

INTRODUCTION

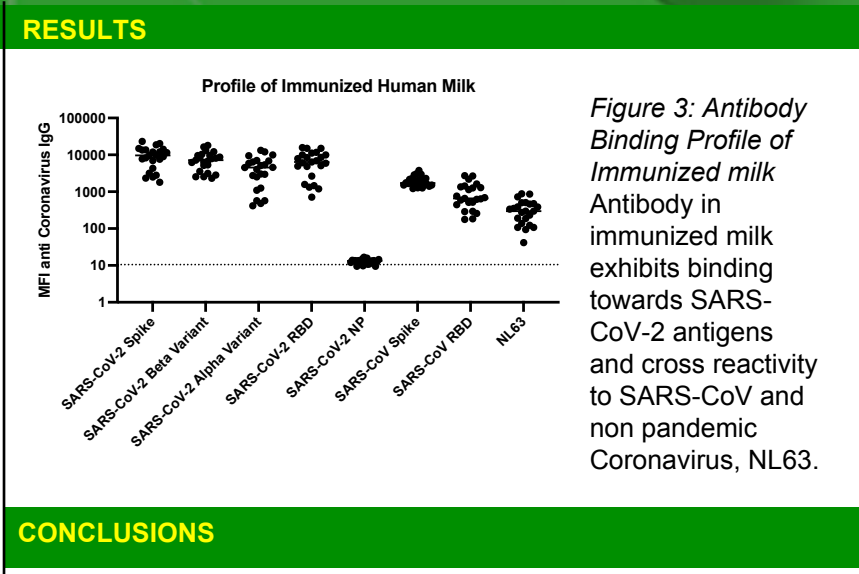
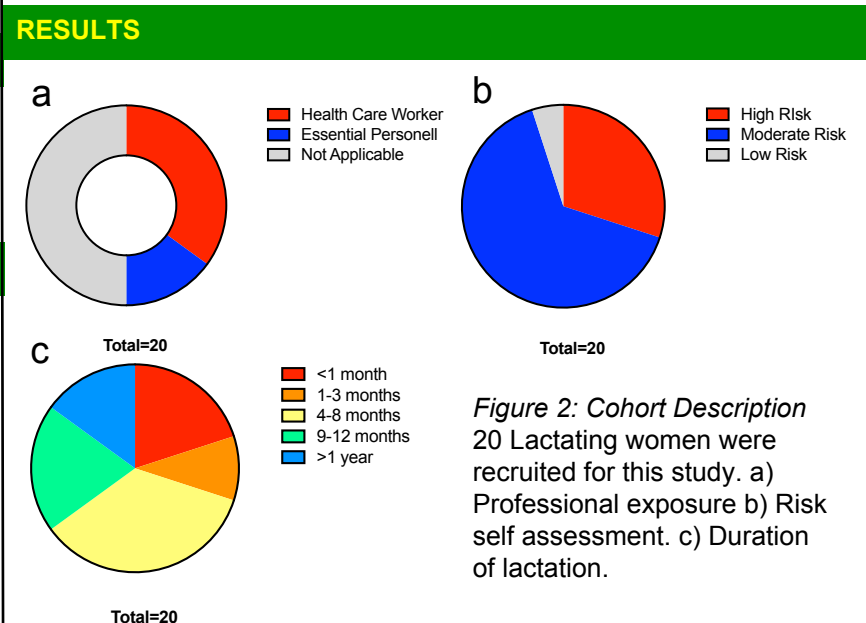
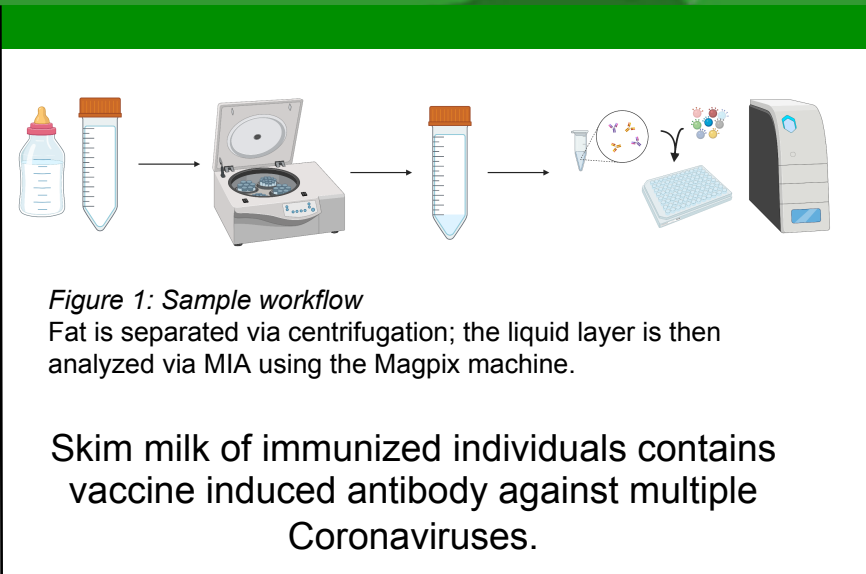
Human milk is the main source of nutrition for most neonates as well as a source of components important for neonatal immunity. Neonates have a delay in development of robust immune responses and their immune system is supplemented via milk while the neonatal immune system continues to develop. Determination of the binding potential of maternal antibody in the milk can help us understand how milk can function to protect neonates SARS-CoV-2 infection.

OBJECTIVE

To profile the SARS-CoV-2 binding breadth of IgG in milk from vaccinated women on the island of Oahu.

MATERIALS AND METHODS

An IRB approved by the University of Hawaii Human Studies Program (Protocol 2021-00090). Participants were given a survey and a breast milk collection kit. Binding towards SARS-CoV-2, SARS-CoV, SARS-CoV-2 variants, and non-pandemic Coronavirus antigens was assessed via MIA



CONCLUSIONS

The skim milk of these individuals exhibited binding towards SARS-CoV-2 spike and the spike of alpha and beta variants but not nucleoprotein. A lack of protein associated with viral replication indicates these are vaccine induced responses.

FUTURE DIRECTIONS

Neutralization using multiple variants will be conducted to further characterize efficacy.

ACKNOWLEDGEMENTS

We would like to thank the study participants for their contribution to the work