



# Kusumika SAHA

**Finishing year:** 2016

**Supervisor:** Harald Sitte,  
Medical University of Vienna

**Thesis title:** Unraveling the  
molecular pharmacology of 4-  
MEC and 4-MePPPinsights  
into their mode of action.

**Current Employer:** PostDoc in  
the group of Stefano Marullo,  
Institute Cochin, Biomedical  
research Institute, INSERM,  
Paris, France

**MolTag alumni page:**  
[Kusumika Saha \(univie.ac.at\)](https://www.univie.ac.at/kusumika-saha)

## How would you summarize your thesis results in 3 sentences?

My thesis focused on elucidating the mechanism of action for two “second generation” synthetic cathinones 4-MEC and 4-MePP; 4-MEC had a “hybrid” profile wherein it acted as a blocker for dopamine transporter (DAT) and substrate releaser for serotonin transporter (SERT). 4-MePP was a blocked both SERT and DAT with a higher efficacy at DAT. Our work also emphasized the importance of structural modifications on the drugs and its impact on its pharmacology.

## What are you doing now?

My present work is in the field of Cell Biology and focuses on the intracellular trafficking of Cystic Fibrosis Transmembrane Regulator (CFTR) within the framework of Cystic Fibrosis.

## What was the impact of the MolTag program on your further career?

MolTag program is unique in the way of allowing PhD students under different supervisors from interdisciplinary fields to come together and learn from one another. I had the honor of interacting with other supervisors who were a constant source of inspiration and guidance. The interdisciplinary environment I experienced has helped a lot in my research career in terms of scientific collaborations and embracing diverse scientific approaches to answer questions.

## What did you particularly like about the MolTag program?

Being mentored by Harald Sitte I learned a lot, not only in the realm of my project but also as a researcher. **MolTag provided a strong support system both academically and administratively allowing me to focus on learning during my PhD.**

