
Preface

The content of this book were triggered by the 2nd International Meeting on “Molecular based treatment of GI cancers”, which was held in Göttingen, Germany, on March 1–2, 2013. The meeting was focused on exploring how genomic technologies, including gene expression profiling, the detection of genomic imbalances, and next-generation sequencing can be harnessed to identify molecular portraits of cancer with the goal to improve the treatment of patients, a goal that can also be summarized with the terms “personalized medicine” or “precision medicine”. Ultimately, this will improve treatment outcome and quality of life. The meeting was organized by Drs. Michael Ghadimi, Clemens Hess, Matthias Dobbelsstein (Göttingen), Josef Rüschoff (Kassel), and Thomas Ried (Bethesda, MD). The speakers included numerous internationally recognized leaders in their respective fields, who covered aspects of the role of the tumor microenvironment, microRNAs, the role of epigenetic modifications, and chromosomal instability and intratumor heterogeneity on treatment response. A round table discussion on how to best implement genomic information in clinical decision making completed the meeting. The meeting agenda can be retrieved at <http://www.kfo179.de/en/kongress.html>.

In the book issue presented here we invited articles that cover the role of DNA repair and chromosomal translocations, the use of mouse and yeast models to understand chromosomal instability and tumor progression, the role of telomere integrity and chromosome segregation errors for the emergence of specific genomic copy number alterations in solid tumors, the influence of the newly identified phenomenon of chromothripsis, and how aneuploidy influences the transcriptional equilibrium of cells. The meeting was dedicated to Prof. Heinz Becker, who, for many years lead the Department of Surgery at the University of Göttingen. Heinz Becker was one of the leaders of the German Rectal Cancer Study group, which established that neoadjuvant therapy of patients with rectal cancer reduces the risk of tumor recurrence compared to postoperative treatment. He was very supportive

of the research activities at the Department, which culminated in the establishment of a Clinical Research Unit supported by the Deutsche Forschungsgemeinschaft (<http://www.kfo179.de/en/home.html>).

We lost our friend and colleague Heinz Becker in 2014 and dedicate this issue to him.

Göttingen
Bethesda

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