The University of Tennessee

Faculty Senate Research Council

Minutes of the Meeting

November 11, 2020

**Elected Members present:**

Yuri Efremenko, Yanfei Gao, Qiang He, David Icove, Julia Jaekel (Chair), Xueping Li, Brian Long, Vasileios Maroulas, Tore Olsson, Stephen Paddison, Sean Schaeffer, Soren Sorensen, and Andrew Steiner

**Ex-Officio Members present:**

Suzie Allard, David Anderson, Ernest Brothers, Doug Coatsworth, Deborah Crawford, Bill Dunne, Michael Higdon, Michael Kilbey, Bruce LaMattina, Jamie McGowan, Larry McKay, Holly Mercer, Josh Price, Dixie Thompson, Jennifer Webster, and David White

**ORE Members present:**

Jean Mercer, Jon Phipps, Sarah Pruett, and Renee Thomas

**Call to order:**

A regular meeting of the Faculty Senate Research Council was held via Zoom and Julia Jaekel called the meeting to order at 3:32 pm.

**Minutes:** October minutes approved electronically

**New Business**

**UT One Health Initiative: Dr. Debra Miller, Director of the** [**UT One Health Initiative**](https://onehealth.tennessee.edu/leadership/)

One Health is a transdisciplinary approach to prevent, prepare, detect, respond to, and recover from infectious diseases and other factors that threaten human, animal and environmental health. Plant health is also included because we have so much expertise here at UT and often is lumped into the environment but we want to emphasis it. Health is interconnected, meaning problems are shared by living on the planet together. A few examples of One Health issues include: biodiversity loss, food insecurity, loss of pollinators, contaminants, changing climate, stressors, invasive species and emerging pathogens. The directors and scholars are listed [here](https://onehealth.tennessee.edu/leadership/).

What is this approach being implemented world-wide? To address challenges in a coordinated organized fashion, maximize the benefits of shared knowledge, shared expertise, and available resources (many that are limited), collaborative problem solving, higher returns on health investments and technical efficiencies, and avoiding duplicate efforts. We want to prevent high cost outbreaks dealing with infectious agents to contain them and not becoming a problem. Global headliners like the fires in Australia as well as in the US have a direct impact on air quality, which are far reaching. We have all watched COVID travel the entire world and is an example of how we need to tackle this from all angles. Examples include the World Antimicrobial Awareness Week 2020 to show how marine life, who don’t take antibiotics or antifungals but have them in their systems. Also, Hawaii is the first to ban certain sunscreens because of the effect on marine life.

UT is interested in One Health because of the widely diverse expertise with 10 Research and Education Centers across the state like NIMBios, ORNL Summit, etc. This provides a way to unite us more efficiently and effectively. Creating a repository of experts, training the future One Health workforce, serving as a conduit for public outreach and facilitating and supporting research teams and working groups while helping to address key issues in Tennessee.

Past headlines in Tennessee include the TVA Kingston coal ash disaster which reverberates 10 years later. Avian flu detected in Middle Tennessee chicken resulting in over a hundred thousand chickens were euthanized. East Tennessee Children’s Hospital sees a rise in LaCrosse encephalitis in kids associated with raw milk. Tennessee also experiences a spread of invasive tick species, Chronic Wasting Disease (CWD) threatening deer and elk populations, and Coronavirus tracking.

In the short-term, form partnerships, create teams, coordinate and organize, and initiate outreach, training and research. In the long-term, become self-sustaining and evolve into a center that builds upon the foundation created by the Initiative and can serve as a source of globally recognized expertise and guidance. Currently, OHI is in the process of forming research teams and working groups not just under the OHI, but working with other groups that already have things going to create a connection help plug people together. Public outreach and seminar series are being developed as well as training the future OHI Health Workforce by creating a minor in One Health at the University, and exploring the possibility of establishing certificates and online courses.

Examples of how we are leading, partnering and connecting on the One Health Initiative:

* Mental Health – Heather Sedges (UTIA Extension and One Health Scholar) is leading and partnering with external and internal groups.
* K-12 Education Program – Keren Rozensher from TN OHI is leading the effort to partner with TN OHI, UT 4-H, and other UT groups to work together.
* Chronic Wasting Disease – forming groups around topics and facilitating collaboration among the groups and partnering with ORNL, TWRA and others.
* Microbiome – connecting existing researchers to learn from each other, find common areas, increase awareness, be prepared for opportunities to collaborate.
* The Science of Team Science – Elizabeth Strand (UT College of Veterinary Medicine and College of Social Work and One Health Scholar) is leading and establishing a group to support multidisciplinary teams.

It is proposed the Research Council have serious discussions about collaborations: How do we foster them? What are the obstacles? How do we ensure equal credit for everyone involved? How do we manage overhead/F&A? How do we recognize the team?

**Dr. Paul Hauptman, Dean of the UT Graduate School of Medicine in Knoxville**

UT Graduate School of Medicine’s main focus is education and research. The regional campus for UTHSC and College of Medicine has 11 residencies and 11 fellowships, added a new one this year and two more next year. GSM is averaging over 40 third and fourth year medical students on campus per month. It is higher than normal due to COVID since many 4th year students visits other medical schools. GSM’s hospital partner is University of Tennessee Medical Center on the basis of the Master Affiliation Agreement originally signed in 1999, extended to 2049 and another 50 years was added last year. This a long term relationship.

There are a number areas of expertise:

* Amyloidosis (“Amyloidosis and Cancer Theranostics Program”) led by Jon Wall, PhD. He is NIH funded and involved in a spin-off company “Attralus” which just garnered $25 million in Venture Capital investment.
* Translational labs
  + Dr. Karlstad “Shock Trauma and Research Laboratory”
  + Dr. Mountain “Vascular Research Laboratory”
  + Drs. Stephenson and Masi “Regenerative Medicine”
* Clinical Research
  + Wide range of interests, from contraception to disparities in breast cancer care
  + Increasing footprint in industry-sponsored clinical trials

The resources available to the faculty include several areas:

* Research Leader (Jennifer Ferris MS)
* Research Design and Biostats (R. Eric Heidel PhD)
* Research Administration (Operations; Business office)
* Institutional Review Board – two member Board; agreement with UTK’s IRB allows each IRB to cover for each other
* Office of Clinical Trials (UTMC)
* Center for Advanced Medical Simulation – accredited and serves the entire community
* Increasing Departmental Mentors for Research (ObGyn; Anesthesia)
* Faculty Development Seminar Series – Education and research, 3rd year
  + Academic Leadership Academy to launch Jan 2021 – 8 individuals in the first class will learn about educational models to pursue clinical research

There are several research program initiatives:

* UTMC BioBank led by Lisa Duncan
* Data Enterprise Warehouse established by the VCR at UT Memphis lots of data from Memphis Methodist Hospital and UTMC with a goal to house a large amount EMR data (Electronic Medical Records) for use by outcome researchers
* The last two years have offered internal seed grants: Cancer Institute - ~$100K per year; Alzheimer’s Initiative - ~$100K per year; and Women in Science fund to support translational and clinical researchers - $TBD
* GSM is currently discussing a Governor’s Chair position. Momentum was building prior to COVID to identify research and research team that would be well position in data science. Hopeful one will be established by next year on GMS campus.

GMS offers student and resident opportunities with the Collmann Scholars Program for medical students who spend the summer at GMS between their 1st and 2nd year; UTK undergraduate students which includes BCMS 452); UTK graduate students; and Underrepresented Minority (URM) Student Research Fellowship pending funding approval.

GSM is developing a strategic plan for research with a major focus on collaboration. A strategic planning committee was created, information was gathered with a series of town halls and external consultation with Research Deans at Penn State Medical School and Dell Medical School of Austin. It should be ready for release by November 30th. The plan also highlights challenges. Upgrades to research space or new facility is needed, large clinical demands and compensation of MD researchers, and limited GSM salary when applying for Federal grants which is well below the NIH salary cap when the bulk of their salary comes from their clinical practice.

Current examples of OHI potential research projects includes (1) HPV by engaging dental health care providers in HPV prevention efforts; understanding current capacity of pharmacies to stock and administer the HPV vaccine and to identify barriers surrounding vaccine accessibility. (2) Disparities in breast cancer care with a focus on association between patient-caregiver relationship qualities and mutable factors. Future possibilities include mobile mammography unit intervention and broader effort on health disparities. Combining what GSM has in Appalachia with colleagues in Memphis presents unique opportunities nationally.

Adjournment: The Chair adjourned the meeting at 4:59 pm.

Minutes submitted by: Paula Brown

Next Meeting: December 9, 2020