

Annual Report 2020 - Highlights

Top events:

- > CellPAT's annual retreat took place as a full-day online event with participants from all member labs
- > 5 new PhD students were hired
- > CellPAT partner Ralf Jungmann received an ERC consolidator grant
- > CellPAT member Steffen Thiel received funding from the Independent Research Council
- > CellPAT director Jørgen Kjems received private and public funding to develop multivalent aptamers against SARS-CoV-2



Research highlights:

- > Alexandra Eklund in the Jungmann lab published a paper on the use of Peptide-PAINT to visualise cellular components through super-resolution microscopy. Using peptide-mediated recognition of the target molecule allows faster visualisation of the molecule of interest
- > Marjan Omer in the Kjems lab published a paper on multivalent targeting of cancer cells using aptamers immobilised on an RNA nanoscaffold
- > Jørgen Kjems and Fiona Watt appeared in science podcasts and radio shows talking about their research and working in science
- > The Degn lab developed a new tool to study clonal selection in the immune response based on imaging cytometry and machine learning
- > The Sutherland lab implicated a role for multivalency of cellular receptors in S.aureus adhesion to the extracellular matrix protein fibronectin



Immortalized human skin cells (HaCaT) interact specifically with 100-nanometer structures of extracellular matrix protein, fibronectin, deposited on a surface in a controlled manner.