

MSc-project

Title: InstaPatch – Instantaneous monitoring of allergic reactions

Description: The prevalence of allergic diseases is increasing worldwide, especially in low and middle income countries. Allergic diseases comprehend life-threatening anaphylaxis, food allergies, certain forms of asthma, rhinitis, conjunctivitis, eczema, angioedema, urticarial, eosinophilic disorders, drug and insect allergies. The World Allergy Organization estimated that 20-30% of the world population suffered from some form of allergic disease in 2003, with the greatest burden for children and young men. One tenth of the world population suffers for drug allergies and 400 million for rhinitis, 300 million people suffer from asthma and about 250 million are allergic to some kind of food.

In this project, we would like to develop a sensor that could potentially replace the skin prick test for testing of allergy. The overall aim is to establish a biosensor for detection of biomarkers in the human skin. For this purpose, the sensor has to be fabricated and characterized *in vitro* among others using human skin models.

Responsible institution: DTU Nanotech

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Allowed no of students per report: 1

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