edema/effusions; ARIA-H = amyloid-related imaging abnormalities- hemorrhage/hemosiderin deposition; IRR = infusion-related reaction; n, N = number of participants; CNS = central nervous system; TEAE = treatment-emergent adverse event

# SAFETY: ARIA

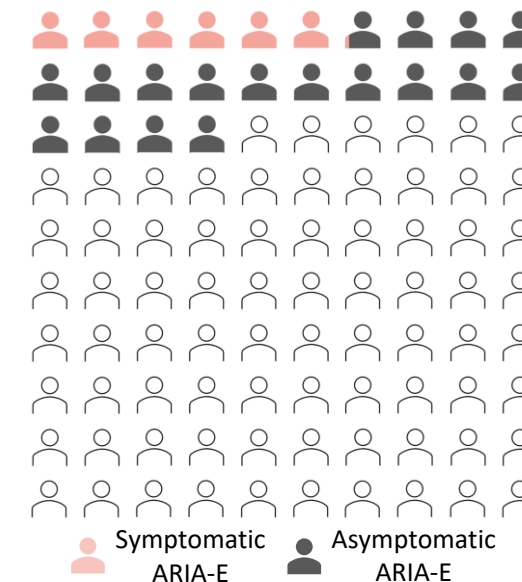


| Event <sup>a</sup> , n (%) | Placebo<br>(N=874)   | Donanemab<br>(N=853) |
|----------------------------|----------------------|----------------------|
| <b>Any ARIA (-E or -H)</b> | 130 (14.9)           | 314 (36.8)           |
| Any SAE of ARIA            | 0 (0)                | 14 (1.6)             |
| <b>ARIA-E</b>              | 18 (2.1)             | 205 (24.0)           |
| Asymptomatic               | 17 (1.9)             | 153 (17.9)           |
| Symptomatic                | 1 (0.1) <sup>b</sup> | 52 (6.1)             |
| SAE of ARIA-E              | 0 (0)                | 13 (1.5)             |
| <b>ARIA-H</b>              | 119 (13.6)           | 268 (31.4)           |
| SAE of ARIA-H              | 0 (0)                | 4 (0.5)              |
| Isolated ARIA-H            | 108 (12.4)           | 108 (12.7)           |
| <b>Macrohemorrhage</b>     | 2 (0.2)              | 3 (0.4)              |
| SAE of Macrohemorrhage     | 1 (0.1)              | 1 (0.1)              |

<sup>a</sup>ARIA and macrohemorrhage events based on MRI or TEAE cluster

<sup>b</sup>One placebo-treated participant had ARIA-E during the placebo-controlled period; however, the participant developed symptoms during the long-term extension period

24% of donanemab-treated participants experienced ARIA-E



- ARIA-E events were largely mild to moderate radiographically (94%)
- Commonly reported symptoms of symptomatic ARIA-E were headache and confusion

Abbreviations: ARIA-E = amyloid-related imaging abnormalities-edema/effusions; ARIA-H = amyloid-related imaging abnormalities-hemorrhage/hemosiderin deposition; MRI = magnetic resonance imaging; N, n = number of participants; SAE = serious adverse event; TEAE = treatment-emergent adverse event

# SAFETY: ARIA CONSIDERATIONS



## APOE ε4 CARRIER STATUS

Serious ARIA-E occurred in 13 (1.5%) participants treated with donanemab - 12 APOE ε4 carriers and 1 non-carrier

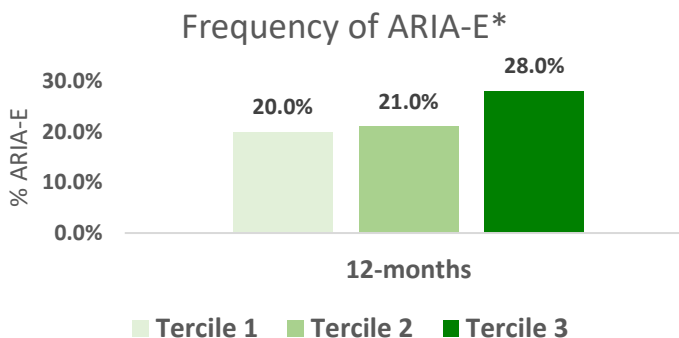
As observed in other recent trials, rates of ARIA were highest among participants who are homozygous for ε4

| ARIA by APOE Status % <sup>a,b</sup> | Placebo | Donanemab |
|--------------------------------------|---------|-----------|
| <b>ARIA-E</b>                        |         |           |
| Non-carrier                          | 0.8%    | 15.7%     |
| Heterozygous carrier                 | 1.9%    | 22.8%     |
| Homozygous carrier                   | 3.4%    | 40.6%     |
| <b>ARIA-H<sup>c</sup></b>            |         |           |
| Non-carrier                          | 11.2%   | 18.8%     |
| Heterozygous carrier                 | 12.0%   | 32.3%     |
| Homozygous carrier                   | 20.5%   | 50.3%     |

## AMYLOID AT BASELINE

Risk of ARIA-E incidence increases based on amyloid level at baseline, particularly for participants in the highest tercile

Compared to other contemporary Phase 3 AD trials, the participant population across donanemab studies had more progressed disease, including amyloid level



\*Based on MRI; one month is defined as 28 days. Distribution of baseline amyloid PET burden. Analysis in June 2023 of donanemab-treated participants who were observed over at least a 12-month period from TRAILBLAZER-ALZ, TRAILBLAZER-ALZ 2, TRAILBLAZER-EXT, and TRAILBLAZER-ALZ 4; Tercile 1 = 16.3-77.2, Tercile 2 = 77.2-110.2, Tercile 3 = 110.2-251.4 centaloids

## SUPERFICIAL SIDEROSIS

Participants with baseline microhemorrhage and/or superficial siderosis had a higher frequency of ARIA-E compared to with those without

The ARIA-E frequency was highest in participants with baseline superficial siderosis

| Frequency of ARIA-E (%)*                 |       |
|--|-------|
| <b>Superficial Siderosis at Baseline</b> |       |
| Not present or missing                   | 18.9% |
| Present                                  | 33.0% |

\*Analysis in May 2023 of donanemab-treated patients from TRAILBLAZER-ALZ, TRAILBLAZER-ALZ 2, TRAILBLAZER-EXT, and TRAILBLAZER-ALZ 4

<sup>a</sup> Based on MRI in TRAILBLAZER-ALZ 2.

<sup>b</sup> Participants with missing APOE ε4 carrier status are excluded.

<sup>c</sup> Treatment-emergent microhemorrhage is based on new incidents of microhemorrhages. Treatment-emergent superficial siderosis is based on new or worsening superficial siderosis.



EFFICACY

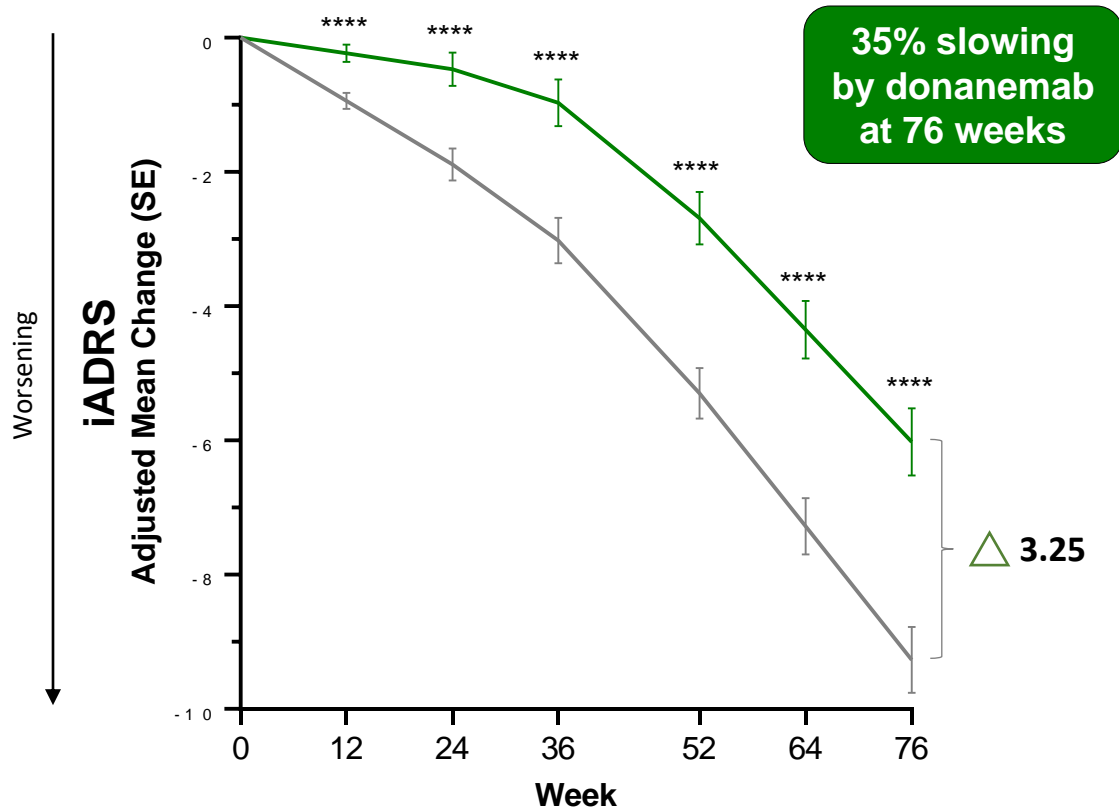




# EFFICACY: LOW-MEDIUM TAU POPULATION

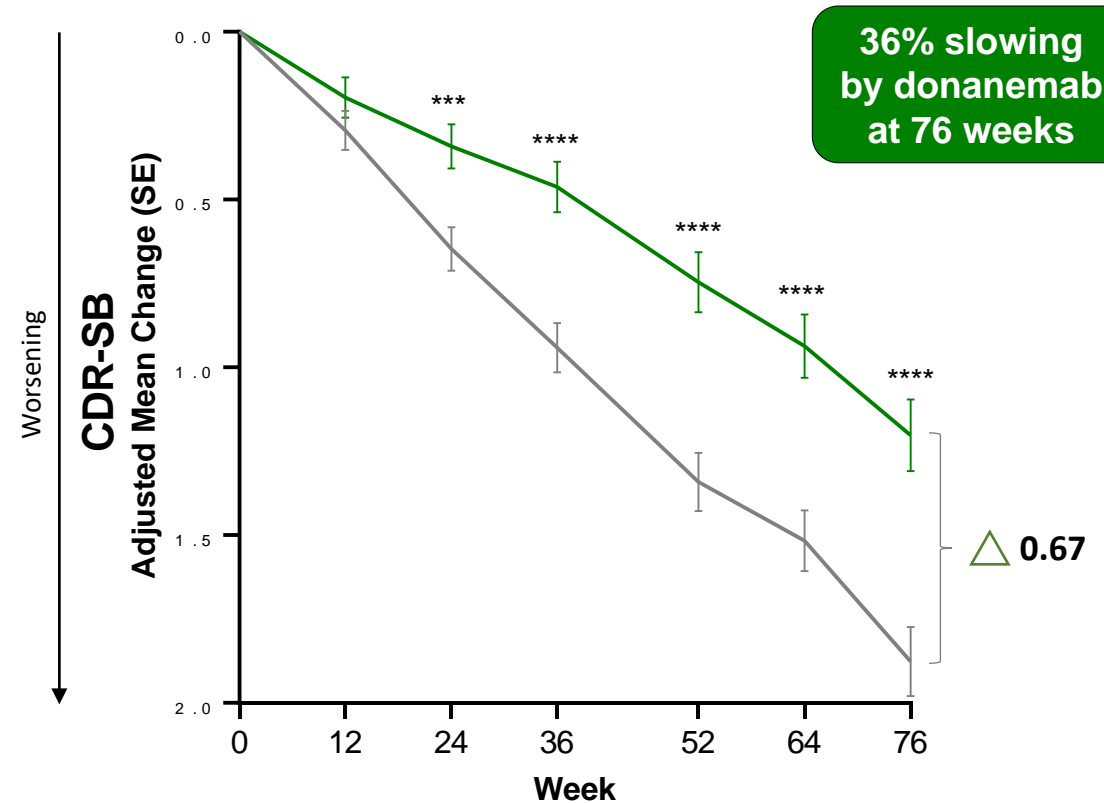


## iADRS: Low-medium Tau Population



|             |     |     |     |     |     |     |     |
|-------------|-----|-----|-----|-----|-----|-----|-----|
| — Placebo   | 560 | 549 | 526 | 506 | 474 | 447 | 444 |
| — Donanemab | 533 | 517 | 487 | 459 | 441 | 406 | 418 |

## CDR-SB: Low-medium Tau Population



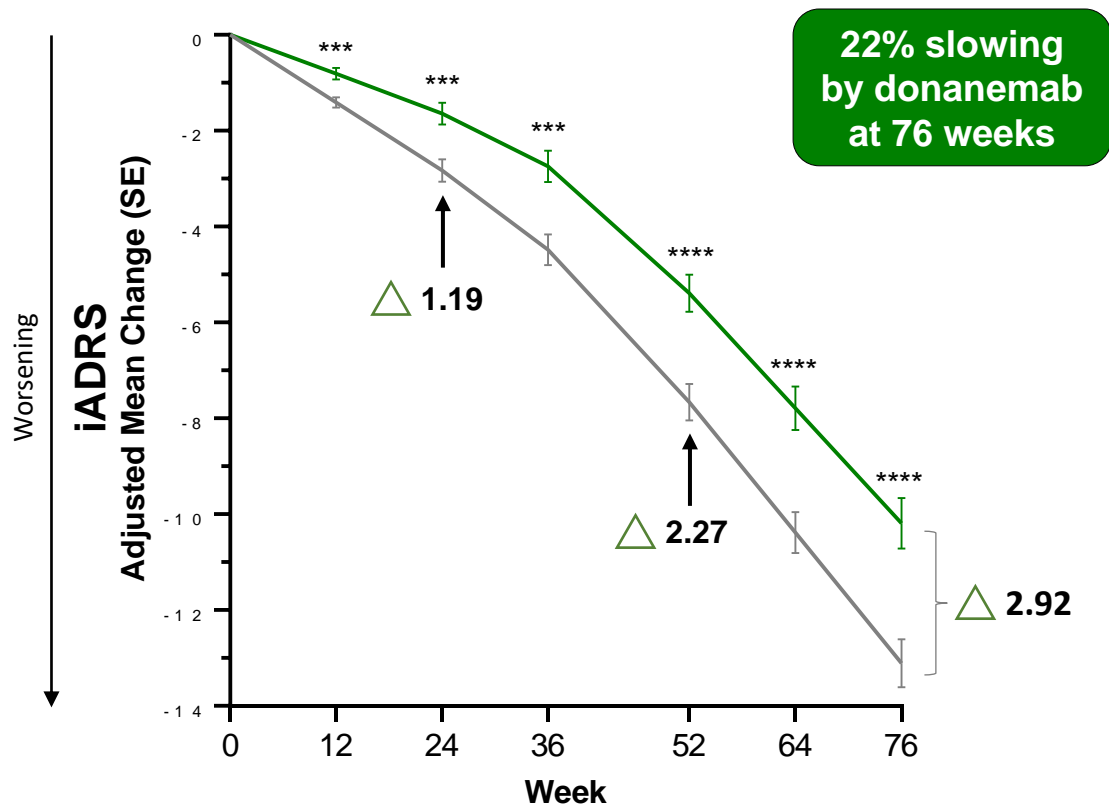
|             |     |     |     |     |     |     |     |
|-------------|-----|-----|-----|-----|-----|-----|-----|
| — Placebo   | 569 | 561 | 540 | 516 | 486 | 461 | 459 |
| — Donanemab | 546 | 530 | 499 | 471 | 451 | 418 | 424 |

TRAILBLAZER-ALZ 2 primary (iADRS) used the NCS model with 2 degrees of freedom adjusted for basis expansion terms (two terms), basis expansion term-by-treatment interaction, and covariates for age at baseline, pooled investigator, baseline tau level (overall model only), and baseline acetylcholinesterase inhibitor/memantine use. For CDR-SB: adjusted mean change from baseline, SE, 95% CI and p-value are derived using mixed model repeated measures methodology with fixed factors for treatment, visit, treatment-by-visit interaction, and covariates for baseline score, baseline score-by-visit interaction, age at baseline, pooled investigator, and baseline acetylcholinesterase inhibitor/memantine use. \* P<0.05, \*\* P<0.01, \*\*\* P<0.001, \*\*\*\* P<0.0001. Abbreviations: CDR-SB = Clinical Dementia Rating – Sum of Boxes; iADRS = Integrated Alzheimer's Disease Rating Scale; n = number of participants; NCS = natural cubic spline; SE = Standard Error

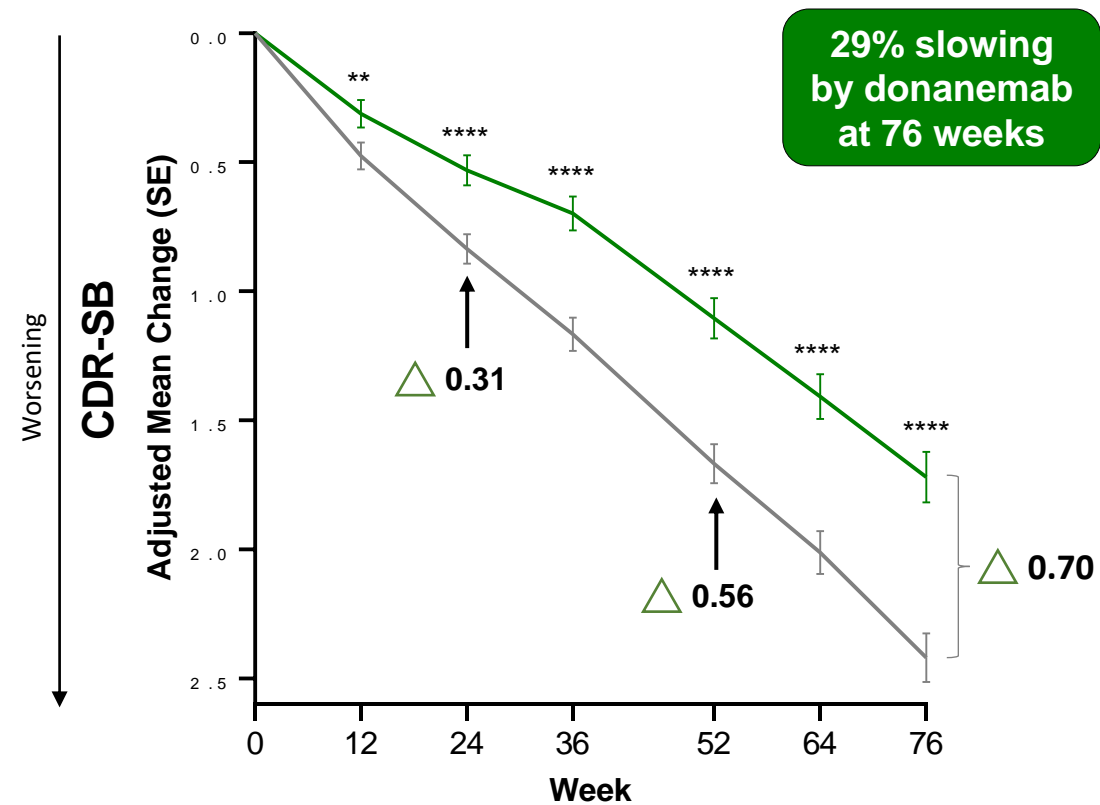
# EFFICACY: COMBINED POPULATION



## iADRS: Combined Tau Population



## CDR-SB: Combined Tau Population



|             |     |     |     |     |     |     |     |
|-------------|-----|-----|-----|-----|-----|-----|-----|
| — Placebo   | 824 | 805 | 767 | 738 | 693 | 651 | 653 |
| — Donanemab | 775 | 752 | 712 | 665 | 636 | 579 | 583 |

|             |     |     |     |     |     |     |     |
|-------------|-----|-----|-----|-----|-----|-----|-----|
| — Placebo   | 838 | 825 | 784 | 752 | 713 | 678 | 672 |
| — Donanemab | 794 | 774 | 731 | 682 | 650 | 603 | 598 |

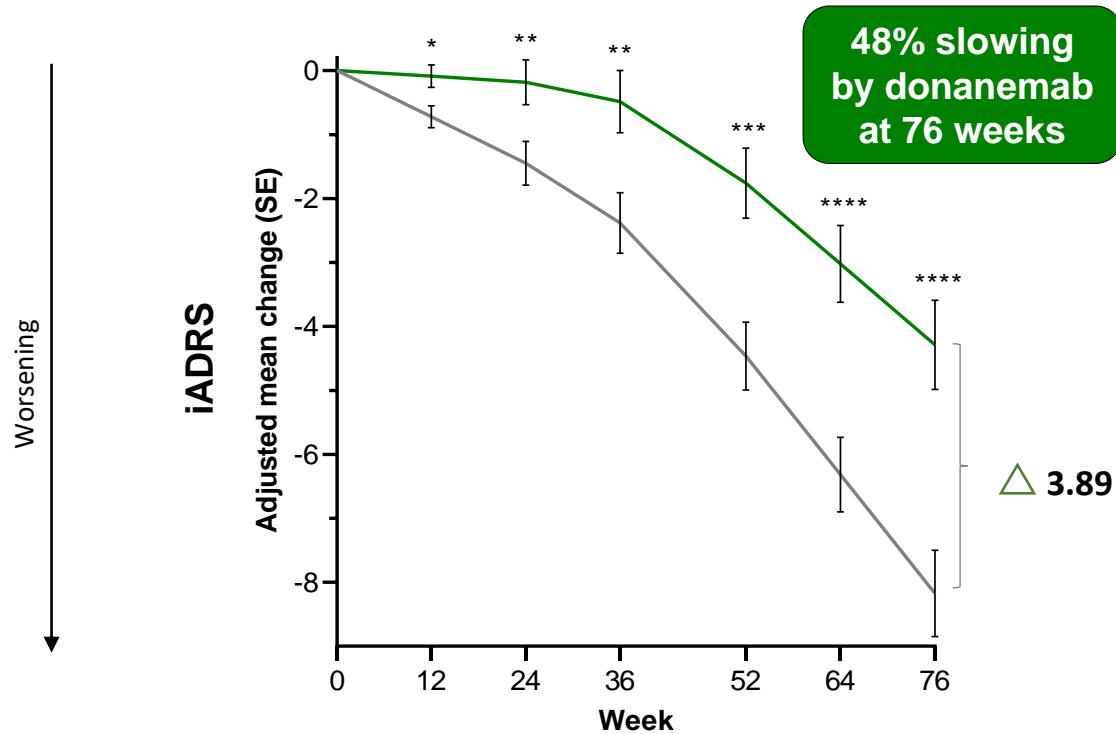
TRAILBLAZER-ALZ 2 primary analysis (iADRS) used the natural cubic spline (NCS) model with 2 degrees of freedom adjusted for basis expansion terms (two terms), basis expansion term-by-treatment interaction, and covariates for age at baseline, pooled investigator, baseline tau level (Combined model only), and baseline acetylcholinesterase inhibitor/memantine use. \* P<0.05, \*\* P<0.01, \*\*\* P<0.001, \*\*\*\* P<0.0001. Abbreviations: iADRS = Integrated Alzheimer's Disease Rating Scale; n = number of participants; SE = Standard Error

For CDR-SB: Adjusted mean change from baseline, SE, 95% CI and p-value are derived using mixed model repeated measures methodology with fixed factors for treatment, visit, treatment-by-visit interaction, and covariates for baseline score, baseline score-by-visit interaction, age at baseline, pooled investigator, baseline acetylcholinesterase inhibitor/memantine use and baseline tau level (Combined model only).

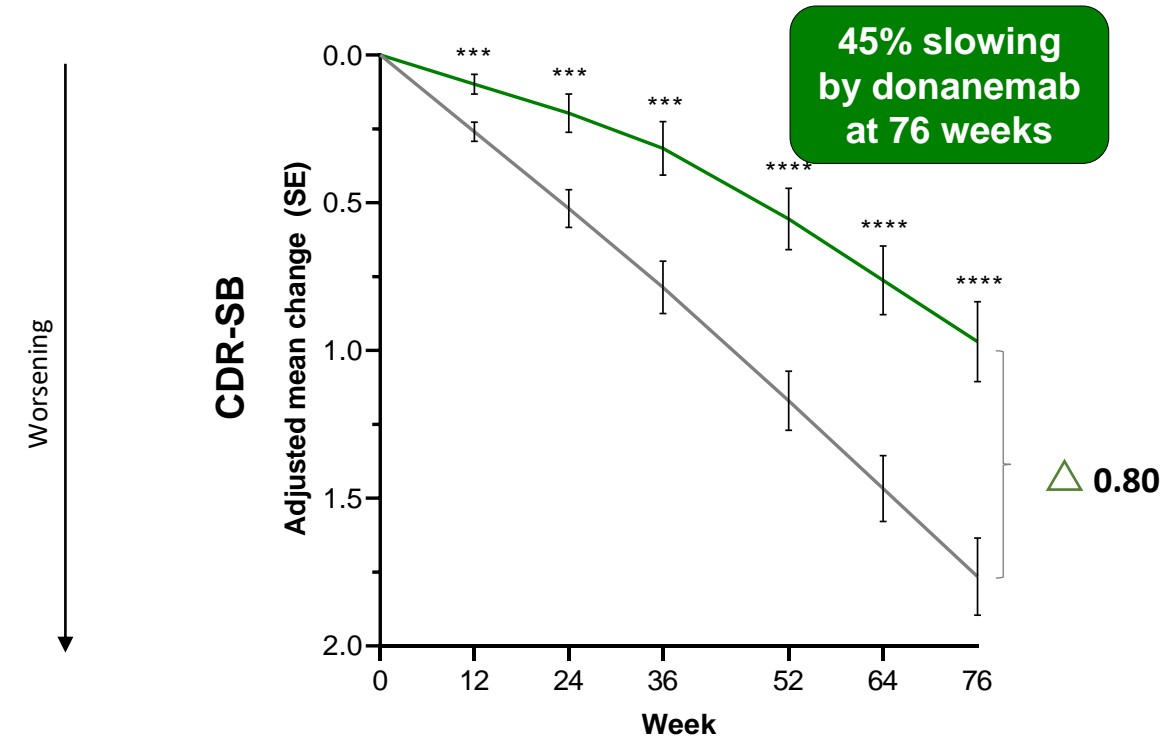
# ANALYSIS #1: YOUNGER PARTICIPANTS IN LOW-MED TAU POPULATION



## iADRS: Age <75 years



## CDR-SB: Age <75 years

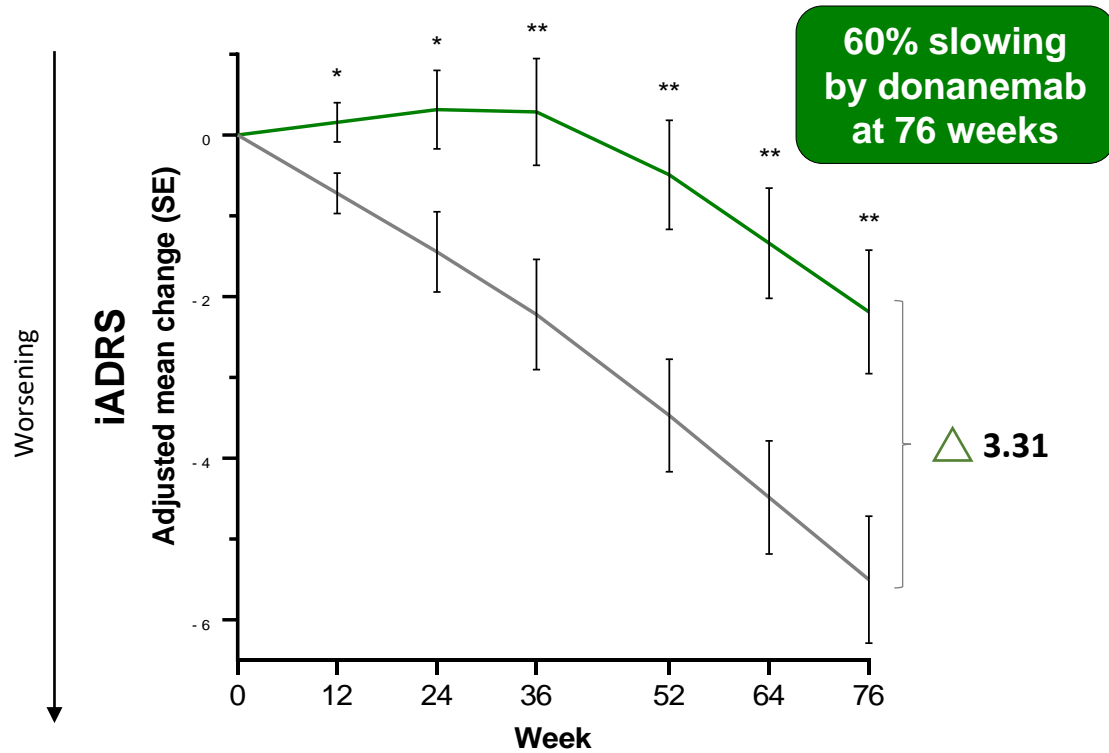


**Donanemab showed greater clinical benefit in younger participants**

# ANALYSIS #2: MCI IN LOW-MEDIUM TAU POPULATION

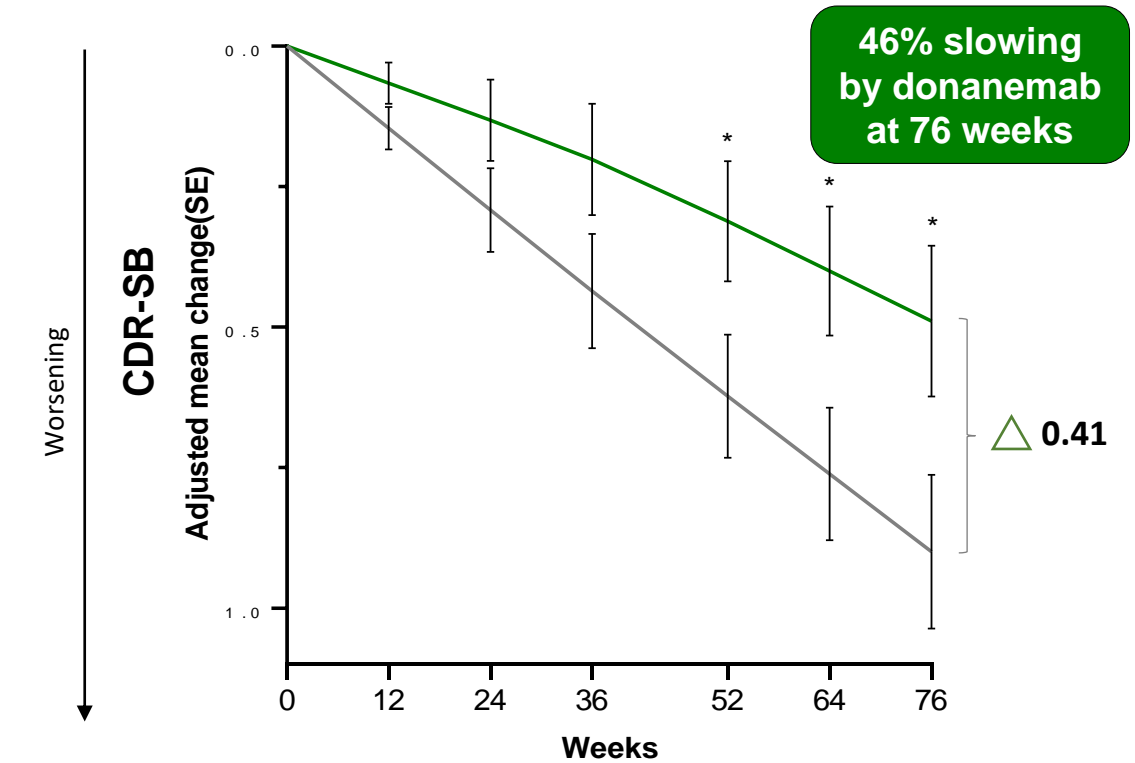


## iADRS



|   |           |     |     |     |     |    |    |    |
|---|-----------|-----|-----|-----|-----|----|----|----|
| — | Placebo   | 102 | 100 | 98  | 99  | 93 | 89 | 86 |
| — | Donanemab | 112 | 110 | 103 | 101 | 96 | 91 | 92 |

## CDR-SB



|   |           |     |     |     |     |    |    |    |
|---|-----------|-----|-----|-----|-----|----|----|----|
| — | Placebo   | 104 | 102 | 100 | 101 | 95 | 91 | 89 |
| — | Donanemab | 115 | 113 | 106 | 106 | 97 | 92 | 94 |

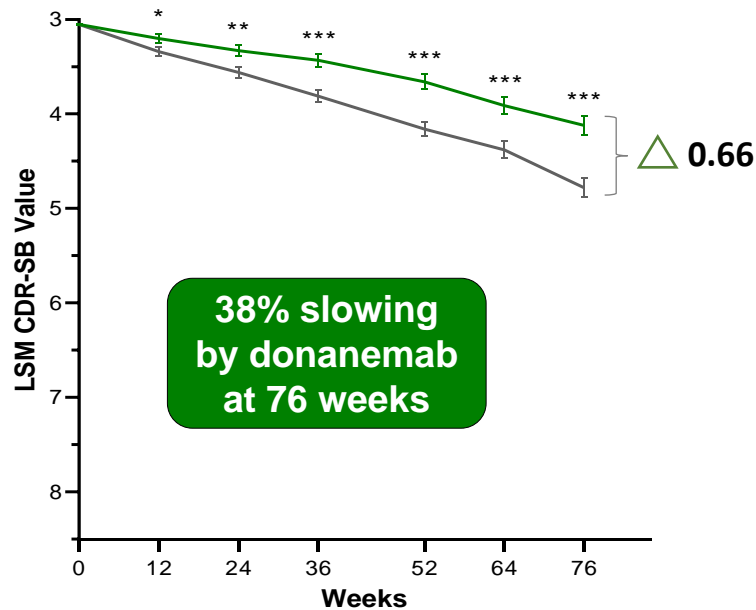
**Donanemab showed greater clinical impact in participants at earlier disease stage**

# ANALYSIS #3: POPULATION SELECTED BY CLINICAL SCREENING CRITERIA USED IN OTHER CONTEMPORARY TRIALS



## Population based on:

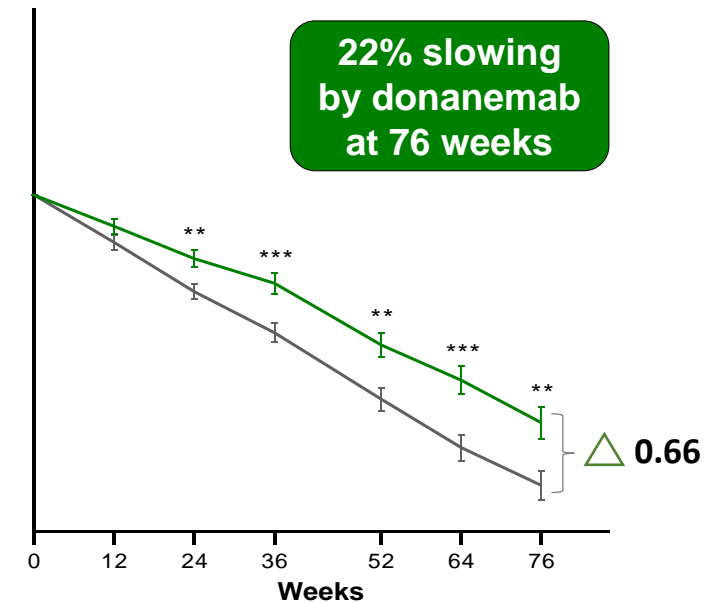
MMSE of 22-30 (at screening and baseline)  
and CDR-G Score  $\leq 1$  (baseline)



|             |     |     |     |     |     |     |     |
|-------------|-----|-----|-----|-----|-----|-----|-----|
| — Placebo   | 441 | 434 | 421 | 413 | 397 | 381 | 381 |
| — Donanemab | 440 | 432 | 415 | 398 | 376 | 350 | 354 |

## Remaining Population:

MMSE <22 (at screening or baseline) and  
CDR-G Score >1 or missing CDR-G Score (baseline)



|             |     |     |     |     |     |     |     |
|-------------|-----|-----|-----|-----|-----|-----|-----|
| — Placebo   | 396 | 390 | 362 | 338 | 315 | 296 | 290 |
| — Donanemab | 354 | 342 | 316 | 284 | 274 | 253 | 244 |

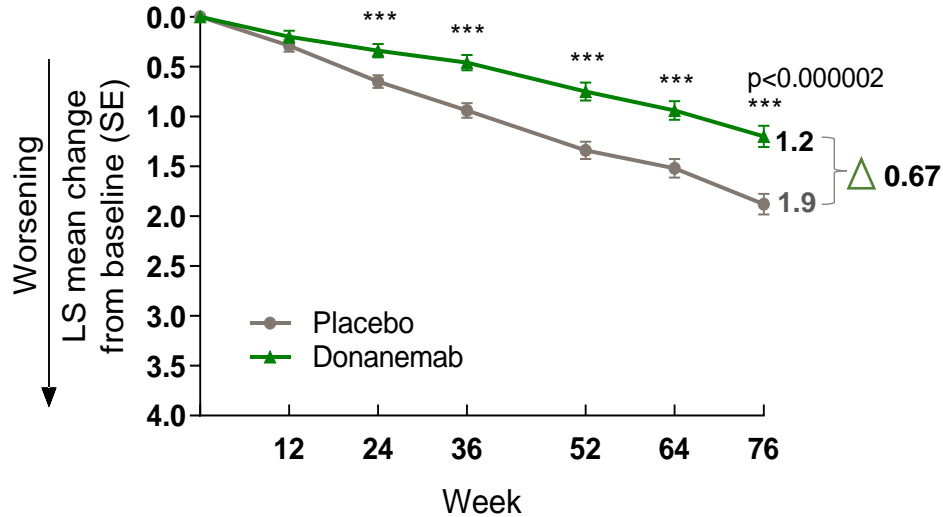
**Donanemab demonstrates efficacy in participants typically excluded based on initial clinical scale scores**

CDR-SB: adjusted mean change from baseline, SE, and p-value are derived using mixed model repeated measures methodology with fixed factors for treatment, visit, treatment-by-visit interaction, and covariates for baseline score, baseline score-by-visit interaction, age at baseline, baseline acetylcholinesterase inhibitor/memantine use and baseline tau category. The plotted values account for the different baseline means between the subpopulations. Nominal P-values: \* P<0.05, \*\* P<0.01, \*\*\* P<0.001, Abbreviations: CDR-SB = Clinical Dementia Rating – Sum of Boxes; CDR-G = Clinical Dementia Rating Global Scale; MMSE = Mini-Mental State Examination; SE = Standard Error

# ANALYSIS #4: CDR-SB PROGRESSION BY PET TAU LEVELS



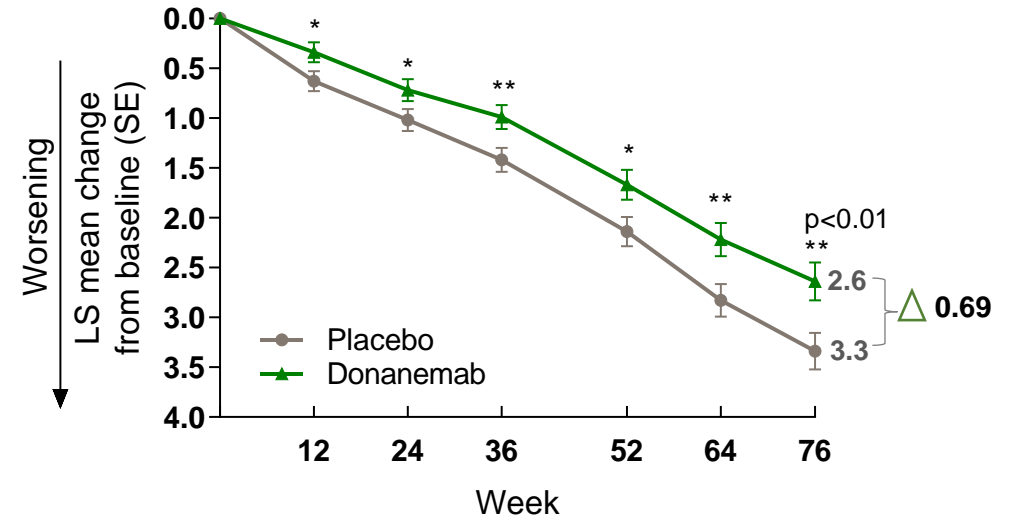
## CDR-SB: Low-medium Tau



|                   |     |     |     |     |     |     |
|-------------------|-----|-----|-----|-----|-----|-----|
| ● Placebo n=569   | 561 | 540 | 516 | 486 | 461 | 459 |
| ▲ Donanemab n=546 | 530 | 499 | 471 | 451 | 418 | 424 |

**36% slowing  
by donanemab at 76 weeks**

## CDR-SB: High Tau



|                   |     |     |     |     |     |     |
|-------------------|-----|-----|-----|-----|-----|-----|
| ● Placebo n=268   | 263 | 243 | 235 | 226 | 216 | 212 |
| ▲ Donanemab n=248 | 244 | 232 | 211 | 199 | 185 | 174 |

**21% slowing  
by donanemab at 76 weeks**

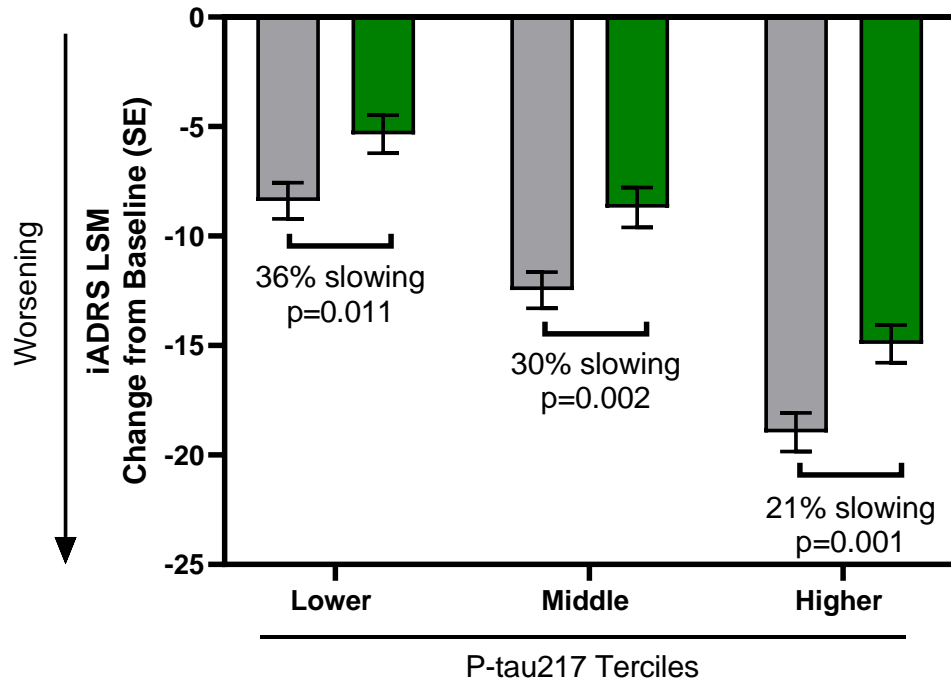
**Donanemab had a greater benefit for participants with lower levels of tau based on PET imaging**

LS mean change from baseline, SE, 95% CI and p-value are derived using mixed model repeated measures (MMRM) methodology with fixed factors for treatment, visit, treatment-by-visit interaction, and covariates for baseline score, baseline score-by-visit interaction, age at baseline, baseline tau category, pooled investigator, and baseline ACh/Memantine use; CDR-SB = Clinical Dementia Rating – Sum of Boxes; LS = Least Squares; MMRM = Mixed-Model Repeated-Measures; n = number of participants; SE = Standard Error

# ANALYSIS #5: P-TAU217 TERCILES IN COMBINED POPULATION

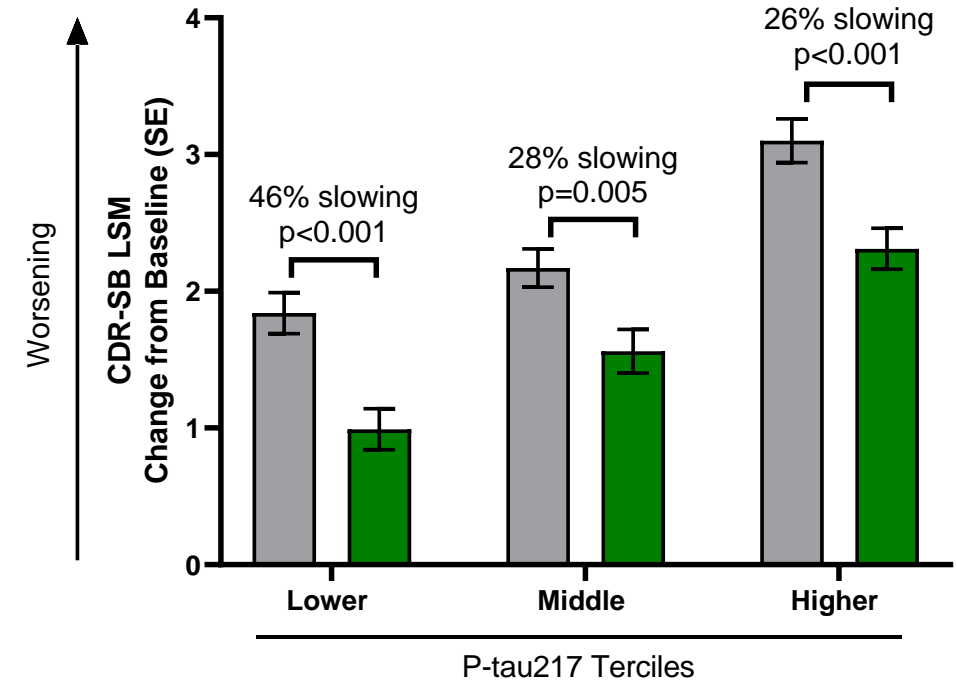


**iADRS at 76w by P-tau217 Terciles in Combined Population**



|           |       |     |     |
|-----------|-------|-----|-----|
| Placebo   | n=222 | 220 | 181 |
| Donanemab | n=196 | 177 | 188 |

**CDR-SB at 76w by P-tau217 Terciles in Combined Population**



|           |       |     |     |
|-----------|-------|-----|-----|
| Placebo   | n=228 | 229 | 182 |
| Donanemab | n=196 | 185 | 195 |

**Participants with lowest baseline P-tau217 had better disease slowing by iADRS and CDR-SB**

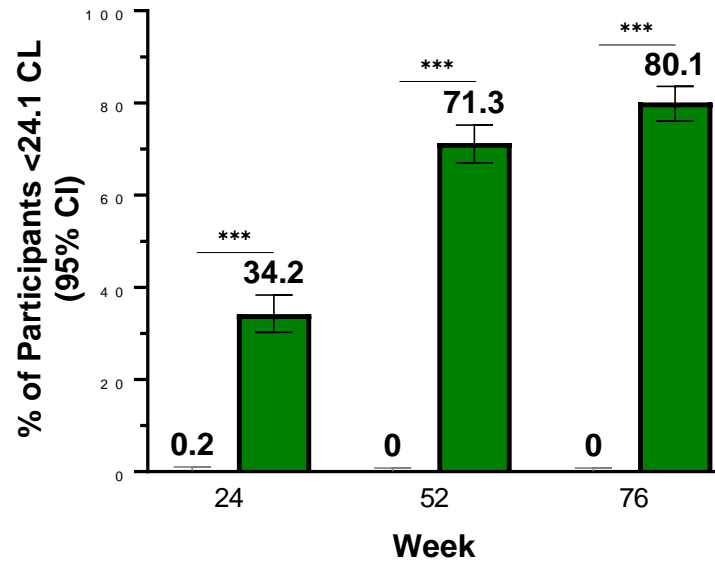
CDR-SB = Clinical Dementia Rating – Sum of Boxes; iADRS = Integrated Alzheimer’s Disease Rating Scale; LSM = Least Squares Mean; n = number of participants; SE = Standard Error. LSM change from baseline, SE, and p-values are derived using natural cubic spline with 2 degrees of freedom methodology adjusted for basis expansion terms (two terms), basis expansion term-by-treatment interaction, and covariates for age at baseline, pooled investigator, baseline tau level, and baseline acetylcholinesterase inhibitor/memantine use.

# AMYLOID REDUCTION: DONANEMAB SIGNIFICANTLY CLEARED B-AMYLOID PLAQUE



## Low-medium Tau Population

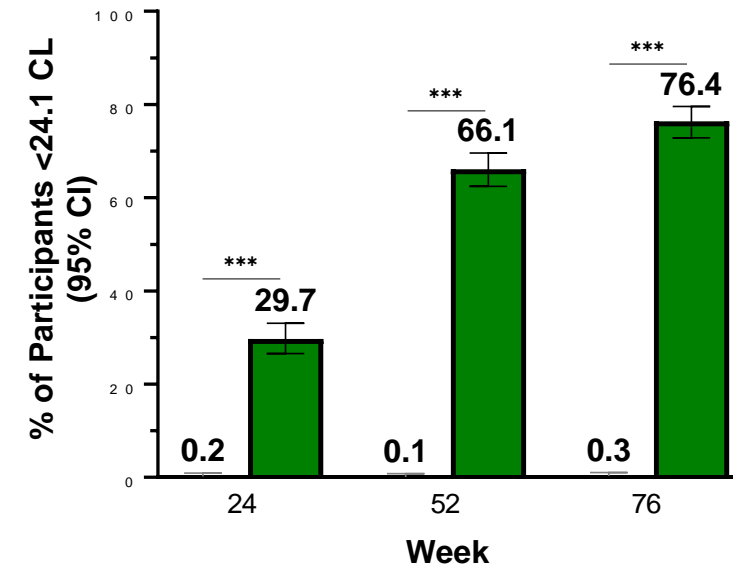
80% reached amyloid clearance by 76 weeks



|             |        |     |     |
|-------------|--------|-----|-----|
| ■ Placebo   | n= 553 | 498 | 470 |
| ■ Donanemab | n= 521 | 463 | 433 |

## Combined Population

76% reached amyloid clearance by 76 weeks



|             |        |     |     |
|-------------|--------|-----|-----|
| ■ Placebo   | n= 805 | 730 | 690 |
| ■ Donanemab | n= 761 | 670 | 614 |

Modeled data from multiple donanemab trials suggests that participants reaccumulate amyloid plaque at an average of 2.8 centiloids per year\*

\* Data (as of May 2023) from phase 1b, TRAILBLAZER-ALZ, TRAILBLAZER-EXT, and TRAILBLAZER-ALZ 2 donanemab-treated participants with amyloid clearance  
 CL = Centiloid; 95% CI = 95% Confidence Intervals; n = number of participants. CI and p-value asterisks are derived using mixed model repeated measures methodology with fixed factors for treatment, visit, treatment-by-visit interaction, and covariates for baseline score, baseline score-by-visit interaction, and age at baseline; \*\*\*p<0.0001.



# TREATMENT EFFECT CONTINUES TO WIDEN EVEN AFTER PARTICIPANTS ARE SWITCHED TO PLACEBO BASED ON 6- OR 12-MONTH PET SCAN

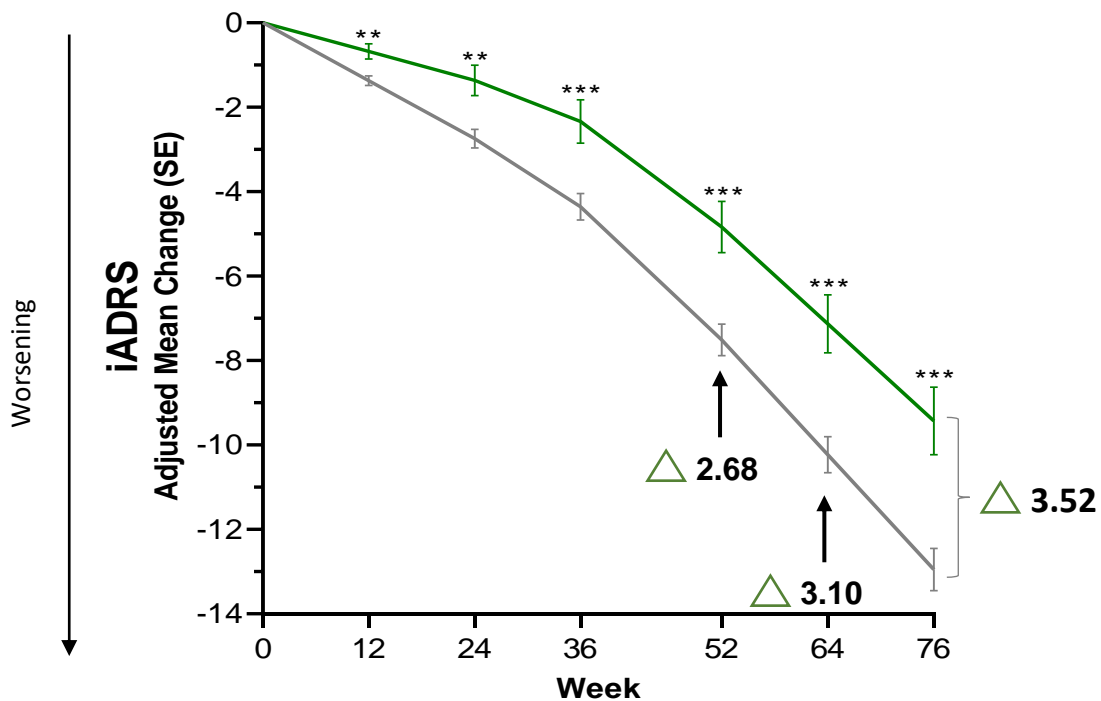
Mean time in trial prior to switch to placebo for these participants: 47 weeks



## iADRS: Combined Tau Population

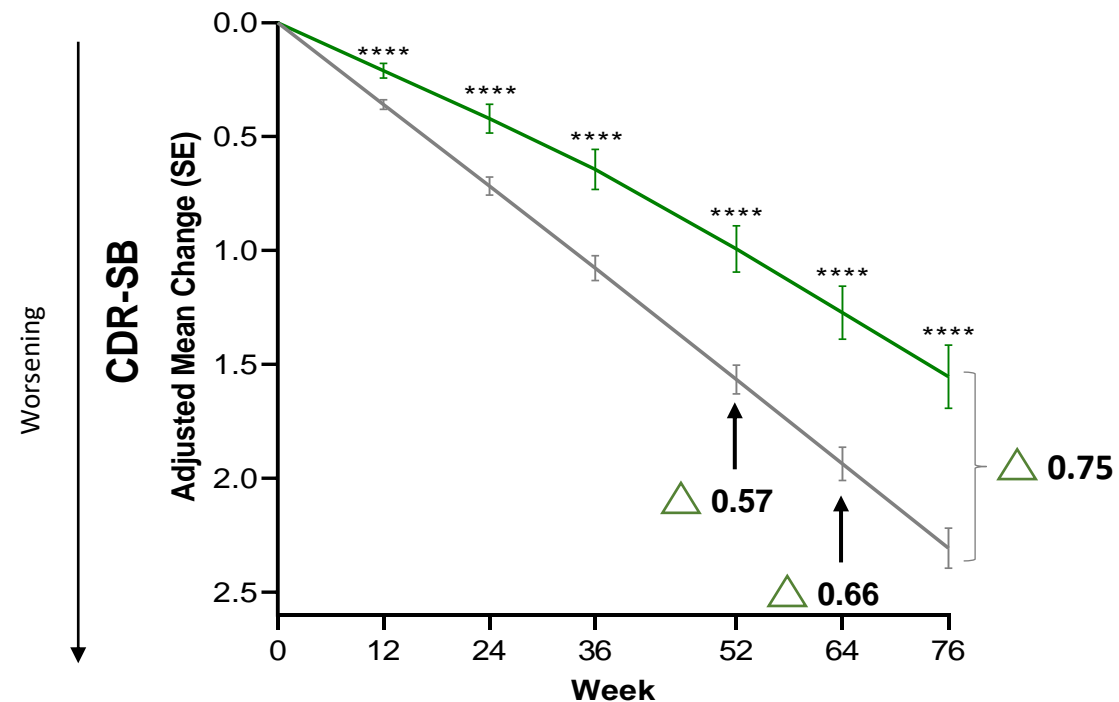
## CDR-SB: Combined Tau Population

Donanemab participants who switched to placebo



|             |     |     |     |     |     |     |     |
|-------------|-----|-----|-----|-----|-----|-----|-----|
| — Placebo   | 797 | 779 | 761 | 738 | 693 | 651 | 653 |
| — Donanemab | 296 | 290 | 288 | 285 | 282 | 266 | 268 |

Donanemab participants who switched to placebo



|             |     |     |     |     |     |     |     |
|-------------|-----|-----|-----|-----|-----|-----|-----|
| — Placebo   | 810 | 798 | 778 | 752 | 713 | 678 | 672 |
| — Donanemab | 301 | 297 | 294 | 292 | 290 | 275 | 275 |

iADRS and CDR-SB used the NCS model with 2 degrees of freedom adjusted for basis expansion terms (two terms), basis expansion term-by-treatment interaction, and covariates for age at baseline, pooled investigator, baseline tau level, and baseline acetylcholinesterase inhibitor/memantine use. Participants that did not stop treatment were also included in the model but are not plotted here. Nominal P-values: \*\* P<0.01, \*\*\* P<0.001, \*\*\*\* P<0.0001. Abbreviations: CDR-SB = Clinical Dementia Rating – Sum of Boxes; iADRS = Integrated Alzheimer's Disease Rating Scale; n = number of participants; SE = Standard Error; SD = standard deviation; w = weeks

# TRAILBLAZER-ALZ 2 Summary



**Donanemab slowed cognitive and functional decline in participants with early symptomatic Alzheimer's disease, with greater benefits for people diagnosed and treated earlier in the disease course**



**While ARIA is a serious side effect, we are committed to further understanding ARIA risk as it relates to patient profile or other factors to inform physician treatment which could benefit the class of medicines.**



**The increased treatment effect over the course of the trial reinforces our confidence in limited duration dosing.**

# TRAILBLAZER-ALZ 3: PREVENTION STUDY IN PRECLINICAL AD



## TRIAL DESIGN

- Preclinical Alzheimer's disease event-driven prevention study
- ~3300 participant randomized trial measuring the CDR-G as the primary endpoint
- P-tau217 assay used as part of inclusion criteria

## EXPECTATIONS

- We now have a validated endpoint in the CDR-G (Clinical Dementia Rating – Global) Score
- Greater efficacy in TRAILBLAZER-ALZ 2 patients earlier in their disease progression gives us confidence in the opportunity to delay or potentially prevent Alzheimer's disease for some patients
- Patients will have less Alzheimer's pathology, so it could be possible that we see improvements in ARIA

**TRAILBLAZER-ALZ 3 is enrolling well but will take several years to achieve the events necessary to complete the study**

# LILLY NEUROSCIENCE PIPELINE



As of April 24, 2023

|                                       |                             |                                |
|---------------------------------------|-----------------------------|--------------------------------|
| SARM1 INHIBITOR<br>Neurodegeneration  | NOT DISCLOSED<br>Pain       | AT2R ANTAGONIST<br>Pain        |
| PYY ANALOG<br>Diabetes                | RET INHIBITOR II<br>Cancer  | RIPK1 INHIBITOR<br>Immunology  |
| NRG4 AGONIST<br>Heart Failure         | PI3K SELECTIVE<br>Cancer    | PNPLA3 siRNA<br>NASH           |
| KV1.3 ANTAGONIST<br>Immunology        | MAZDUTIDE ♦<br>Obesity      | NOT DISCLOSED<br>Diabetes      |
| GITR ANTAGONIST<br>Immunology         | IDH1/2 INHIBITOR<br>Cancer  | KRAS G12C II<br>Cancer         |
| GIP/GLP COAGONIST<br>PEPTIDE Diabetes | GIPR AGONIST LA<br>Diabetes | GIPR AGONIST LA II<br>Diabetes |
| CD200R MAB AGONIST<br>Immunology      | DACRA QW II<br>Obesity      | FGFR3 SELECTIVE<br>Cancer      |
| AMYLIN AGONIST LA<br>Obesity          | APOC3 siRNA<br>CVD          | CD19 ANTIBODY<br>Immunology    |

PHASE 1

|   |  |
|---|--|
| GBA1 GENE THERAPY<br>Gaucher Disease Type 1               | TIRZEPATIDE<br>NASH                              |
| RETATRUTIDE<br>Obesity                                    | PIRTOBRUTINIB<br>B-Cell Malignancies             |
| ORFORGLIPRON<br>Obesity                                   | GBA1 GENE THERAPY<br>Gaucher Disease Type 2      |
| RELAXIN-LA<br>Heart Failure                               | SSTR4 AGONIST<br>Pain                            |
| RETATRUTIDE<br>Diabetes                                   | PERESOLIMAB<br>Rheumatoid Arthritis              |
| P2X7 INHIBITOR<br>Pain                                    | ORFORGLIPRON<br>Diabetes                         |
| O-GLCNACASE INH<br>Alzheimer's Disease                    | MUVALAPLIN<br>(Lp(a) INHIBITOR) CVD              |
| MEVIDALEN<br>Symptomatic LBD                              | LPA siRNA<br>CVD                                 |
| GRN GENE THERAPY<br>Frontotemporal Dementia               | GBA1 GENE THERAPY<br>Parkinson's Disease         |
| ELTREKIBART<br>(CXCR1/2L MAB)<br>Hidradenitis Suppurativa | BTLA MAB AGONIST<br>Systemic Lupus Erythematosus |
| SOLBINSIRAN<br>(ANGPTL3 siRNA) CVD                        |  |

PHASE 2

|   |   |
|---|---|
| TIRZEPATIDE<br>Obstructive Sleep Apnea              | TIRZEPATIDE<br>MMO                                      |
| TIRZEPATIDE<br>Heart Failure pEF                    | TIRZEPATIDE<br>CV Outcomes                              |
| SELPERCATINIB<br>1L NSCLC                           | SELPERCATINIB<br>1L Med Thyroid Cancer                  |
| SELPERCATINIB<br>Adjuvant RET+ NSCLC                | PIRTOBRUTINIB<br>R/R MCL Monotherapy                    |
| PIRTOBRUTINIB<br>R/R CLL Monotherapy                | PIRTOBRUTINIB<br>R/R CLL Combination                    |
| PIRTOBRUTINIB<br>1L CLL Monotherapy                 | MIRIKIZUMAB<br>Crohn's Disease                          |
| IMLUNESTRANT<br>Adjuvant Breast Cancer              | EMPAGLIFLOZIN*<br>Post MI                               |
| DONANEMAB<br>Preclinical Alzheimer's<br>Disease     | ABEMACICLIB<br>MBC Sequencing                           |
| ABEMACICLIB<br>Hormone Sensitive<br>Prostate Cancer | ABEMACICLIB<br>Castrate Resistant<br>Prostate Cancer    |
| REMTERTNETUG<br>Alzheimer's Disease                 | INSULIN EFSITORA ALFA<br>(BASAL INSULIN-Fc)<br>Diabetes |
| IMLUNESTRANT<br>ER+ HER2- mBC                       |   |

PHASE 3

**LEGEND**

- NME
- NILEX
- ◆ Phase 3 in China with Innovent for T2DM and Obesity
- ◎ Approval in Japan. Complete Response Letter issued by US FDA.
- ▶ Submission in EU. US submission pending.
- \* Commercial Collaboration

|  |                                    |
|--|------------------------------------|
| TIRZEPATIDE ▶<br>Obesity                 | MIRIKIZUMAB◎<br>Ulcerative Colitis |
| EMPAGLIFLOZIN*<br>Chronic Kidney Disease |                                    |
| LEBRIKIZUMAB<br>Atopic Dermatitis        |                                    |
| DONANEMAB<br>Alzheimer's Disease         |                                    |

REG REVIEW

APPROVED

# Summary



**We are at an inflection point in Alzheimer's disease research and treatment. We have shown the potential to meaningfully slow this devastating disease that impacts millions of people as well as their loved ones**



**Significant work remains to evolve diagnosis pathways and the treatment ecosystem**



**Our commitment to research in Alzheimer's disease and other areas continues**



# QUESTIONS AND ANSWERS