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## Post-doctoral Position in Structural Biology

*Subject : structure determination of bacterial ATP synthase c-ring*

Our group has identified that tomatidine, a steroid alkaloid, possesses antibiotic properties against Small Colony Variants of *S. aureus* and potentiates the action of aminoglycoside antibiotics. We further identified the bacterial ATP synthase as the target of the molecule and a series of analogues. With the goal to further characterize the mechanism of action and optimize novel antibiotics targeting different pathogens, the labs of **E. Marsault** (medicinal chemistry, U. Sherbrooke, Qc, Canada), **F. Malouin** (microbiology, U. Sherbrooke), **T. Meier** (structural biology, Imperial College, London, UK) and **M. Audet** (structural biology, Sherbrooke) will collaborate to solve the structure of the ATP synthase from Gram+ and Gram- bacteria.

### *Candidate profile*

Ph.D. in biochemistry, molecular biology, structural biology or similar background. Proficiency in protein production and purification and associated know-how. Excellent track record demonstrated by a solid publication profile. Autonomy, resourcefulness, ability to work in a multidisciplinary environment.

### *Location :*

Structural biology laboratory, Institut de Pharmacologie de Sherbrooke, Sherbrooke (Qc, Canada) and Structural Biology laboratory, Imperial College, London (UK).

*Start date :* January 2020, or depending on availability.

For inquiries, please send CV, letter of motivation and synopsis of research experience to date to:  
Pr Éric Marsault ([eric.marsault@usherbrooke.ca](mailto:eric.marsault@usherbrooke.ca))

*(NB : only candidates whose application is further considered will be contacted within two weeks of application)*

### Key references:

Lamontagne Boulet *et al*, *Antimicrob. Ag. Chemother.* **2018**, e02197.

Boulanger *et al*, *Antimicrob. Ag. Chemother.* **2015**, 7458.

Mitchell *et al*, *Antimicrob. Ag. Chemother.* **2011**, 1937.

Hahn *et al*, *Science* **2018**, 360.

Preiss *et al*, *Sci. Adv.* **2015**, e1500106.