There is no impossibility that cannot be overcome.
—From Fateless by Imre Kertesz, Nobel Laureate in Literature, 2002

The development of simple, reliable tools for modifying gene expression “on demand” has stoked the fires of the revolutionary advances being made, on almost a daily basis, in cell and molecular biology. Similar advances are being made in understanding the molecular pathogenesis of many diseases that effect humankind. Not surprisingly, the wish to exploit these advances for the treatment of disease has grown in parallel.

My interest in molecular medicines led me into the field of nucleic acid therapeutics some 15 years ago. Like any developing science, it has had its highs and lows but overall, the movement has been inexorably in a positive direction. In order to spur such progress on, I applied to the Leukemia and Lymphoma Society of America for funds to sponsor a small, and highly focused workshop on basic aspects related to the development of RNA-targeted therapeutics. Monies to supplement the meeting were provided by the Doris Duke Charitable Foundation and the Cancer Center at the University of Pennsylvania. This volume, Nucleic Acid Therapeutics in Cancer, largely results from that meeting, which was held in April of 2000 in Bryn Mawr, Pennsylvania.

This volume is small, as was the meeting, but all of the important issues, at least as I view them, are covered in a succinct and highly readable form. These include chapters on RNA biology and the underpinnings of what we now know as RNA interference, oligodeoxynucleotide delivery into cells, strategies for targeting these molecules to accessible regions with the mRNA, and some examples of how these compounds are being used clinically. As such, the collected works should be of use to those who would like an introduction to this field, and present state of the art.

It is my sincere belief that development of effectively targeted, and efficiently delivered, nucleic acid molecules will lead to important advances in the diagnosis and treatment of human malignancies. As was true for the field of monoclonal antibody-based therapies, where hype was followed by disappointment and then finally genuine triumph of the concept, I believe that breakthroughs in the area of nucleic acid-mediated gene silencing will shortly be forthcoming and will more than justify the time and resources expended in developing the therapeutic use of these molecules.

Alan M. Gewirtz, MD
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