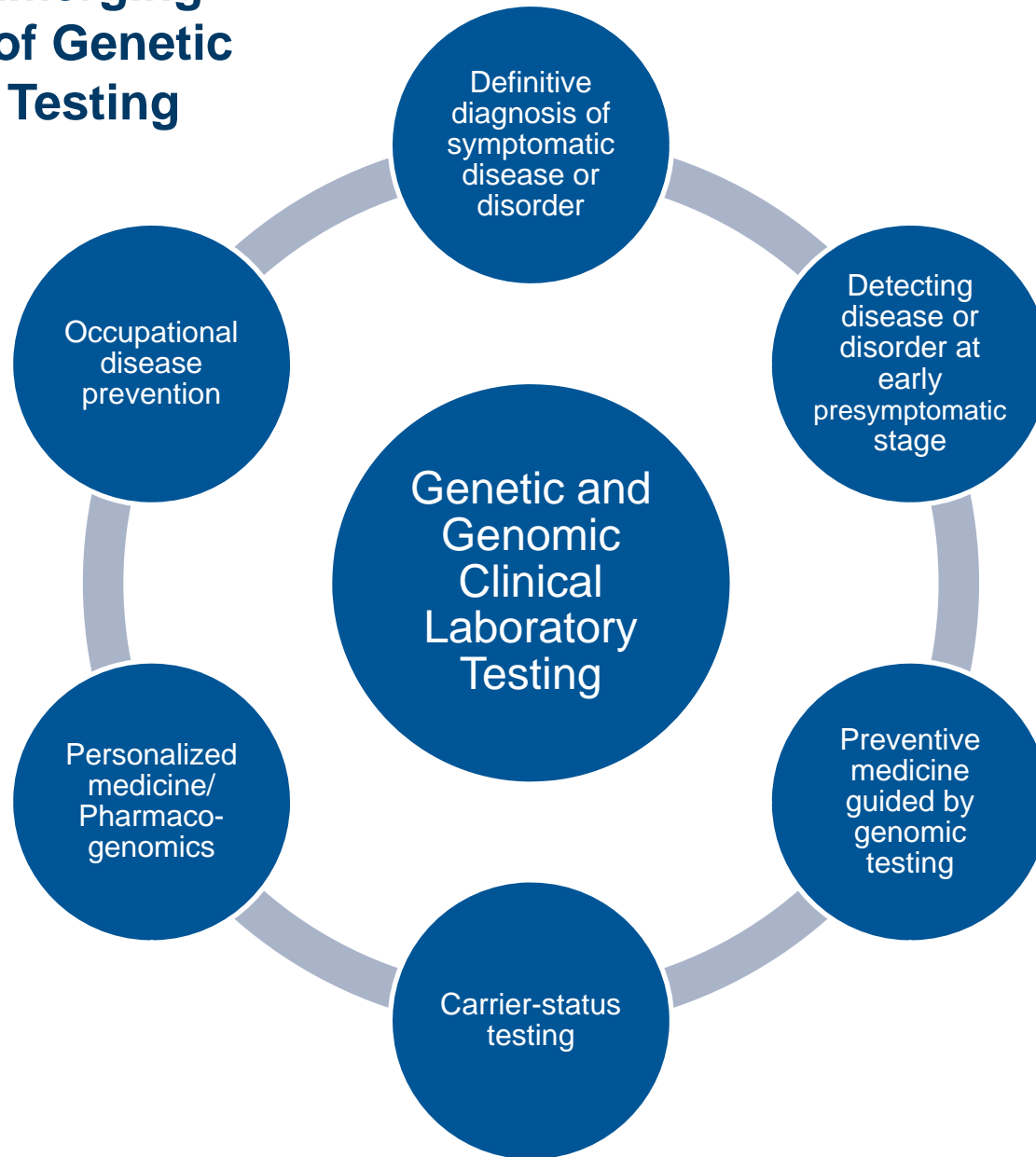


# *Genetic and Genomic Testing: A Vision of the Future*

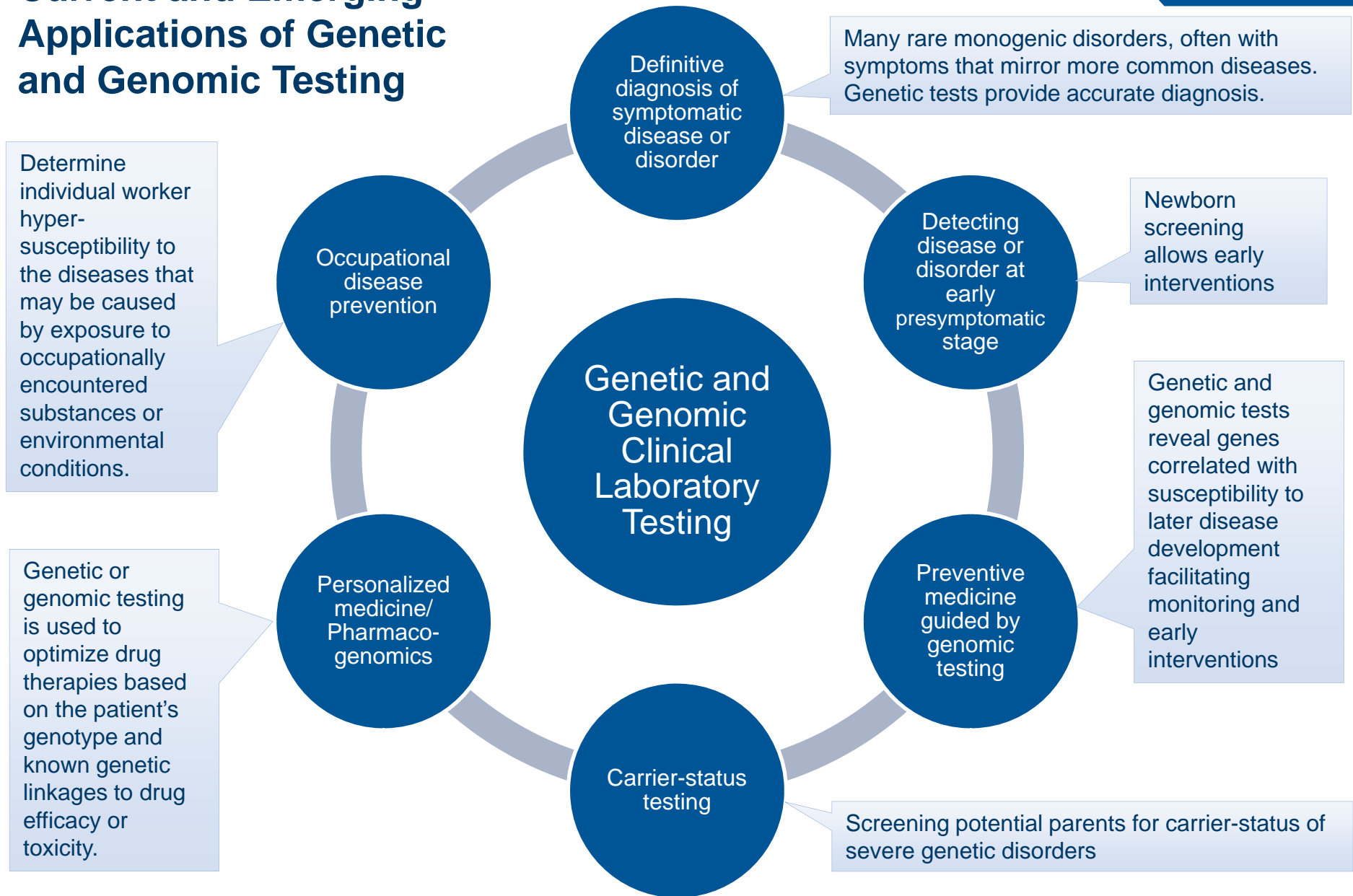
Simon Tripp, Senior Director  
Battelle Memorial Institute  
Technology Partnership Practice

November 17, 2011

## Current and Emerging Applications of Genetic and Genomic Testing



# Current and Emerging Applications of Genetic and Genomic Testing



## BENEFITS OF GENETIC AND GENOMIC TESTING

Avoid misdiagnosis and associated complications and costs

Early interventions when diseases are easier and less expensive to treat

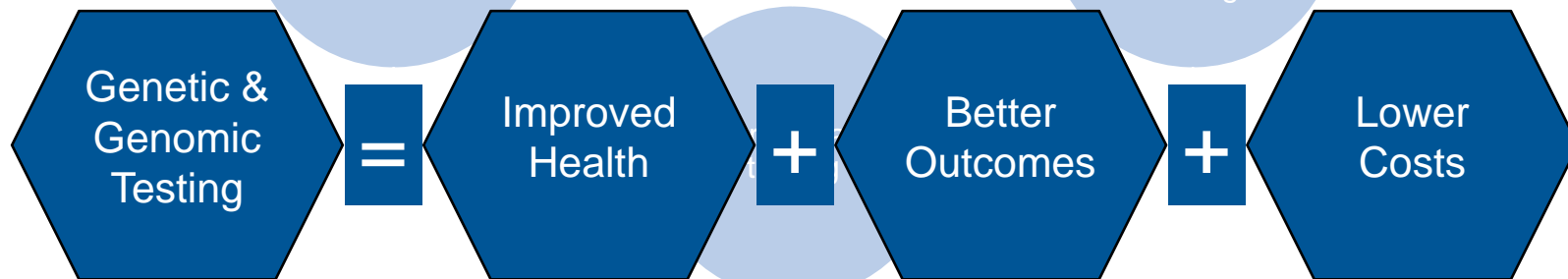
Optimize therapeutic approaches to increase effectiveness

Reduce adverse drug reactions and associated costs

Reduction in births of individuals with severe genetic disorders

Avoidance of occupational/environmental related diseases

Enable movement to a preventive vs. reactive model



## INTO THE FUTURE

P4 Medicine: *Personalized, Predictive, Preventive, Participatory*

Large-scale increases in available tests

Clinical application of whole genome sequencing

Significantly lowered disease burden

Healthier workforce and higher productivity

Genetic data-rich environment identifies targets for drug discovery

Reduced time, cost and failure rate for clinical trials

Opportunities for U.S. economic leadership in an innovative sector

Carrier-status  
testing

# Forthcoming Report

The Battelle Technology Partnership Practice is currently developing a report and analysis, for the American Clinical Laboratory Association, and its *Results for Life* partners, focused on:

## The Economic and Functional Impacts of Genetic and Genomic Clinical Laboratory Testing

Anticipated completion in early December 2011.

More general discussion of the economic and functional impacts of genetics and genomics in all applications may be found in our previously published study for Life Technologies Foundation:



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