



| Sunday 05.10.       |                                                                                                       | Monday 06.10.                                                                 | Tuesday 07.10.                                                                          | Wednesday 08.10.                                                                                              | Thursday 9.10.                                                             | Friday 10.10. |
|---------------------|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|---------------|
| 9.00<br>-<br>9.45   | Arrival to Barcelona/Girona airports and transfer to Hotel Terramar in Llafranc<br><br>Check-in Hotel | <b>Short introduction of participants and lecturers</b><br>All                | <b>Upstream Process development</b><br>T. Zinnecker, MPI (08)                           | <b>Case study veterinary vaccines: HVT vaccines (Herpesvirus of turkeys)</b><br>I. Jordan, ProBioGen (16)     | <b>Vaccine markets and immunization policies</b><br>A. Vilajeliu, WHO (23) |               |
| 9:45-10:00          |                                                                                                       |                                                                               |                                                                                         |                                                                                                               |                                                                            |               |
| 10.00<br>-<br>10.45 |                                                                                                       | <b>Introduction viral vaccines and course outline</b><br>L. Cervera, UAB (01) | <b>Upstream Process Intensification</b><br>T. Zinnecker, MPI (9)                        | <b>Recombinant vaccines: VLPs</b><br>L. Cervera, UAB (17)                                                     | <b>mRNA vaccines</b><br>I. Jordan, (24)                                    |               |
| 10:45-11:15         |                                                                                                       | Coffee break                                                                  |                                                                                         |                                                                                                               |                                                                            |               |
| 11.15<br>-<br>12.00 |                                                                                                       | <b>Basic virology for antigen design</b><br>P-J Cardona, UAB (02)             | <b>Downstream Processing of Viral Vaccines</b><br>C. Peixoto, iBET (10)                 | <b>Case study: polio vaccines</b><br>I. Knott, GSK (18)                                                       | <b>Case study: influenza vaccines</b><br>T. Zinnecker, MPI (25)            |               |
| 12:00-12:15         |                                                                                                       |                                                                               |                                                                                         |                                                                                                               |                                                                            |               |
| 12.15<br>-<br>13.00 |                                                                                                       | <b>Basic immunology for vaccine design</b><br>P-J Cardona, UAB (03)           | <b>Product characterization</b><br>C. Peixoto, iBET (11)                                | <b>Case study: Cervarix vaccine: from baculovirus technology to first human vaccine</b><br>I. Knott, GSK (19) | Feed-back/ Course adjournment, hotel check-out                             |               |
| 13:00-15:00         |                                                                                                       | Lunch and Free time                                                           |                                                                                         |                                                                                                               |                                                                            |               |
| 15.00<br>-<br>15.45 |                                                                                                       | <b>Cell lines for vaccine production</b><br>I. Knott, GSK (04)                | <b>Case study: TB</b><br>P-J Cardona, UAB (12)                                          | <b>Case study: tech transfer into GMP for early phase trials</b><br>C. Green, Oxford (20)                     | Departure to airport                                                       |               |
| 15.45-16.00         |                                                                                                       |                                                                               |                                                                                         |                                                                                                               |                                                                            |               |
| 16.00<br>-<br>16.45 |                                                                                                       | <b>Viral Biosafety and Potency assays</b><br>C. Logvinoff, Sanofi (05)        | <b>Case study: response to pandemic situation</b><br>C. Green, Oxford (13)              | <b>Case study: YFV vaccines &amp; neurovirulence testing</b><br>C. Logvinoff, Sanofi (21)                     |                                                                            |               |
| 16.45-17.15         |                                                                                                       | Coffee break                                                                  |                                                                                         |                                                                                                               |                                                                            |               |
| 17.15<br>-<br>18.00 |                                                                                                       | <b>Vaccine formulation /Adjuvants</b><br>J. Ruano, HIPRA (6)                  | <b>Case study: Modified Vaccinia Ankara (MVA) vaccines</b><br>I. Jordan, ProBioGen (14) | <b>BMGF role in global vaccine development</b><br>P. A. Gibert, BMGF (22)                                     |                                                                            |               |
| 18.00-18.15         |                                                                                                       |                                                                               |                                                                                         |                                                                                                               |                                                                            |               |
| 18.15<br>-<br>19.00 |                                                                                                       | <b>Case-study: microcarrier-based cultivation</b><br>J. Ruano, HIPRA (7)      | <b>Workshop</b><br>C. Peixoto, L. Cervera (15)                                          | Workshop presentations by participants (24)                                                                   |                                                                            |               |
|                     | Welcome and dinner                                                                                    | Dinner                                                                        |                                                                                         |                                                                                                               |                                                                            |               |