

Guest lecture

Efflux pump inhibitors: a journey through our search of new Antimicrobial Resistance Breakers



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Date/time: 7 June 2019 at 11.00

Place: BMB Seminar room

Abstract: Considering the microbial promptness in achieving successful machinery escaping antibiotic activity also towards new drugs, the use of non-antibiotic adjuvant molecules targeting resistance mechanisms is a valid approach to recover drug sensitivity in resistant strains. The fascinating idea to “freeze” resistance would allow antibiotics, for which resistance occurred, to recover their activity thereby renewing our armamentarium to fight microbial infections. Efflux pumps, reducing intracellular drug concentrations to sub-inhibitory levels and permitting bacteria to grow in the presence of routinely adopted therapeutic doses, play a nonspecific role in the early stages of antibiotic exposure, thereby allowing microorganisms to develop more specific and effective mechanisms of resistance. Therefore, the use of efflux pump inhibitors (EPIs) in combination with extruded drug may be a major strategy in the development of effective antimicrobial treatments.

Host: Associate Professor Janne Kudsk Klitgaard, SDU.