MEMBRANES & MOLECULES

Mardi 28 mars 2017, 11h30

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Mechanism of protein secretion and membrane protein insertion through the bacterial translocon

Abstract

During my talk I will present a new mechanism for protein secretion through the core translocon - the SecYEG complex. I will also show how the ancillary factors SecDF and YidC facilitate efficient secretion and membrane protein insertion through the holo-translocon super complex.

Refs:

Allen, W. J., Corey, R. A., Oatley, P., Sessions, R. B., Baldwin, S. A., Radford, S. E., Tuma, R., and **Collinson, I.** (2016) Two-way communication between SecY and SecA suggests a Brownian ratchet mechanism for protein translocation. *eLife*. 10.7554/eLife.15598

Botte M, Zaccai NR, Nijeholt JLÀ, Martin R, Knoops K, Papai G, Zou J, Deniaud A, Karuppasamy M, Jiang Q, Roy AS, Schulten K, Schultz P, Rappsilber J, Zaccai G, Berger I, Collinson I & Schaffitzel C (2016) A central cavity within the holo-translocon suggests a mechanism for membrane protein insertion. *Sci Rep* **6:** 38399

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