



University of Stuttgart

Stuttgart Research Center Systems Biology (SRC SB)

Systems Biology Seminar Talk

**„Application of genomic
medicine in routine
healthcare “**

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Abstract:

Genomic medicine is an emerging discipline that involves using genomic information about an individual as part of their clinical care. In the past few years, we have implemented genomic medicine in routine healthcare to more than 10 000 patients. Besides quick genotyping assays, we have also devised a workflow for filtering and reporting of relevant genetic information to asymptomatic patients based on exome or genome data. In parallel, we have also studied the features, effects and clinical outcomes of genetically aberrated chromatin factors in more than 40 000 publicly available cancer datasets. We observed that genetic aberrations in chromatin factors are pervasive, mutually exclusive, associated with a high mutational burden and improved response to checkpoint immunotherapy. Our experience demonstrates that the implementation of genomic profiling should be encouraged into routine healthcare. In addition, data mining of readily available biological datasets can lead to novel insights of clinical significance.

CV:

Dr. Goran Kungulovski carried out his doctoral and post-doctoral studies at the University of Stuttgart, under the mentorship of Prof. Albert Jeltsch, working on the development of novel tools for chromatin mapping, as well as epigenome editing with zinc finger proteins and CRISPR/Cas9. He is currently the chief technology officer of Bio Engineering LLC, and the co-founder and principal investigator of the Laboratory of Genetics and Personalized Medicine at the Zan Mitrev Clinic in Skopje. He is also the co-founder of Nuclein LLC, and works as an advisor to healthcare, biotechnology, and medical software companies.

**Thursday
March 19, 2020
4 p.m. – 5 p.m.**

**Lecture Hall 0.106
Allmandring 31
Stuttgart**