IEDB
Immune Epitope Database & Tools

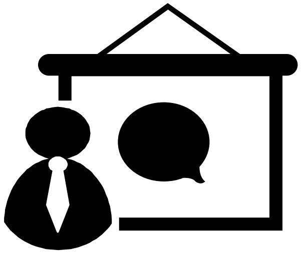
Welcome to the

2023 IEDB Virtual User Workshop
Day 3

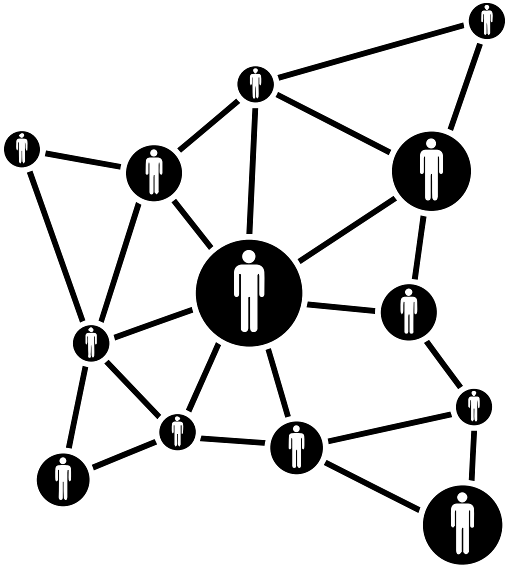
Friday, November 3, 2023

Annual IEDB User Workshop – Why?

3 Day Event

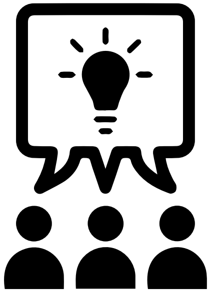


IEDB and tools overview with research examples and specialized topics

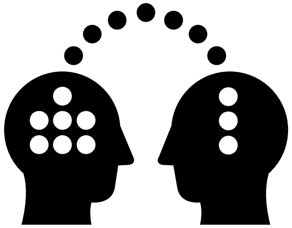


Engage with global user community

Answer user questions to facilitate learning



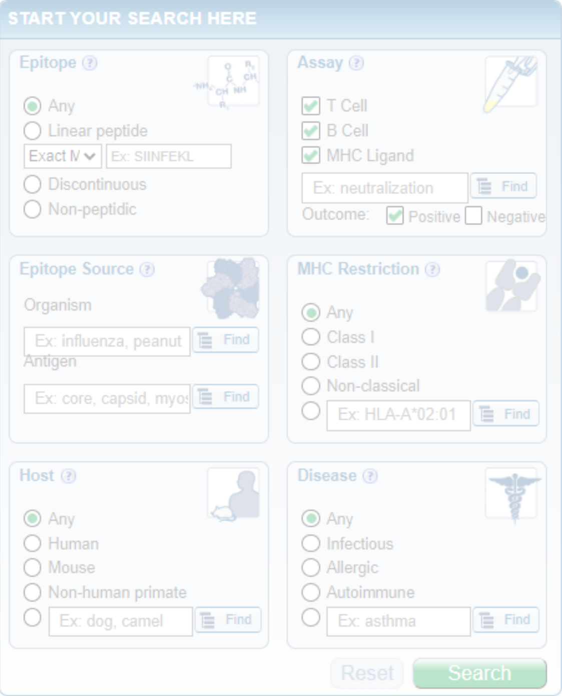
Improve our resources through user feedback



Share ideas to further scientific research

User Workshop Structure

Day 1



START YOUR SEARCH HERE

Epitope
● Any
○ Linear peptide
Exact M ▾ Ex: SIINFEKL
○ Discontinuous
○ Non-peptidic

Assay
☑ T Cell
☑ B Cell
☑ MHC Ligand
Ex: neutralization Find
Outcome: ☑ Positive ☐ Negative

Epitope Source
Organism
Ex: influenza, peanut Find
Antigen
Ex: core, capsid, myos Find

MHC Restriction
● Any
○ Class I
○ Class II
○ Non-classical
○ Ex: HLA-A*02:01 Find

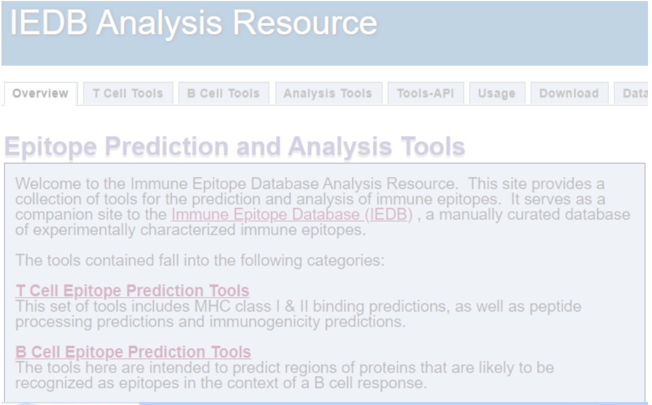
Host
● Any
○ Human
○ Mouse
○ Non-human primate
○ Ex: dog, camel Find

Disease
● Any
○ Infectious
○ Allergic
○ Autoimmune
○ Ex: asthma 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

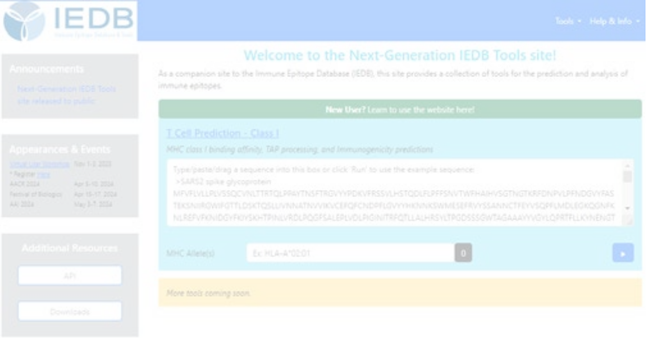
Epitope Prediction and Analysis Tools

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.



IEDB

Tools ▾ Help & Info ▾

Announcements

Next-Generation IEDB Tools site released to public

Appearances & Events

Additional Resources

API

Downloads

Welcome to the Next-Generation IEDB Tools site!

As a companion site to the Immune Epitope Database (IEDB), this site provides a collection of tools for the prediction and analysis of immune epitopes.

New User? Learn to use the website here!

T Cell Prediction - Class I

MHC class I binding affinity, TAP processing, and Immunogenicity predictions

Type/paste/drag a sequence into this box or click 'Run' to use the example sequence:
>SARS2 spike glycoprotein

MHC Allele(s) Ex: HLA-A*02:01

More tools coming soon.

Next-Generation Tools & Analysis Resource

Day 3

CEDAR
Cancer Epitope Database and Analysis Resource

Los Alamos
NATIONAL LABORATORY

Specialized Topics – 3D Structures, Cancer, HIV

Who You'll Hear From

Dr. Marcus Mendes
Bioinformatics Postdoctoral Researcher

Dr. Jason Greenbaum
Bioinformatics Core Director

Dr. Zeynep Koşaloğlu-Yalçın
Instructor

Dr. Alessandro Sette
Principal Investigator

Dr. Randi Vita
Lead Ontology & Quality Manager

Who You'll Hear From

Jennifer Mamrosh
Principal Investigator

Elizabeth-Sharon Fung
Annotator, Editor

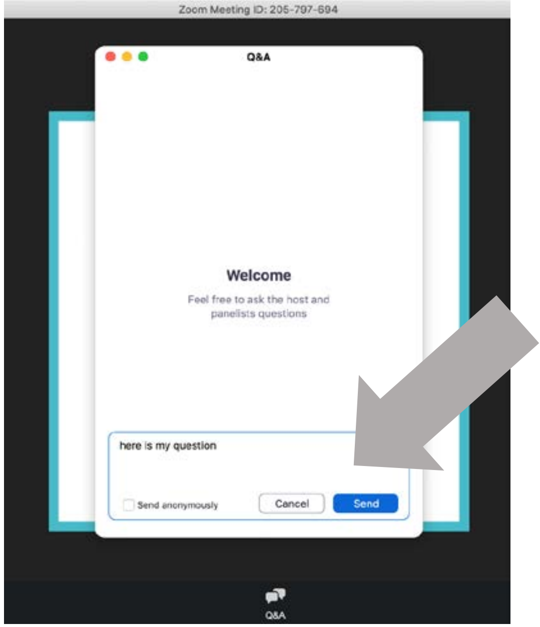
Jennifer Macke
Annotator

User Workshop Structure

Presentation(s)

Respond to Questions in Multiple Q&As

1 Break



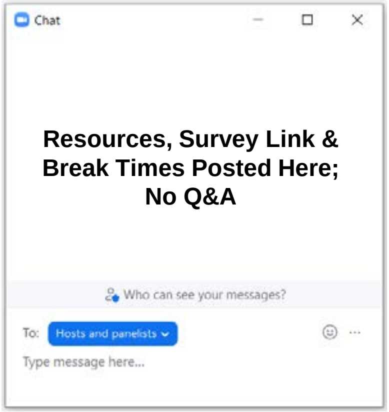
Welcome

Feel free to ask the host and panelists questions

here is my question

☐ Send anonymously

Q&A



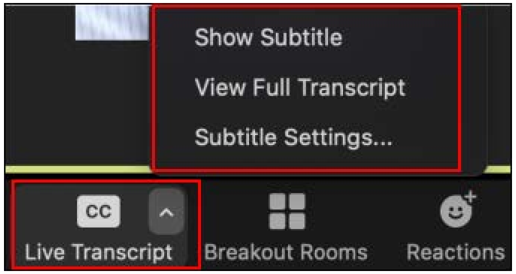
Resources, Survey Link & Break Times Posted Here; No Q&A

Who can see your messages?

To: Hosts and panelists

Type message here...

Chat



Subtitles

Agenda – Day 3

Start Time	End Time	Topic	Speaker
08:00	**08:05**	Welcome	Nina Blazeska *IEDB Senior Project Manager*
08:05	**08:30**	IEDB-3D 2.0: Visualizing Structures in the IEDB	Marcus Mendes *Bioinformatics Postdoctoral Researcher*
08:30	**08:50**	IEDB Query API (IQ-API)	Jason Greenbaum *Bioinformatics Core Director*
08:50	**09:05**	Section 1: Q&A with Drs. Mendes and Greenbaum	
09:05	**09:35**	The Cancer Epitope Database and Analysis Resource (CEDAR)	Zeynep Koşaloğlu-Yalçin *Instructor Cancer Bioinformatics*
09:35	**09:55**	CEDAR Prostate Cancer Meta-analysis	Alessandro Sette *IEDB Principal Investigator*
09:55	**10:10**	Section 2: Q&A with Drs. Koşaloğlu-Yalçin and Sette	
10:10	**10:25**	**Break**	

Agenda – Day 3

Start Time	End Time	Topic	Speaker
10:25	**11:15**	NIH Resources for Researchers: The LANL HIV Databases	Elizabeth-Sharon Fung *Los Alamos National Laboratory* Jennifer Macke *Los Alamos National Laboratory* Jennifer Mamrosh *Los Alamos National Laboratory*
11:15	**11:35**	IEDB, UniProt & Protein Ontology - A Collaboration	Randi Vita *Lead Ontology and Quality Manager*
11:35	**11:50**	Section 3: Q&A with Drs. Fung, Macke, Mamrosh and Vita	
11:50	**12:00**	Closing Remarks & Feedback Survey	Nina Blazeska *IEDB Senior Project Manager*
	12:00	**End of Session**	

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

SurveyMonkey

Daily and post-event feedback survey

Be aware of IEDB slowness due to increased traffic

#iedbuw2023

Follow us @iedb_

Without further ado…

Dr. Marcus Mendes
Bioinformatics Postdoctoral Researcher

IEDB-3D 2.0: Visualizing Structures in the IEDB