

## Analyzing Complex Biomedical Data to Improve Patient Care

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Lille auditorium(208N2), 2<sup>rd</sup> floor, HiB (d. blokk)

### Abstract

High throughput sample characterization techniques like genomic sequencing have revolutionized modern patient care and led to the paradigms of *personalized* and *precision* medicine. However, comprehensive analytical approaches, the so-called *omics* fields, have also revealed the overwhelming complexity of biological systems, and require the interpretation of massive amounts of data. As a result, there is currently a major gap between what can be inferred from patient samples and what is actually used in the clinics.

This presentation will introduce key concepts in using omics techniques for precision medicine, and underline some of the challenges associated with patient data interpretation. A particular emphasis will be given to the complexity of associating the omics data with disease mechanisms, and to the importance of making the results intelligible to all. Interactive data visualization plays a crucial role in this process, yet much remains to be done before patients can fully benefit from these modern approaches.

Talents, ideas and expertise are much needed to overcome the challenges ahead. You are warmly invited to join the effort!

