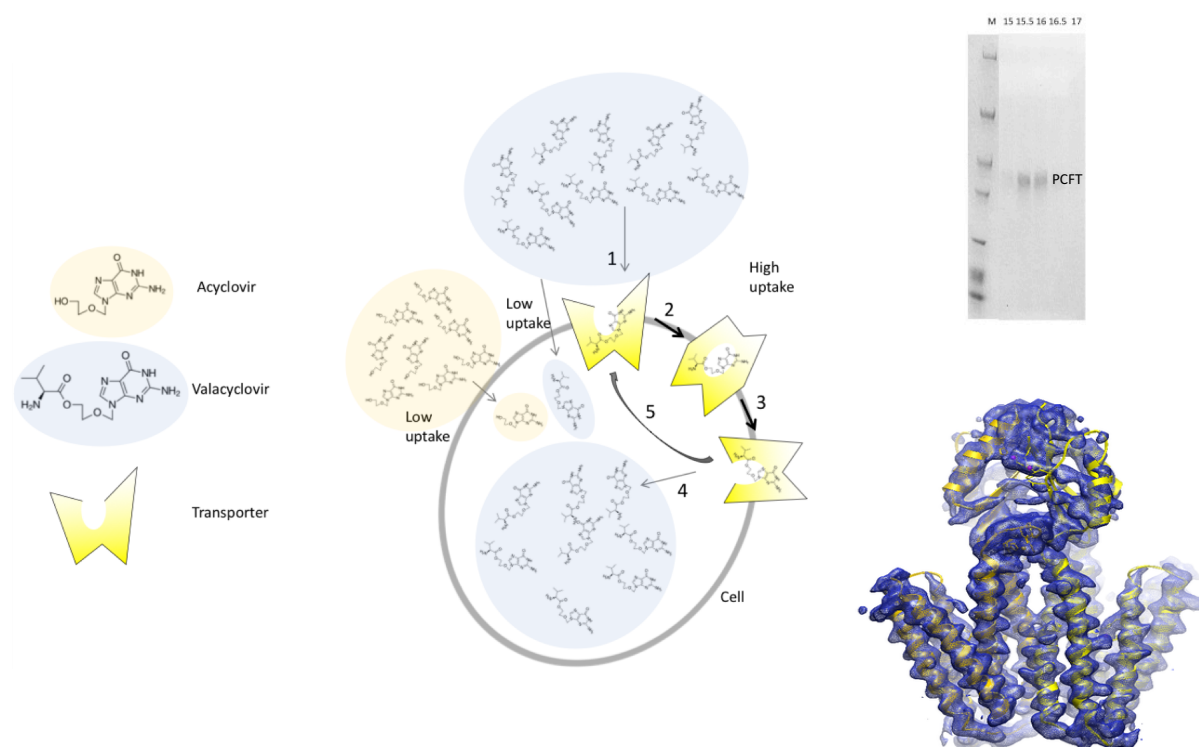


In vitro Investigations of the Cellular Transport Machinery

Osman Mirza, Department of Drug Design and Pharmacology, University of Copenhagen, om@sund.ku.dk, 35336175

Structural and biochemical studies of integral-membrane transport proteins involved in drug uptake



Interested?

We are investigating the so-called “secondary-active transporters”, in particular those located in the human small intestine. Some of these transporters facilitate uptake of drug molecules and are therefore important for increasing drug bioavailability. However, for most of these transporters, structural details of the residues vital for function and substrate binding, i.e. information that would boost the field of drug design, are not yet known. This is where we will make a change.

Our aim is to investigate these transporters by using experimental methods for structure determination combined with mutagenic and functional studies. Our MSc students have the choice of familiarizing with the fields of protein expression and purification, protein characterization and protein structure analysis and determination. All are disciplines that are embedded in the modern medicinal industry.