**Terms and Terminology**

**Big Data**  The term 'Big Data' is meant to capture the opportunities and challenges facing all biomedical researchers in accessing, managing, analyzing, and integrating datasets of diverse data types [e.g., imaging, phenotypic, molecular (including various '–omics'), exposure, health, behavioral, and the many other types of biological and biomedical and behavioral data] that are increasingly larger, more diverse, and more complex, and that exceed the abilities of currently used approaches to manage and analyze effectively. Big Data emanate from three sources: (1) a small number of groups that produce very large amounts of data, usually as part of projects specifically funded to produce important resources for use by the entire research community; (2) individual investigators who produce large datasets, often empowered by the use of readily available new technologies; and (3) an even greater number of sources that each produce small datasets (e.g. research data or clinical data in electronic health records) whose value can be amplified by aggregating or integrating them with other data. [[1]](#footnote-1)

**Governance** The LHS will promote governance, which is necessary to support its sustainable operation, to set required standards, to build and maintain trust on the part of all stakeholders, and to stimulate ongoing innovation.

**Learning Health System** A health care system in which knowledge generation is so embedded into the core of the practice of medicine that it is a natural outgrowth and product of the healthcare delivery process and leads to continuous improvement in care… A system “in which progress in science, informatics, and care culture align to generate new knowledge as an ongoing, natural by-product of the care experience, and seamlessly refine and deliver best practices for continuous improvement in health and healthcare.[[2]](#footnote-2)

1. <http://bd2k.nih.gov/about_bd2k.html#sthash.tmdZBrEj.dpbs> [↑](#footnote-ref-1)
2. 2011 “Digital Infrastructure for the Learning Health System” Institute of Medicine (IOM) [↑](#footnote-ref-2)