	Monday	Tuesday	Wednesday	Thursday
9.00-9.45	**Introduction of Course Participants presentation** F. Gòdia/P. Alves	**6-Post-translational Modifications I** E. Papoutsakis	**12-On-line process analytics** F. Gòdia	**18-Integrated bioprocess for protein production** A. Tolstrup
9.45-10.00	Break			
10.00-10.45	**1-Overall Lecture** M. Carrondo	**7-Post-translational Modifications II** E. Papoutsakis	**13-Bioreactor Scale-Up and Scale-Down** S. Grammatikos	**19-Integrated bioprocess for stem cells** P. Alves
10.45-11.15	Coffee Break			
11.15- 12.00	**2-Omics analysis for systems biology of cells I** N. Borth	**8-Cell line development I** H. Hauser	**14-Miniaturization and single-use Bioreactors** S. Grammatikos	**20-Industrial perspectives of ACT** A. Tolstrup
12.00 - 12.15	Break			
12.15 - 13.00	**Case Study I** S. Grammatikos	**Case Study I** S. Grammatikos	**Case Study I** S. Grammatikos	**Wrap-up and Course closing**
13.00 - 15.00	Lunch Break			
15.00 - 15.45	**3-Omics analysis for systems biology of cells II** N. Borth	**9-Cell line development II** H. Hauser	**15-Downstream processing I** M. Carrondo	
15.45-16.00	Break			
16.00-16.45	**4-Cellular mechanisms I** E. Papoutsakis	**10-Bioreactor Design I** F. Gòdia	**16-Downstream process II** M. Carrondo	
16.45-17.15	Coffe Break			
17.15-18.00	**5-Cellular mechanisms II** E. Papoutsakis	**11-Bioreactor Design II** F. Gòdia	**17-Integrated bioprocess for cell culture-based vaccines** P. Alves	
18.00-18.15	Break			
18.15-19.00	**Case Study II** A.Tolstrup	**Case Study II** A.Tolstrup	**Case Study II** A.Tolstrup	