

## CROI 2018 PRESS CONFERENCE ABSTRACTS

Monday, March 5, 2018

Contents embargoed until: Monday, March 5, 2018 at 12:00 pm ET

### **Abstract Number 30LB - (Oral)**

#### **RESULTS OF ACTG A5288: A STRATEGY STUDY IN RLS FOR 3RD-LINE ART CANDIDATES**

**Clinical:** (G) Antiretroviral Therapy: Pre-Clinical and Randomized Trials

**Authors:** Beatriz Grinsztejn<sup>1</sup>, Michael D. Hughes<sup>2</sup>, Justin Ritz<sup>2</sup>, Robert Salata<sup>3</sup>, Peter Mugenyi<sup>4</sup>, Evelyn Hogg<sup>5</sup>, Linda Wieclaw<sup>6</sup>, Robert Gross<sup>7</sup>, Catherine Godfrey<sup>8</sup>, Nagalingeswaran Kumarasamy<sup>9</sup>, Cecilia Kanyama<sup>10</sup>, John W. Mellors<sup>11</sup>, Carole Wallis<sup>12</sup>, Ann Collier<sup>13</sup>

**Institutions:** 1Instituto Nacional de Infectologia Evandro Chagas, Rio de Janeiro. Brazil, 2Harvard University, Boston, MA, USA, 3Case Western Reserve University, Cleveland, OH, USA, 4Joint Clinical Research Centre, Kampala, Uganda, 5Social & Scientific Systems, Silver Spring, MD, USA, 6Frontier Science & Technology Research Foundation, Inc, Amherst, NY, USA, 7University of Pennsylvania, Philadelphia, PA, USA, 8NIAID, Bethesda, MD, USA, 9YR Gaitonde Center for AIDS Research and Education, Chennai, India, 10University of North Carolina Project–Malawi, Lilongwe, Malawi, 11University of Pittsburgh, Pittsburgh, PA, USA, 12Lancet Labs and BARC SA, Johannesburg, South Africa, 13University of Washington, Seattle, WA, USA

**Presenting Author:** *Beatriz Grinsztejn, MD*

**Background:** Individuals presenting for 3rd line ART are a challenge in resource limited settings (RLS) because of uncertain ARV susceptibility and limited data on virologic responses to remaining available ARV regimens.

**Methods:** A5288 is an open-label strategy study in RLS in HIV-1 infected individuals presenting with confirmed plasma HIV RNA (VL)  $\geq 1000$  copies after  $> 24$  weeks of protease-based (PI) 2nd line ART. Primary objective was to use novel antiretrovirals and contemporary management tools, including standard genotyping to select an appropriate 3rd-line regimen, interventions to improve adherence, and VL monitoring, to achieve virologic suppression in  $\geq 65\%$  at 48 weeks of follow-up. Review of prior ART, combined with real-time standard genotype, determined Cohort A-D assignment (Table). An exploratory randomized comparison in Cohort B of NRTIs+DRV/r+RAL (B1) versus ETR+DRV/r+RAL (B2) among HBV Ab- participants was performed; HBV Ab+ participants in B received DRV/r + RAL + TDF/FTC or TDF+3TC (B3). Suppression of VL  $\leq 200$  copies/mL at 48 weeks and virologic failure (VF, two consecutive  $\geq 1000$  copies/mL  $\geq 24$  weeks) were 1o and 2o endpoints.

**Results:** From 2013-2015, 545 participants in 10 countries in Africa, Asia, South America and the Caribbean enrolled: 47% females; median age 41 years, median CD4 count 175 cells/mm<sup>3</sup>. At enrollment, drug resistance (moderate or high-level) to 0, 1, 2, and 3 ARV classes was identified in 22%, 20%, 30% and 27% of participants, respectively. Overall, 64% (95% CI 60, 68%) had VL  $\leq 200$  copies/mL at week 48. Viral suppression and VF differed across cohorts (Table). By week 48, Cohort A had the most Grade  $\geq 3$  adverse events (39%) and regimen discontinuations (13%). No differences in VL  $\leq 200$  copies/mL at week 48 or VF  $\geq 24$  weeks were observed in the randomized comparison of B1 & B2 cohorts.

**Conclusion:** Regimens containing DRV/r and RAL with or without ETR were highly effective for participants with LPV/r resistance who presented for 3rd line ART. More than half of participants without LPV/r resistance and who remained on 2nd line ART did not achieve viral suppression at week 48. This subgroup requires additional interventions to achieve viral suppression. Targeted real-time genotyping to select regimens for 3rd line ART can appropriately allocate more costly ARVs to those with greater resistance.