

VDJServer (immune receptor profiling) Nanocourse- June 1, 2018

AGENDA

Course Moderator: Inimary Toby

VDJServer Team: Scott Christley, Jared Ostmeyer, and Inimary Toby

8:45am – 9:00am Setup, Registration, provide workshop handouts to participants

9:10am – 10:30am Introduction session

9:10am – 10:30am: Immune system overview (including immune sequencing technology and summary of vdsjserver workflow for analysis); Setup IgBlast jobs with demo files

- Slides and video

10:30am-10:40am Break

10:40am – 11:45am Session 1- Data digest

- Demo data and VDJServer hands-on demonstrations
- Elaborate on the functionalities and benefits of VDJServer
- Breakout and setup RepCalc VDJServer “jobs” (provide one-on-one assistance and point participants to quickstart protocol @ handout pages)

11:45am – 1:00pm Lunch

1:00pm – 2:40pm Session 2- Community standards, Data analysis and interpretation

- Example of pre-processing using example FASTQ files (VDJServer project)
- AIRR community and MiAIRR Standards
- Analysis and interpretation of repertoire calculations output

2:40pm-2:55pm Break

3:00pm-3:45pm A Taste of Machine Learning

- Downstream application of VDJServer products in machine learning (example dataset using the demo dataset and discussion of some outcomes)

3:45pm-4:30pm Conclusion

- Summarize the workshop and encourage future interactions
- Invitation to use some example datasets for further analysis (VDJServer team will assist as time permits)