MIT Industrial Liaison Program Faculty Knowledgebase Report

Single-Stranded DNA Production for Gene Therapeutics and Vaccines

August 5, 2020 11:00 am - 1:00 pm

11:00am - 11:30am	Introduction and DNA Origami Vaccine Delivery Mark Bathe Director, MIT New Engineering Education Transformation Member, Harvard Medical School Initiative for RNA Medicine Associate Member, Broad Institute of MIT and Harvard Professor, Department of Biological Engineering

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Director, MIT New Engineering Education Transformation
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Professor
Department of Biological Engineering

Mark Bathe is a Professor in the Department of Biological Engineering at MIT, Director of the MIT New Engineering Education Transformation, Member of the Harvard Medical School Initiative for RNA Medicine, and Associate Member of the Broad Institute of MIT & Harvard. He obtained his Doctoral Degree at MIT working in the Departments of Mechanical, Chemical, and Biological Engineering before moving to the University of Munich as an Alexander von Humboldt Fellow to carry out his postdoctoral research in Biological Physics. He returned to MIT in 2009 to join the faculty in the Department of Biological Engineering, where he runs an interdisciplinary research group focused on engineering nucleic acids for application to vaccines, therapeutics, structural biology, and computing. He is academic co-founder of Cache DNA, Inc. and Kano Therapeutics, Inc., and in his free time he enjoys running, biking, swimming, and skiing amongst other outdoor activities.

View full bio

11:30am - 11:45am	Custom Single-Stranded DNA Floris Engelhardt Postdoctoral Researcher, Department of Biological Engineering at MIT

Floris Engelhardt
Postdoctoral Researcher, Department of Biological Engineering at MIT

Dr. Engelhardt is Postdoctoral Researcher in the Department of Biological Engineering at MIT. She joined Professor Bathe's lab in February 2020 after obtaining her Doctoral Degree from the Technical University of Munich (TUM). She holds a Bachelor's degree in "Biochemistry and Molecular Biology" and Master´s degree in "Molecular Biotechnology". Throughout her PhD she worked with Professor Hendrik Dietz and focused on improving DNA origami design, developing application-specific DNA origami purification techniques, as well as biotechnological single-stranded DNA production in the range of 1 to 10kb. She is a mentor in the student project "Space Origami" and is part of the organizational team for the networking event "DNA Node Munich".

11:45am - 12:00pm	Moderated Q&A
12:00pm - 12:30pm	Discussion for ILP Members (ILP Members will receive an invitation after registration)