



University of Stuttgart

Stuttgart Research Center Systems Biology (SRC SB)

Systems Biology Seminar Talk

„Regulatory networks involving small non coding RNAs connect stress responses, metabolism adaptation and virulence in *Staphylococcus aureus*“

Prof. Dr. Pascale Romby
University of Strasbourg



Thursday
January 30, 2020
4 p.m. – 5 p.m.

Lecture Hall 0.106
Allmandring 31
Stuttgart

Abstract:

It is now well recognized that RNAs are key intracellular effectors in fast adaptive processes. In many cases, they co-regulate the expression of functionally related genes at the post-transcriptional level. Today, more than 200 potentially regulatory RNAs have been identified so far in *S. aureus*. In order to define their direct targets and the regulatory networks in which they belong, we have recently applied the MS2-affinity purification approach coupled with RNA sequencing to several non coding RNAs in *S. aureus* (1,2). Using a combination of in vivo and in vitro approaches, numerous of the co-purified and enriched mRNAs have been validated as direct targets. Several non coding RNAs will be used to illustrate the intricate interactions between RNAs, two-component systems and transcriptional regulatory proteins and their implication in stress responses (including oxidative and NO), sugar metabolism and virulence..

CV:

- Education:

1986 Habilitation, Doctorat d'Etat ès sciences, University of Strasbourg

1983 PhD Molecular Biology, thèse 3ème cycle, IBMC, University of Strasbourg

- Scientific Career:

2016 Director of the Unit UPR 9002 CNRS

2004 Team leader « Bacterial regulatory RNAs and mRNAs », IBMC Strasbourg

- Awards:

2018 Pasteur Medal, French Academy of Sciences

2010 Langevin Prize, French Academy of Sciences

- Administrative Responsibilities:

2016 - 2020 Nominated member of the section CSS1 of INSERM

2014 - 2015 Nominated member of ATIP/AVENIR committee

2008 - 2012 Nominated member of the section 21 CNRS