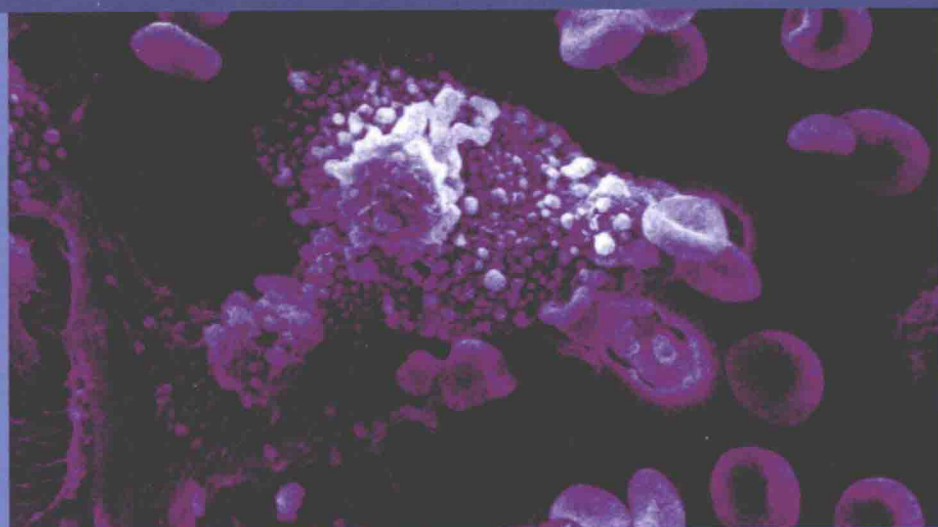


# Cancer Cell Signaling

Targeting Signaling Pathways Toward  
Therapeutic Approaches to Cancer



Kasirajan Ayyanathan, PhD  
Editor



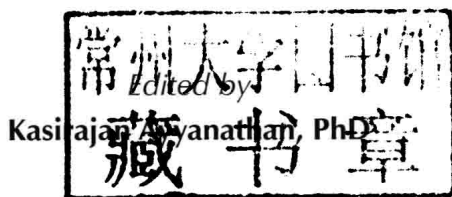
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# **CANCER CELL SIGNALING**

TARGETING SIGNALING  
PATHWAYS TOWARD  
THERAPEUTIC APPROACHES  
TO CANCER



# ABOUT THE EDITOR

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## **KASIRAJAN AYYANATHAN, PhD**

Kasirajan Ayyanathan received his PhD degree from the Department of Biochemistry, Indian Institute of Science, one of the premier research institutions in India. Subsequently, at Temple University School of Medicine, USA, he conducted post-doctoral research on the signal transduction by purinergic receptors, a class of G-Protein Coupled Receptors (GPCR), in erythroleukemia cancer cells. Next, he was trained as a staff scientist at the Wistar Institute, USA, for almost ten years and studied transcription regulation, chromatin, and epigenetic regulatory mechanisms in cancer before becoming an Associate Professor at Florida Atlantic University (FAU). He is a Research Associate Professor at the Center for Molecular Biology and Biotechnology. Presently, he is a visiting scholar at the Wistar Institute. He is the recipient of the Chern memorial award and the Howard Temin career research award.

Dr. Ayyanathan is well trained in molecular biology, cell biology, biochemistry with main focus on studying transcription factors and gene regulation. He has contributed to several projects such as: generation of conditional transcriptional repressors that are directed against the endogenous oncogenes to inhibit malignant growth, establishment of stable cell lines that express chromatin integrated transcriptional repressors and reporter genes in order to study the epigenetic mechanisms of KRAB repression, and identification of novel SNAG repression domain interacting proteins in order to understand their roles in transcriptional repression and oncogenesis. Dr. Ayyanathan has published several research articles in peer-reviewed articles in these subject areas.



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The editor and publisher thank each of the authors who contributed to this book, whether by granting their permission individually or by releasing their research as open source articles or under a license that permits free use, provided that attribution is made. The chapters in this book were previously published in various places in various formats. To cite the work contained in this book and to view the individual permissions, please refer to the citation at the beginning of each chapter. Each chapter was read individually and carefully selected by the editor. The result is a book that provides a nuanced study of the topic of cancer cell signaling.





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