RATIONAL DESIGN IN MODERN BIOTECHNOLOGY: FROM CONCEPT TO CLINIC
PROGETTAZIONE MOLECOLARE NELLE BIOTECNOLOGIE MODERNE: DAL CONCEPT ALLA CLINICA
Dr. Igor D'Angelo
24-28 November 2025
Aula presso Collegio Spallanzani, via Ugo Foscolo 17 - Pavia

Monday 24th November:
11.30-13.00 Introductory presentation; my career from Pavia to the USA; Q&A
Lunch break
14.30-16.30 Lecture: The biotherapeutic development process, from the bench to the clinic.

Tuesday 25th November:
9.30-11.00 Lecture: Introduction to antibody engineering
Short break
11.00-12.30 Lecture: Antibody discovery approaches: finding a needle in a haystack?

17.00-19.00: webinar (by Zoom)
Biotech 2030: Building the Next Generation of Scientists — Skills, Networks, and Mindsets for What's Next
René Hubert, Ph.D., Scientific Director Early Career Talent, Global Research, Amgen

Wednesday 26th November:
9.30-11.00 Lecture: Antibody engineering, humanization, and optimization
Short break
11.00-12.30 Lecture: Epitope mapping, molecular design and engineering affinity and specificity
Lunch break
14.00-15.00 Predicting immunogenicity and reformatting to multispecifics
15.00-16.30 Demo: The Abacus system for ML based antibody engineering

Thursday 27th November:
9.30-11.00 Demo: Utilizing MOE and svl for *in silico* molecular design
Short break
11.00-12.30 MOE workshop: engineering specificity in a therapeutically relevant antibody
Lunch break
14.00-15.00 MOE workshop: engineering specificity in a therapeutically relevant antibody
15.00-16.30 MOE workshop results and discussion

Friday 28th November:
9.30-12.30 Q&A, discussion about career in company/industry; one-to-one meeting about career suggestions, building a competitive resume (Curriculum Vitae), opportunities and trending skillsets.