

## ARV Therapies and Therapeutic Strategies

INDEPENDENT REPORTING ON EACS 2017

### COMPREHENSIVE EXPERT REVIEW AND DISCUSSION OF KEY PRESENTATIONS

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### **SUBGROUP ANALYSES FROM DRIVE-FORWARD, A PHASE 3 TRIAL OF DORAVIRINE VERSUS RITONAVIR-BOOSTED DARUNAVIR IN TREATMENT-NAÏVE HIV-1-INFECTED PARTICIPANTS AT WEEK 48**

Molina J-M; Squires K; Sax PE; Cahn P; Lombaard J; DeJesus E; Xu X;  
Rodgers A; Lupinacci L, Kumar S; Sklar P; Nguyen B-Y;  
Hanna G; Hwang C

Abstract BPD1/4

# DRIVE-FORWARD STUDY: DESIGN

- Doravirine is a novel, next-generation, once-daily HIV-1 non-nucleoside reverse transcriptase inhibitor with a unique resistance profile<sup>1</sup> and low potential for drug–drug interactions<sup>2,3</sup> being developed as a single entity and fixed-dose combination
- Doravirine achieved primary efficacy endpoints in two, Phase 3 trials<sup>4,5</sup>
  - In DRIVE-FORWARD, doravirine 100 mg once daily had non-inferior efficacy compared with ritonavir-boosted darunavir (100+800mg) when administered with nucleoside reverse transcriptase inhibitors (NRTIs) emtricitabine/tenofovir disoproxil fumarate or abacavir sulfate/lamivudine<sup>4</sup>
- Efficacy and safety of doravirine were further explored in pre-specified subgroups at Week 48

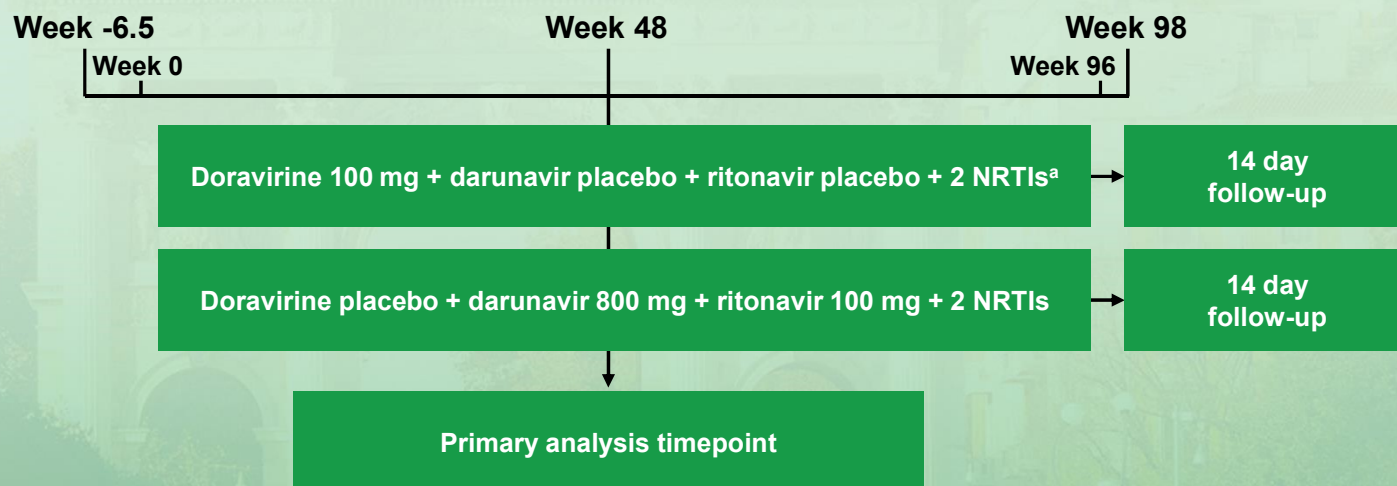
## Trial Design

Merck Protocol # MK-1439-018;  
ClinicalTrials.gov NCT02275780

Margin for non-inferiority: 10%

### Key entry criteria:

- HIV-1 RNA > 1000 copies/mL within 45 days before Day 1
- ART naïve
- No genotypic resistance to any trial drugs
- Stratification factors: HIV-1 RNA >100,000 copies/mL and NRTI choice



1. Feng M, et al. Antimicrob Agents Chemother. 2016;60:2241-2247. 2. Anderson MS, et al. Antivir Ther. 2015;20:397-405. 3. Khalilieh S, et al. Poster presented at IAS 2017. 4. Molina JM, et al. Abstract presented at CROI 2017. 5. Squires KE, et al. Abstract presented at IAS 2017.

# DRIVE-FORWARD STUDY: SUBGROUP ANALYSIS DOR VS DRV/R (+2 NRTIS)

HIV RNA <50 copies/mL

% of participants (N)

Doravirine  
100 mg  
once daily

Darunavir+r  
800/100 mg  
once daily

Difference between  
treatment groups  
(doravirine-darunavir+r)  
(95%CI)

## Baseline plasma HIV-1 RNA (copies/mL)

≤100,00 copies/mL

90.2 (285)

88.7 (282)

>100,00 copies/mL

81.0 (79)

76.4 (72)

≤500,000 copies/mL

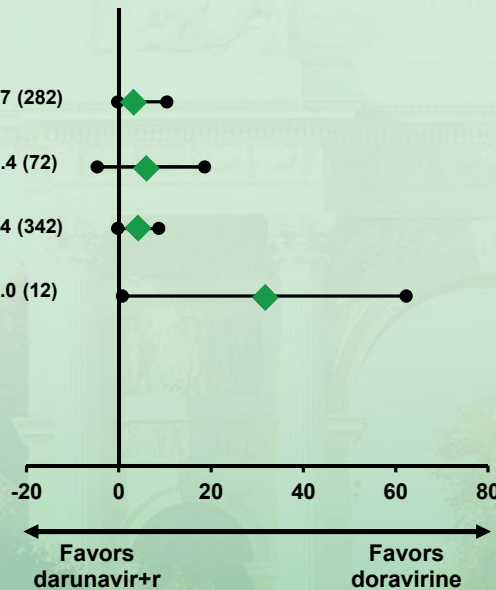
88.5 (347)

87.4 (342)

>500,000 cells/mL

82.4 (17)

50.0 (12)



HIV RNA <50 copies/mL

% of participants (N)

Doravirine  
100 mg  
once daily

Darunavir+r  
800/100 mg  
once daily

Difference between  
treatment groups  
(doravirine-darunavir+r)  
(95%CI)

## Baseline CD4+ cell counts (cells/mm<sup>3</sup>)

≤50 cells/mm<sup>3</sup>

83.3 (6)

66.7 (18)

>50 cells/mm<sup>3</sup> and  
≤200 cells/mm<sup>3</sup>

82.9 (35)

74.4 (43)

>200 cells/mm<sup>3</sup>

88.9 (323)

89.1 (294)

## Hepatitis status<sup>4</sup>

Hepatitis B and/or  
C positive

90.0 (10)

76.5 (17)

Both hepatitis B and C  
negative

88.1 (354)

86.5 (338)

## NRTI background

FTC/TDF

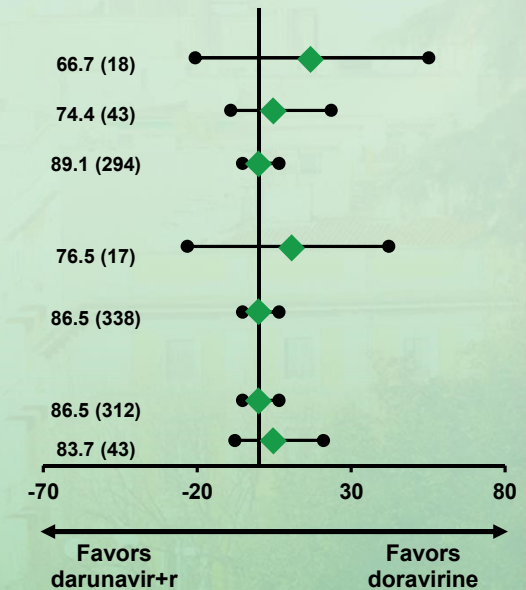
88.0 (316)

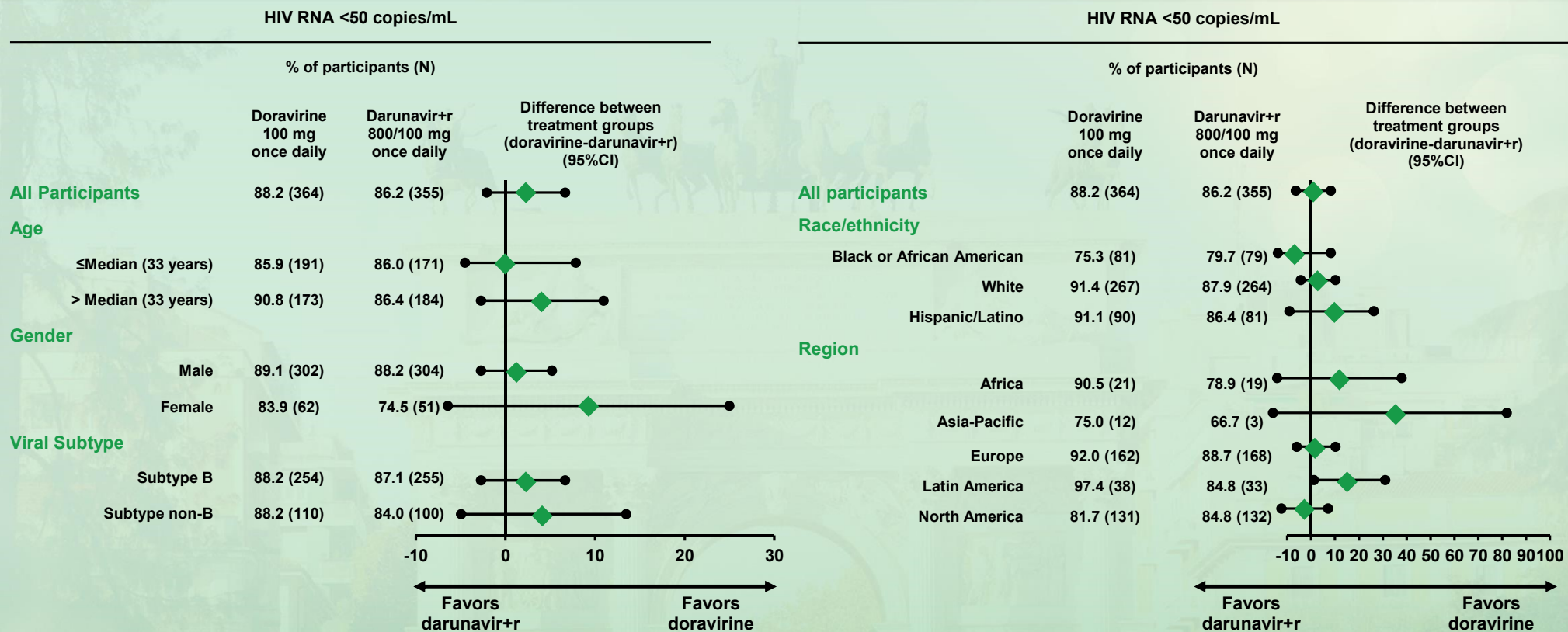
86.5 (312)

ABC/3TC

89.6 (48)

83.7 (43)





- Doravirine 100 mg once daily was generally well-tolerated regardless of race, ethnicity, gender or hepatitis B/C co-infection status
  - The safety profile of doravirine was similar to that of darunavir+r

**Summary:** These findings highlight the consistent efficacy and safety of doravirine 100 mg once daily compared with darunavir+r, both given with 2 NRTIs, across baseline demographic and prognostic factors