

4.0 credits	30.0 h	1q
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Teacher(s) :	Rider Mark ; Bertrand Luc (coordinator) ; De Plaen Etienne ; Demoulin Jean Baptiste ; Van Schaftingen Emile ; Collet Jean-François ;
Language :	Français
Place of the course	Bruxelles Woluwe
Prerequisites :	Sbim2115 is a prerequisite
Main themes :	This course helps to deepen the knowledge on protein-protein interaction and post-translational modifications of proteins. It is the second part of Sbim2115 given in 1st master.
Aims :	<i>The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".</i>
Evaluation methods :	Written exam on all parts of the course
Teaching methods :	The different parts of the course will be given by specialists of the domains using powerpoint slides. The slides will be available for the students.
Content :	<ul style="list-style-type: none"> - General introduction on the importance of protein-protein interaction and post-translational modifications of proteins in their regulation and function (L.Bertrand) - Protein-protein interactions: how to evaluate them, explanation of different strategies like two-hybrid system, co-immunoprecipitation and GST-pulldown. (E. de Plaen) - Mechanisms of disulfide bond formation in prokaryotes and eukaryotes. (J.-F. Collet) - Protein phosphorylations: mechanisms of phosphorylation/dephosphorylation, structure/function of protein kinases, mechanisms of protein kinase activation, Importance of signal transduction, interaction between protein kinases and other signalling partners like receptors, G proteins, examples of signalling pathways, methodologies related to the topic. (L. Bertrand & mp; M. Rider) - Mechanisms of targeted proteolysis, protein ubiquitination and related post-translational modifications (J.B. Demoulin) - Protein repair mechanisms. (E. Van Schaftingen) - Conclusions. (L. Bertrand)
Cycle and year of study :	> Master [120] in Biomedicine > Master [60] in Biomedicine > Master [240] in Medecine
Faculty or entity in charge:	SBIM