Research Strategic Plan
September 2020

TRAIN, ATTRACT and RETAIN EXCEPTIONAL TALENT
Ensure the future of the institution through the acquisition, development and promotion of exceptional talent.

GOAL	OBJECTIVE
Strengthen the quality of research through recruitment of leadership and outstanding faculty investigators.	Identify and recruit key leadership positions needed to advance basic, translational, clinical and epidemiological research.
	Accelerate advancement of strategic initiatives by hiring new faculty whose research aligns with MU's and the academic health center's strategic priorities with special attention to growth of women and underrepresented minority faculty members.
Instill and support a culture of excellence that provides the support needed to accelerate outstanding careers in science.	Reward and promote high-performing investigators.
	Provide mechanisms for established investigators to seek new scientific directions and sustain their programs when the extramural funding environment is challenging.
	Develop program to use indirect support and research incentives for promoting research success.
	Support early career stage investigators through innovative mechanisms.
Align and integrate our research and training missions to develop a pipeline of diverse research talent through innovative training and funding programs.	Advance the growth and development of the Tom and Anne Smith MD-PhD Program.
	Expand and improve research opportunities for MU medical students.
	Support Clinical and Translational Science PhD programs.
	Increase residency research track programs and enrollment.
	Develop strategies to align rural training focus and research focusing on health care delivery to rural areas

FUEL DISCOVERY THROUGH COLLABORATION
Leverage interdisciplinary collaborations to increase the speed of discovery and the magnitude of impact.

GOAL	OBJECTIVE
Invest in and grow current and emerging areas of strength to achieve distinction.	Develop strategic plans to include recruitment plans for each of the following areas of strength: Cardiovascular, Oncology, Neurosciences, Informatics, Health and Population Outcomes, Virology, Microbiology and Influenza, and Reproductive Biology.
	Develop strategic plans to include recruitment plans for each of the following areas of emerging strength: Neurosciences, Traumatic Brain Injury, Orthopaedics, Sleep Medicine, Health Care Delivery and Patient Centered Outcomes Research, and Palliative Care and Caregiver Research.
Pursue innovative strategies to promote interdisciplinary science.	Leverage internal programs to build research infrastructure and support multidisciplinary teams that will submit program project proposals to federal funding agencies.
	Create structures and cultures that promote collaboration.
	Promote and develop Cores to facilitate research efficiencies.
Be leaders in NextGen Precision Health.	Promote NextGen Precision Health in fostering a "scientific think tank" environment cultivated by a vibrant and intellectual community.
	Support recruitment, policy and process development, selection of faculty for inclusion, and sustainable structure for NGPH.
	Work with Resource Allocation Model to ensure equitable cost structure when collaborating with MU-based research facilities.
Capitalize on industry partnerships to advance research breakthroughs via the convergence of medicine and engineering.	Develop interdisciplinary process with SOM and MUHC resources to evaluate, build, and manage industry partnerships.
	Create a joint graduate-student/postdoc/fellows program in Bioengineering.
	Identify a genomics partner in coordination with NextGen Precision Health
	Use artificial intelligence/machine learning/data science around imaging and other device data streams.

MAKE TRANSLATION AN ASPIRATION
Establish translation as the ultimate pursuit through the convergence of basic science, clinical investigation and patient care.

GOAL	OBJECTIVE
Enact a system-wide strategy to build translational research.	Build upon current and emerging areas of research strength.
	Expand companion animal clinical studies.
	Foster collaboration on specific organ/disease-based research.
Promote professional development of all faculty across the translational research continuum.	Foster collaboration between basic and clinical scientists.
	Evaluate and develop training in translational research.
	Evaluate and establish a formal mentoring plan for faculty.
Expand and strengthen the collection, accessibility and governance of biobanking.	Establish a governance and leadership structure to implement and provide oversight of biobanking services.
	Create the infrastructure needed to optimize the use of biospecimens.
Engage and partner with the community to inform our research priorities and improve culturally effective care.	Use strategies of patient-centered outcomes research identify and translate important research activities in human populations.
	Enhance strategies in community engagement research to address the needs of underserved populations (e.g. rural, Native American, African American, caregivers, elderly, veterans).
	Develop models to engage patients and providers with information technology to advance care in chronic disease (cardiovascular, neurosciences, cancer).
	Maintain and Support Existing Patient Advisory Board for Research (established by PCOR center).

ALIGN AND GROW CLINICAL RESEARCH
Build the clinical research enterprise to make an impact and achieve prominence as a leader in academic health.

GOAL	OBJECTIVE
Integrate and grow clinical research assets across MU to achieve enhanced impact.	Increase-investigator initiated and externally-developed clinical trials.
	Establish the appropriate infrastructure to support clinical research.
	Align MU-iCATS priorities and resources with the SOM research and MU campus strategic plans.
Enable clinician participation in research.	Improve financial and scientific ROI of MU's clinical research enterprise by growing clinical and cancer trials and improving data, cost, efficiency, and transparency at the clinician, Clinical Research Unit, and leadership levels.
	Build the Core of Discovery to align resources in literature review, study design, protection of human subjects, informatics, analytics, statistical design, and external funding to support clinician research commitment,
	Implement the Clinical Research Management System.
Leverage regional clinical affiliations to create a clinical research networks and expand participation in research.	Explore linking Health Network of Missouri, rural training sites and practice-based research network opportunities
	Increase participation in Great Plains Collaborative projects.
	Use single EMR at MU Health Care, Capital Region, and Lake Regional Health System to support clinician led projects to advance patient care quality and innovation in clinical care.

CREATE A STRUCTURE THAT SUSTAINS EXCELLENCE

Evolve the research structure to provide critical expertise, efficiency, financial discipline, and scalable core resources.

GOAL	OBJECTIVE
Create a governance structure for shared resources to include space, equipment, biostatisticians, analysts, etc.	Implement a formal space governance structure with policies and measures.
	Conduct an inventory assessment and create a centralized database of resources (space, equipment, library, etc.), research projects and researchers and their interests.
	Develop a financial model and prioritization process for shared resources.
	Ensure appropriate funding of resources through the establishment of a Cores Scientific Advisory Committee that would advise on the need for new core resources and identify those that should be discontinued.
Transform the operational structure and strengthen oversight of research administration.	Appoint associate deans in informatics, outcomes and population health, and clinical and translational science.
	Consolidate and centralize resources as appropriate to achieve efficiency, utilize expertise, optimize service and promote compliance.
Invest in data science, research information technology and informatics faculty to create capacity and expertise to translate clinical, social and administrative data into innovation, healthcare insights and health.	Create a Research informatics and IT governance and organization plan.
	Expand informatics expertise and capacity to query and analyze large "omics" data sets, clinical data sets, and integrate biomarker analyses and partner with clinical and basic scientists in federally funded research.

CREATE A STRUCTURE THAT SUSTAINS EXCELLENCE (continued)

Evolve the research structure to provide critical expertise, efficiency, financial discipline, and scalable core resources.

GOAL	OBJECTIVE
Address financial needs to achieve long-term sustainability.	Assess the Funds Flow model and develop new methods for distribution of funds from MU Health Care.
	Identify mechanisms to reduce operational expenses.
	Increase revenues through new philanthropy, industry partnerships and growth in sponsored research.
	Support entrepreneurship and commercialization.
Create an evaluation framework to improve research processes and outcomes.	Establish a system to monitor return on investment in research recruitments and retention.
	Establish metrics to evaluate research centers/institutes and departments in the SOM.
	Establish clear performance expectations for research units and faculty.
Explore the potential for the AHRQ Learning Health System model.	Design a framework, goals, and processes for Learning Health Units by integrating key assets from Clinical Service Units, Clinical Research Units and Data Science Units which enables a continuous, embedded research and development engine to advance health outcomes.
	Pilot Learning Health Units (e.g. Surgery, Primary Care, Pediatrics, Orthopaedics or Cardiology).