Immunological Non-Responders have CD4+ Immunosenescence and Impaired Lymphocyte Cytokine production

Wilhelm AJW Vos1,2, Adriana Navas3, Elise MG Meeder4, Albert L Groenendijk1,5, Marc JT Blaauw1,6, Louise E van Eekeren1, Twan Otten1, Maartje CP Cleophas1, Nadira Vadaq1, Vasiliki Matzaraki1, Kees Brinkman2, Jan van Lunzen1, Andre JAM van der Ven1, Willem L Blok2, Janneke E Stalenhoef2

1Department of Internal Medicine, Radboud University Medical Center, Nijmegen, The Netherlands, 2Department of Internal Medicine, OLVG, Amsterdam, The Netherlands, 3Department of Psychiatry, Radboudumc, Radboud University, Nijmegen, Netherlands, 4Donders Institute for Brain, Radboud University, Cognition and Behavior, Nijmegen, Netherlands 5Department of Internal Medicine, ErasmusMC, Erasmus University, Rotterdam, The Netherlands, 6Department of Internal Medicine, Elizabeth-Tweesteden Ziekenhuis, Tilburg, The Netherlands

CONCLUSIONS
- Immune defects of immunological non-responders (INR) go beyond low CD4+ T-cell counts
- CD4+ T-cells of INR show more activation and increased immunosenescence
- Stimulated lymphocytes of INR produce less cytokines
- PD1 checkpoint inhibitors could theoretically be beneficial for INR

METHODS
Design and participants INR were identified in the cross sectional 2000HIV study (clinicaltrials NTC03994835) of 1895 PLHIV in the Netherlands. In line with literature, INR were defined as CD4<350 after at least two years of adequate cART. INR were compared to immunological responders (IR) who did show CD4+ restoration under cART, and were defined as CD4>500. An independent discovery cohort (62 INR, 1224 IR) and validation cohort (26 INR, 243 IR) were included.

Monocyte production capacity
- Significant

RESULTS
Demographic and clinical associations

Monocyte production capacity
- Significant

Immunophenotyping (percentage populations)

** Significant in discovery & validation cohort
* Significant in discovery cohort and equal directionality in validation cohort
# Significant in validation cohort with different directionality in validation cohort

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ADDITIONAL INFORMATION
Correspondence: willem.vos@radboudumc.nl

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www.2000HIV.com