

# Introduction to MTP

---

## Background

Recent advances and insights into the molecular pathogenesis of cancer provide unprecedented opportunities for discovery and development of novel, molecularly targeted diagnostic, therapeutic and preventative strategies and agents. The pivotal challenge to discovery and development of molecularly targeted prevention and therapeutics remains the definitive *validation* of human cancer-pertinent molecular targets for intervention. Such validation ultimately requires human clinical trials of specific molecularly targeted agents, and the demonstration that the desired clinical outcome is unequivocally the result of the corresponding molecular intervention. The critical foundation for the lead-discovery and preclinical research phase of molecular target validation is the basic research elucidating potential cancer-pertinent molecular targets. Within the NCI [Center for Cancer Research](#) (CCR), there are unique and extraordinary opportunities to advance molecularly targeted therapeutics and prevention of cancer, AIDS and other diseases. Rapid and efficient translation of basic scientific advances into new tools, reagents, and molecularly targeted leads for preclinical and clinical research and development based on scientific rationales and state-of-the-art technologies, optimally requires an interdisciplinary, collaborative, team-oriented approach.

## What is it?

The Molecular Targets Program (MTP) is an organization within the [Center for Cancer Research](#) (CCR) at NCI. The MTP provides the focus and infrastructure to enable CCR tenured and tenure-track Principal Investigators to initiate and pursue interdisciplinary, applied, collaborative, molecularly targeted drug discovery research within a matrix organizational format that is both supportive of and complementary to the traditional NCI/NIH intramural Lab/Branch organization. The MTP [mission statement](#) further defines the new organizational model. The initial goal of the MTP is to facilitate the discovery of compounds that may serve as bioprobes for functional genomics, proteomics and molecular target validation research, as well as leads or candidates for drug development. Compounds of interest include not only classical, "drug-like" organic small-molecules, but also peptides, proteins, nucleic acids, lipids, carbohydrates and other bioactive chemical classes. Future implementation phases of the MTP concept may support preclinical and clinical development of promising new molecularly targeted investigational drugs.