The Kuwait International Pharmacy Conference (KIPC) is a biennial interdisciplinary conference of the Faculty of Pharmacy, Health Sciences Centre, Kuwait University, Kuwait. The theme of the 5th KIPC was ‘advances in cancer therapeutics: from bench to bedside’. Its main aim was to provide a medium for the exchange of up-to-date knowledge among health care professionals (pharmacists, physicians, medical and pharmaceutical scientists, academics and students) in the following major areas: drug delivery in cancer, drug resistance in cancer, novel approaches to cancer therapeutics, pharmaceutical care of cancer patients and public awareness in cancer.

Cancer continues to be one of the major noncommunicable diseases posing a significant threat to world health, including in Kuwait. According to the WHO, approximately 14 million new cases and 8.2 million cancer-related deaths occurred in 2012. The keynote address was an overview of the progress on novel therapeutic options in cancer treatment, followed by a series of plenary lectures which focused on specific themes, including novel approaches to cancer therapeutics and the pharmaceutical care of cancer patients. Drug resistance in cancer, drug delivery in cancer and novel developments in the pharmaceutical care of cancer patients were fully discussed.

Professional workshops on the pharmaceutical care of cancer patients with regards to the automation of chemotherapeutic agents, patient counseling and immuno-oncology as a new paradigm in cancer management were held. A session was devoted to drug resistance in breast cancer, novel approaches to cancer therapeutics and the pharmaceutical care of cancer patients. A session on public awareness in cancer, which attracted the general public and people from all walks of life was the concluding event of the conference.

This supplement to Medical Principles and Practice features seven review articles to showcase some of the topics discussed at the conference. Prof. Sakar discusses the role of highly complex signaling networks (resistome) in therapy resistance and heterogeneous gastrointestinal cancers with an emphasis on the design of novel holistic therapeutic approaches. He reviews various challenges in understanding the gastrointestinal resistome in pancreatic and colon cancers and the utilization of computational biology in designing potentially effective therapy in overcoming resistance. Prof. Sakar also discusses the scientific basis for the usefulness of a combination of enzalutamide with BioResponse 3,3′-diindolylmethane (BR-DIM) in treating castrate-resistant prostate cancer.

Endocrine resistance and metastasis in breast cancer continue to play major roles in morbidity and mortality worldwide, placing breast cancer among the five most common causes of cancer death. Dr. Khajah discusses the effect of extracellular alkaline pH in resistant breast cancer blebbing and the significance of this phenomenon in enhancing invasive capacity and metastasis. He further discloses that the inhibition of cellular blebs could serve as a potential therapeutic target in controlling tumor metastasis. The use of aromatase inhibitors and selective...
estrogen receptor modulators (SERMs) as therapeutic strategies in breast cancer patients has an approximately 50% success rate in women with advanced metastatic disease despite adequate levels of estrogen receptors. Prof. Luqmani discusses the implications of multiple mechanisms that could lead to therapeutic failure, including loss or modification in estrogen receptor expression, antagonistic action of SERMs and small noncoding microRNAs as critical gene regulators exhibiting differential expression in tamoxifen sensitive versus resistant cell lines, among others. He further suggests that targeting these could serve as effective therapeutic options in managing resistant breast cancer.

Dr. Zujewski critically evaluates the changing paradigms in breast cancer therapeutics over a 15-year period (2000–2015). She highlights that in general breast cancer has increased in incidence over the past several decades, but a decreased mortality has been noted in regions of the world with access to effective cancer health care provisions. She further discusses the significance of genetic profiles on health and disease. The development of new drugs against HER-2-positive breast cancer is also disclosed. She concludes that the challenges of 2015 and beyond are precision medicine, prevention and early treatment strategies, tailored to individual variability, tumor characteristics and patient preferences.

Natural products continue to serve as rich sources for the discovery of novel cancer chemotherapeutic agents. Prof. Pezzuto discusses several structurally diverse and unique agents with novel mechanisms of action as potential cancer chemotherapeutic and chemoprotective agents. He concludes that natural product research is a powerful approach for the discovery of biologically active compounds, which could serve as chemical leads that may interact with most pharmacotherapy targets. Finally, Dr. Abdelbary discusses issues surrounding the utilization of liposomal formulations as a means of pulmonary drug delivery by inhalation and their anticancer applications.

This 3-day event provided a forum for the exchange and dissemination of scientific information that will stimulate and challenge those involved in health care in their future practices and research activities. The successful organization of the 5th KIPC conference could not have been achieved without the valuable financial support from our sponsors: Kuwait University, Kuwait Foundation for the Advancement of Sciences (KAFAS), Advanced Technology Company (K.S.C.), Kuwait Saudi Pharmaceutical Industries Company, Kuwait Pharmacists Association, Bristol-Myers Squibb, Roche and Hamad Saleh Al-Homaizi Gransons Pharma Company. Finally, the support of Prof. Pierre Moreau, Dean of the Faculty of Pharmacy, Kuwait University, and the relentless efforts and contributions of the organizing and scientific committee members are highly appreciated.

Prof. Oludotun Adebayo Phillips
(5th KIPC 2015, Chair, Scientific Committee)
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Guest Editors

Disclosure Statement

The authors declare that no conflicts of interest exist.