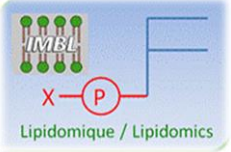


THE FUNCTIONAL LIPIDOMICS PLATFORM

The Functional Lipidomics platform is acknowledged by IBiSA (Infrastructure in Biology, Health and Agronomy). It is associated to the “GIS IMBL”, and located at the Pasteur-IMBL building of INSA-Lyon. The platform offers both expertise and assistance in lipidomics research.

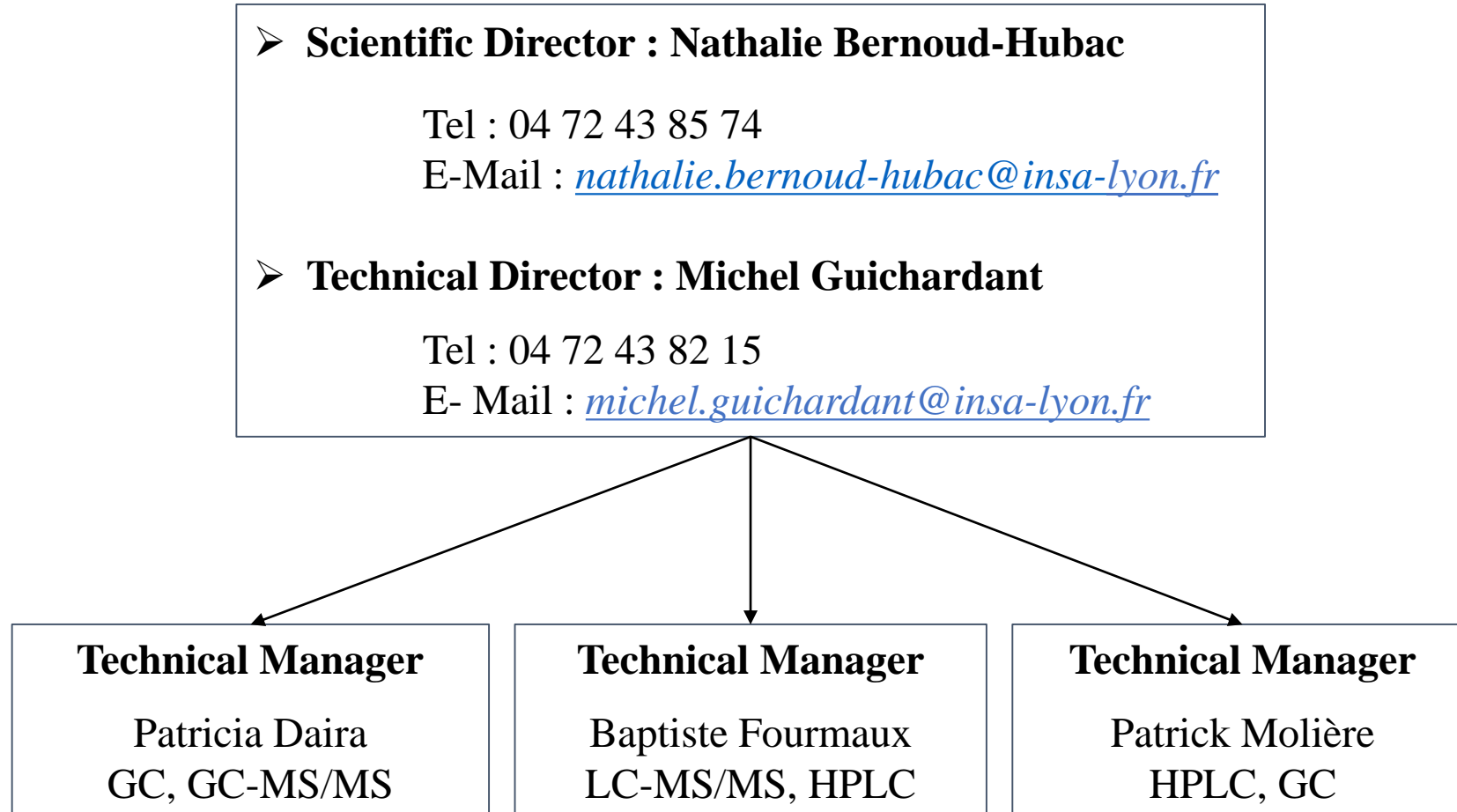
It is open to the whole private and public scientific community interested in lipid projects by means of fee-based analytical services and collaborative projects.

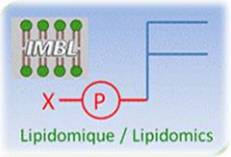
Website : <http://imbl.insa-lyon.fr/content/plateforme-de-lipidomique>



THE FUNCTIONAL LIPIDOMICS PLATFORM

Organizational Chart

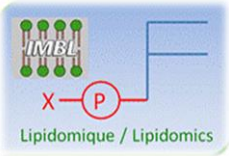




THE FUNCTIONAL LIPIDOMICS PLATFORM

Facilities

- Advices to set up lipidomics projects
- Theoretical and practical training in lipidomics
- Lipid analyses
- Technological survey
- Help in bringing projects to term

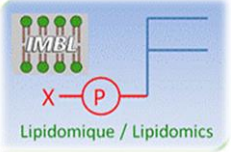


THE FUNCTIONAL LIPIDOMICS PLATFORM

Services

❖ Wide range in lipid analyses

- Analysis of lipids involved in cell signalling
- Fatty acid profiles from phospholipids, triacylglycerols and sterol esters
- Analysis of phospholipid classes (including alkyl and alkenyl ether-linked phospholipids)
- Analysis of mono-, di- and tri-hydroxylated fatty acids
- Analysis of prostaglandins, leukotrienes
- Analysis of lipid peroxidation products (hydroxy-alkenals: 4-HNE, 4-HHE, 4-HDDE, isoprostanes, hydroxylated sterols...)
- Characterization of lipid/protein interactions in Langmuir-Blodgett films
- Plasma lipoprotein profiles



THE FUNCTIONAL LIPIDOMICS PLATFORM

Equipments

- Gas Chromatography (GC)
- Liquid Chromatography (HPLC, UHPLC, FPLC)
- Gas-Chromatography coupled with tandem mass spectrometry (GC-MS/MS)
- Liquid-Chromatography coupled with tandem mass spectrometry (UHPLC-MS/MS)
- Polarization Modulation Infra-Red Reflection Absorption Spectroscopy (PM-IRRAS)
- Brewster Angle Microscopy (BAM)



GC-MS/MS
HP7890B/7000C



UHPLC-MS/MS
Shimadzu / AB Sciex
Qtrap 4500



UHPLC
Agilent 1200 series



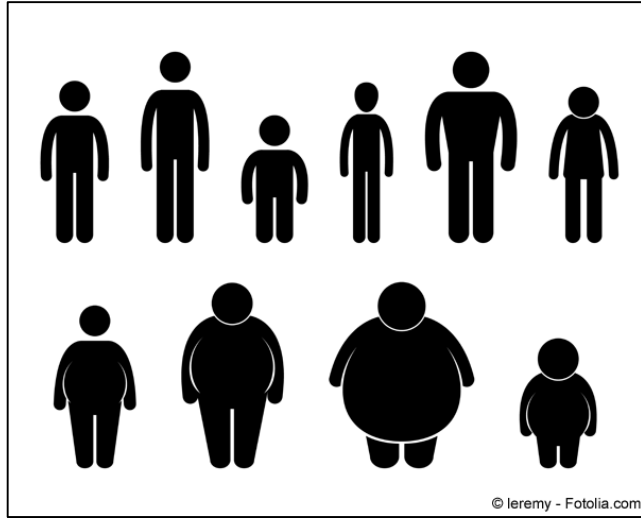
GC
HP6890

THE FUNCTIONAL LIPIDOMICS PLATFORM

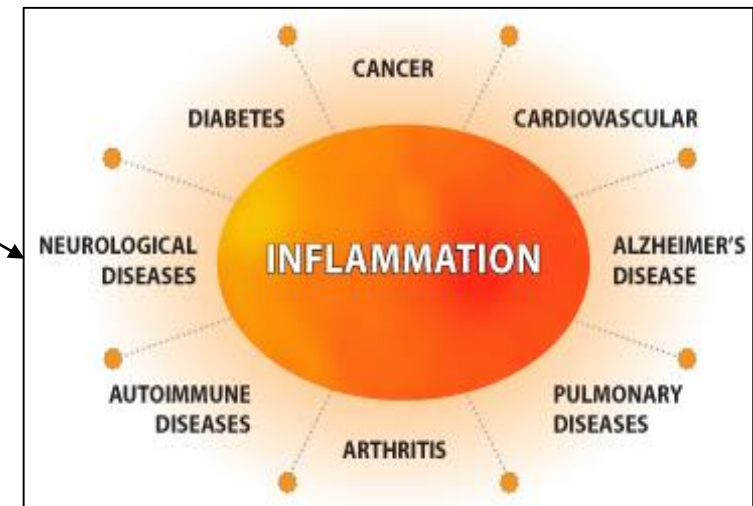
Different organisms, matrices

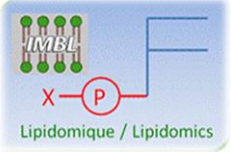


THE FUNCTIONAL LIPIDOMICS PLATFORM



Various physiological
and
physiopathological
states

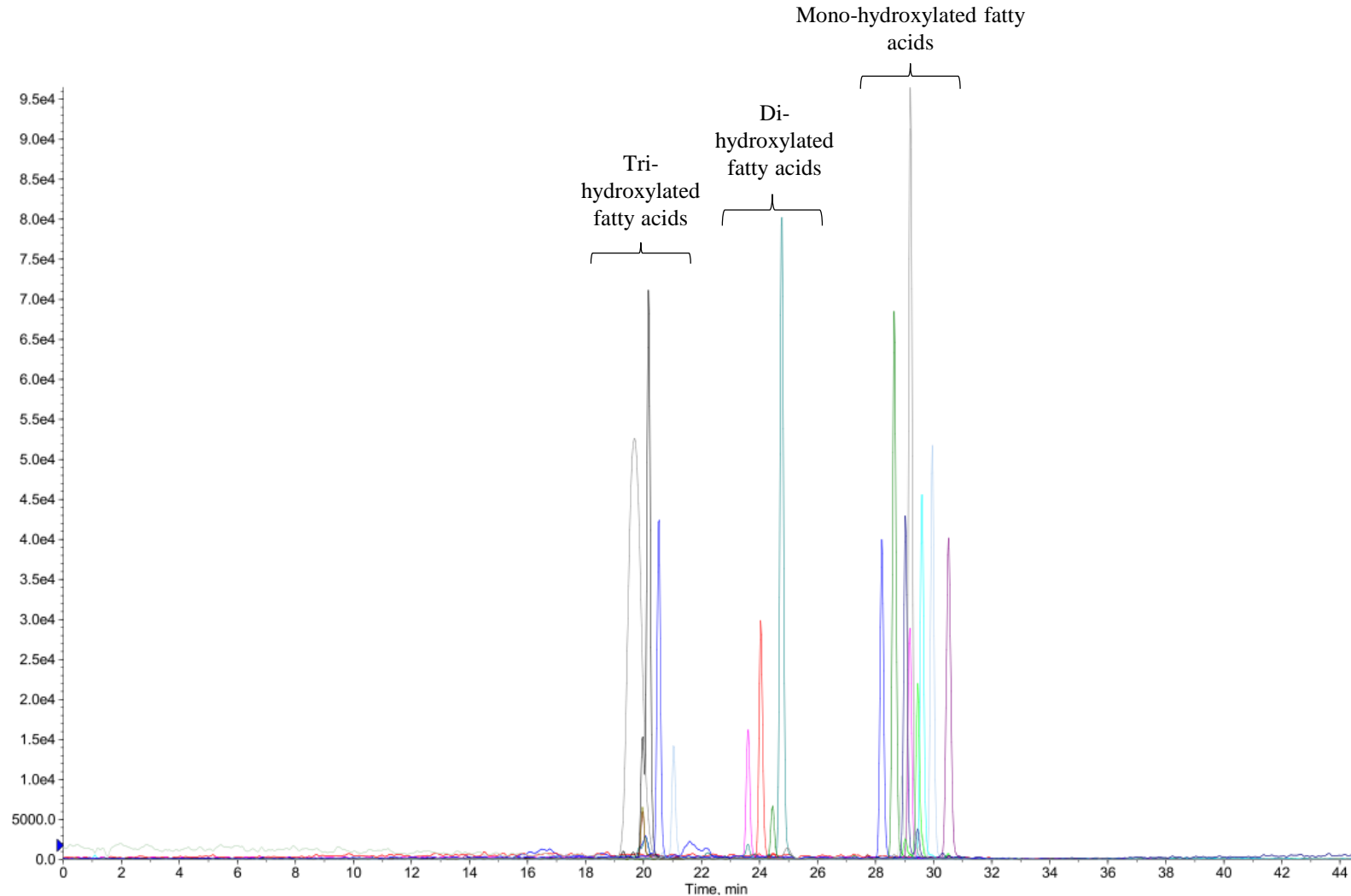


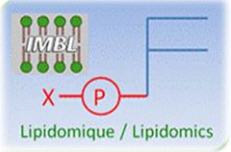


THE FUNCTIONAL LIPIDOMICS PLATFORM

Examples of applications

Representative UHPLC-MS/MS chromatogram of a wide chemical variety of oxylipin species

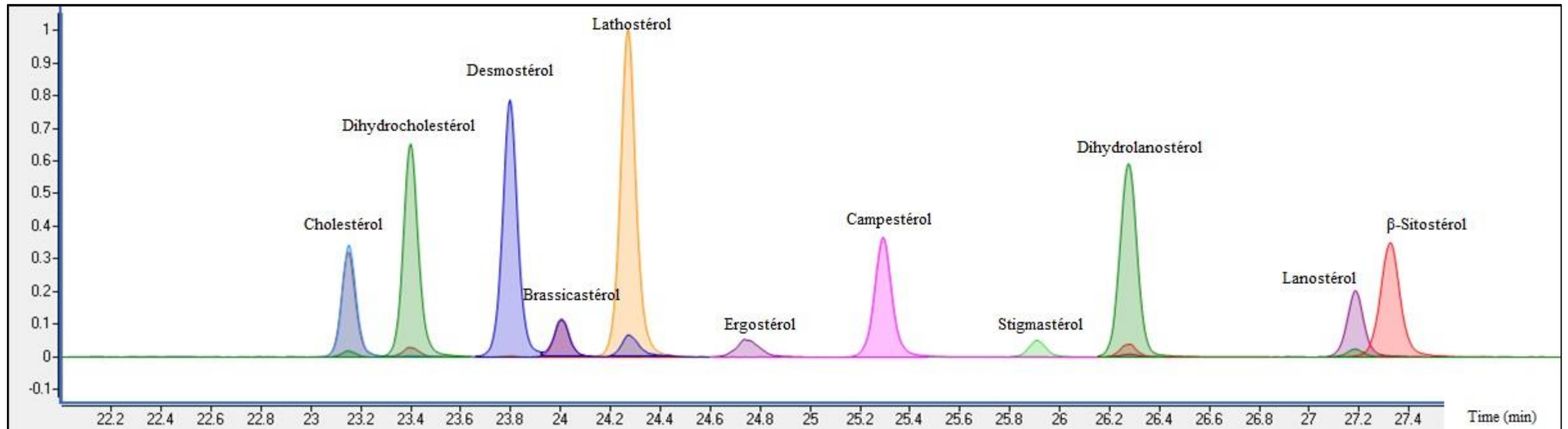




THE FUNCTIONAL LIPIDOMICS PLATFORM

Examples of applications

Typical GC-MS/MS profile of derivatized sterols



THE FUNCTIONAL LIPIDOMICS PLATFORM

Examples of applications

