

NOTE FROM THE DIRECTOR

Research is a journey. Every time a basic scientist embarks on a new project or a clinical investigator launches a clinical trial, they set their eyes on an ambitious goal. They venture into the unexplored using expertise and ingenuity to guide them toward their destination, which is often far beyond the horizon of what we know today.

As Nobel Prize-winning physicist Niels Bohr supposedly said, "Prediction is very difficult, especially about the future." Yet, several areas of research that promise new understanding and treatments of cancer are coming into view. Some are fueled by quantum leaps in technology, others by groundbreaking novel conceptual insights into the biology of cancer. All are opportunities for progress against cancer.

In this collection, we highlight several areas of investigation likely to shape future research conducted in CCR. They range from our continued efforts to understand basic mechanisms of cancer to revolutionary new clinical trial designs; from exploration of natural products and RNA for drug discovery to the use of big data to guide cancer prevention, diagnosis and treatment; from the use of cells as drugs to lessons we can learn about common tumors by studying rare cancers; and from the still mysterious questions of what determines the susceptibility of an individual to cancer to the roles of cellular metabolism and microbes in cancer.

The journey to new knowledge and new treatments is often arduous, interrupted by unexpected obstacles and diversions. In CCR and at the NIH Clinical Center, we are ideally positioned to pursue long-term, high-risk projects that explore new directions of research and patient care. What drives us forward is our belief that beyond the distant horizon lie new fundamental discoveries, clinical applications and unexpected new lands of knowledge and opportunity. As we push the boundaries of cancer research, we keep our eyes on the horizon and move forward—relentlessly, creatively, boldly—with the sole purpose of improving the lives of people with cancer.

Tom Misteli

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