editorial

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Innovative strategies in gastrointestinal cancer

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Dear reader,

A series of clinical trials have addressed the impact and the efficacy of precision medicine (PM) in patients with gastrointestinal (GI) cancer. PM defines the molecular or immunohistochemical detection of a druggable target in malignant tissue and the subsequent application of a certain pharmacologic compound which—based upon its mode of action—could be expected to modify the course of the underlying disorder by interfering with a decisive signal the cell uses for sustained growth, proliferation and spread. Beside drugs which directly interfere with the tumor cell biology, interference with the tumor microenvironment and immunological response are the focus of recent treatment concepts.

As tumor biology varies widely and impressive heterogeneity resulting in a treatment-induced Darwinian clone selection has been widely accepted, the proof of an efficacy of particularly molecularly targeted treatment very much depends on the trial design, patient selection, disease stage, pretreatment and, finally, the choice of the particular pathway to be studied. While certain tumor types such as cholangiocarinoma harbor a variety of potential druggable targets such as IDH-1, BRAF, FGFR-fusions and others, other tumor types such as pancreatic cancer faces challenges to target the pathognomonic RAS mutation.

This special issue of *MEMO* on "Innovative strategies in gastrointestinal cancer" is a comprehensive update of the leading edge of treatment approaches in gastrointestinal oncology.

Ercan Müldür and Wolfgang Hilbe present and discuss five emerging studies which have changed standard of care in esophageal cancer [1]. The manuscript of Aysegül Ilhan-Mutlu and Hannah C. Puhr gives a concise overview of new therapeutic options in gastric cancer and recently approved strategies as well as ongoing studies [2]. Monika Lenzi and Thomas Winder discuss the relevance of immunotherapy in GI malignancies and provide a perspective on promising upcoming treatment strategies [3]. Johannes Schöche and Dora Niedersüß-Beke write about colorectal cancer treatments like KRAS G12C inhibitors combined with anti-EGFR antibodies which are currently under investigation in clinical trials [4]. The manuscript of Konstantin Schlick discusses treatments of pancreatic cancer like neo-adjuvant chemotherapy which is not endorsed in clinical guidelines, due to the lack of randomised phase III trials. He points out that further research is needed to establish predictive biomarkers, measures of therapeutic response, and multidisciplinary strategies to improve patient-centered outcomes [5]. Iveta Urban et al. who write about hepatocuellar carcinoma are sure that early diagnosis and definitive treatment remain key to long-term outcome and surgery continues to be the core treatment for patients with resectable disease and normal liver function [6]. Finally, Metwally et al. present an interesting report on colorectal cancer metastases to the thyroid gland [7].

Conflict of interest G. Prager participated in Advisory Roles/Symposiums from: Merck Serono, BMS, Roche, Amgen, Sanofi, Lilly, Servier, Taiho, Bayer, Halozyme, MSD, Celgene, Pierre Fabre, Incyte.

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