

More from the company: 2016-10-24

Insplorion: Research on better biofuel production in the lab

Insplorion's lab has during the last week been extra busy with Dr. Peter Sanderson from the University of Lincoln, UK, visiting with lipid vesicles to run on the Insplorion instrument.

Peter received a CBMNet Industrial-Academic Exchange Grant from a research network organization promoting academic-industrial interactions related to biological membrane research. The grant enabled Peter to travel Sweden to examine butanol interactions with lipid membranes with Insplorion's technology.

The overall objective is to better understand how butanol is toxic to the Clostridium bacteria which produce it. This toxicity is one of the limiting factors when producing bio-butanol, so if it could be reduced yields may increase of this potential biofuel. Butanol is a better alternative than ethanol for the internal combustion engine due to its higher energy intensity and requires fewer engine modifications.

The experiments conducted with the Insplorion instrument allow lipid vesicles, which mimic the Clostridium bacterial membrane, to be exposed to different concentrations of butanol. The Insplorion



Dr. Peter Sanderson running butanolmembrane interaction experiments in Insplorions lab.

NPS instrument provides real time data of the interaction as it takes place. The results provide a useful insight into the mechanisms of the interaction and may be used in a future funding application to enable the purchase of an Insplorion instrument for the University.

Questions are answered by:

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