

COVID19 vaccine, heterogeneity and predictability of the immune responses



Jocelyne Demengeot



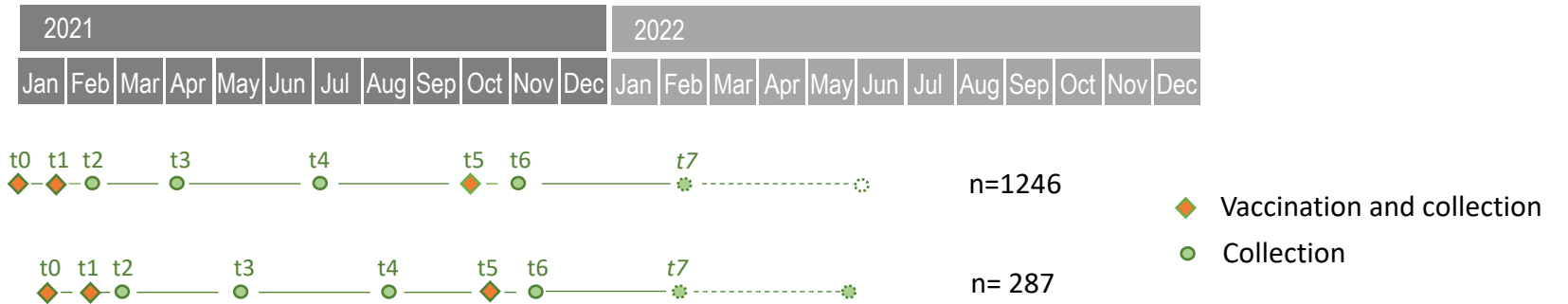
18 may 2022

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CIÊNCIA'22

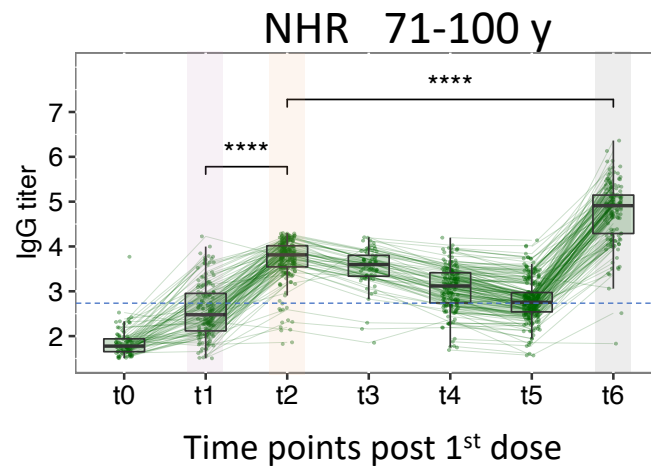
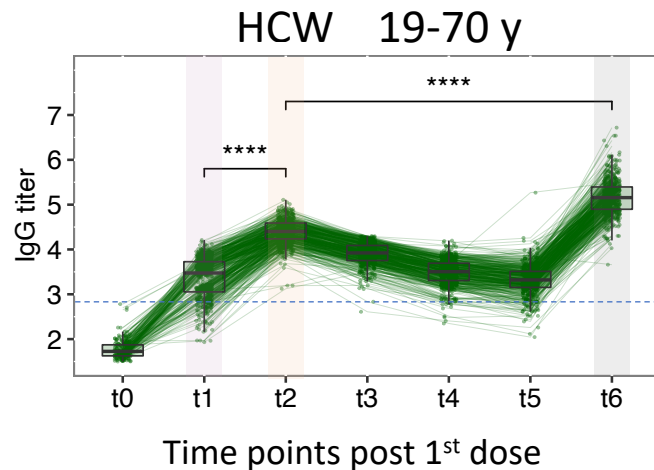
Cohorts in the present talk

Pfizer-BioNTech BTN162b2

Health Care Workers
Nursing Home Residents



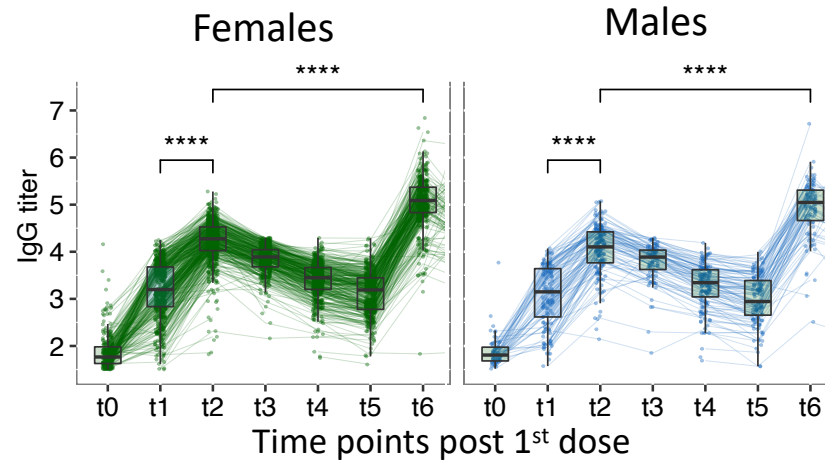
Kinetics of anti-spike antibody levels



- Heterogeneity in the amplitude of the immune response
- Ab response amplified at each successive vaccine dose
- Decline of Ab levels between 2 doses

Sex does not affect the amplitude of the immune response

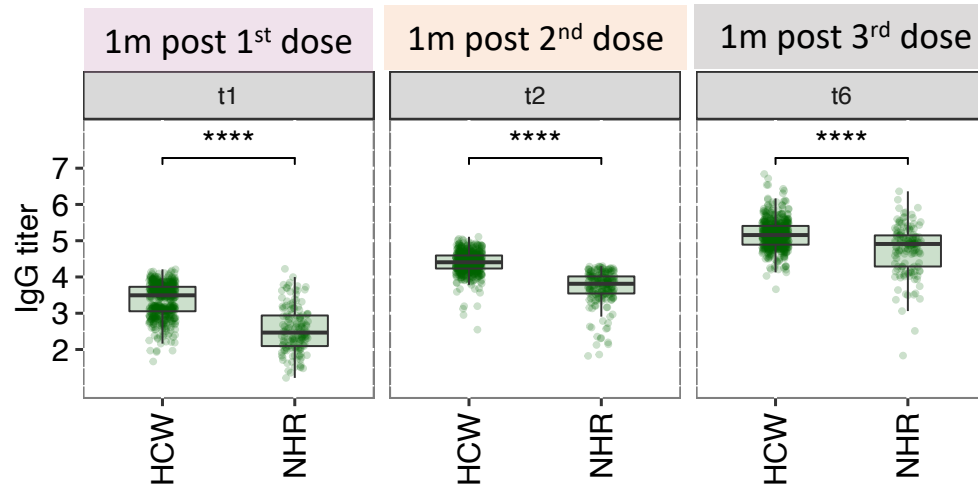
Pfizer-Pfizer-mRNA
Shown HCW 19-70 y



No significant difference
by time point and by age

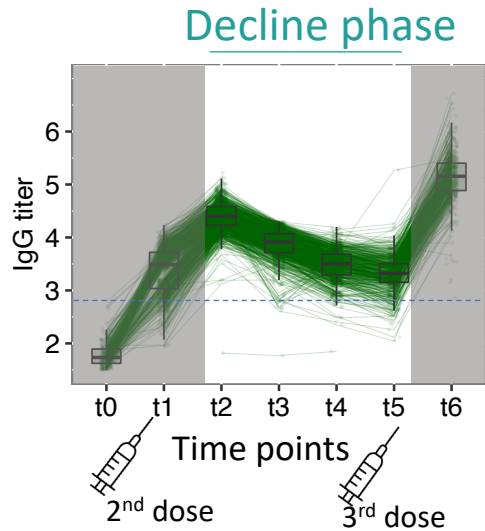
Age negatively affects the amplitude of the immune response

Pfizer-Pfizer-mRNA
HCW 19-70 y
NHR 71-100 y

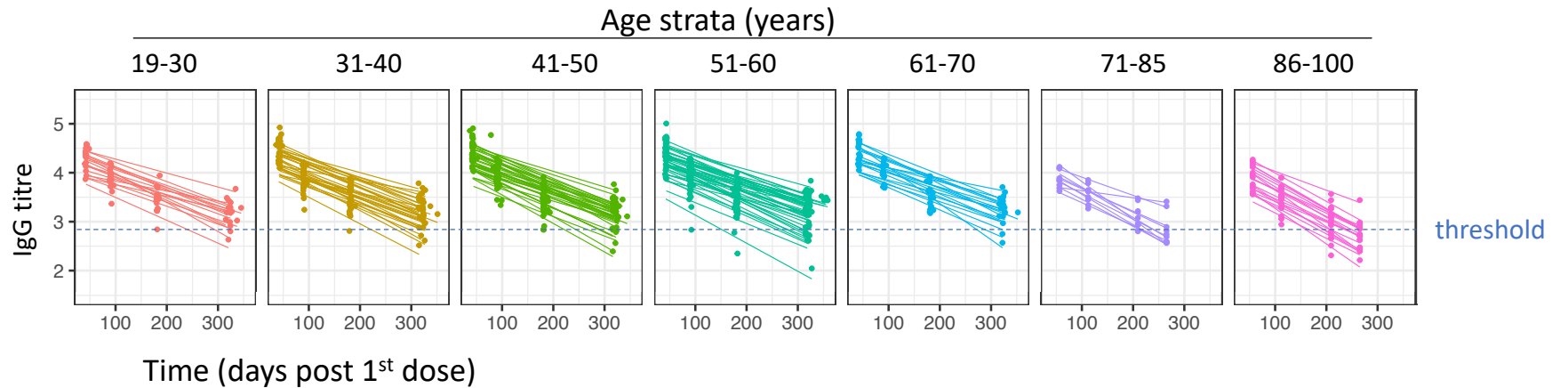


At each time-point

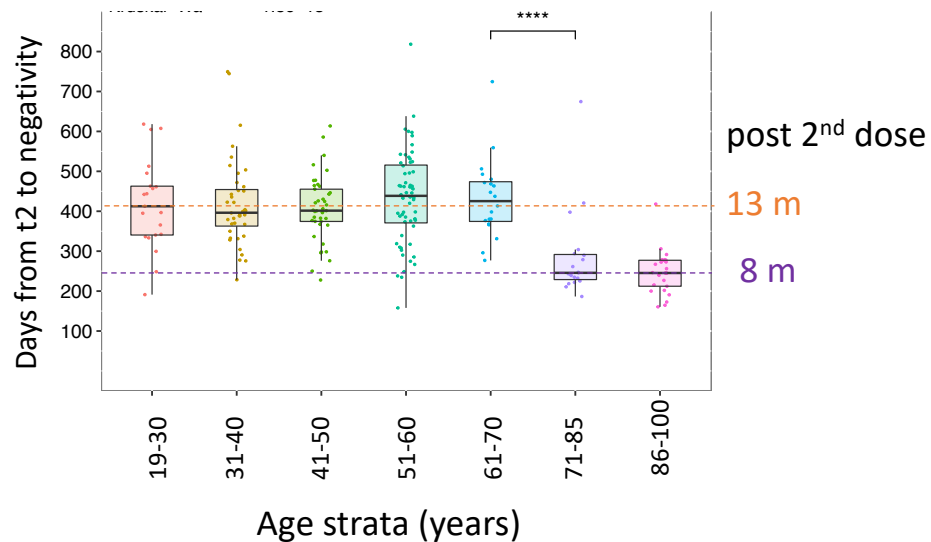
Predictability of the decline phase



Regular decline of antibody levels



Predictable time to threshold of negativity



→ Personalized vaccination regimen, adjusted to variant of concerns

Acknowledgements

@ IGC

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