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The Hamner Institutes for Health Sciences Names New Director *Dr. Qiang Zhang Leads Computational Modeling Efforts at Research Institute*

RESEARCH TRIANGLE PARK, N.C. – The Hamner Institutes for Health Sciences (www.thehamner.org), an independent, nonprofit organization that offers an open, collaborative and cross-disciplinary approach to translational biomedical research, has announced that Dr. Qiang Zhang has been named Director of The Hamner Center for Dose Response Modeling. As Director, Dr. Zhang will drive the center's mission of understanding non-linear biological response networks and developing computational methodologies that will allow researchers to understand the linkage between perturbations in cellular pathways and toxic response.

Using a systems biology approach, Dr. Zhang will lead efforts to understand how molecular networks of proteins and genes operating in the cell underlie cellular toxicity and adverse drug effects when humans are exposed to environmental pollutants or receive therapeutic chemicals. A systems biology approach involves iterative cycles of hypothesis development, computational modeling, and experimentation to qualitatively and quantitatively describe chemical perturbations of cellular pathways or processes. The resulting dose response behaviors from perturbations of these circuits can be used to create new tools for human health risk assessment.

Dr. Zhang earned his M.D. from Harbin Medical University in the People's Republic of China in 1995 and his Ph.D. in Physiology and Neurobiology at the University of Connecticut in Storrs, CT in 2003. He held a postdoctoral position in the Division of Computational Biology at The Hamner Institutes for Health Sciences in Research Triangle Park, NC from 2003 to 2006 when he was promoted to Research Investigator. The author of a number of scientific articles, Dr. Zhang has served as an editorial and scientific reviewer for several professional journals, including The Open Toxicology Journal, Bulletin of Mathematical Biology, and Gene Regulation and Systems Biology, etc. Dr. Zhang maintains professional memberships in Society of Toxicology, the Endocrine Society, and International Society for Computational Biology.

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Quotes:

“Being able to qualitatively and quantitatively predict how a chemical, whether an environmental pollutant or drug, will perturb cellular pathways is a key component in the development of new human health assessment tools,” said Dr. Qiang Zhang, new Director of The Hamner Center for Dose Response Modeling. “The Hamner combines dose response modeling, genomic biology, bioinformatics, and human health assessment capabilities to work toward a new paradigm in toxicity testing, envisioned by the 2007 National Academies of Sciences publication *Toxicity Testing in the 21st Century*. I am extremely excited about the opportunity to implement this vision with my colleagues.”

"I am proud to announce Dr. Qiang Zhang's selection as the Director of The Hamner Center for Dose Response Modeling," said Dr. Mel Andersen, Director of The Hamner Program in Chemical Safety Sciences. "Dr. Zhang has demonstrated a passion and commitment to lead The Hamner's computational modeling efforts forward and to utilize computational tools to improve decision-making about chemical safety and improve public health."

About the Hamner Institutes for Health Sciences:

The Hamner Institutes for Health Sciences is a nonprofit research organization strategically located on a 56-acre campus in the heart of Research Triangle Park, North Carolina. For 35 years, scientists at The Hamner have conducted preeminent research in environmental health sciences and chemical risk assessment. Built upon an integrated systems-biology platform, The Hamner has broadened its mission to include translational research in biopharmaceutical safety, metabolic disorders, and oncology. The site also includes an Accelerator, which houses emerging companies and provides opportunities to develop collaborative research and educational programs with academia, industry, and government. The Hamner model for translational research and technology development integrates innovative science with business development while capitalizing on academic and industry partnerships. The Hamner supports the discovery of new, safer drugs and formation of new companies, which leads to research-based public health policy and enhanced economic development. For more information, visit www.thehamner.org or call (919) 558-1200.

Keywords:

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