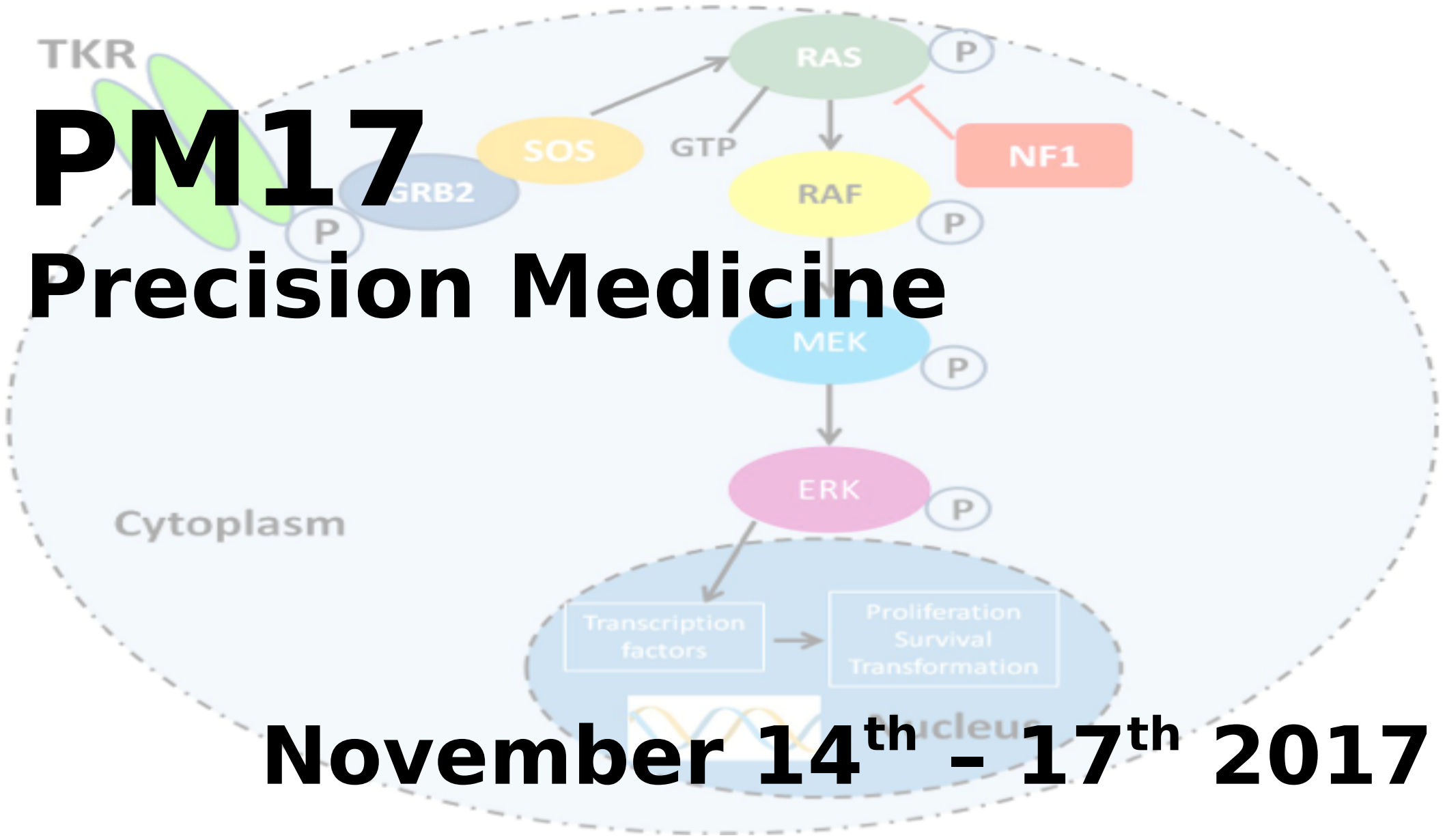
PM17
Precision Medicine



November 14th – 17th 2017

Course Description

The implementation of cancer genomics into the clinic is becoming a reality. Personalized medicine or Precision medicine as other authors refers, uses molecular data of a specific patient to guide clinical decisions such as prevention, diagnosis and treatment. This will revolutionize healthcare and will play a dominant role in the future of cancer therapy. Bioinformatics analyses are essential to identify patients who will benefit from treatment based on their molecular profile, and to tailor chemotherapeutic regimens accordingly.

The aim of the course is to present a complete computational pipeline for the analysis and interpretation of Next-Generation Sequencing (NGS) data such as exome sequencing or targeted panels that are commonly used in the clinic.

We will address the implementation of large-scale genomic sequencing in clinical practice and the recently developed computational strategies for the analysis of NGS data with a particular emphasis on the interpretation of the results, selection of biomarkers of drug response and afford opportunities to match therapies with the characteristics of the individual patient's tumour.
Exercises and case studies focused on cancer will be used to illustrate the principles of how genetics influence led to refining diagnoses and personalized treatment of cancer disease.

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