Molecular Libraries Program (MLP) – The MLP is an integrated set of initiatives, the goal of which is to provide academic researchers high throughput screening (HTS) and chemistry resources to find and develop small molecules that can serve as chemical probes for research. The initiative consists of three main components: a large, shared collection of small molecules, a network of screening and chemistry centers, and a public database of all assay results. Launched in FY2004; FY2010 - $113,252,000

Technology Centers for Networks and Pathways (TCNPs) – The TCNPs develop technologies to measure the dynamics of protein interactions, modifications, translocation, expression, and activity, with temporal, spatial, and quantitative resolution. Launched in FY 2004; FY2010 - $10,940,000

Structural Biology of Membrane Proteins - The Structural Biology of Membrane Proteins Roadmap Program is developing novel approaches for the production and stabilization of membrane proteins so that their structures may be determined at high resolution. Launched in FY2004; FY2010 - $8,038,000

National Centers for Biomedical Computing (NCBCs) – The NCBCs develop computational tools that are intended to catalyze research in basic and clinical science. The centers create innovative software programs and other tools that arm the biomedical community with the methods needed to integrate, analyze, model, simulate, and share data relevant to human health and disease. Launched in FY2004; FY2010 - $25,597,000

High Risk/High Reward Research (HRHR) Program – The HRHR Program is intended to support scientists of exceptional creativity who propose highly innovative approaches to major contemporary challenges in biomedical research. By bringing their unique perspectives and abilities to bear on key research questions, these visionary scientists may develop seminal theories or technologies that will propel fields forward and speed the translation of research into improved health. Launched in FY2004; FY2010 – $170,464,000

Interdisciplinary Research (IR) - The broad goal for the IR program is to change academic research culture such that interdisciplinary approaches are facilitated. This Program includes initiatives to dissolve academic department boundaries within academic institutions and increase cooperation between institutions, train scientists to cultivate interdisciplinary efforts, and build bridges between the biological sciences and the behavioral and social sciences. Collectively, these efforts are intended to change academic research culture so that interdisciplinary approaches and team science are a normal mode of conducting research, and scientists who pursue these approaches are adequately recognized and rewarded. Launched in FY2004; FY2010 - $45,121,000

Re-Engineering the Clinical Research Enterprise – This Program consists of three distinct initiatives, each of which is intended to address pressing needs for Clinical Research. The Clinical and Translational Science Awards, which are managed and co-funded by the National Center for Research Resources, provide infrastructure for clinical and translational research, informatics, and training at academic institutions. The Clinical Research Training Program supports fellows at the NIH Campus in mentored clinical or translational research. The Patient Reported Outcomes Measurement Information System is developing and validating quantifiable measures of patient reported outcomes in a variety of conditions as a way of monitoring intervention efficacy. Launched in FY2004; FY2010 - $40,070,000

Nanomedicine - The goal of the Nanomedicine program is to determine how cellular machines operate at the nanoscale level and then use these design principles to develop and engineer new technologies and devices for repairing tissue or preventing and curing disease. Launched in FY2005; FY2010 - $20,000,000

Human Microbiome Project - The Human Microbiome Program, by analyzing microbial populations at multiple body sites in normal, healthy individuals, is building the foundation for an advanced understanding of the degree of microbial diversity that may exist between individuals and whether changes in our "microbiomes" correlate with disease. Launched in FY2007; FY2010 - $37,304,000

Epigenomics – The Epigenomics Program is intended to provide genome-wide maps of several epigenetic marks in a variety of cell types so that epigenomic changes may be correlated with diseases, conditions, and aging. The Epigenomics Program also provides support for discovery and technology development to advance the field of epigenomic analysis. Launched in FY2007; FY2010 - $25,847,000

Genotype-Tissue Expression Resources (GTEx) - The Genotype-Tissue Expression (GTEx) project aims to provide to the scientific community a resource with which to study human gene expression and regulation and its relationship to genetic variation. This project will collect and analyze multiple human tissues from donors who are also densely genotyped to assess genetic variation within their genomes. By analyzing global RNA expression within individual tissues and treating the expression levels of genes as quantitative traits, variations in gene expression that are highly correlated with genetic variation can be identified as expression quantitative trait loci, or eQTLs. To be launched in FY2010 - $22,329,000

Library of Integrated Networks of Cellular Signatures (LINCS) – The LINCS program aims to develop a "library" of molecular signatures based on gene expression and other cellular changes that describe the response that different types of cells elicit when exposed to various perturbing agents, including siRNAs and small bioactive molecules. High-throughput screening approaches will be used to interrogate the cells and mathematical approaches will be used to describe the molecular changes and patterns of response. The data will be collected in a standardized, integrated, and coordinated manner to promote consistency and comparison across different cell types. To be launched in FY2010 - $3,000,000

Knock-out Mouse Phenotyping Program – Recognizing the value and utility of a readily accessible, genome-wide collection of knockouts as the lynchpin to determine how mammalian genes function, several international programs were launched in 2006 to develop mutant mouse strains. Collectively, these programs have created almost 8,000 prototype knockout mice, and they are on track to complete the resource by the end of 2011. The new Common Fund program will build upon this resource by expanding the efforts to characterize the mutant strains. Planning activities will be held in fiscal year 2010 to shape the program, which is scheduled to begin funding in fiscal year 2011. FY2010 - $500,000

Science of Behavior Change - The Common Fund is launching the Science of Behavior Change program to improve our understanding of human behavior change across a broad range of health-related behaviors. This will be accomplished by supporting basic research to improve our understanding of human motivation and the maintenance of behavior change across multiple diseases and conditions, and then using this knowledge to develop more effective and economical behavioral interventions. To be launched in FY2010 - $4,060,000

Global Health - The NIH Common Fund Global Health Program is partnering with other NIH Institutes, Centers, and Offices as well as other federal agencies to support the Medical Education Partnership Initiative (MEPI). The goal of MEPI is to develop and strengthen models of medical education and build research and clinical capacity in countries of Sub-Saharan Africa that are part of the U.S. President's Emergency Plan for AIDS relief (PEPFAR). Additional planning activities will be ongoing during FY2010 to extend the Common Fund Global Health Program. To be launched in FY2010: $3,750,000

Protein Capture – This program is intended to develop a renewable resource of protein capture reagents specifically designed to meet research and clinical demands ranging from protein isolation and high-throughput assays to diagnostics and biomarker development. To have the maximum benefit, such reagents would need to include high quality, affordable, reliable monoclonal antibodies as well as other reagents that can collectively target the range of possible proteins within cells and tissues. This program will provide support for the development of new technologies and for the provision of monoclonal antibodies. To be launched in FY2010: $1,500,000

Regulatory Science - The NIH and the U. S. Food and Drug Administration (FDA) have formed an interagency partnership to foster regulatory science, a specialized and inter-disciplinary area of biomedical research that serves to generate new knowledge and tools for assessing experimental therapies, preventives, and diagnostics. A key goal of this new Regulatory Science program is to accelerate the development and use of new tools, standards, and approaches to develop products efficiently and to evaluate product safety, efficacy, and quality more effectively. To be launched in FY2010: $2,000,000

NIH iPS Cell Center - The NIH Intramural Research Program (IRP) is well-positioned to drive stem cell science towards clinical applications. With support from the NIH Common Fund beginning in FY2010, the IRP will create a world-class iPS Cell Center to establish a national resource for stem cell science. The program will: 1) establish an iPS Cell Center including a core facility that will be a resource for the entire scientific community, providing reagents and technologies through collaborative projects, with both intramural and extramural partners; 2) establish a lab for the Director of the iPS Cell Center within the NIH IRP; and 3) provide seed money to intramural investigators to launch clinically-driven iPS cell projects which would then feed into the collaborative projects funded through the core activities of the Center. To be launched in FY2010: $3,000,000