Introduction: Reproducible omics data analysis workflows

with the COVID-19 Disease Map, WikiPathways and Cytoscape

Lauren J. Dupuis

ISMB/ECCB 2021 Tutorial

July 22-23 2021



John "Scooter" Morris, PhD

Executive Director,
Resource on Biocomputing,
Visualization, and Informatics
University of California San Franscisco



John "Scooter" Morris, PhD

Executive Director,
Resource on Biocomputing,
Visualization, and Informatics
University of California San Franscisco



Martina Summer-Kutmon, PhD

Assistant Professor

Department of Bioinformatics

Maastricht Center for Systems Biology (MaCSBio)

Maastricht University



John "Scooter" Morris, PhD

Executive Director,
Resource on Biocomputing,
Visualization, and Informatics
University of California San Franscisco



Martina Summer-Kutmon, PhD

Assistant Professor

Department of Bioinformatics

Maastricht Center for Systems Biology (MaCSBio)

Maastricht University



Lauren J. Dupuis, PhD

Post Doc
Department of Bioinformatics
Maastricht University



John "Scooter" Morris, PhD

Executive Director,
Resource on Biocomputing,
Visualization, and Informatics
University of California San Franscisco



Martina Summer-Kutmon, PhD

Assistant Professor

Department of Bioinformatics

Maastricht Center for Systems Biology (MaCSBio)

Maastricht University

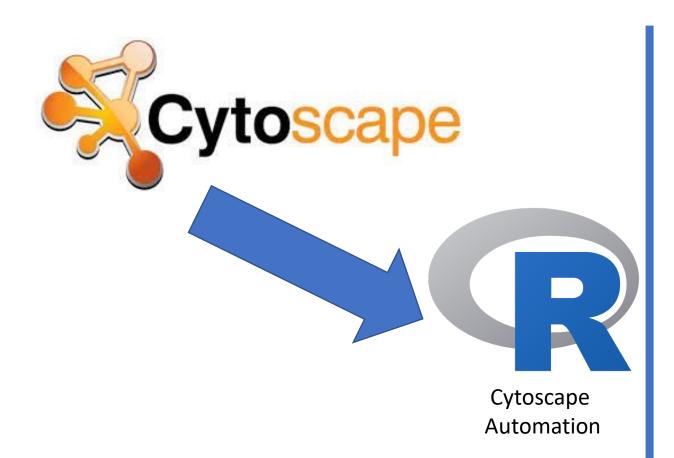


Lauren J. Dupuis, PhD

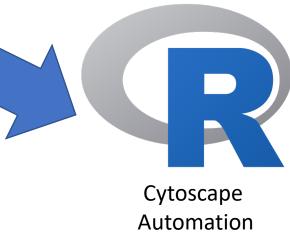
Post Doc
Department of Bioinformatics
Maastricht University

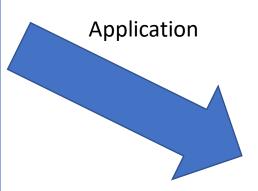
What are we going to do?



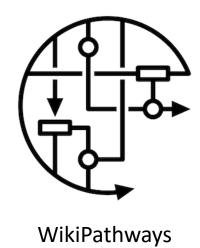












Day 1

Day 2

COVID-19 Disease Maps

Program Day 1

Time	Activity	Speaker/instructor
15:00 - 15:15	Introduction	Lauren Dupuis
15:15 - 15:45	Introduction COVID19 Disease Map / WikiPathways	Martina Kutmon
15:45 - 16:30	Introduction Cytoscape	Scooter Morris
16:30 - 17:30	Hands-on Cytoscape 1	Scooter Morris
17:30 - 17:45	Break	
17:45 - 18:30	Hands-on Cytoscape 2	Scooter Morris
18:30 - 19:00	Wrap up and outlook for next day	Lauren Dupuis

Program Day 2

Time	Activity	Speaker/instructor
15:00 - 15:30	Introduction workflows	Martina Kutmon
15:30 - 16:15	Workflow 1 Pathway enrichment / network visualization / drug-target extension	Martina Kutmon Lauren Dupuis
16:15 - 17:00	Workflow 2 Protein-protein interaction network / pathway information extension	Martina Kutmon Lauren Dupuis
17:00 - 17:15	Coffee break	
17:15 - 18:00	Workflow 3 Pathway crosstalk analysis	Martina Kutmon Lauren Dupuis
18:00 - 18:30	Wrap up and quiz	Lauren Dupuis
18:30 - 19:00	Q&A / Get input on your own project	All instructors