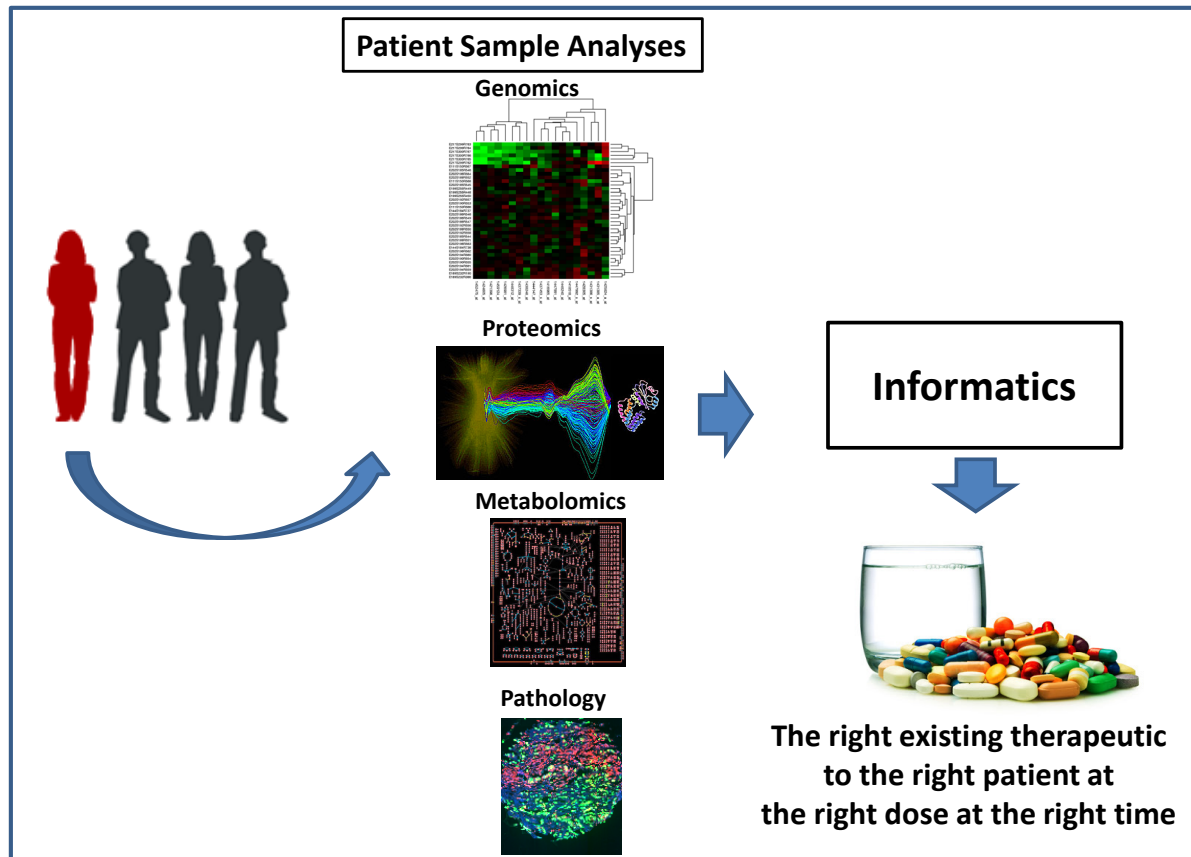




THE PRACTICE OF PRECISION MEDICINE TODAY

Current methods for selecting drugs for clinical use



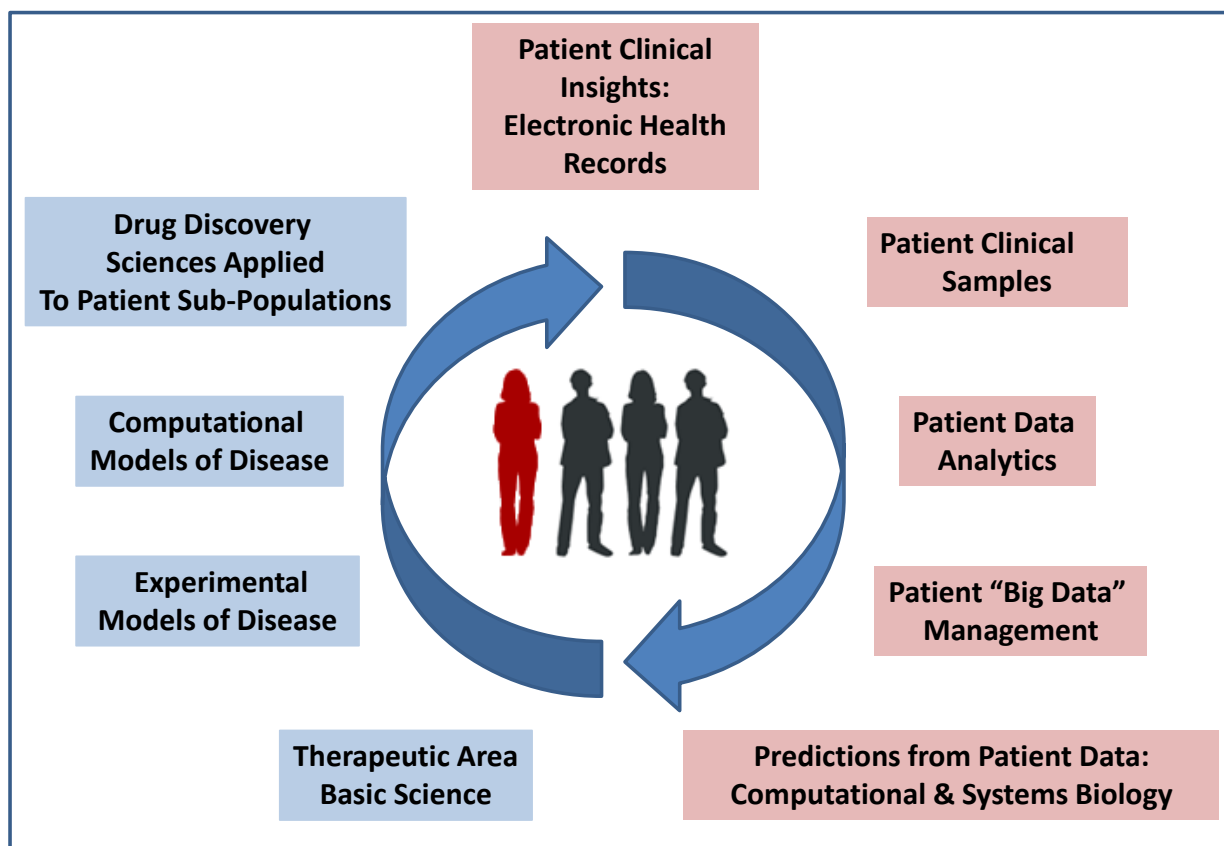
- Patients have tissue (blood and/or biopsy) samples analyzed by DNA sequencing or other "omics" methods.
- Informatics tools are applied to identify specific patient characteristics.
- Patient sub-populations are defined by analytics in order to get the right existing therapeutic to the right patient at the right dose at the right time.

Many promises remain to fulfill the potential of precision medicine. Here at the University of Pittsburgh, we are leading the revolution that will succeed in making precision medicine a success through our unique partnership with UPMC and Carnegie Mellon University, as well as our nationally recognized strengths in both research and clinical informatics.



ADVANCING PRECISION DRUG DISCOVERY THROUGH QUANTITATIVE SYSTEMS PHARMACOLOGY

Potential opportunities for advancement and development of new precision therapeutics



- Orchestrating the iterative use of essential resources and expertise within the Pittsburgh community fuels an innovative drug discovery and development platform for advancing precision medicine.
- Based on quantitative systems pharmacology, this platform enables the determination of mechanisms of disease progression and mode-of-action of drugs.
- This holistic understanding of disease mechanism and drug action leads to optimized therapeutic strategies for patient sub-populations.