CONNECT BIOPHARMA

# Developing next-generation therapeutics for T cell driven inflammatory diseases

## *Topline Results of Stage 2 of the China Pivotal Trial of Rademikibart in Atopic Dermatitis*

***November 21, 2023***

# Forward-Looking Statements



- This presentation regarding Connect Biopharma Holdings Limited ("Connect," "we," "us" or "our") has been prepared solely for informational purposes.
- This presentation contains forward-looking statements that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this presentation, including statements regarding the potential of rademikibart (formerly CBP-201) to achieve a differentiated, competitive, or favorable benefit or profile, including on safety, tolerability, improvement, maintenance, clinical response, dosing, efficacy and/or convenience, are forward-looking statements. Forward-looking statements can be identified by words such as: “anticipate,” “believe,” “contemplate,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “should,” “target,” “will,” or “would” or the negative of these terms or other similar expressions. The forward-looking statements in this presentation are only predictions. We have based these forward-looking statements largely on our current expectations and projections about future events and trends. These forward-looking statements are inherently subject to a number of risks, uncertainties and assumptions, some of which cannot be predicted or quantified and some of which are beyond our control, including, among other things: the ability of our clinical trials to demonstrate safety and efficacy of our product candidates, and other positive results; our ability to obtain and maintain regulatory approval of our product candidates; existing regulations and regulatory developments in the United States, the PRC, Europe and other jurisdictions; uncertainties regarding the interpretation and enforcement of PRC laws, rules and regulations; risks associated with the COVID-19 outbreak, which has and may continue to materially and adversely impact our business, preclinical studies and clinical trials; our plans and ability to obtain, maintain, protect and enforce our intellectual property rights and our proprietary technologies, including extensions of existing patent terms where available; our continued reliance on third parties to conduct additional clinical trials of our product candidates, and for the manufacture of our product candidates for preclinical studies and clinical trials; and the degree of market acceptance of our product candidates by physicians, patients, healthcare payors and others in the medical community. These risks are not exhaustive.
- The inclusion of forward-looking statements should not be regarded as a representation by Connect that any of its expectations, projections or plans will be achieved. Actual results may differ from those expectations, projections or plans due to the risks and uncertainties inherent in Connect’s business and other risks described in Connect’s filings with the SEC.
- New risk factors emerge from time to time and it is not possible for our management to predict all risk factors, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in, or implied by, any forward-looking statements. You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. Except as required by law, we undertake no obligation to update publicly any forward-looking statements for any reason after the date of this presentation.
- In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this presentation, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.
- We have not conducted a head-to-head study of rademikibart versus dupilumab or any other biologics. Comparisons of rademikibart to dupilumab or any other biologics contained herein are based on analysis of data from separate studies. Such data may not be directly comparable due to differences in study protocols, conditions and patient populations. Accordingly, cross-trial comparisons may not be reliable predictors of the relative efficacy or safety of rademikibart compared to dupilumab or any other biologics.
- The potential benefits of CBP-201 do not imply an expectation of regulatory approval, which is solely within the authority of the FDA (or applicable foreign regulator).

# Rademikibart Showed Sustained Efficacy Results Over 52 Weeks of Treatment With Continued Improvement



| | |
|---|---|
| **52-Week Data Indicates Strong Results with Convenient Dosing** | 52-week maintenance data with rademikibart supports both Q2W and Q4W dosing regimens |
| **Maintanance of Clinical Response from Week 16 to Week 52** | 87% of patients maintained their IGA 0/1 response with Q4W dosing; 76% maintained IGA 0/1 response with Q2W dosing<br>> 90% of patients maintained their EASI-75 response with Q4W and Q2W dosing<br>> 90% of patients maintained their improvement in itch and quality of life measures observed at week 16 with Q4W dosing |
| **Continued Improvement** | Rademikibart treatment after Week 16 continued to improve upon Week 16 efficacy results<br>• ~60% of patients achieved IGA 0/1 response with continued treatment; ***30% more patients*** after Week 16<br>• ~85% of patients achieved EASI-75 response with continued treatment;***16% more patients*** after Week 16 |
| **Safety Results** | Rademikibart was generally well tolerated, with no new safety signals with long-term treatment out to 52 weeks<br>Observed AEs were generally consistent with induction period and previous rademikibart trials |

**Stage 2 Results suggest a desirable profile for both efficacy and dosing convenience**

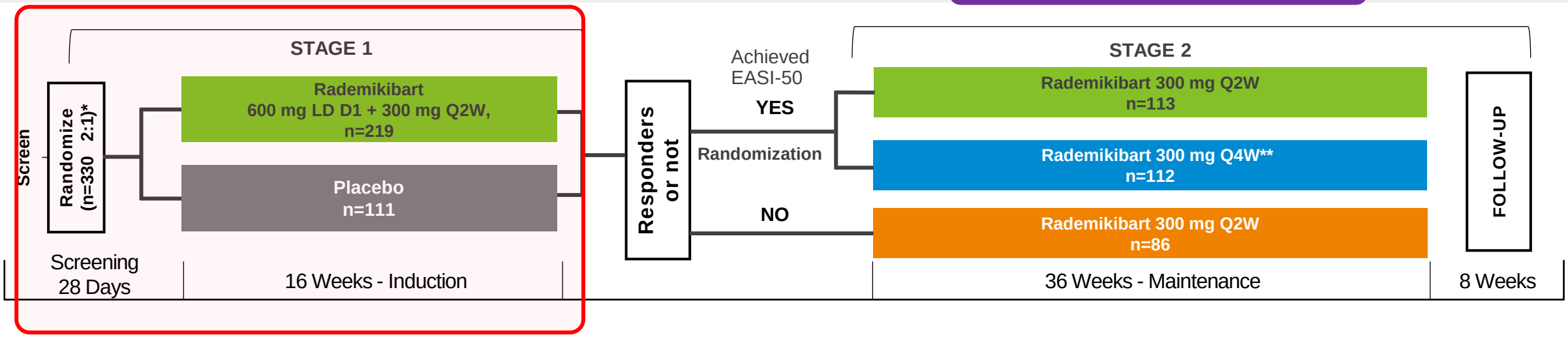
EASI, Eczema Area and Severity Index; EASI-50, EASI-75, and EASI-90 (i.e. at least 50%, 75%, and 90% decreases from baseline; IGA 0/1, Investigator Global Assessment (Clear/Almost Clear assessment); Q2W, every 2 weeks; Q4W, every 4 weeks.

CONNECT BIOPHARMA

# China Pivotal Trial Design (CN002)
## Moderate-to-severe Atopic Dermatitis



### *Expanded Patient Population (n=330)*




### Key Inclusion Criteria:

- 12 to 75 years of age (inclusive)*
- Having atopic dermatitis for ≥1 year
- EASI ≥16
- IGA score ≥3 (5-point scale [0-4])
- ≥10% BSA involvement
- PP-NRS ≥ 4

### Responders at Week 16 to enter re-randomization:

- Achieving EASI-50

### Primary Endpoints:

- % of subjects achieving IGA 0/1 and reduction ≥2 at Week 16

### Secondary Efficacy Endpoints include:

- Proportion of subjects achieving EASI-50, -75 or -90 at Week 16 and Week 52
- Proportion of subjects achieving PP-NRS reduction ≥4 or ≥3 at Week 16 and Week 52
- Percent change in EASI, PP-NRS and BSA from Baseline to Week 16 and Week 52
- Change in SCORAD, DLQI and POEM from Baseline to Week 16 and Week 52
- Proportion of patients maintaining efficacy responses from Week 16 to Week 52

*Represents the randomized full Expanded Patient Population (n=330). **In order to maintain blinded state, all patients received placebo between Q4W doses of rademikibart 300 mg. BSA: Body Surface Area. DLQI, Dermatology Life Quality Index. EASI: Eczema Area and Severity Index. EASI-50, EASI-75, and EASI-90 (i.e. at least 50%, 75%, and 90% decreases from baseline. IGA 0/1, Investigator Global Assessment (Clear/Almost Clear assessment). LD: Loading Dose. PP-NRS: Peak Pruritus Numeric Rating Scale. FAS, Full Analysis Set. POEM, Patient Oriented Eczema Measure. Q2W: every 2 weeks. SCORAD, Scoring Atopic Dermatitis.

CONNECT BIOPHARMA

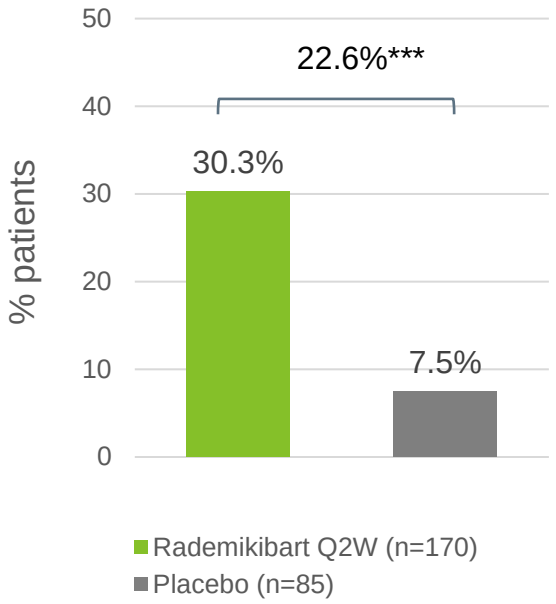
# Induction Stage: Primary Endpoint
## Consistent Week 16 efficacy results with expanded trial population



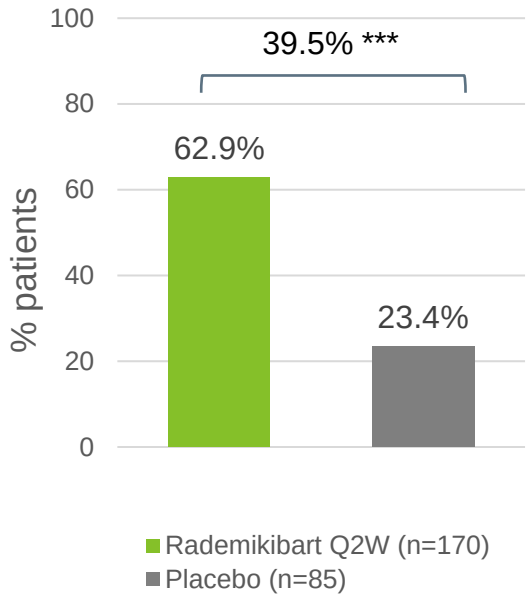
Trial population was expanded to increase 52-week exposure data to 330 patients

## 255-Patient Primary Analysis

### IGA 0/1 at Week 16

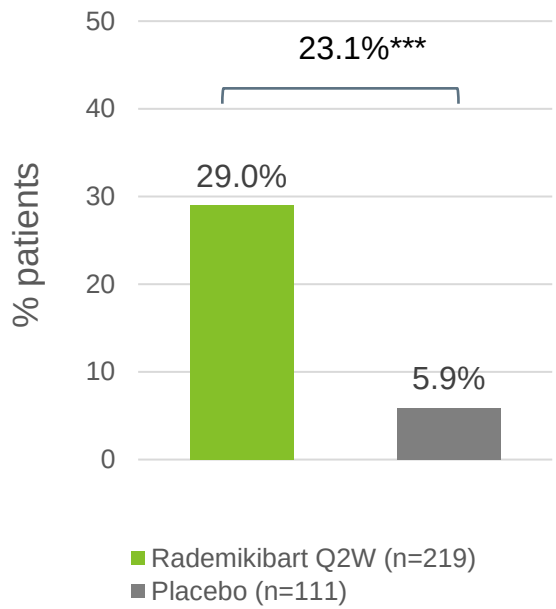



### EASI-75 at Week 16

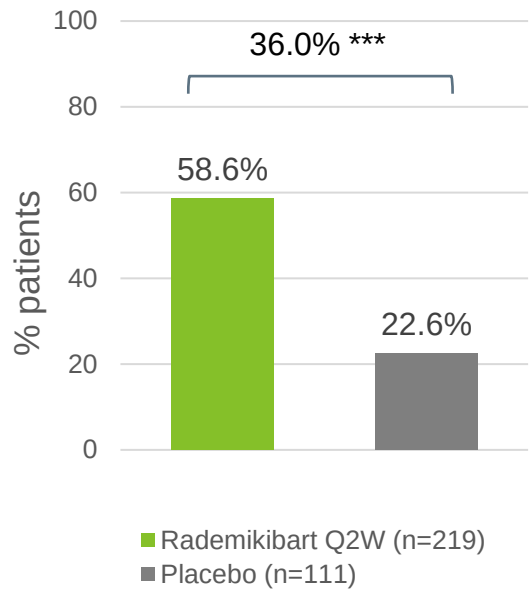



## 330-Patient Expanded Analysis

### IGA 0/1 at Week 16




### EASI-75 at Week 16

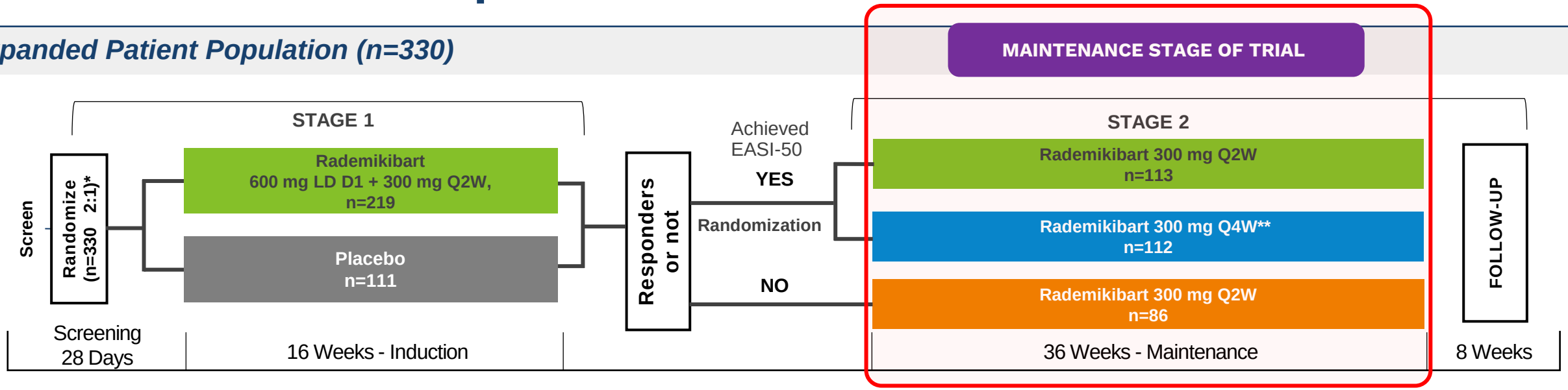



***, **, * for P<0.001, <0.01, <0.05, respectively, vs placebo.
Missing data in rademikibart group is imputed by jump to reference imputation (J2R) after applying the rule of intercurrent event; multiple imputation was used for the placebo arm.
FAS, Full Analysis Set for either Primary Patient Population (n=255) or Expanded Patient Population (n=330). EASI, Eczema Area and Severity Index. EASI-50, EASI-75, and EASI-90 (i.e. at least 50%, 75%, and 90% decreases from baseline. IGA 0/1, Investigator Global Assessment (Clear/Almost Clear assessment). Q2W, every 2 weeks.

# China Pivotal Trial Design (CN002)
## Moderate-to-severe Atopic Dermatitis



### *Expanded Patient Population (n=330)*




### Key Inclusion Criteria:

- 12 to 75 years of age (inclusive)*
- Having atopic dermatitis for ≥1 year
- EASI ≥16
- IGA score ≥3 (5-point scale [0-4])
- ≥10% BSA involvement
- PP-NRS ≥ 4

### Responders at Week 16 to enter re-randomization:

- Achieving EASI-50

### Primary Endpoints:

- % of subjects achieving IGA 0/1 and reduction ≥2 at Week 16

### Secondary Efficacy Endpoints include:

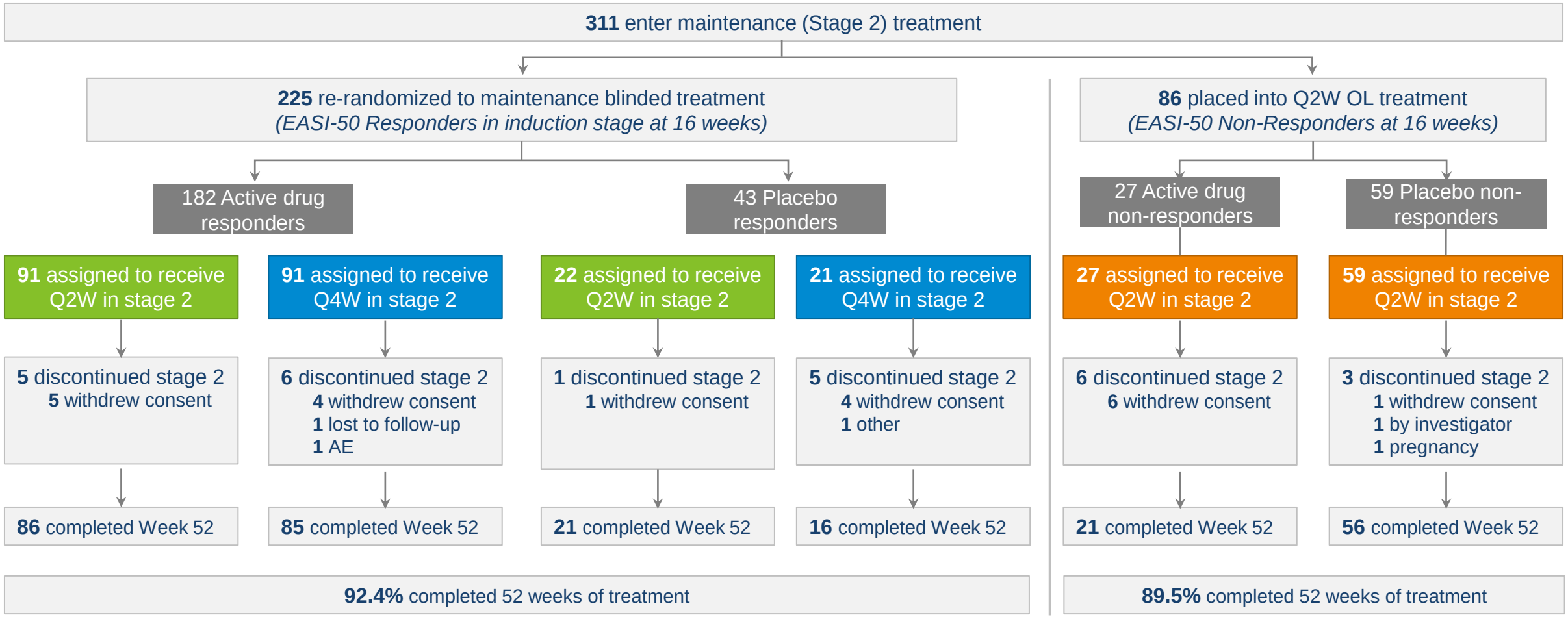
- Proportion of subjects achieving EASI-50, -75 or -90 at Week 16 and Week 52
- Proportion of subjects achieving PP-NRS reduction ≥4 or ≥3 at Week 16 and Week 52
- Percent change in EASI, PP-NRS and BSA from Baseline to Week 16 and Week 52
- Change in SCORAD, DLQI and POEM from Baseline to Week 16 and Week 52
- Proportion of patients maintaining efficacy responses from Week 16 to Week 52

*Represents the randomized full Expanded Patient Population (n=330). **In order to maintain blinded state, all patients received placebo between Q4W doses of rademikibart 300 mg. BSA: Body Surface Area. DLQI, Dermatology Life Quality Index. EASI: Eczema Area and Severity Index. EASI-50, EASI-75, and EASI-90 (i.e. at least 50%, 75%, and 90% decreases from baseline. IGA 0/1, Investigator Global Assessment (Clear/Almost Clear assessment). LD: Loading Dose. PP-NRS: Peak Pruritus Numeric Rating Scale. FAS, Full Analysis Set. POEM, Patient Oriented Eczema Measure. Q2W: every 2 weeks. SCORAD, Scoring Atopic Dermatitis.

# Patient Disposition: Stage 2 Maintenance Period



## *Over 92% completion rate for responders entering Stage 2 Maintenance Period*




Randomized full Expanded Patient Population (N=330).

# Baseline Demographic and Disease Characteristics
## Initial baseline values for patients entering Maintenance Phase



| Characteristics* | Rademikibart Q2W n=113 | Rademikibart Q4W n=112 | Open Label (OL) n=86 |
|---|---|---|---|
| Age (years)<br>Mean (SD)<br>Median (min, max) | <br>39.7 (17.3)<br>36.0 (14, 73) | <br>37.9 (16.4)<br>33.5 (15, 74) | <br>40.2 (17.5)<br>36.0 (14, 71) |
| Female, n (%) | 35 (31.0%) | 39 (34.8%) | 30 (34.9%) |
| IGA, n (%)<br>3 (moderate)<br>4 (severe) | <br>49 (43.4%)<br>64 (56.6%) | <br>53 (47.3%)<br>59 (52.7%) | <br>42 (48.8%)<br>44 (51.2%) |
| EASI score,<br>Mean (SD)<br>Median (min, max) | <br>29.6 (12.6)<br>26.3 (16.0, 66.9) | <br>28.9 (11.4)<br>26.4 (16.0, 72.0) | <br>28.1 (11.3)<br>23.7 (16.0, 66.6) |
| BSA Percentage involvement<br>Mean (SD)<br>Median (min, max) | <br>47.3 (22.3)<br>41.5 (13.5, 100.0) | <br>48.0 (19.0)<br>43.5 (17.5, 99.0) | <br>48.0 (21.7)<br>44.5 (13.0, 100.0) |
| PP-NRS<br>Mean (SD)<br>Median (min, max) | <br>7.0 (1.7)<br>6.9 (3.4, 10.0) | <br>7.2 (1.6)<br>7.0 (2.1, 10.0) | <br>7.4 (1.5)<br>7.6 (3.1, 10.0) |
| DLQI<br>Mean (SD)<br>Median (min, max) | <br>15.8 (7.2)<br>15.0 (1, 30) | <br>14.9 (6.9)<br>14.0 (1, 30) | <br>17.2 (6.6)<br>17.0 (1, 30) |

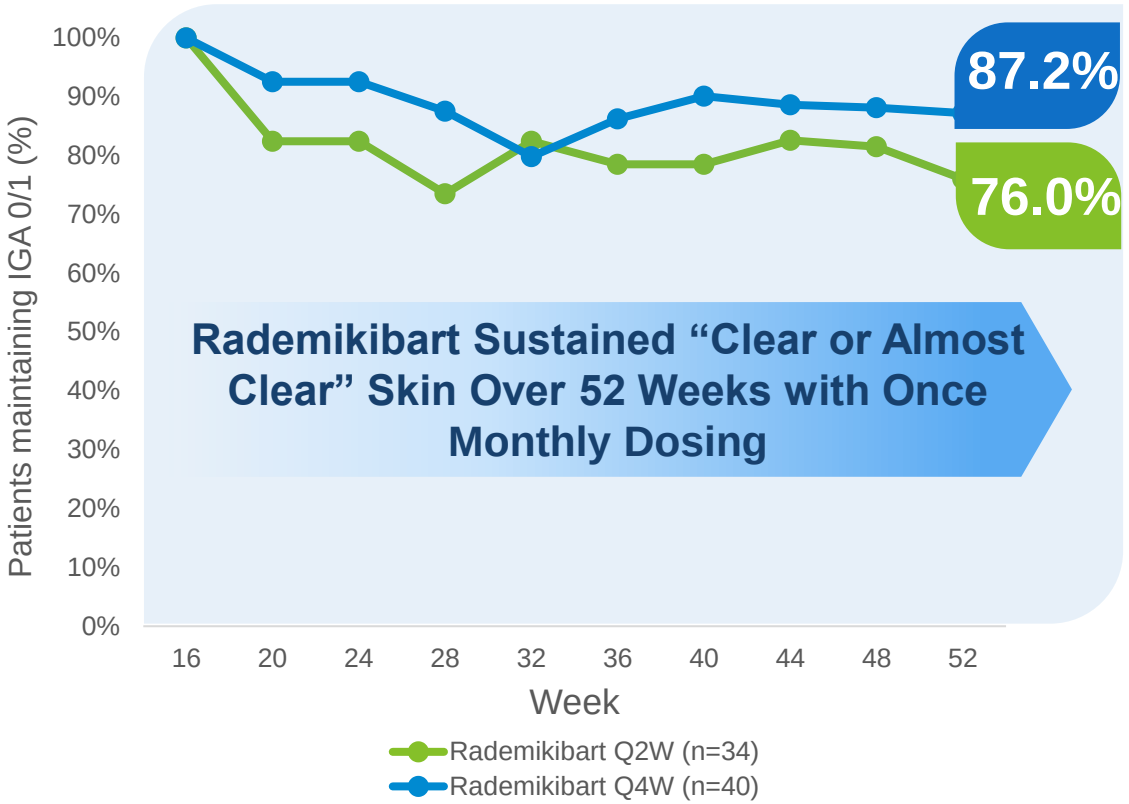
*Represents the original baseline (Week 0) baseline characteristics for the randomized full Expanded Patient Population (n=330) for each Maintenance Phase group
**DLQI – Q2W n=111; Q4W n=110; OL n=85
AD, atopic dermatitis. BSA, Body Surface Area. EASI, Eczema Area and Severity Index. IGA, Investigator Global Assessment. OL, Open Label. PP-NRS, Peak Pruritus Numerical Rating Scale. DLQI, Dermatology Life Quality Index. SD, standard deviation.

# Maintenance: Efficacy Responses Maintained Through to Week 52

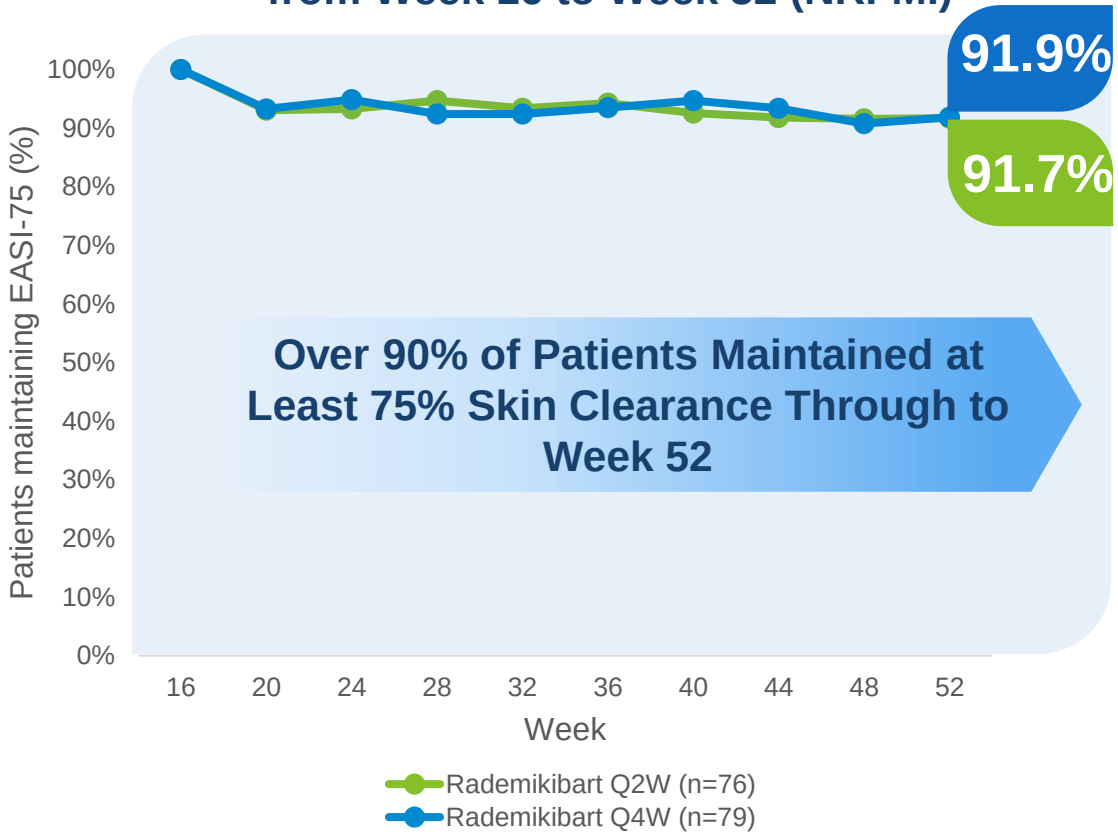


***~80-90% of patients maintained their IGA 0/1 or EASI-75 response through 52 weeks***

## Proportion of Patients Maintaining IGA 0/1 from Week 16 to Week 52 (NRI-MI)




## Proportion of Patients Maintaining EASI-75 from Week 16 to Week 52 (NRI-MI)




EASI, Eczema Area and Severity Index. EASI-50, EASI-75, and EASI-90 (i.e. at least 50%, 75%, and 90% decreases from baseline. IGA 0/1, Investigator Global Assessment (Clear/Almost Clear assessment). NRI-MI, Non-responder imputation for rescue medications and multiple imputation for remaining missing data.
Full Expanded Patient Population (N=330)

CONNECT BIOPHARMA

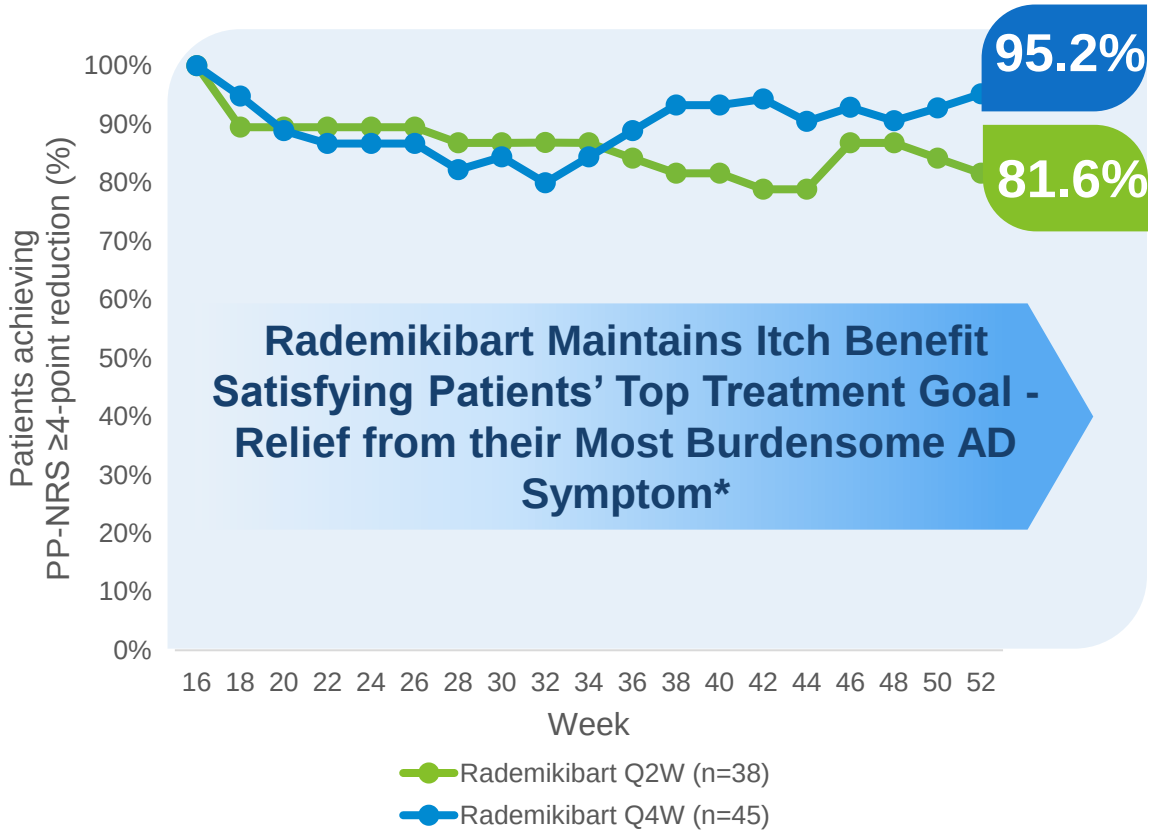
# Maintenance: Improvements in Patient Reported Outcomes (PROs) were Maintained Through to Week 52



***Both Q2W and Q4W dosing maintained clinically important improvements in PROs***

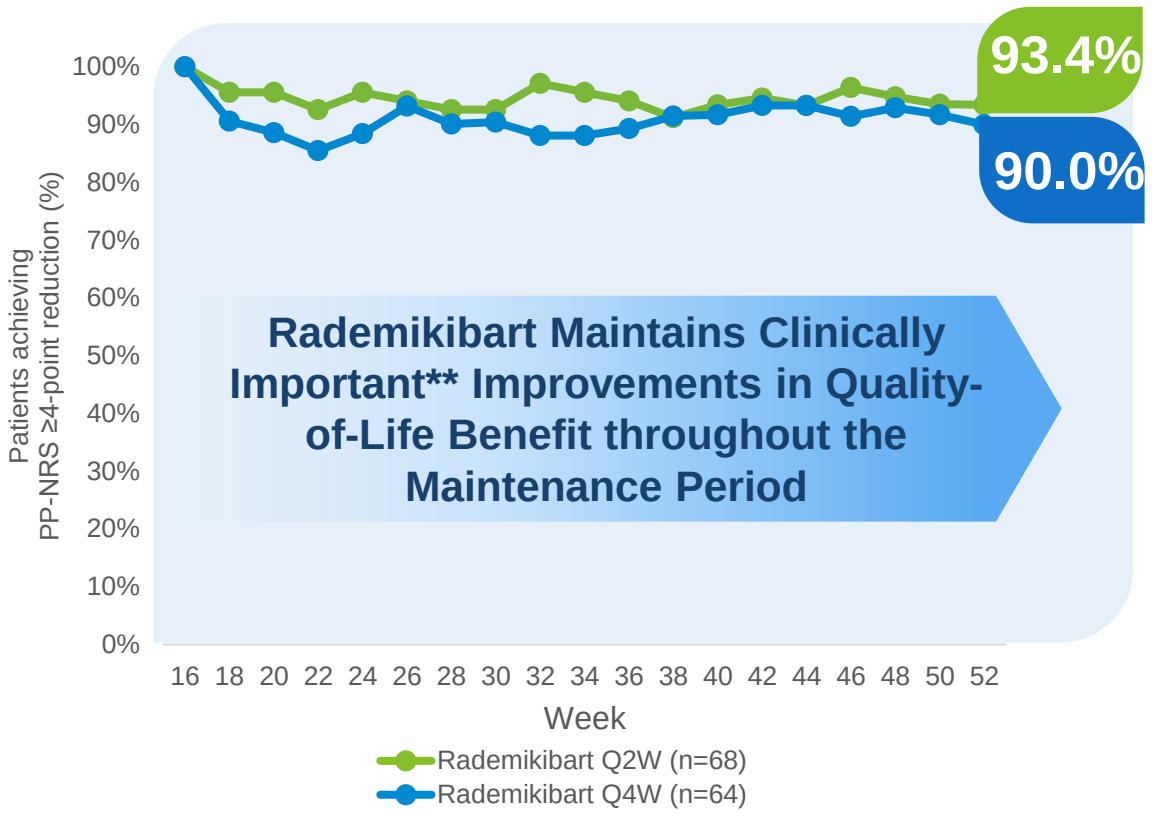
## PP-NRS

### Maintenance of PP-NRS ≥4-point reduction (NRI-MI)




## DLQI

### Maintenance of DLQI ≥5-point reduction (NRI-MI)




Full Analysis Set – N=330. DLQI, Dermatology Life Quality Index. PP-NRS, Peak Pruritus Numerical Rating Scale. NRI-MI, Non-responder imputation for rescue medications and multiple imputation for remaining missing data.

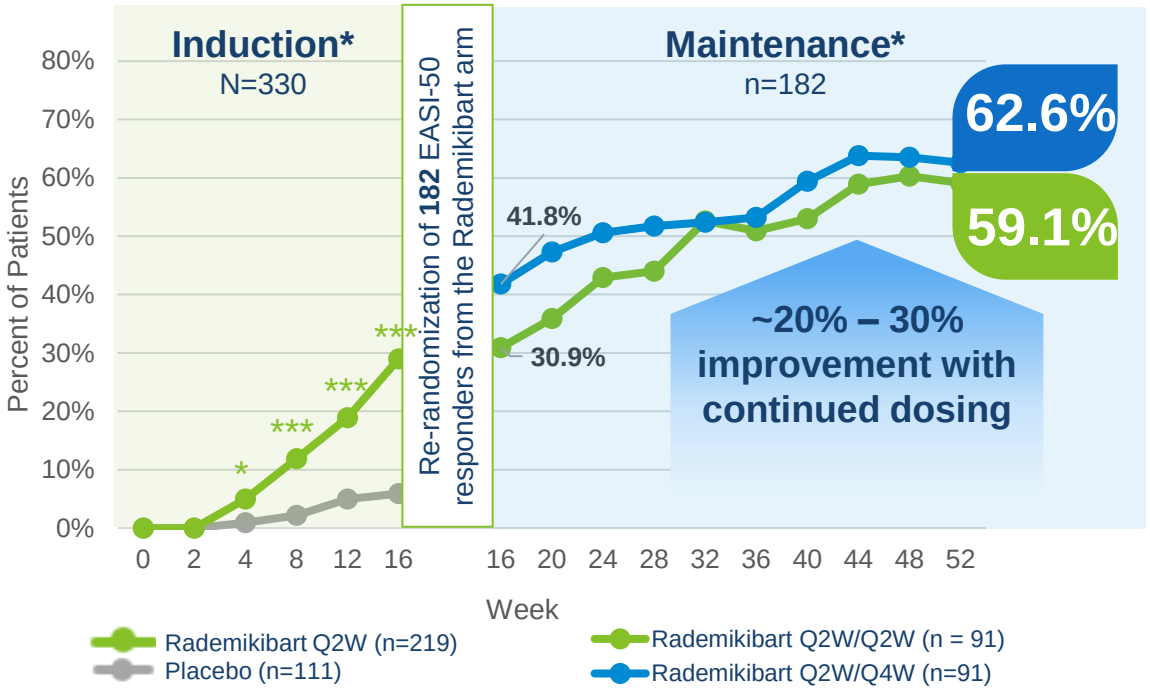
* Silverberg JI et al *Dermatitis*. (2023).135-144.
** Basara MKA et al *Dermatology* (2015) 230 (1): 27–33.

# Efficacy Results Continued to Improve During Rademikibart Maintenance Treatment

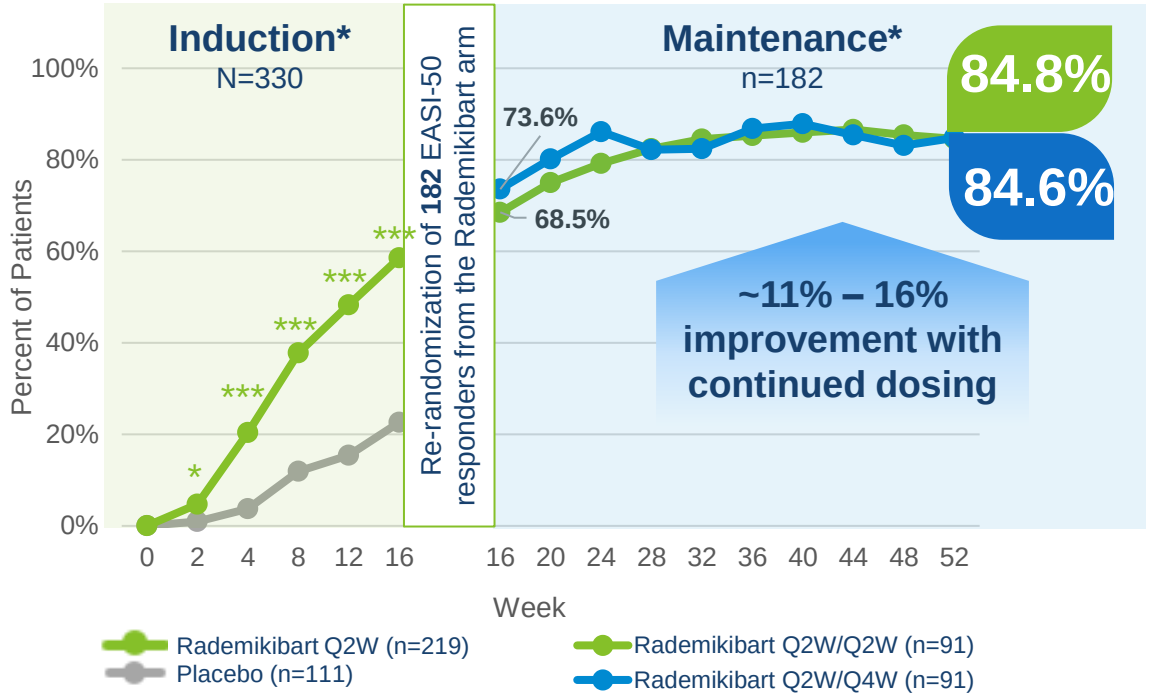


*Improvement was observed across both Q2W and Q4W dosing regimens*

## IGA 0/1 over 52 weeks of treatment (NRI-MI)




## EASI-75 over 52 weeks of treatment (NRI-MI)




* Full Analysis Set – N=330. Induction: ***, **, * for P<0.001, <0.01, <0.05, respectively, vs placebo. Missing data in rademikibart group is imputed by jump to reference imputation (J2R) after applying the rule of intercurrent event; multiple imputation was used for the placebo arm. Maintenance: Rademikibart Week 16 responders who remain on Q2W (Q2W to Q2W) or switch to Q4W (Q2W to Q4W) in maintenance. NRI-MI, Non-responder imputation for rescue medications and multiple imputation for remaining missing data.
EASI, Eczema Area and Severity Index. EASI-75 (i.e. at least 75% decrease from baseline. IGA 0/1, Investigator Global Assessment (Clear/Almost Clear assessment). Q2W – every other week.

# Rademikibart Non-Responders at Week 16 Continued to Improve to Achieve Clinical Response at Week 52

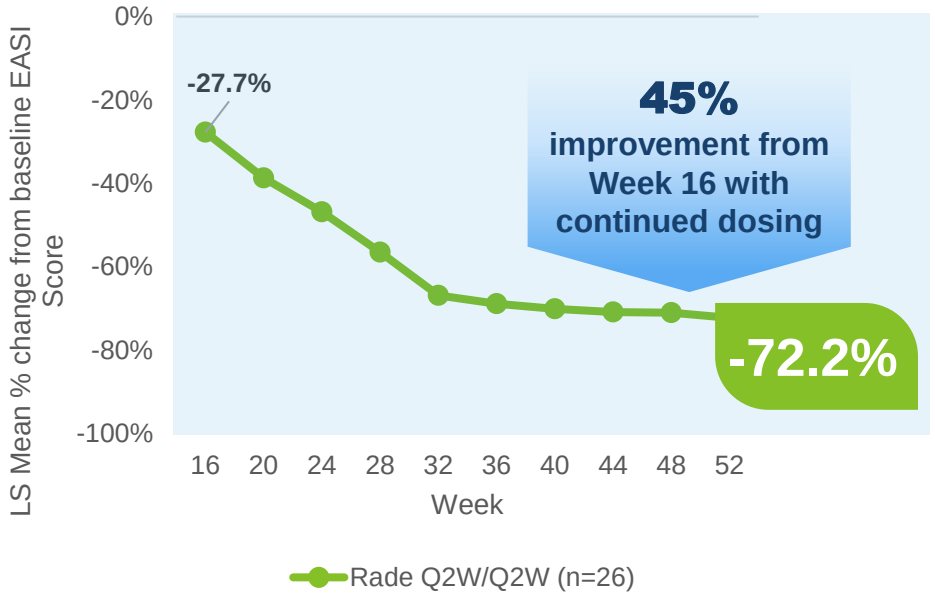


For the 26 patients who did not respond to rademikibart in the first 16 weeks:

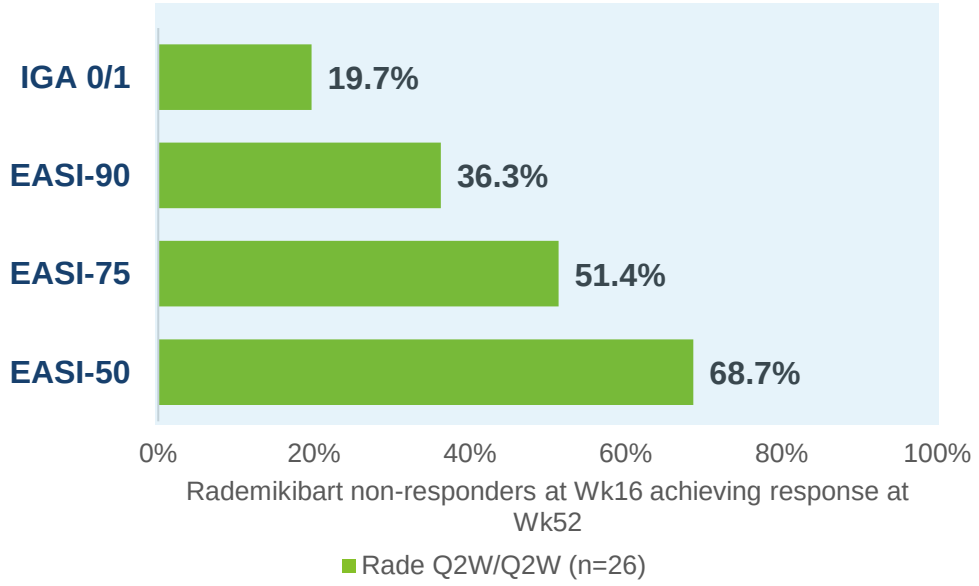
- ✓ EASI scores continued to improve during the maintenance period
- ✓ Over 50% achieved 75% skin clearance with additional rademikibart dosing

## Rademikibart Q2W non-responders at Wk16

### Improved EASI scores with continued Q2W dosing (ANCOVA-MI)




### EASI-50, -75, -90 or IGA 0/1 response at Wk52 with continued Q2W dosing (NRI-MI)




Full Analysis Set – N=330

Rademikibart non-Responders = Rademikibart treated patients who do not achieve EASI-50 at Week 16 and were entered into the OL Q2W arm of the study

EASI, Eczema Area and Severity Index. EASI-50, EASI-75, and EASI-90 (i.e. at least 50%, 75%, and 90% decreases from baseline. IGA 0/1, Investigator Global Assessment (Clear/Almost Clear assessment). NRI-MI, Non-responder imputation for rescue medications and multiple imputation for remaining missing data.

# Rademikibart Exhibited Sustained Efficacy Results with Long-Term Treatment



*Maintenance of IGA-0/1 and EASI-75 across biologic programs*

| Source | MoA | Product | Statistical Method for Missing data | Maintenance Dosing | % Maintaining IGA 0/1 | % Maintaining EASI-75 |
|---|---|---|---|---|---|---|
| **Pivotal CN002** | **IL-4Rα** | **Rademikibart** | NRI | Q2W | 73.5 | 82.9 |
| | | | | Q4W | 80.0 | 82.3 |
| **Biologic Phase 3 trial results** | **IL-4Rα** | **Dupilumab (Dupixent®)** Q4W not FDA approved | NRI | QW/Q2W | 54.0 | 71.6 |
| | | | | Q4W | 43.9 | 58.3 |
| | **IL-13** | **Tralokinumab (Adbry®)** | NRI | Q2W | 55.9 | 57.2 |
| | | | | Q4W | 42.4 | 50.4 |
| | **IL-13** | **Lebrikizumab** | NRI | Q2W | 58.4 | 66.1 |
| | | | | Q4W | 66.2 | 69.6 |

**For Illustrative Purposes Only:- Not a head-to-head trial. Differences exist between trial designs, subject characteristics and geographical regions -- caution should be exercised when comparing data across trials**

NRI – Non-responder Imputation

- Lebrikizumab – Blauvelt A et al., *Br J Dermatol* 2023; 188:740–748;
- Dupilumab - Worm M et al., *JAMA Dermatol*. 2020;156(2):131-143;
- Tralokinumab – Wollenberg A et al., Bri J of Dermatol. 2021 184, pp437–449.

CONNECT BIOPHARMA

# Safety Results Across Induction and Maintenance Phases



## *Over 92% completion rate for those entering Stage 2 Maintenance Phase*

- Rademikibart continued to be generally well tolerated through Week 52 with no new safety signals
- AEs were generally consistent with induction phase, previous rademikibart trials and the IL-4/13 class of medications
  - Conjunctivitis rates in rademikibart trials continued to be low

| | Induction Phase (Weeks 0-16) | | Rademikibart Maintenance Phase (Weeks 16-52) | | |
|---|---|---|---|---|---|
| | **Placebo** (N=111) n (%) | **Rademikibart Q2W** (N=219) n (%) | **Rademikibart Q2W** (N=113) n (%) | **Rademikibart Q4W** (N=112) n (%) | **Rademikibart Q2W Open Label** (N=85) n (%) |
| **All TEAEs** | 80 (72.1) | 166 (75.8) | 93 (82.3) | 95 (84.8) | 71 (83.5) |
| **AEs related to study drug** | 25 (22.5) | 67 (30.6) | 28 (24.8) | 28 (25.0) | 25 (29.4) |
| **Serious TEAEs** | 3 (2.7) | 1 (0.5) | 1 (0.9) | 3 (2.7) | 6 (7.1) |
| **Serious TEAEs related to study drug** | 0 | 0 | 0 | 0 | 0 |
| **AEs Leading to discontinuation** | 1 (0.9) | 2 (0.9) | 0 | 0 | 1 (1.2) |
| **Conjunctivitis*** | 3 (2.7) | 14 (6.4) | 6 (5.3) | 8 (7.1) | 7 (8.2) |
| **Injection site reactions** | 3 (2.7) | 20 (9.1) | 6 (5.3) | 8 (7.1) | 6 (7.1) |
| **Herpes infection**** | 2 (1.8) | 4 (1.8) | 0 | 0 | 3 (3.5) |

AE,Adverse Event; TEAE, Treatment Emergent AE.

* Conjunctivitis includes any Preferred Term that included the terms: *conjunctivitis, allergic conjunctivitis, Conjunctival injection, bacterial conjunctivitis, viral conjunctivitis, giant papillary conjunctivitis, eye irritation, and eye inflammation.*

** Herpes infection includes any Preferred Term that included the terms: *herpes virus infection, herpes zoster, herpes simplex, herpes simplex reactivation, oral herpes.*

# Rademikibart China Pivotal Trial Conclusion

## Sustained clinical response over 52 weeks of treatment with continuous improvement



***Stage 2 Results suggest a best-in-class potential for both efficacy and dosing convenience***

**Best-in-Class Potential with Monthly Dosing**

**Strong efficacy results with convenient monthly, Q4W dosing**

- 52-week maintenance data with rademikibart supports both Q2W and Q4W dosing regimens
- 87% of patients maintained IGA 0/1 and EASI-75 responses with Q4W dosing

**Continued improvement – Q4W results were comparable to Q2W dosing**

- Maintenance efficacy results with both Q2W and Q4W dosing continued to improve upon strong Week 16 results

**Safety Results**

- Rademikibart was generally well tolerated over 52 weeks of treatment

**Next Steps**

- Begin collaboration activities with Simcere Pharmaceutical, new Greater China partner
  - NDA submission for China CDE planned by end of Q1 2024
- Utilize this new dataset to drive Global/ROW Phase 3 partnership discussions
- Global Phase 2b trial of rademikibart in Asthma induction period readout in Q4 2023

CDE, Centre for Drug Evaluation; NDA, New Drug Application; ROW, Rest of World.