

AI in Virology

Leveraging AI to Advance Our Understanding of Viruses



9th September, Area Science Park, Padriciano Campus



International Workshop

PROGRAMME

Chairs: Giuditta De Lorenzo – Alessio Ansuini

9.00 – 9.15	Registration
9.15 – 9.30	<i>Opening and Institutional Welcome</i> Caterina Petrillo , President of Area Science Park
9.30 – 9.45	Introductions to PRP@CERIC Federica Mantovani , Infrastructure Manager of the PRP@CERIC, RI project funded by PNRR, at Area Science Park
9.45 – 10.15	Meeting Introduction Giuditta De Lorenzo - Area Science Park
10.15 – 11.00	Assessing virus evolution with Protein Language Models David Robertson - MRC-University of Glasgow Centre for Virus Research
11.00 – 11.30	<i>Coffee Break</i>



11.30 – 12.00	Modelling mutation effects and structural variability with Protein Language Models Francesca Cuturello - Area Science Park
12.00 – 12.30	Reverse vaccinology 3.0: the artificial intelligence revolution to propel vaccine development Emanuele Andreano - Fondazione Biotechnopolo di Siena
12.30 – 12.45	AI, how expensive you are! Niccolò Tosato - Area Science Park
12.45 – 14.00	<i>Lunch</i>
14.00 – 14.45	Scaling AI protein structure prediction to the virosphere. Joe Grove - MRC-University of Glasgow Centre for Virus Research
14.45 – 15.30	DPCstruct: Unsupervised Domain Classification of Alphafold2 predicted structures Alberto Cazzaniga - Area Science Park
15.30 – 16.30	<i>Roundtable</i> Biosecurity implications of the use of AI in virology: a trade-off between biological risk and the advancement of science <i>Introduction from Alessandro Marcello – ICGEB</i>
16.30 – 16.40	<i>Closing Remarks</i>

