Combating *A. baumannii*: CobB Modeling & Hit Discovery

Tryphose Mahoukiego Hounnou,[1] Marie Le Bourgocq,[2] Johanna Giovannini,[1] Alban Lepailleur,[1] Dimitri Fayolle,[1] Marc Since,[1] Damien Tortuel,[2] Christophe Rochais,[1] Emmanuelle Dé,[2] et Julie Hardouin[2]

[1]University of Caen Normandy, CERMN UR4258, Normandie Univ, 14000, Caen, France

[2] University of Rouen Normandy, INSA Rouen Normandy, CNRS, Polymers, Biopolymers, Surfaces Laboratory UMR6270, F-76000 Rouen, France

Bacterial resistance represents a global threat to public health, described as a **"silent pandemic"** by the World Health Organization (WHO)[1]. Among the priority resistant pathogens identified by the WHO, ***Acinetobacter baumannii*** is at the top of the "critical priority" list due to its exceptional ability to form biofilms and its resistance to carbapenems[2].

Kentache et al[3]. demonstrated the impact of **post-translational modifications** on this bacterium's antibiotic resistance. Specifically, this involves the **acetylation and deacetylation of lysine** on **BfmR** (a regulatory protein for biofilm formation) by two types of actors: **KATs** (lysine acetyltransferases) and **sirtuins**.

Our study focused on the *in-silico* search for new molecules capable of blocking the deacetylation of BfmR lysine via the inhibition of the **sirtuin CobB**, for which **nicotinamide** is the reference inhibitor.

Références bibliographiques

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3. Kentache, T.; Abdelkrim, A. B.; Jouenne, T.; Dé, E.; Hardouin, J. Global Dynamic Proteome Study of a Pellicle-Forming *Acinetobacter baumannii* Strain. *Mol. Cell. Proteom.* **2017**, *16* (1), 100–112. https://doi.org/10.1074/mcp.M116.061044.