

## Inserm Workshop 266

### Introduction à l'Apprentissage automatique de la Biologie à la Santé Introduction to Machine Learning from Biology to Health

11-13 octobre 2021 ■ **October 11-13 2021** ■ Bordeaux, France

Lundi 11 octobre 2021 ■ **Monday October, 11<sup>th</sup> 2021**

15:30 - 16:00	<b>Reception of participants</b>
16:00 - 16:15	Welcome and presentation by the organizers
<b>SESSION I</b>	<b>Introduction to Machine Learning</b>
16:15 - 17:00	Introduction 1 to Machine Learning <b>TBA</b>
17:00 - 17:30	<b>Coffee break</b>
17:30 - 18:15	Introduction 2 to Machine Learning <b>Chloé-Agathe Azencott (MINES ParisTech / Institut Curie, Paris, France)</b>
18:15 - 19:00	Introduction 3 to Machine Learning <b>Liva Ralaivola (LIS, Marseille, France)</b>
19:30	<b>Dinner</b>

Mardi 12 octobre 2021 ■ **Tuesday October, 12<sup>th</sup> 2021**

06:30 - 08:30	<b>Breakfast</b>
<b>SESSION II</b>	<b>Machine Learning for Genomics</b>
08:30 - 09:15	Machine Learning for Enhancer discovery <b>TBA</b>
09:15 - 10:00	Machine Learning methods for modelling regulatory sequence <b>Laurent Bréhélin (LIRMM, Toulouse, France)</b>
10:00 - 10:30	<b>Coffee break</b>
10:30 - 11:15	Analysis Single Cell Data with ML <b>Oliver Stegle (DKFZ, Germany)</b>
11:15 - 12:00	Deep Learning for System Biology <b>Trey Ideker (UCSD, California, USA)</b>
12:00 - 14:00	<b>Lunch</b>

<b>SESSION III</b>	<b>Machine Learning for function prediction</b>
14:00 - 14:45	Deep learning applied to Gene Expression analyses <b>Aleksej Zelezniak (Chalmers, Sweden)</b>
14:45 - 15:30	Finding protein function with machine Learning <b>Burkhard Rost (Technical University of Munich, Germany)</b>
15:30 - 16:00	<b>Coffee break</b>
16:00 - 16:45	Protein-RNA interaction <b>Annalisa Marsico (Max Planck Institute, Berlin, Germany)</b>
16:45 - 17:30	Using Deep neural network in clinical data sharing <b>Casey S. Greene (University Pennsylvania, USA)</b>
19:30 - 20:15	<b>Cocktail</b>
20:15	<b>Dinner</b>

Mercredi 13 octobre 2021 ■ **Wednesday October, 13th 2021**

06:30 - 09:15	<b>Breakfast</b>
<b>SESSION IV</b>	<b>Machine Learning for Imaging and Language</b>
09:15 - 10:00	Applying deep learning to biomedical imaging <b>Christophe Zimmer (Institut Pasteur, Paris, France)</b>
10:00 - 10:30	<b>Coffee break</b>
10:30 - 11:15	Learning meaningful representations of life <b>Paul Villoutreix (LIS, Marseille, France)</b>
11:15 - 12:00	Deciphering the neural and acoustical bases of communication with data-driven methods <b>Etienne Thoret (Institute of Language, Communication and the Brain, Aix-en-Provence, France)</b>
12:00 - 14:00	<b>Lunch</b>