

Dr. Bertrand Rochat, Head of the Quantitative Mass Spectrometry Facility (qMSF)
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Lausanne, January 24th 2012

Your needs in targeted and omics-type LC-MS analyses of drugs, cell metabolites, lipids and native peptides.

Dear fellow scientists,


Metabolomics is a fast-developing field of research that analyzes small molecules and studies biological systems comprehensively. Due to recent improvements in liquid chromatography - mass spectrometry (LC-MS), metabolomics can now determine quantitatively or semi-quantitatively and with high sensitivity various classes of small molecules such as cell metabolites, drugs, native peptides, or lipids. Analysis can target specific classes of molecules or aim at global analysis of hundreds of metabolites at a single time and with high sensitivity. This approach is now widely used in all fields of biological and biomedical research and complements proteomic and transcriptomic or sequencing technologies in the study of biological processes.

Several basic and clinical scientists at UNIL-CHUV are now proposing to develop a metabolomic platform on site. However, to adequately plan such developments, we need to have a better estimate of the interest in developing such capability as well as the present needs of researchers of UNIL-CHUV in the field of metabolomics. Presently, the UNIL-CHUV qMSF platform performs LC-MS analyses and is equipped to perform targeted analysis of several metabolites: amino-acids, organic acids, acylcarnitines, steroids, bile acids, fatty acids, leukotrienes, or ceramides. However, because of the labor-intensive nature of the technology and the requirement for updated, expensive equipment the use of such a platform would need more resources.

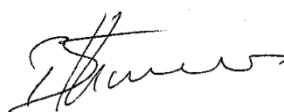
The goal of this letter is therefore to collect your present and anticipated needs in metabolomic analysis and to determine whether the availability of such a platform would help you design new types of experiments. Bertrand Rochat, head of the qMSF Platform, is at your disposal for further questions concerning the potential use of Metabolomic in your studies, or for an eventual presentation in your Service/Department of this technology and its potential use in research.

We would be grateful if you could fill up the attached questionnaire and return it to Bertrand Rochat (bertrand.rochat@chuv.ch) by **February 8, 2012**. These questionnaires will then be analyzed by the end of February and proposal for Metabolomic developments will be submitted to the Décanat mid-March.

Sincerely,



Bertrand Rochat
Head of qMSF platform



Bernard Thorens
For the Metabolomic Steering Committee

Please fill in the following questions electronically or manually (or) and send this form **no later than February 8th**, to:

Bertrand Rochat, qMSF, CHUV, Rte du Bugnon, BH18-228, 1011 Lausanne; e-mail : bertrand.rochat@chuv.ch

➔ Name, Institution and Department:

Compounds to be determined	Type of analysis	<input checked="" type="checkbox"/>	Specify the molecules
cell metabolites	▶ quantification of cell metabolites	<input type="checkbox"/>	
	▶ fate of cell metabolites	<input type="checkbox"/>	
	▶ profiling of a class of cell metabolites	<input type="checkbox"/>	
drugs	▶ quantification of drugs and their metabolites	<input type="checkbox"/>	
	▶ fate of drugs (identification of drug metabolites)	<input type="checkbox"/>	
native peptides	▶ quantification of peptides	<input type="checkbox"/>	
	▶ fate of peptides	<input type="checkbox"/>	
	▶ overview of various peptides	<input type="checkbox"/>	
lipids	▶ quantification of lipids	<input type="checkbox"/>	
	▶ other	<input type="checkbox"/>	
untargeted	▶ semi-quant. profiling of cell metabolites, native peptides, xenobiotics or lipids	<input type="checkbox"/>	
untargeted / identification	▶ identification of cell metabolites, native peptides, xenobiotics or lipids	<input type="checkbox"/>	
other	▶	<input type="checkbox"/>	
potential number of samples per year	<input type="checkbox"/> 10	and/or	<input type="checkbox"/> ≤ 5,000 CHFr
	<input type="checkbox"/> 100		<input type="checkbox"/> 10,000 CHFr
	<input type="checkbox"/> >100		<input type="checkbox"/> > 10,000 CHFr