Description:
Understanding the molecular mechanisms of cancer is the key for transforming cancer medicine. A substantial proportion of human genes show alternative splicing and mis-regulation of Pre-mRNA splicing is seen in several cancers.

This book further investigates these matters. The first few chapters provide an update on the role of genomics in understanding alternative splicing, and targets in cancer pathogenesis. Advances and prospects in applications of nanotechnology for cancer prevention, detection and treatment are a promising field of research. The subsequent chapters provide insights on how nanotechnology-based therapeutics are moving towards revolutionizing cancer and infectious disease treatment by minimizing toxicity and facilitating targeted delivery of drugs.

Technical topics discussed in the book include:

- Alternative splicing and cancer
- Cancer imaging
- Nanomaterials in infectious diseases
- Nanomedicine in oxidative stress and cancer
- Nanoparticle based drug delivery systems

Keywords: Cancer, alternative splicing, non-coding RNAs, PPAR gamma, cancer imaging, nanomedicine, nanoparticles, nanomaterials, drug delivery