A close-up photograph of a microfluidic chip, a small device used for precise fluid control at the microscale. A small, clear plastic vial containing a white liquid is positioned on top of the chip. The background is a blurred laboratory setting with blue lighting.

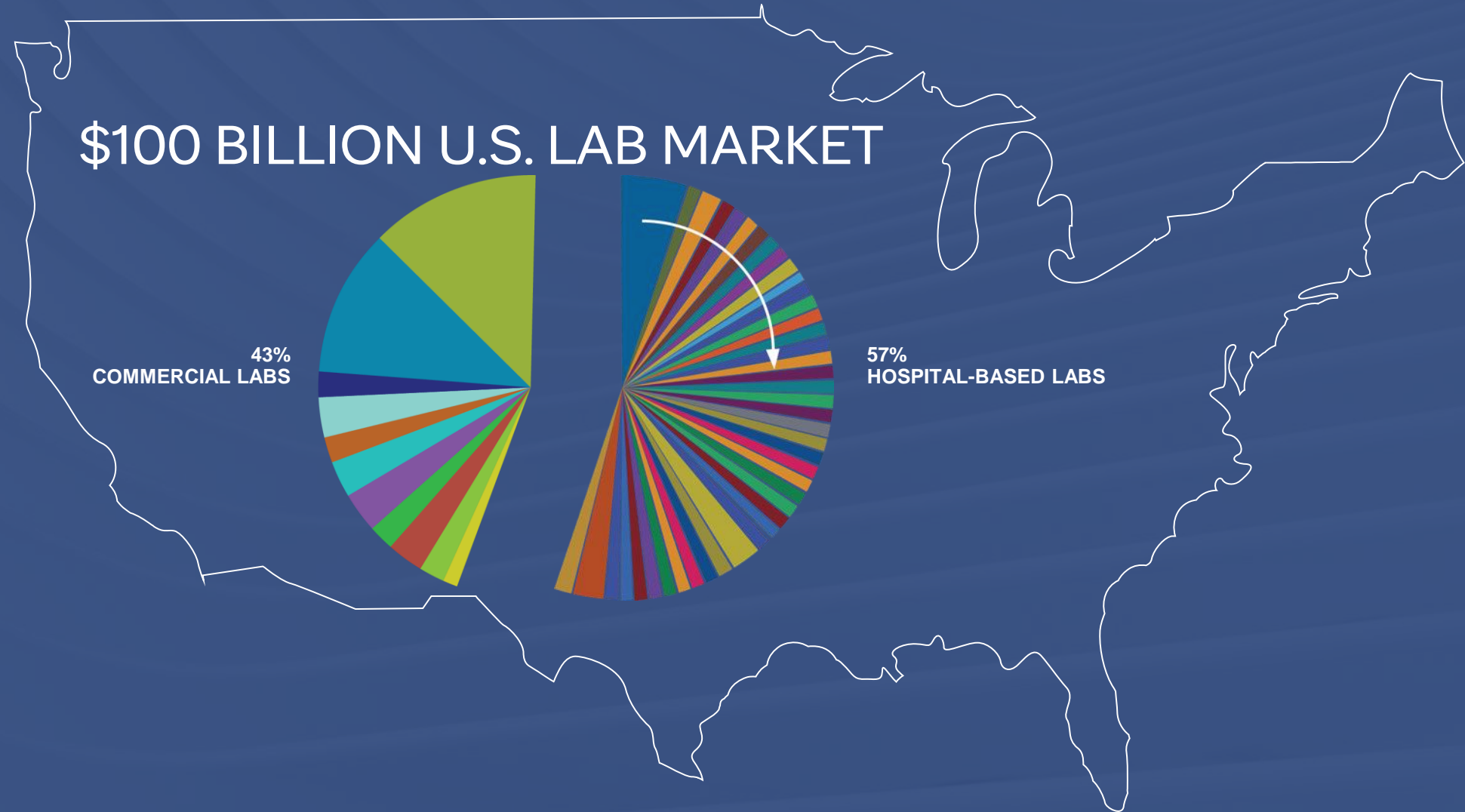
Healthcare's Growing Need for Enriched Diagnostic Services: How Demand for Data, Increased Use of AI, and Genome Sequencing Advances Create Opportunities for Labs

William Morice II, M.D., Ph.D.
President and CEO
Mayo Collaborative Services

OVERVIEW

- We have a fragmented healthcare system.
- With the evolving tools and technologies, there is increased demand for data.
- Laboratory diagnostic platforms are increasingly generating intensive amounts of data: genomic, metabolomic, proteomic, and image.
- There is also an increase in AI and genomic sequencing advancements.
- So how can laboratories understand these trends and use them to create opportunities?

CURRENT STATE



THE PATIENT JOURNEY



Patient 1:
Fragmented journey



Patient 2:
Holistic journey



Patients

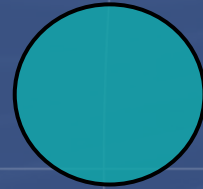
Results

Right therapies

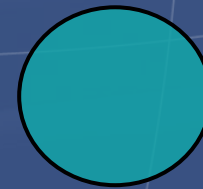
Expertise



Data



Artificial Intelligence



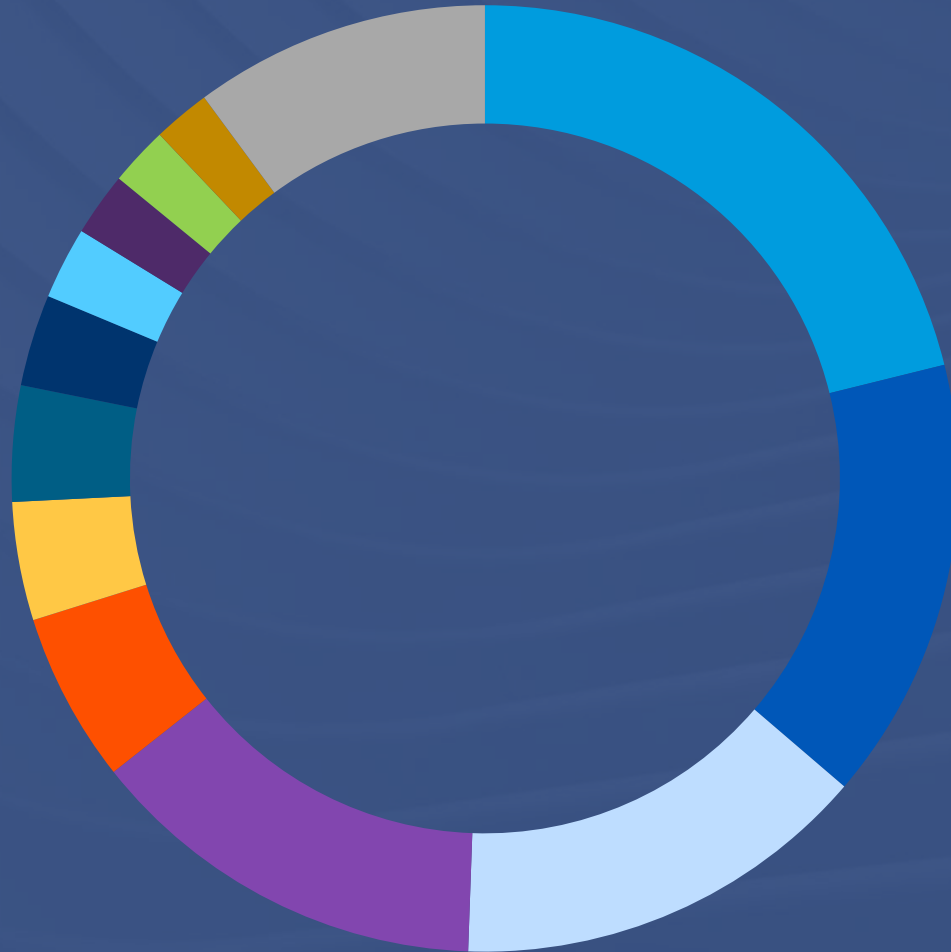
**Genome
Advances**

WHAT IS REQUIRED OF THE LAB DATA TO BRING THIS VISION TO LIFE

- IT systems
- Data architecture
- Data governance
- Regulatory requirements
- Patient considerations/HIPAA



VALUE CREATED: MAYO CLINIC ONCOLOGY PATIENT DATA

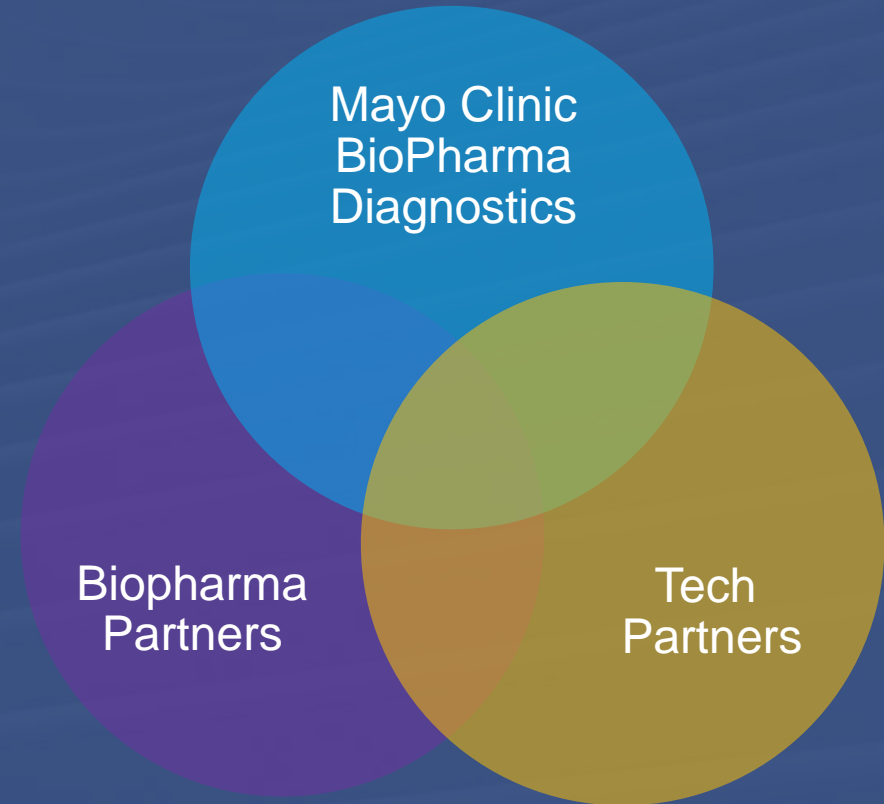


- Prostate cancer
- Lung cancer
- Breast cancer
- Melanoma
- Bladder cancer
- Pancreatic cancer
- Multiple myeloma
- Soft tissue cancer
- Ovarian cancer
- Esophageal cancer
- Endometrial cancer
- Myelodysplastic syndrome
- Other

VALUE CREATED: FROM BIOMARKER DISCOVERY TO A GLOBALLY DEPLOYED CLINICAL TEST

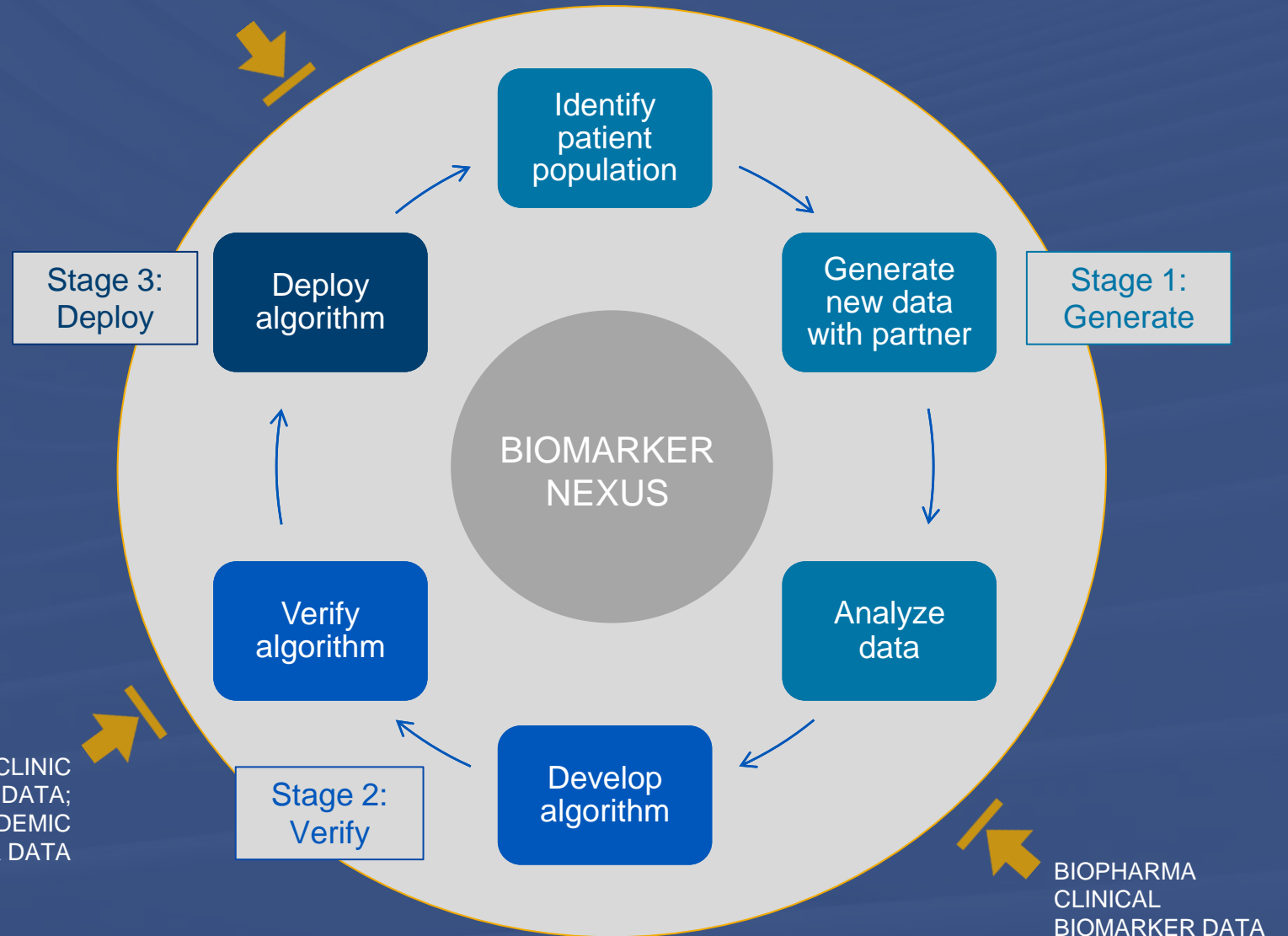
Tech partners allow us to generate novel biomarker data:

- Digital pathology (H&E/IHC)
- Multi-plex IHC
- 3D pathology
- Radiology images
- Genomics/Transcriptomics/Proteomics
- Spatial-omics



CREATING AN END-TO-END DIGITAL ECOSYSTEM

LEVERAGE MAYO CLINIC LABORATORIES



RESPONSIBILITIES

Stage 1

Identify patient population: biopharma companies

Generate new data: biopharma company + Mayo select technology

Stage 2

Analyze data, develop algorithm, verify algorithm: biopharma company, Mayo, or both

MAYO CLINIC PLATFORM DATA; OTHER ACADEMIC MEDICAL CENTER DATA

“To drive better outcomes, lower costs, and improve individual and societal health, we need to move clinical diagnostics from the current state of an array of independent technologies to an interconnected platform ecosystem that creates a seamless cohesion of an individual’s diagnostic touchpoints.”

- Gianrico Farrugia, M.D., President and CEO of Mayo Clinic



“The best way to predict the future is to create it.”

- Peter Drucker

Learn how we can create the future together.

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