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Grady Heads CICATS Biostatistics Center

The Connecticut Institute for Clinical and Translational Science (CICATS) welcomes James Grady, DrPH, as the newly hired Director of the Biostatistics Center, and Professor in the Department of Community Medicine and Health Care.

Dr. Grady served as a biostatistician for the General Clinical Research Center at the University of Texas Medical Branch in Galveston, TX for over fifteen years before joining the Health Center in January. He has experience in clinical and translational research as the lead statistician on numerous NIH funded grants, and has served as the first president of the Association of Clinical and Translational Statisticians.

In his new position, Dr. Grady will lead the further development of the CICATS Biostatistics Center that has fostering collaborative research as its primary mission. He joins other biostatisticians and faculty members: Dr. Richard Feinn (Psychiatry), Dr. Sangwook Kang (Statistics) and other faculty on a part-time basis.

Pilot Project Brings Additional Grant Funds

Two years ago, principal investigator Richard H. Fortinsky, PhD, Professor of Medicine and PHS Chair in Geriatrics & Gerontology, UConn Center on Aging, at the UConn Health Center, along with co-investigators from Brown University and the Connecticut Center for Primary Care, Inc. were awarded a planning grant from the Ethel Donaghue Center for Translating Research into Practice and Policy (TRIPP Center) to develop a comprehensive cost-effectiveness strategy for treating patients with diagnosed Alzheimer’s disease and other cognitive disorders in primary care settings.

Due in part to receipt of the TRIPP planning grant, this investigative team and partners from the UConn School of Nursing were awarded $410,680 from the National Institute for Nursing Research (NINR) to determine the preliminary efficacy of Proactive Primary Dementia Care (PPDC), a nurse practitioner-guided intervention based in primary care designed for the care of patients with Alzheimer’s disease and other cognitive disorders.

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The Biostatistics Center faculty and staff are responsible for providing statistical consultation and, where appropriate, collaboration, to investigators with existing study proposals. Working with the Biomedical Informatics (BMI), the Gateway and the Clinical Research Center, the Biostatistics Center will oversee and provide consultation on the establishment of online databases for tracking and coordinating research projects. In addition to developing their own research program, biostatistics faculty will develop short statistical training courses and create novel statistical tests.

Dr. Grady and other faculty are available for grant development consultations and research collaborations. CICATS statisticians are available for consultations for extramural grant applications free of charge. Statistical analysis services of existing data sets are available on a fee-for-service basis. To set up an appointment with Dr. Grady or a CICATS statistician, please visit http://cicats.uconn.edu/services/biostats.html.

Biomedical Informatics Division Develops

Over the last several months, the Biomedical Informatics (BMI) Division has been actively engaged in strategic planning and hard at work developing its core CICATS services. Under the direction of William A. Knaus, MD, the division has written and developed its vision and mission statements, and has been implementing a number of new tools and resources for investigators engaged in clinical and translational research.

Vision. The Biomedical Informatics Division of the University of Connecticut will be a recognized state and national leader concentrating on the development of a dynamic new information infrastructure integrating diverse biomedical data from genetic to environmental to enhance comprehensive biomedical research and the secure distribution of personal health care data to improve this nation’s health and health care.

Mission. The University of Connecticut Biomedical Informatics Division (BMID) is a new model, multidisciplinary academic division focused on the optimal education, research, service, and development required to integrate and interpret biomedical and healthcare data needed to improve understanding of complex biologic and clinical relationships and enable the safe and ethical sharing of personal health information.

In addition to Dr. Knaus, other faculty members have joined the University including Jinbo Bi, PhD (Computer Science and Engineering, UConn-Storrs), Michael Blechner, MD (Pathology and Laboratory Medicine, UConn Health Center), and Xioyan Wang, PhD (Family Medicine, UConn Health Center) since July, 2010.

The BMI Division provides tools, consulting services, education and research expertise to facilitate translational science. Among the new tools and resources being implemented are Profiles Research Networking Software, a social networking and collaboration tool; RedCap, a secure online tool for building and managing online surveys and databases; and Research Toolkit, a knowledge management system to assist new investigators navigate the research process.

BMI is also creating an innovative region wide solution to guide the acquisition, storage, accessibility and compliant use of clinical data. When implemented, the federated Connecticut Shared Health Research Information Network (CT-SHRINE) will support quality improvement initiatives and regional clinical and translational research.
to improve health-related outcomes in patients and their family caregivers (NINR Grant No. 5R21NR011127). The TRIPP Center-supported cost-effectiveness planning work mentioned in the NINR application was cited by reviewers as an important strength of that application.

During the planning grant period, the investigative team assembled and analyzed de-identified patient data from four primary care practitioner (PCP) sites to determine PCP-billed charges in all settings over 12 months following a diagnosis of Alzheimer’s disease or other dementia. Looking over the period January 2007 to June 2008, they identified newly-diagnosed patients by using dementia-associated ICD-9 codes in a uniform electronic billing system across all participating PCP sites. For each patient, billing codes and charges were grouped into PCP encounters in office, home care, hospital, and nursing home settings.

The investigators found evidence of significant PCP site variation in billed charges, and continue to investigate the potential influence of co-morbidities and other available severity of illness variables on PCP-generated charges. The study concluded that patients with newly-diagnosed dementia generate highly variable Medicare charges from PCP encounters in numerous ambulatory, acute care, and post-acute care settings, during the first post-diagnosis year. To help advance Medical Homes for dementia patients, per patient PCP-generated charges under usual care conditions, as well as adverse outcomes such as hospitalizations and nursing home admissions, must be compared to charges and utilization patterns for patients enrolled in augmented PCP-led Medical Home models such as the PPDC intervention. The group also learned about the limitations of using electronic billing data in PCP sites, and the value of enhancing these data with electronic health records, which were not uniformly available in all sites during the planning grant period but are now fully operational in these sites.

Dr. Jane Ungemack, Director of the TRIPP Pilot and Planning Grant Program states “this project was a good investment for Rick, his partners, and TRIPP.” This initial $40,000 pilot promoting clinical and translational research led to a 10-fold return on investment.

**Correctional Health Services Research Partnership**

Deborah Shelton, PhD, RN, FAAN

The CICATS Core Interest Groups (CIGs) are instruments to foster transdisciplinary collaborations. Their goal is to produce innovative clinical and translational research. Currently, there are 18 CIGs affiliated with CICATS including seven newly created CIGs. One of the newly formed CIGs is the Correctional Health Services Research (CHSR) partnership. This CIG partners with the University of Connecticut Health Center’s Correctional Managed Health Care program (CMHC) and the Connecticut Department of Correction (DOC) to identify study needs, modify treatments and interven-
tions for use in correctional environments, analyze outcome data derived from evidence-based studies in the 17 facilities and 34 half-way houses. The CIG is comprised of faculty, students and community partners focused on the delivery, monitoring, and evaluation of day-to-day treatments or services and adaptations of interventions for the Connecticut DOC.

The CIG crosses both the UConn Health Center and Storrs campuses, and includes faculty and students from three schools/departments, as well as from other Connecticut colleges and out of state universities. The UConn School of Nursing and School of Pharmacy, the UConn Health Center Department of Psychiatry, and CMHC are actively represented at the regular research team meetings. Research topics of interest are diverse, including diabetes, HIV, self-care management, factors contributing to recidivism, CareLink-C, health disparities, medication adherence and community re-entry.

Activities of CHRS CIG members include dissemination of research findings through national and international conferences and publications, collaborating with other investigators in the field, establishing a library database, and creating an effective website with access to information necessary for pursuing correctional research.

To learn more about the Correctional Health Services Research CIG, visit their websites at: http://cmhc.uchc.edu/research/ or http://www.nursing.uconn.edu/index.php?option=com_content&task=view&id=263&Itemid=492.