

Challenges in commercializing biomimetic membranes - DTU Orbit (08/11/2017)

Challenges in commercializing biomimetic membranes

The discovery of selective water channel proteins—aquaporins—has prompted growing interest in using these proteins, as the building blocks for designing new types of membranes. However, as with any other new and potentially disruptive technology, barriers for successful market entry exist. One category includes customer-related barriers, which can be influenced to some extent. Another category includes market-technical-related barriers, which can be very difficult to overcome by an organization/company aiming at successfully introducing their innovation on the market—in particular if both the organization and the technology are at early stages. Often, one faces barriers from both these categories at the same time, which makes it necessary to gain insight of the particular market when introducing a new innovative product. In this review we present the basic concepts and discuss some of these barriers and challenges associated with introducing biomimetic aquaporin membranes. These include technical issues in membrane production and product testing. Then we discuss possible business models for introducing new technologies in general, followed by a presentation of beach-head market segments relevant for biomimetic aquaporin membranes.

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