Post-doctoral position
Atp12a as a novel therapeutic target in cystic fibrosis lung disease

A post-doctoral position is currently available for 18 months in the team of Cordeliers-INEM-. INSERM Paris
Salary according to person experience and INSERM grid
Starting date: September the 1st, 2018
Mission:
Our research aims to expand the knowledge on ATP12A role in the airway epithelium and its relevance as a prognostic marker and pharmacological target in Cystic Fibrosis. This will be based on
1) studying ATP12A expression in freshly obtained airway samples from non-CF individuals and CF patients with different age, mutations and infection background
2) studying ATP12A expression and function, as well as other relevant proteins involved in ion transport (CFTR, TMEM16A, pendrin), in cultured airway epithelial cells exposed to bacterial components and pro-inflammatory stimuli
3) understanding the impact of ATP12A upregulation on innate defense mechanisms, based on an in situ bactericidal activity assay
4) evaluating possible inhibitors of ATP12A-dependent proton secretion
The post-doctoral project lies at the interface of biochemistry, molecular cell biology and electrophysiology. ATP12A expression as well as that of other ion transporters will be based on quantitative real time PCR**,** immunofluorescence. ATP12A function will be assessed by the rate of K^+ absorption from airway surface liquid (ASL) as well as pH measurement of ASL, based on *in situ* pH-sensitive micro-electrode or dye and measurement of transepithelial H^+ transport. To assess the clinical relevance of ATP12A expression/function we will use an *in situ* bacterial killing assay. The person will work at interface between the Research Institutes in Paris (Cordeliers and INEM).

Profile:
Candidates for this project should have a solid background in cell culture, cellular, molecular biology, as well as various microscopic and immunochemical techniques. Experience in electrophysiology (Ussing Chamber) and microbiology would be an advantage.

Candidates:
Interested candidates should e-mail a letter of application, including a CV and the names and addresses of at least two referees to:
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