



| Metabolic and Bioprocess Modelling for Animal Cells Course 2026, 4th Edition |                           |                                                                                                                                   |                                                           |                                                                                  |                                                                        |
|------------------------------------------------------------------------------|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------------------------|------------------------------------------------------------------------|
|                                                                              | Sunday<br>11 October 2026 | Monday<br>12 October 2026                                                                                                         | Tuesday<br>13 October 2026                                | Wednesday<br>14 October 2026                                                     | Thursday<br>15 October 2026                                            |
| 8:00-10:30                                                                   |                           | Introduction to metabolic and bioprocess modelling for animal cells course<br>I. Del Val (UCD), D.-Y. Lee (SKKU), E. Petiot (UdL) | 4-Kinetic modelling<br>I. Del Val (UCD)                   | 8-Chemometrics & their support of PAT integration<br>V. Chotteau (KTH)           | 12-Multi-omics and bioinformatics workshop<br>M. Lakshmanan (IITM)     |
| 10:30-11:00                                                                  |                           | COFFEE Break                                                                                                                      |                                                           |                                                                                  |                                                                        |
| 11:00-13:00                                                                  |                           | 1-Metabolic modelling<br>D.-Y. Lee (SKKU)                                                                                         | 5-Hybrid modelling<br>R. Oliveira (NOVA)                  | 9-Chemometric models – case studies on Raman spectroscopy<br>I. Bichari (Horiba) | 13-Data-driven-modelling of cell cultures workshop<br>D.-Y. Lee (SKKU) |
| 13:00-14:30                                                                  |                           | LUNCH Break and free time                                                                                                         |                                                           |                                                                                  |                                                                        |
| 14:30-16:30                                                                  |                           | 2-Metabolic modelling workshop (Part 1)<br>D.-Y. Lee (SKKU)                                                                       | 6-Kinetic modelling workshop (Part 1)<br>I. Del Val (UCD) | 10-Hybrid modelling workshop<br>R. Oliveira (NOVA)                               | Concluding remarks /<br>Departure to airport                           |
| 16:30-17:00                                                                  |                           | COFFEE Break                                                                                                                      |                                                           |                                                                                  |                                                                        |
| 17:00-19:00                                                                  |                           | 3-Metabolic modelling workshop (Part 2)<br>M Lakshmanan (IITM)<br>D.-Y. Lee (SKKU)                                                | 7-Kinetic modelling workshop (Part 2)<br>I. Del Val (UCD) | 11-Chemometric modelling workshop (Raman spectroscopy)<br>I. Bichari (Horiba)    |                                                                        |
| 19:00-21:00                                                                  |                           | Free time                                                                                                                         |                                                           |                                                                                  |                                                                        |
| 20:00                                                                        | Welcome and Dinner        | DINNER                                                                                                                            |                                                           |                                                                                  |                                                                        |