

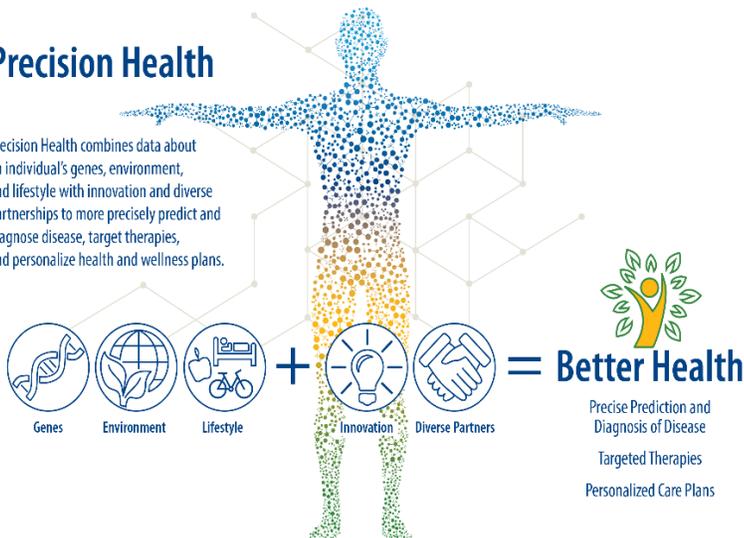
North Carolina Precision Health Collaborative (NCPHC)

Powered by NCBiotech

Mission: Accelerate collaborative initiatives that foster research, enable providers, engage industry, and empower citizens to improve health outcomes and optimize resource utilization in North Carolina.

Precision Health

Precision Health combines data about an individual's genes, environment, and lifestyle with innovation and diverse partnerships to more precisely predict and diagnose disease, target therapies, and personalize health and wellness plans.



Precision Health: Pivotal for the Future of Health Care

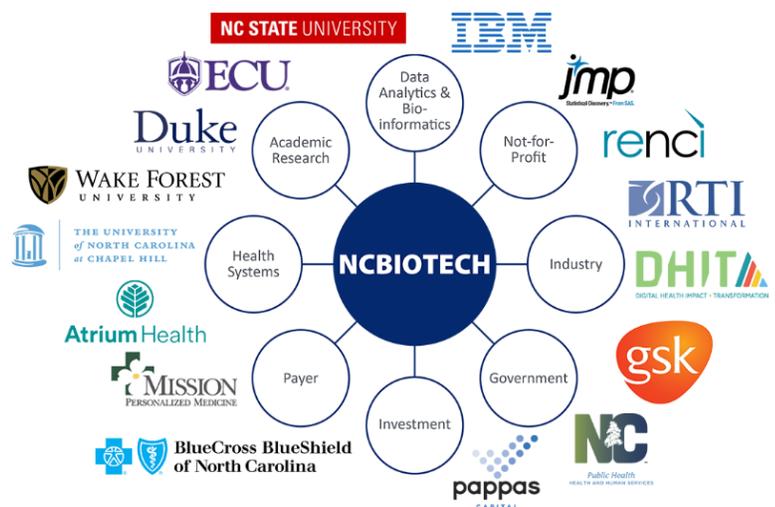
Health care is beginning to strategically transform away from clinical decisions based on population averages to more tailored, personalized and safe treatment choices. This new model, precision health, leverages data about an individual's genes, environment and life-style to more precisely predict and diagnose disease, target therapies, and personalize health and wellness plans. Furthermore, opportunities to enable precision health are maximized when innovation and diverse partnerships are strategically integrated.

North Carolina Precision Health Collaborative (NCPHC)

North Carolina is no stranger to this paradigm shift in medicine, and is home to a variety of precision health leaders in academia, health care, research & development, innovation, and more. In 2016, to help develop the state's full potential in this important area, NCBiotech established the North Carolina Precision Health Collaborative (NCPHC). NCPHC is led by a steering committee of public and private partners across the spectrum of precision health and is involved statewide in a variety of activities.

Current focus areas include population genomics, pharmacogenomics, data analytics/informatics, and educational and policy challenges and opportunities.

NCPHC is helping bring precision health innovation to North Carolina companies as an employee wellness benefit through its CHAMPPS pilot project (**C**ancer and **H**ereditary dise**A**se **M**anagement & **P**harmacogenomics -- **P**opulation **S**creen). Further, with additional partners we are creating a program to engage rural clinicians and deliver precision health to underserved patients across the state.



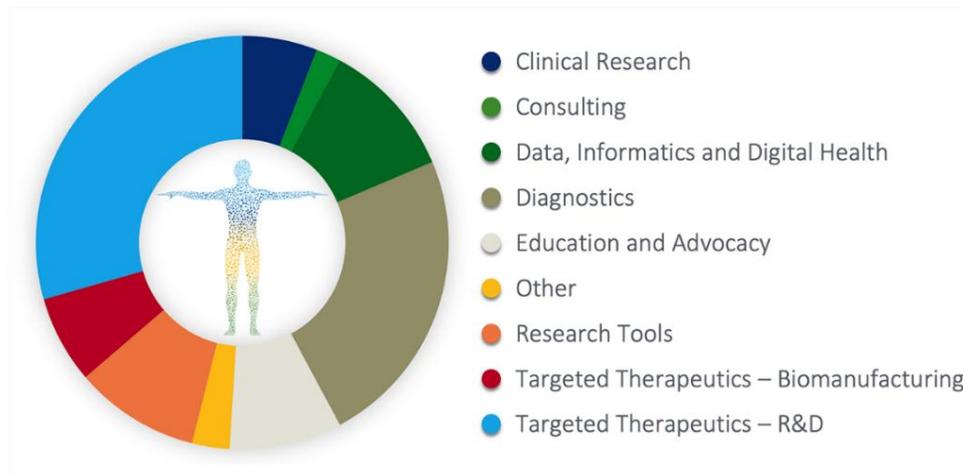
See: <https://www.ncbiotech.org/precisionhealth>

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Industrial Ecosystem

By stimulating growth in the precision health sector, NCBiotech, NCPHC and our partners foster innovation, encourage entrepreneurship, and support company growth. A strong industrial ecosystem adds jobs, draws investment to the state, and improves the health of North Carolinians.



North Carolina's precision health ecosystem includes more than 100 companies focused strategically on precision health, as well as numerous engaged service providers. These industrial leaders are navigating current business challenges, driving innovative opportunities, and positioning themselves for tomorrow's trends. North Carolina is fast becoming a hub of gene/cell therapy biomanufacturers, contributing greatly to the growing fields of precision nutrition and environmental influence, and supporting a growing network of digital health entrepreneurs and experts.

Economic Development – Recent Highlights

Technology Development Funding (University grants)

- Duke University - Leica Aperio Digital Slide Scanner
- Wake Forest University – Enabling Positron Emission Tomography (PET) for Precision Medicine
- Pfizer –NC Biotech distinguished postdoctoral fellowship in gene therapy

Emerging Entrepreneurial Companies Investments (commercial loans)

- Continuous Precision Medicine Inc. – Prevent abuse of opioid naïve post-surgical patients using a personalized digital health platform
- Eldec Pharmaceuticals Inc. – Develop a novel anti-inflammatory peptide for pulmonary disease
- Enzerna Biosciences Inc. – Development of first curative therapy for Myotonic Dystrophy

Economic Development (business recruitment, retention, and expansion efforts)

- Collectis - \$69 million and major expansion of jobs for gene therapy manufacturing facility for targeted blood cancer therapy
- Foundation Medicine -- \$12 million and major expansion of jobs for oncology diagnostics and molecular insights lab

Networking and Engagement

- Information Exchange Groups (e.g., Biomanufacturing and Process Development [BPD], North Carolina Microbiome Consortium, and Next Generation Sequencing Group)
- Industry Roundtable forums