The BioServe Network:
A Collaborative Model to Enhance Biospecimen Access

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Abstract

The procurement of high-quality, well-annotated, and properly-consented biospecimens by the research community is complicated, cumbersome, and too often unsuccessful. Academic, government, and industry researchers alike pursue fragmented search strategies ranging from inquiries to academic core facilities, perusal of commercial vendor inventories, to establishing collaborations directly with health care practitioners (e.g. surgical oncologists) for specimen access. Each of these approaches has limitations including limited specimen availability, prohibitive costs, or lack of access to the appropriate collaborators.

The BioServe Network is a collaborative model that effectively reduces the complications of specimen procurement. By uniting the existing inventory and distribution channels of a commercial entity with a diverse range of specimens within academic medical/research centers, the Network creates a single point of contact for the research community unparalleled in size, scope, and scale. The BioServe Network therefore presents a compelling value proposition from the two perspectives of specimen end-user and specimen provider.

For research end-user, the Network serves as a virtual "core facility" with instantaneous specimen access from six institutions (at present). This accessible inventory will continue to grow with the addition of new members. Through one portal, end-users gain access to specimens collected under IRB-approved collection protocols that utilize donor consents appropriate for all research settings and access to corresponding clinical and demographic data provided in a HIPAA-compliant manner.

From a Network member perspective, the BioServe Network simultaneously expands specimen access for its internal research community while also achieving mission-consistent funding to offset costs and/or expand operations. Network membership also offers enhanced access to the broader life science community, including opportunities of intra-Network collaborations or technology transfer prospects with biotechnology, pharmaceutical, and diagnostic companies. Lastly, the BioServe Network provides a forum to discuss best practices for collecting, processing, storing, and distributing biospecimens with other operational colleagues.

What is the BioServe Network?

• A collaborative network of leading industry, academic, and medical biospecimen repositories

• An effective channel to get under-utilized samples to the global research market

• An industry leadership platform to set standards, educate, and promote the use of high quality human biospecimens in research
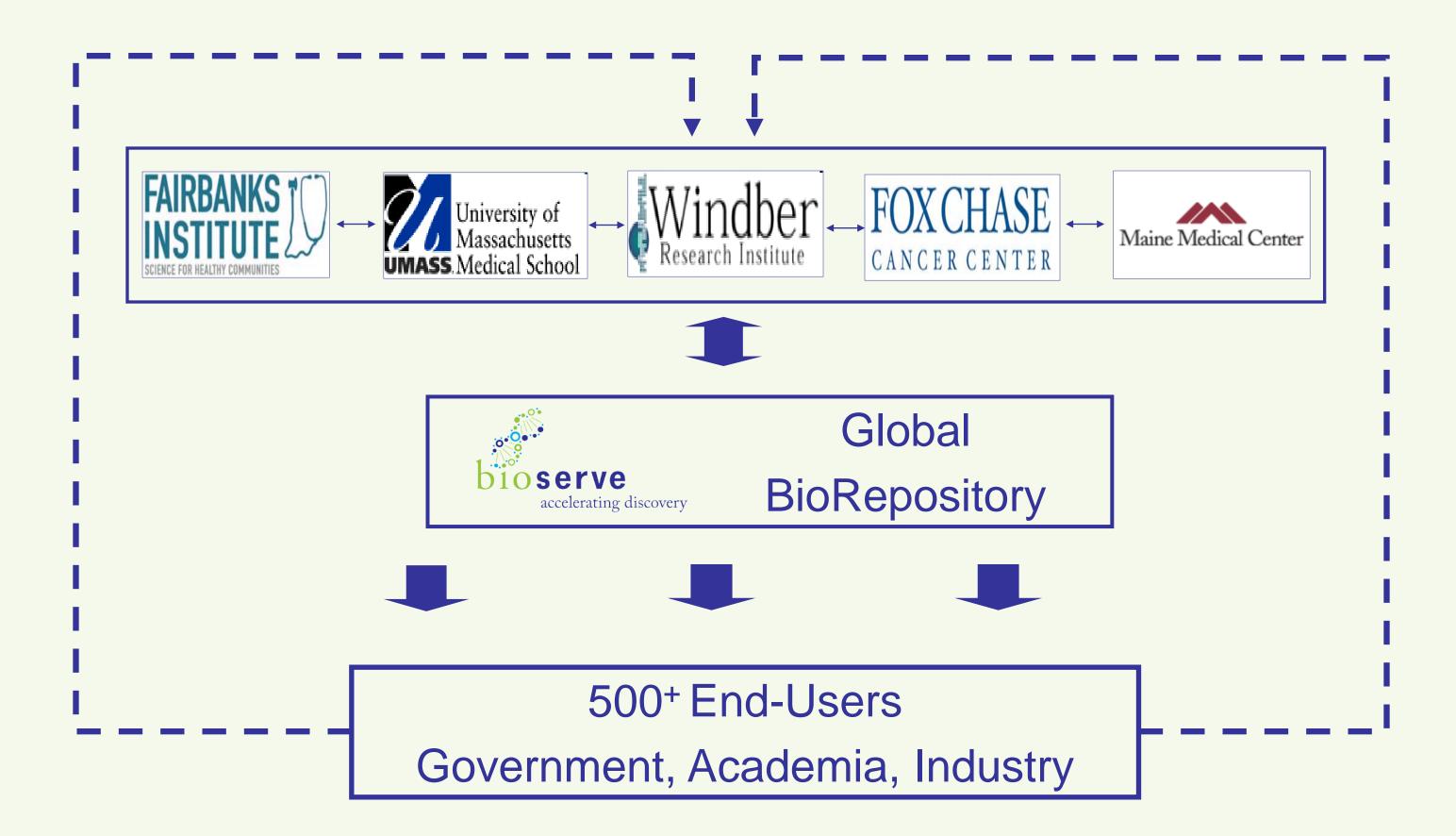
BioServe Network Member Benefits

• Enhanced access to other member biobanks to accelerate internal research programs

• Enhanced access to BioServe samples and services

• Generate alternative source of revenue to offset operational costs and/or expand internal services

Similarities & Differences between Global BioRepository & BioServe Network
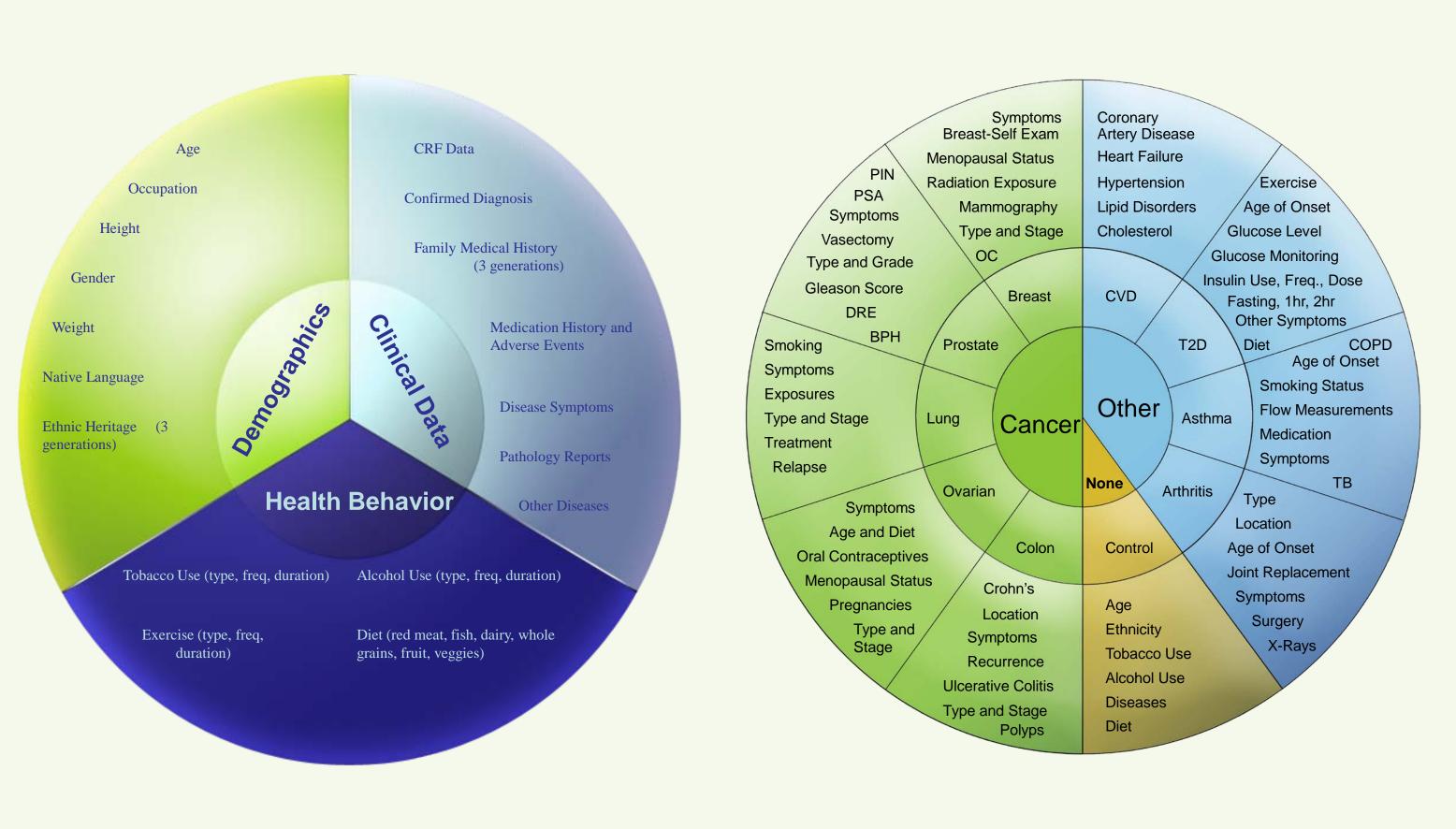
	BioServe Global BioRepository	BioServe Network
IRB approved? Informed consent? HIPAA compliant?	√√√	√√√
Approximate Inventory Size (Tissue, blood / sub-fractions, ext. analytes.)	~600,000 specimens	~1.5 million
Breadth of Data available e.g. demographic, lifestyle factors, family history, disease-specific	√√√	√√
Longitudinal, outcome, follow-up data available?	√	√√√
Matching blood / gDNA and Tissue (FFPE or FF) available?	√√√	√√
Normal / Healthy Control Specimens Available?	√√√	√
International ethnicities available?	√√√	√
Custom prospective collection possible?	√	√√√

BioServe Network Workflow

Global BioRepository

500+ End-Users
Government, Academia, Industry

Comprehensive Annotation for Donor and Specimen

Future Directions for BioServe Network

• Searchable inventory through web portal

• Simplified model for donor and specimen data

• Discussions ongoing to increase diversity of Network membership

• Leverage social media and other novel outlets to alert end-users of new inventory in real-time

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