Executive Group  
September 18, 2020  
Summary of Key Discussions

**Research Strategic Planning – Anthony Koleske**

Dr. Koleske initiated a discussion on two crucial findings that emerged from the September 3, 2020 Chair’s Retreat and that permeate all of the other focus areas.

The first finding is the need to foster communication and collaboration between clinical and basic science departments, in every aspect of our mission from research to clinical practice. An organized structure with identified department and center experts can facilitate matchmaking of mechanisms or individuals to foster collaboration among teams.

The group discussed the benefits of giving these emerging leaders the opportunity to present their ideas to this committee to provide feedback, mentoring and pre-retention engagement. This may also identify opportunities for joint recruitments. To complement this effort, people should complete and maintain their Yale profile. Central infrastructure, logistical support, and administrative expertise would decrease the “activation energy” around submitting grant proposals.

The second finding is to improve our presence in data science, a priority also identified by the university-wide science strategy committee. Three key areas are image processing, biomedical and health data records, and having an outward facing core to provide technical support. The group discussed the best ways to organize and integrate recent recruits and existing strengths under a formal structure.

One problem with a core is the need to balance specific scientific expertise with the complex computational tools required. A consideration is whether to hire individuals into departments, or to create a pod of people who are using various computational tools for various applications and allow them to synergize with one another. A successful core needs to be appropriately curated and supervised by thought leaders who use mathematically comparable tools to address different problems. The group discussed the possibility of providing institutional support and stability for thought leader-faculty where it is understood that they are focused primarily on being the collaborative glue helping other people make the work go forward in their labs across the medical school universe. It is especially important to harness the vast data available in Epic.

Discussion of specific topics presented at the retreat:

Biomedical and biological imaging is a major research strength at YSM. The proposal was to organize and brand a center to facilitate collaboration, and potentially serve as a home for new center and training grants where new services and support personnel could advise on projects and facilitate data acquisition. Putting together some sort of core or programming would be extremely valuable and lead to integration and connections between basic and translational research that would allow tools that are created in translational and basic science labs to develop new biomarkers that can be used in imaging studies.
The metabolism inflammation cancer and disease team proposed a new center to facilitate research and collaboration. Centers of excellence already exist in these areas, but there is enthusiasm for accessing new technologies and building collaborative teams.

Nuclear cell biology epigenetics and single cell biology have some intersection and already have great strength, with a lot of energy and opportunities for program grants. Several groups are already working together on program type applications that intersect with both technology development and data science. Perhaps one of these existing interdepartmental programs or centers can expand the scope with very little additional support and effort.