CAMPTOTHECINS IN CANCER THERAPY
CANCER DRUG DISCOVERY AND DEVELOPMENT

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CAMPTOTHECINS IN CANCER THERAPY

Edited by

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and

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DEDICATION

I do not feel obliged to believe that the same God who has endowed us with sense, reason, and intellect has intended us to forgo their use.

Galileo Galilei

This book is lovingly dedicated to Dr. Thomas G. Burke, whose commitment to cancer research was exceeded only by his devotion to our marriage and our two young sons, Dylan and Aidan. In honor of his creative spirit and genuine enthusiasm for scientific inquiry, may this collection of articles serve both as a resource and as inspiration to researchers and clinicians alike.

Lori Latus
Clinical interest in the camptothecins continues to expand despite the fact that this class of agents has been studied for almost 50 years and two early generation members of the family have gained FDA approval. To date, the intensive research efforts carried have clearly validated the utility of this class of topoisomerase I inhibitor in the management of human cancer. The studies have also provided considerable insight into the shortcomings of the approved camptothecins and potential ways of improving upon the clinical performance of the family as a whole.

In the first part of Camptothecins in Cancer Therapy an up-to-date summary of what is known about the biochemistry, pharmacology, and chemistry of the camptothecins is presented. This section includes a discussion of the mechanism of topoisomerase I as well as a review of the means by which camptothecins poison this enzyme. The use of animal models in defining the anticancer potential of camptothecins and a discussion of camptothecin resistance is included. Chapters are also devoted to a review of new analog development, as well as drug delivery issues that are aimed at optimizing the anticancer activities of the camptothecins. In the third part of Camptothecins in Cancer Therapy, summaries are provided on each of the members of the camptothecin families that have been studied in the clinic. In addition, discussion of the potential use of camptothecins in a variety of different cancers has been included.

Camptothecins in Cancer Therapy aims to provide a thorough and up-to-date summary as well as define the central issues that will be the key focus areas in camptothecin research during the next 10 years.

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Thomas G. Burke, PhD
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