Recognizing the rapidly evolving nature of precision medicine and its fragmented operational structure at VUMC, we convened a small group to develop a formal plan to integrate, operationalize and scale clinical genomics. This plan featured simplified and provider-friendly access, use of algorithms and automation to ensure timely information dissemination, and a model that supported leveraging the expertise of many existing or developing programs on campus.

VUMC has been a leader in various aspects of precision medicine but sees an opportunity to do more at scale. We desire to be internationally known as an academic medical center where genomics is a core value driver, where we use operational resources to implement best in class practices and tools in support of precision care for all patients. The figures below describe the vision (below, left) and scope of our initial work (below, middle).

There was uniform agreement among stakeholders that VUMC had islands of excellence that were best in the nation, but that work needed to be done in earnest to scale these practices throughout VUMC (as a starting point).

The teams proposed creating a new Genomics Consult Program modeled after the diagram above, piloted in primary care, a medical subspecialty service, and in oncology. The team recognized work already underway to improve existing systems, and requested that we complete that work. The team saw enormous potential opportunity to improve physician and patient satisfaction, and to improve our utilization of scarce knowledge and expensive laboratory tests as a byproduct of this new clinical service.

The leadership team is particularly grateful for the efforts of Herschel Pollard and Kristy Sinkfield, as well as the guidance provided by Drs. Jennifer Pietenpol and Bill Stead. 

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