

NIH Awards Tulane University \$11 Million For Cancer Genetics Research Program

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Tulane University announced today that it will receive almost \$11.1 million in federal funding to continue a successful mentorship program that supports and nurtures the next generation of promising cancer genetics researchers in New Orleans.

The National Institutes of Health has awarded Tulane a five-year, \$10.5 million Center of Biomedical Research Excellence (COBRE) grant to continue a career development program affiliated with the Tulane Cancer Center and the Louisiana Cancer Research Consortium (LCRC). The center funds research projects for five junior faculty members and matches these investigators with a team of senior scientists in cancer genetics who act as mentors, guiding research progress as well as career development.

Tulane has also been awarded a two-year, \$599,393 supplemental grant from the 2009 American Recovery and Reinvestment Act (ARRA) to add a sixth junior faculty member to the program and four new mentors. The Center's goal is to grow the pool of research scientists in cancer genetics in New Orleans by helping junior faculty get to the point where they can obtain their own major funding from NIH and other national programs.

In an increasingly competitive environment, grants like this help New Orleans retain and attract some of the brightest new minds in cancer research, says Prescott Deininger, director of the Tulane Cancer Center and Joe and Dorothy Dorsett Brown Foundation Regents Distinguished Chair in Molecular Cancer Pharmacology for Tulane University School of Medicine.

"It is getting increasingly more complex and competitive in cancer research," says Deininger, principal investigator for the grant, professor of epidemiology in the Tulane University School of Public Health and Tropical Medicine and co-director of

the LCRC. “Scientists not only have to rely on and master more sophisticated equipment just to do their research, but they also must be equally adept at navigating the complex world of grant writing. We have to teach the next generation of cancer researchers the tricks of the trade and what it takes to get grant funding to continue their research.”

The COBRE program, which features mentors and mentees from Tulane and Louisiana State University Health Sciences Center, emphasizes lab-based research that can translate to clinical applications in cancer treatment. The grant includes funds to support senior faculty mentors and pay salaries for up to 20 skilled investigators or fellows. The current mentees and their research projects include:

- Victoria Belancio, assistant professor of structural and cellular biology at Tulane, is studying the role of L1 elements “virus-like segments of DNA spread throughout the genome” in cancer growth and development.
- Dr. Ilana Fortgang, assistant professor of clinical pediatrics and head of the section of gastroenterology at Tulane, is studying inflammation and its influence on colon cancer.
- Nick Makridakis, Tulane assistant professor of epidemiology, is researching somatic variations in genes that contribute to the development of prostate cancer.
- Dr. Zongbing You, assistant professor of structural and cellular biology at Tulane, is studying the role of cytokine receptor interleukin-17RC in initiation of prostate cancer.
- Dr. Tomoo Iwakuma, assistant professor of genetics at LSU Health Sciences Center, is researching the role of the gene MTBP in suppressing metastasis of osteosarcoma, a form of bone cancer.
- Dr. Bridgette Collins-Burow, assistant professor of medicine, section of hematology and medical oncology at Tulane, is studying a novel genetic therapy to fight triple negative breast cancer, an aggressive type of breast cancer that is prevalent among African-American women. Collins-Burow's research is part of the 2009 ARRA supplemental funding.

Tulane's cancer genetics mentoring program was founded in 2004 using a \$10 million, five-year COBRE grant from the NIH. The original program successfully mentored more than seven researchers from Tulane and LSU. One of the current mentors, Astrid Engel, assistant professor of epidemiology at Tulane, was a mentee.

Other mentors from Tulane include: Dr. Samir El-Dahr, professor and chair of pediatrics; Brian Rowan, associate professor of structural and cellular biology; Steven Hill, professor and chair of structural and cellular biology; Dr. Asim Abdel-Mageed, associate professor of urology; Dr. Oliver Sartor, Piltz Professor of Cancer Research; Dr. Roy S. Weiner, associate dean for clinical research and training; John McLachlan, professor and director of the Tulane/Xavier Center for Bioenvironmental Research; Erik Flemington, Zimmerman Professor of Cancer Research, and Dr. Joseph Lasky, professor of medicine and chief of the section of pulmonary diseases, critical care, and environmental medicine at Tulane. Wanguo Liu, associate professor of genetics at LSU, is also a mentor in the program.

Deininger says that the mentors are paired with researchers based on shared expertise, but all the mentees will have the opportunity to learn from the entire team of mentors based on their needs. "We want this to be a team approach," he says.

Several of the COBRE mentors and mentees will eventually move to the Louisiana Cancer Research Center, a 175,000-square-foot, state-of-the-art cancer research facility currently under construction on the corner of Tulane and South Claiborne avenues. This 10-story building is scheduled to open in September 2011 and will provide lab space for cancer investigators from Tulane, LSU and Xavier universities.

More information on COBRE research is available online at

<http://www.som.tulane.edu/centprog/htn/COBRE.htm>