Nanomedicine – the application of nanotechnology to human health – is a promising field of research at the interface of physical, chemical, biological, and medical science. Recent advances have made it possible to analyze biological systems at cellular and subcellular levels, offering numerous promising approaches to improve medical diagnosis and therapy. It is expected that nanomedicine will have a great impact especially on drug delivery and imaging. In this context, the development of targeted, highly specific nanoparticles is of pivotal importance. The results of these advances will offer personalized diagnostic tools and treatments in the future.

Based on the 2nd Else Kröner-Fresenius-Symposium, this book presents a broad spectrum of topics ranging from nanoscale drug delivery/drug design to nanotoxicity and from diagnostics and imaging to therapeutic applications including antibody therapies. The contributions are authored by leading experts in the field and provide an excellent overview of the current knowledge in nanomedicine. Due to the interdisciplinary nature of the subject area this volume will be of special interest to physicians, biologists, chemists, engineers, and physicists as well as to students in the respective fields.

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Nanomedicine – Basic and Clinical Applications in Diagnostics and Therapy

Editor Christoph Alexiou

A meeting report of the 2nd international Else Kröner-Fresenius Symposium on Nanomedicine

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The highest rates of gastric cancer are observed in eastern Asia, South America and eastern Europe. More than half of all cases worldwide occur in eastern Asia. Distinguished experts in Asia have reviewed current topics and future perspectives for gastric cancer treatment in molecular pathology, tissue engineering, surgery and chemotherapy. Advances in diagnosis and treatment offer excellent long-term survival rates in the case of early cancer diagnosis, but the prognosis of advanced cancer still remains poor. A detailed understanding of molecular pathogenesis and the individual characteristics of gastric cancer and the development of new medical technologies and therapeutic agents help to provide personalized cancer care for patients of early and advanced cancer. For ongoing success, interactions and developments between bench and bedside as well as clinics and bench are crucial.

This special issue is recommended for researchers, pathologists, surgeons, physicians and oncologists in the field of gastroenterology, who are interested in the current topics and future perspectives of molecular pathology, tissue engineering, surgery and chemotherapy of gastric cancer.

### Future Perspectives of Gastric Cancer Treatment – From Bench to Bedside

Editors

Wataru Yasui
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Each issue of this journal is dedicated to a special topic of current interest, covering both clinical and basic science topics in gastrointestinal function and disorders. The contents of each issue are comprehensive and reflect the state of the art, featuring editorials, reviews, mini reviews and original papers. These individual contributions encompass a variety of disciplines including all fields of gastroenterology. Digestive Diseases bridges the communication gap between advances made in the academic setting and their application in patient care. The journal is a valuable service for clinicians, specialists and physicians-in-training.
Molecular Medicine in Gastrointestinal Oncology

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