



Training and research in *Listeria monocytogenes*
adaptation through proteomic and transcriptome
deep sequencing analysis

Summer School “Quantitative Proteomics” 3-7 July 2017

INRA, Auvergne-Rhône-Alpes Centre, Site de Theix,
Saint-Genès-Champanelle

France



Monday, 3rd

- 9:00** Welcome to the INRA Center, site of Theix
11:00 General presentation of the proteomic summer school and the national INRA and the Auvergne-Rhône-Alpes INRA Center
- 12:15** *Lunch*
- 13:30** Introduction to proteomics: Proteomics strategies and approaches,
Sample preparation (protein extraction, subproteomic, depletion ...) **T. Rabilloud**
- 17:00** *End of the first day*

Tuesday, 4th

- 8:30** Sample separation (in-gel vs off-gel, principles, possible combinations for non-targeted approaches ...) **T. Rabilloud**
- 10:15** *Coffee break*
- 10:30** Mass spectrometry principles (MALDI and ESI sources, analyzers) **T. Chaze**
- 12:30** *Lunch*
- 13:30** Relative quantitative proteomic for global approaches (Profiling, label-free vs labelling methods) **T. Chaze**

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- 15:00 *Coffee break*
 15:15 Absolute quantitative proteomic for targeted approaches (SRM, MRM, AQUA) *T. Chaze*
 17:00 *End of the day*

Wednesday, 5th

- 8:30 Examples of proteomic approaches implementation *C. O'Byrne*
 10:15 *Coffee break*
 10:30 Imaging Mass Spectrometry *L. Théron*
 12:30 *Lunch*
 13:30-18:00 Social event: Hiking on the Auvergne's old sleeping effusive volcanoes for a panoramic view of the "Chaîne des Puys"
 20:00 Dinner in Clermont-Ferrand¹

Thursday, 6th

- 8:30 - Group 1: Metabolism exploration platform (PFEM) visit, metabolomics and proteomic components *PFEM Engineers*
 - Group 2: Bio-informatic and bio-statistic tools *O. Langella – PFEM Engineers*
 12:15 *Lunch*
 13:15 - Group 1: Bio-informatic and bio-statistic tools *O. Langella – PFEM Engineers*
 - Group 2: Metabolism exploration platform (PFEM) visit, metabolomics and proteomic components *PFEM Engineers*
 17:00 *End of the day*

Friday, 7th

- 8:30 - Journal Club on proteomic approaches and applications, advantages and limits, choice of strategies *C. O'Byrne (T. Rabilloud, M. Hébraud)*
 - General discussion
 12:15 *Lunch*
 13:30 *End of the Summer school*

¹ Facultative and not included in the registration fee for participants outside the ITN List_MAPS project