

Welcome to the

2021 IEDB Virtual User

Workshop – Day 2

Thursday, November 4, 2021

User Workshop Structure

Day 1

START YOUR SEARCH HERE ?

Epitope ?

- ☒ Any Epitopes
☐ Linear Epitope

Exact Iv Ex: SIINFEKL

- ☐ Discontinuous Epitopes
☐ Non-peptidic Epitopes



Assay ?

- ☒ Positive Assays Only
☒ T Cell Assays
☒ B Cell Assays
☒ MHC Ligand Assays

Ex: neutralization

Find



Antigen ?

Organism

Ex: influenza, peanut

Antigen Name

Ex: core, capsid, myosin



MHC Restriction ?

- ☒ Any MHC Restriction
☐ MHC Class I
☐ MHC Class II
☐ MHC Nonclassical

Ex: HLA-A*02:01

Find



Host ?

- ☒ Any Host
☐ Humans
☐ Mice
☐ Non-human Primates

Ex: dog, camel

Find



Disease ?

- ☒ Any Disease
☐ Infectious Disease
☐ Allergic Disease
☐ Autoimmune Disease

Ex: asthma, diabetes

Find



Reset

Search

Process Overview and Database

Day 2

IEDB Analysis Resource

Overview

T Cell Tools

B Cell Tools

Analysis Tools

Tools-API

Usage

Download

Data

Epitope Prediction and Analysis Tools

Welcome to the Immune Epitope Database Analysis Resource. This site provides a collection of tools for the prediction and analysis of immune epitopes. It serves as a companion site to the [Immune Epitope Database \(IEDB\)](#), a manually curated database of experimentally characterized immune epitopes.

The tools contained fall into the following categories:

T Cell Epitope Prediction Tools

This set of tools includes MHC class I & II binding predictions, as well as peptide processing predictions and immunogenicity predictions.

B Cell Epitope Prediction Tools

The tools here are intended to predict regions of proteins that are likely to be recognized as epitopes in the context of a B cell response.

Analysis Tools

The epitope analysis tools are intended for the detailed analysis of a known epitope sequence or group of sequences.

Analysis Resource

Who You'll Hear From



Dr. Bjoern Peters
Co-Principal Investigator



Dr. Raphael Trevizani
*Bioinformatics Postdoctoral
Researcher*



Austin Crinklaw
*Bioinformatics Research
Technician*



Dr. William Chronister
*Bioinformatics Postdoctoral
Researcher*



Daniel Marrama
*Bioinformatics Research
Technician*



Dr. Marcus Mendes
*Bioinformatics Postdoctoral
Researcher*



Dr. Jason Greenbaum
Bioinformatics Core Director



Dr. Paolo Marcatili
DTU Associate Professor

Who You'll Hear From

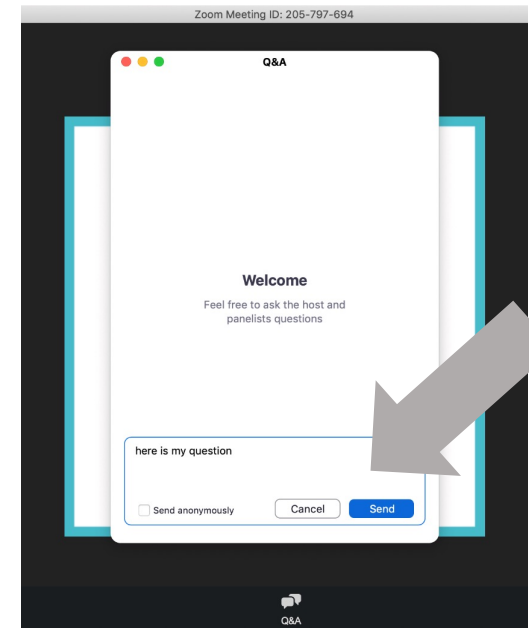
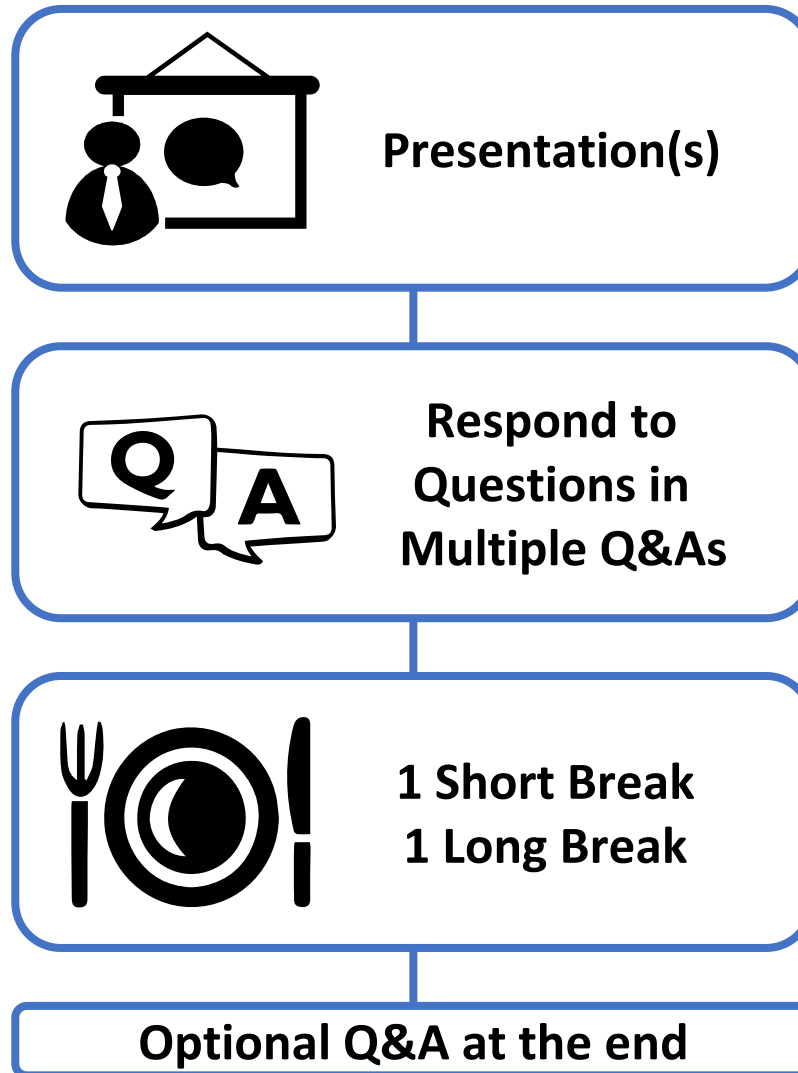


Dr. Elizabeth-Sharon Fung
Annotator, Editor



Dr. William Fischer
Staff Scientist

User Workshop Structure



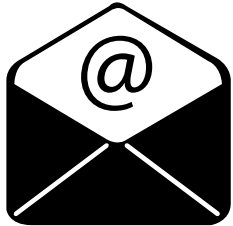
Agenda – Day 2

Start Time	End Time	Topic	Speaker
14:00	14:05	Welcome	Nina Blazeska <i>IEDB Project Manager</i>
14:05	15:00	MHC Binding Predictions	Raphael Trevizani <i>Bioinformatics Postdoctoral Researcher</i> Bjoern Peters <i>IEDB Co-Principal Investigator</i>
15:00	15:20	T Cell Processing & Immunogenicity Predictions	Austin Crinklaw <i>Bioinformatics Research Technician</i> Bjoern Peters <i>IEDB Co-Principal Investigator</i>
15:20	15:35	<u>Section 1</u> : Q&A with Drs. Trevizani, Peters and Crinklaw	
15:35	15:45	Break	
15:45	16:00	T Cell Tool Spotlight: TCRMatch	Will Chronister <i>Bioinformatics Postdoctoral Researcher</i>
16:00	16:30	Structure Tools: LYRA & SCEptRe	Paolo Marcatili <i>DTU Associate Professor</i>
16:30	16:45	PEPMatch: Homology of SARS-CoV-2 Spike Sequences to Myocarditis Antigens	Daniel Marrama <i>Bioinformatics Research Technician</i>
16:45	17:00	<u>Section 2</u> : Q&A with Drs. Chronister, Peters and Marrama	
17:00	17:30	Break	

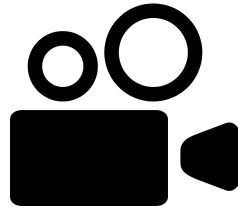
Agenda – Day 2

Start Time	End Time	Topic	Speaker
17:30	18:00	NIH Resources for Researchers: The LANL HIV Immunology Database	Elizabeth-Sharon Fung <i>Los Alamos National Laboratory</i>
18:00	18:10	<u>Section 3</u> : Q&A with Dr. Fung and Dr. Fischer	
18:10	18:45	B Cell Epitope Prediction	Marcus Mendes <i>Bioinformatics Postdoctoral Researcher</i>
18:45	19:05	IEDB Tools 3.0: Future of Tools	Jason Greenbaum <i>Bioinformatics Core Director</i>
19:05	19:20	<u>Section 4</u> : Q&A with Drs. Mendes and Greenbaum	
19:20	19:30	Closing Remarks & Feedback Survey	Nina Blazeska <i>IEDB Project Manager</i>
19:30	20:00	<u>Optional Q&A Session</u> This will be to answer any remaining questions from the day	

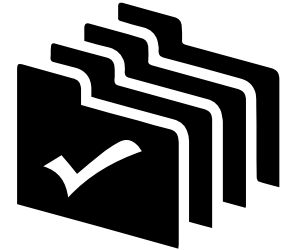
Other Event Logistics



You will receive a post-event email next week



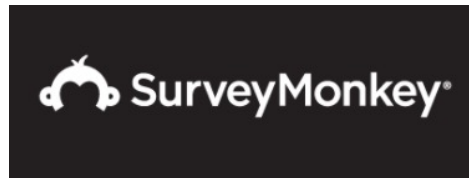
Workshop recording will be shared with you



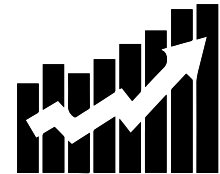
All presentations will be shared with you



Participation certificates will be provided upon request



Daily and post-event feedback survey



Be aware of IEDB slowness due to increased traffic



#iedbuw2021

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Without further ado...



Dr. Raphael Trevizani
*Bioinformatics Postdoctoral
Researcher*

MHC Binding Predictions