

SEMINAR SERIES IN BIOSTATISTICS



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Zoom

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Prediction models and artificial intelligence for improving prostate cancer diagnostics and treatment

Both prostate cancer diagnostics and treatment suffer from inefficient use of information for clinical decision making, leading to high rates of overdiagnosis and overtreatment of indolent disease at the same time as prostate cancer is the leading cause of cancer death among men. We will in our presentation discuss how we are systematically trying to develop and clinically implement prediction models and artificial intelligence (AI) systems to address these inefficiencies. We will for example discuss the development and implementation of the Stockholm3 test for prostate cancer diagnostics (Grönberg et al. Lancet Oncology, 2015), and show results from the development of an AI-system for diagnosis and grading of prostate cancer in biopsies (Ström et al. Lancet Oncology, 2020), which we have demonstrated can perform on par with internationally leading uro-pathologist. We will also discuss the link between AI and clinical trials and how clinical trials can be transformed into continuous learning systems, which we will exemplify with the ongoing ProBio trial for improving treatment for men with metastatic prostate cancer (Crippa, De Laere, Discacciati et al. Trials, 2020).

