

Practical Course: Introduction To Cell Bioreactor Production & Monitoring Course 2025, 2 nd edition						
	Monday 27.10.	Tuesday 28.10.	Wednesday 29.10.	Thursday 30.10.	Friday 31.10.	
9.00 - 12.30	Welcome E. Petiot (1)	CHO process monitoring E. Petiot (3) Sampling: Cell counting / cell size analysis/Aliquot metabolic analysis HEK293 process infection MOI calculation + Viral infection	CHO & HEK293 cell culture process monitoring E. Cowles, C. Thomann (5) Sampling: cell counting/cell size analysis / Cytometry for Live/dead monitoring & infection level Lunch	CHO & HEK293 cell culture process monitoring E. Petiot, C. Thomann (7) Sampling: cell counting/cell size analysis / Cytometry for Live/dead monitoring & infection level ELISA for Mabs production (session1)	Case study E. Cowles, E. Petiot (9) Analysis of bioreactor parameter trends / Troubleshooting	
	Program presentation – Safety training for access to P2 laboratory					
14.00- 17.00	Bioreactors and control shake flask seeding. E. Petiot (2) CHO culture for Mabs production: Comparison of Culture medium condition HEK293 culture for lentivirus transfection	Bioreactor presentation E. Cowles (4) Single-use vs Stainless steal / Exercise to identify bioreactor parts & bioreactor mounting	Demonstration / Practice of analytical tools & Methods E. Petiot (6) Metabolic measurements (Glucose and Lactic acid etc) Viral quantification protocols (HA assay / TCID50 assays reading)	Demonstration / Practice of analytical tools & Methods E. Cowles (8) ELISA for Mabs production (session 2)	Departure from Lyon	

ESACT e.V. As of February 2025