

Customized COVID-19 Vaccine Serology Dashboard

WHAT IS THE INNOVATION CORE?

The Innovation Core of the OCTRI Informatics Program has been providing technical support for several OCTRI initiatives and researchers institution-wide for more than a decade. The focus of this team is to develop state of the art software solutions to support translational research and address barriers in translational science with a team science approach.

PROJECT OUTCOMES

Early in 2022, the team began working with OHSU infectious disease expert, Dr. Marcel Curlin, to build a database from thousands of blood samples collected from employees before and after COVID-19 vaccination.

In August 2022, the team released the COVID-19 Vaccine Serology Dashboard (pictured below). This web application allows study participants to log in, confirm their data, and compare their antibody results to the rest of the study population. It also provides the study team a centralized place for answering questions and providing resources and regular updates to participants.

Dr. Curlin's team has published novel findings from this data. Read the article [here](#).

This project showcases the close collaboration between investigators and OCTRI Informatics to deliver impactful solutions and contribute to both scientific discovery and public understanding of COVID-19.

COVID-19 VACCINE SEROLOGY DASHBOARD WITH SAMPLE DATA

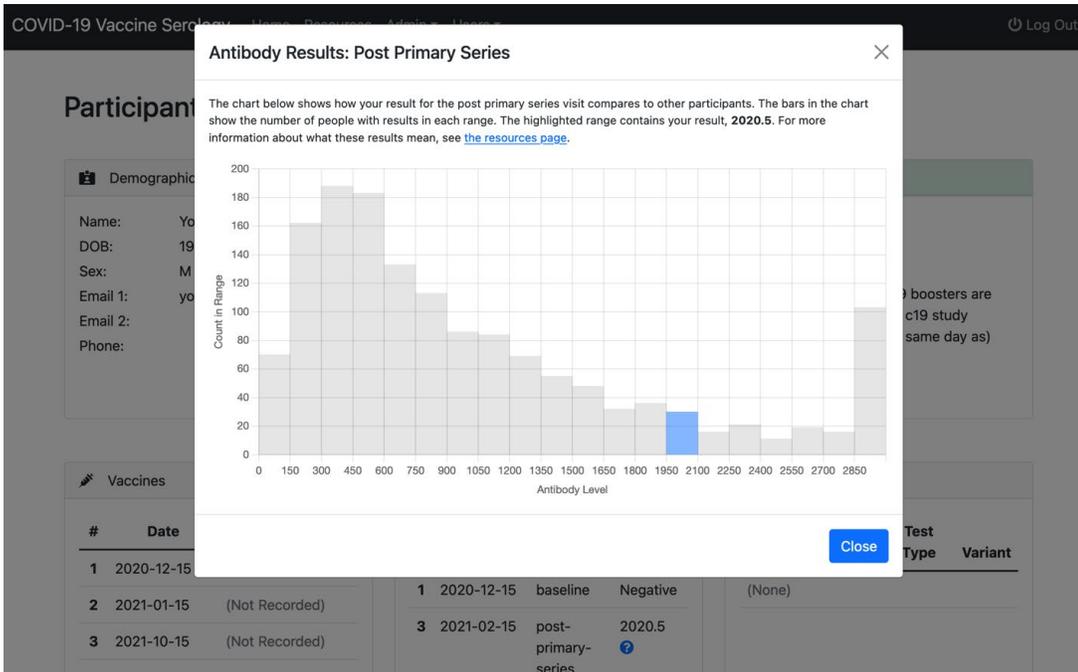
The screenshot shows a web application interface for the COVID-19 Vaccine Serology Dashboard. At the top, there is a navigation bar with the text "COVID-19 Vaccine Serology" and links for "Home", "Resources", "Admin", and "Users", along with a "Log Out" button. The main content area is titled "Participant Dashboard" and is divided into several sections:

- Demographics:** A card showing personal information for "Yogi Bear": Name: Yogi Bear, DOB: 1958-10-25, Sex: M, Email 1: yogi@example.com, Email 2: (empty), Phone: (empty).
- Study Updates:** A card with a green header and a "STUDY UPDATES" section. It contains a "Sep 7 2022 Update" stating that study visits and boosters are coming, and new COVID-19 boosters are coming to OHSU in September. It also mentions that the next c19 study serology visit is opening up and that it is important to have a blood draw done before (or on the same day as) the next booster if at all possible. A link for "More news soon here" is provided.
- Vaccines:** A table with columns for "#", "Date", and "Brand". It lists three vaccine events, all with "Brand" as "(Not Recorded)":

#	Date	Brand
1	2020-12-15	(Not Recorded)
2	2021-01-15	(Not Recorded)
3	2021-10-15	(Not Recorded)
- Antibody Results:** A table with columns for "#", "Collection Date", "Visit", and "Result". It lists three antibody tests:

#	Collection Date	Visit	Result
1	2020-12-15	baseline	Negative
3	2021-02-15	post-primary-series	2020.5
- Infection Data:** A table with columns for "Test or Symptom Date", "Test Type", and "Variant". It currently shows "(None)".

ANTIBODY TEST RESULTS WITH SAMPLE DATA



COLLABORATOR COMMENTS

“The [OCTRI Informatics Innovation Core] team absolutely saved us by developing a robust trackable relational database to house all of our data. I am not sure where we would be without this database. A second challenge was to have an interface where our many participants could see their data. The team came through again with a secure personalized dashboard allowing participants to see their data in the context of the whole study and to provide corrections and updates. Our participants love it, and this feature has helped us keep our cohort engaged. In all of these projects, it has been an absolute joy to work with the informatics team.” - Dr. Marcel Curlin, Medical Director, Occupational Health, Division of Infectious Diseases

QUESTIONS?

To learn more about this work or to get help with your project, please reach out to the OCTRI Navigator: octri@ohsu.edu.