



## 2<sup>nd</sup> International Conference on Matrix Vesicles: From Biochemistry to Clinic

June 14th 2019

Université Lyon 1, ICBMS UMR 5246 CNRS, Bâtiment Lederer

### **SYNOPSIS**

Matrix vesicles are a specific class of extracellular vesicles with a diameter between 100 and 300 nm. Under physiological conditions, they are blebbed from hypertrophic chondrocytes during endochondral ossification, from osteoblasts during intramembranous ossification and from odontoblasts during mantle dentin formation. Matrix vesicles, by accumulating calcium and phosphate, can initiate the first step of nucleation of crystals leading to apatite. The symposium is focused on answering questions such as: How matrix vesicles are released by mineralizing cells? How calcium and phosphate accumulate in matrix vesicles? What are the biochemical and biophysical properties of matrix vesicles? To what extent do they affect ectopic calcification? What clinical applications could be derived from a better knowledge of the functions of matrix vesicles? How proteoliposomes that mimic matrix vesicles could be used in nanomedicine?

### **TOPICS**

- Matrix vesicles formed during physiological and pathological conditions
- Functions of matrix vesicles
- Biogenesis of matrix vesicles
- Methods to analyze the morphology and biochemical and biophysical properties of matrix vesicles
- Determination of calcium and phosphorus inside matrix vesicles
- Lipidomics and phospholipase activity in matrix vesicles
- Proteoliposomes mimicking matrix vesicles

### **REGISTRATION AND CALL FOR POSTERS**

- Opening of registration February 1st 2019
- Deadline for abstracts : May 1st 2019

<https://matrix-vesicles.sciencesconf.org/page/registration>

### **LOCATION AND DATE**

- Université Lyon 1, ICBMS UMR 5246 CNRS, Bât Lederer, 1 Rue Victor Grignard, Villeurbanne, France. June 14th 2019

### **ORGANIZING COMMITTEE**

- René Buchet, David Magne and Saida Mebarek