

Supplementary information

Title: Necessity of individual VDJ-databases for annotating antibody heavy chain characteristics in non-human primates

Journal: Immunogenetics

Authors:

Aafke Aartse^{1,2}, Jacco G.J. Bakx¹, Daniella Mortier¹, Sam Hofman³, Petra Mooij¹, Mathieu Claireaux^{2,4}, Dirk Eggink^{2,4,5}, Willy M. Bogers¹, Edmond J. Remarque¹, Martin M. Corcoran⁶, Gunilla B. Karlsson Hedestam⁶, Ronald E. Bontrop^{7,8}, Marit J. van Gils^{2,4*}, Gerrit Koopman^{1*}

¹ Department of Virology, Biomedical Primate Research Centre, Rijswijk, Netherlands.

² Department of Medical Microbiology and Infection Prevention, Amsterdam UMC, University of Amsterdam, Amsterdam, Netherlands.

³ Department of Parasitology, Biomedical Primate Research Centre, Rijswijk, Netherlands.

⁴ Amsterdam Institute for Immunology and Infectious diseases, Amsterdam, Netherlands.

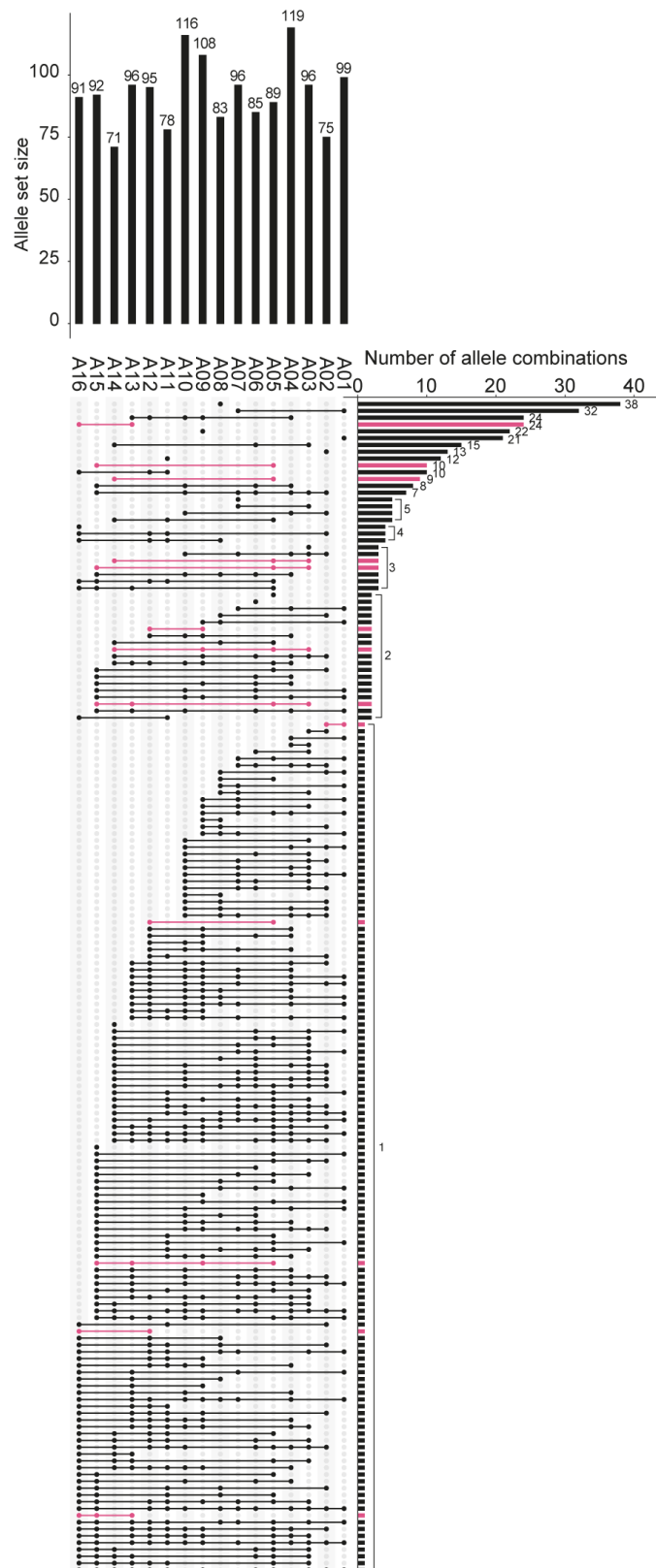
⁵ Dutch National Institute for Public Health and the Environment (RIVM), Centre for Infectious Disease Control (CIb), Bilthoven, Netherlands.

⁶ Department of Microbiology, Tumor and Cell Biology, Karolinska Institutet (KI), Stockholm, Sweden.

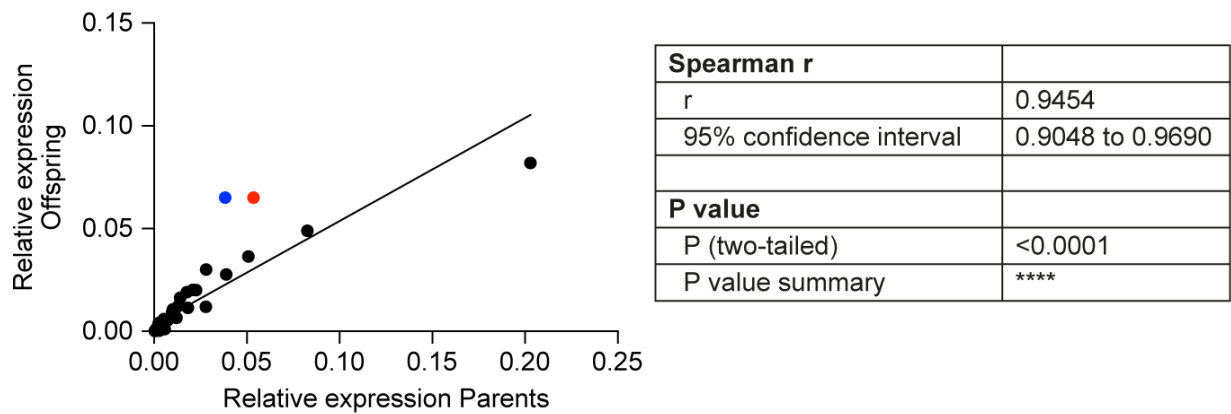
⁷ Department of Comparative Genetics & Refinement, Biomedical Primate Research Centre, Rijswijk, Netherlands.

⁸ Department of Biology, Theoretical Biology and Bioinformatics, Utrecht University, Utrecht, Netherlands.

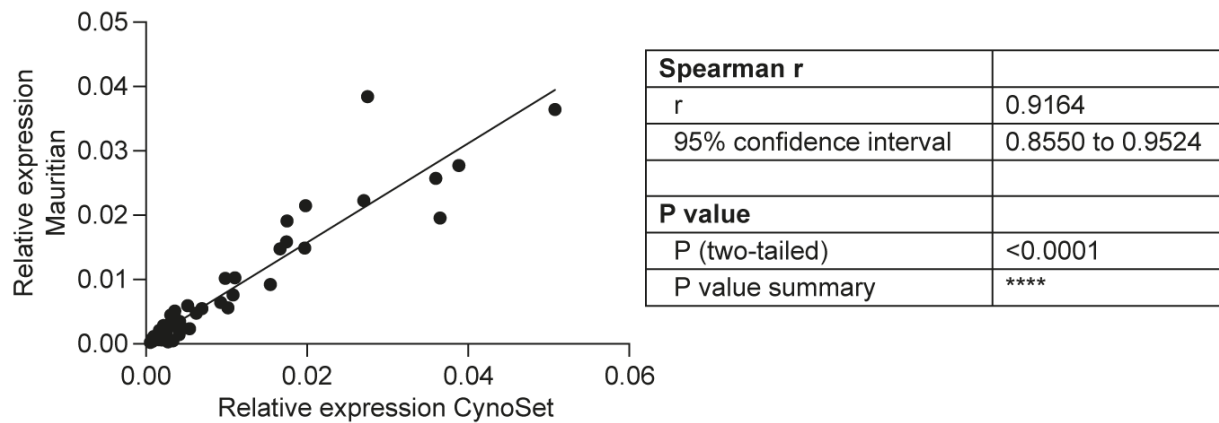
*correspondence: m.j.vangils@amsterdamumc.nl (MG); koopman@bprc.nl (GK)



Supplementary Fig. 1 UpSetPlot of CynoSet alleles (n=517 unique alleles, n=1,489 total alleles), the number of alleles per animal is represented at the top, vertical bar plot. Connected dots represent animals with shared alleles including the number of alleles in the bar plot on the side. Alleles shared within families are highlighted in pink, alleles shared between non-family members are indicated in black.



Supplementary Fig. 2 Correlation plot (non-parametric Spearman rho) of relative expression levels of shared alleles from parents A15 and A14 with their son A05. For allele IGVH4-149*01_S9501 that is expressed in both of the parents (A15 and A14) the relative expression level between mother A15 and son A05 is indicated as a red dot, the relative expression level between father A14 and son A05 as a blue dot.



Supplementary Fig. 3 Correlation plot (non-parametric Spearman rho) of relative expression levels of shared alleles from Mauritian and CynoSet datasets (n=12).