

CBC SEMINAR ANNOUNCEMENT



Professor Jean-Luc DECOU
University of Grenoble Alpes, France

Medicinal Chemistry in the Search for Antibiotics with a New Mode of Action and Potentiators of CFTR Chloride Channel

Numerous bacteria have developed resistance against aminosugar-based antibiotic drugs including neomycin B. In the search for novel antibiotic drugs acting on new targets, we have developed broad-spectrum membrane-targeting antibiotic compounds, through the modification of the antibiotic drug neomycin B. The synthesized neomycin B derivatives show high potency against the bacteria resistant to the existing antibiotic drugs of different classes. Antibiotic resistant lung bacterial infections are associated with the Cystic Fibrosis (CF) disease due to mucus thickening. CF is the most common lethal and inherited disease among Caucasians. CF results from more than 2000 identified mutations in both copies of the gene coding for Cystic Fibrosis Transmembrane Conductance Regulator (CFTR) protein, which is a chloride channel. I will present the medicinal chemistry of antibacterial neomycin derivatives and heterocyclic compounds developed for the identification of new CFTR modulators.

Biography

Jean-Luc Décout received Ph.D. degrees from University of Lille (France) in chemistry and physical chemistry of polymers in 1976 and in bioorganic chemistry in 1983. He was CNRS researcher in Lille and in Grenoble. He spent one year from 1983 in Montreal at Mac Gill University. In 1998, he joined as Professor the University Grenoble Alpes at the Research Department of Molecular Pharmacochimie and was in charge of the department during ten years. His works are focused on the search for new drugs targeting nucleic acids and membranes.

Date: 22nd January 2020 (Wednesday)
Time: 11.00am to 12.30pm
Venue: SPMS Research & Graduate Studies
Conference Room
Host: Assistant Professor Chen Gang