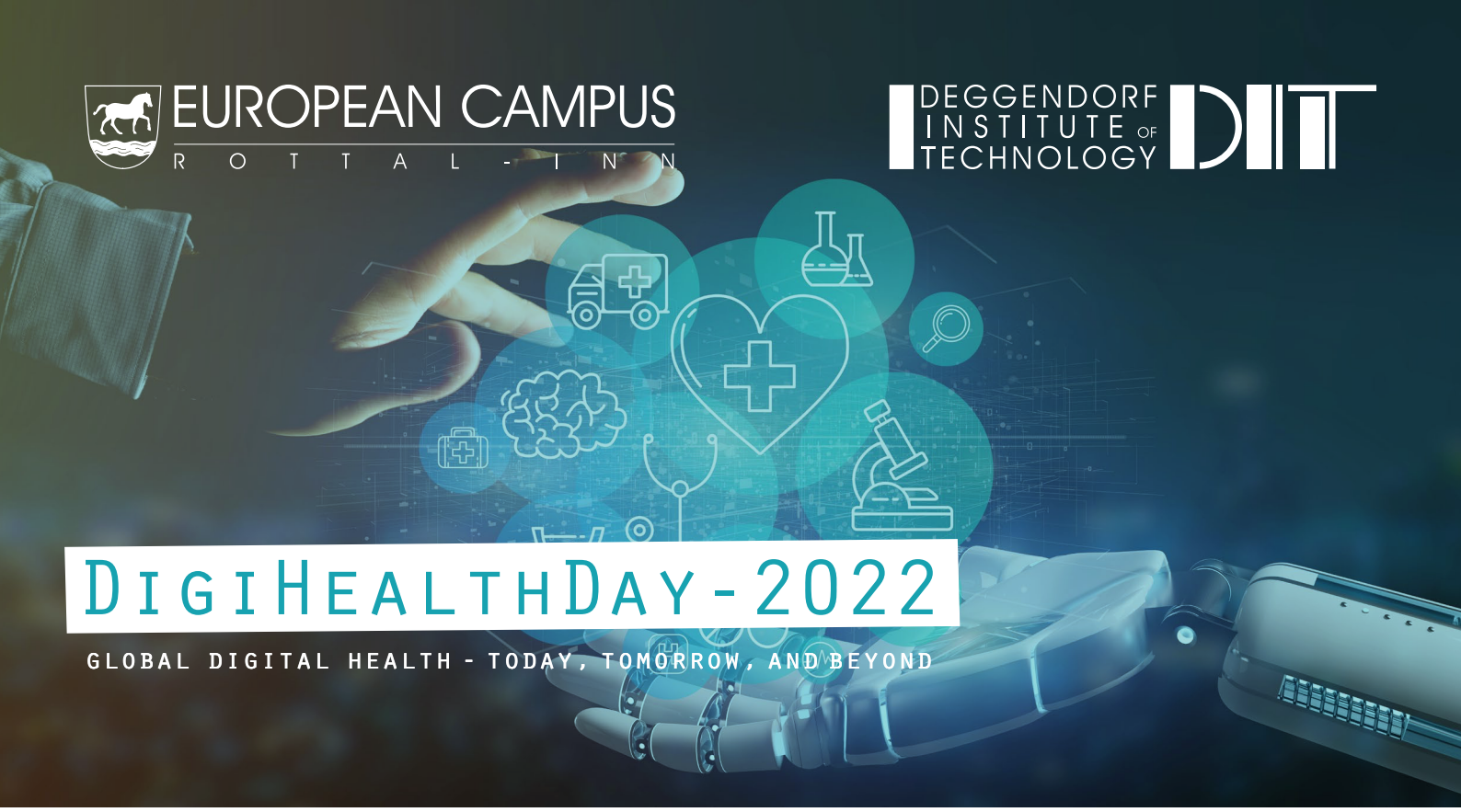

DIGIHEALTHDAY

ABSTRACT

Dmitry Etin (Austria), Michael Bouzinier (USA)

Role of Genome Informatics in today's Public health and Precision Medicine disciplines

Since discovering DNA's impact on our genetics on our health and well-being was always tempting for researchers in medical science that we can control or at least predict and impact illnesses of human beings. The journey was not smooth at all but we are seeing significant increase in trust and adoption of modern genetic tools for diagnostics and creation of new treatment.

Computational tools are one of the major disruptors in this field. Computing became cheaper, algorithms to understand biological structures of our DNA improved significantly and we have accumulated a considerable amount of evidence since the prominent Human Genome project was finalized in early 2000. And just this year we have achieved another major milestone in Genomics science by sequencing all of the human genome, using modern " short-read" techniques.

In this seminar we will talk about the genetics basics, evolution of genome informatics, the role of the computational tools in addressing modern public health and medical science challenges, including a rising demand for policies and governance of the genomic data.