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FOR IMMEDIATE RELEASE

Maryland Stem Cell Research Commission Recommends 24 Projects for Funding

COLUMBIA, Md. (May 17, 2007) – The Maryland Stem Cell Research Commission (Commission) has completed its evaluation of the 86 grant applications received in response to the Requests for Applications, and has recommended 24 projects for funding under the Maryland Stem Cell Research Act of 2006. The projects recommended for funding include seven Investigator Initiated Grants and 17 Exploratory Grants.

- Seven applications for RFA-MD-06-1 (Investigator-Initiated Research Grants) – These grants are designed for investigators with preliminary data supporting the grant application. They are:

Dr. Angelo All
Johns Hopkins University - Whitaker Biomedical Engineering Institute
“Human Embryonic Stem Cell-Derived Oligodendrocytes and Electrophysiological Studies in a Contusion Model of Spinal Cord Injury in the Rat”

Dr. Jeff Bulte
Johns Hopkins University - School of Medicine
“Human Embryonic Stem Cell-Derived Neurospheres for Treatment of Multiple Sclerosis”

Dr. Curt Civin
Johns Hopkins University - Kimmel Cancer Center
“MicroRNA Regulation of Adult and Embryonic Human Hematopoietic Development”

Dr. William Lederer
University of Maryland, Biotechnology Institute - Medical Biotechnology Center
“Human Mesenchymal Stem Cell Treatment for Heart Damage”

Dr. Lloyd Mitchell
RetroTherapy, LLC
“Preservation of Potentiality in Genetically Altered Stem Cells”

Dr. Hongjun Song
Johns Hopkins University - School of Medicine
“Characterization of Neuronal Potentials of Human Embryonic Stem and Adult Neural Stem Cells”

Dr. Elias Zambidis
Johns Hopkins University - Kimmel Cancer Center
“Human Embryonic Stem Cell Models of Normal and Leukemic Human Stem Cell”

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- 17 applications for RFA-MD-06-2 (Exploratory Research Grants) – These grants are designed for investigators who are new to the stem cell field (new investigators and investigators from other fields), and for new hypotheses, approaches, mechanisms or models that may differ from current thinking in the stem cell field, without any preliminary data supporting the application. They are:

Dr. Shyam Biswal
Johns Hopkins University - School of Public Health
“Nrf2 as a Target for Cancer Stem Cell Chemoresistance”

Dr. Srinivasan Chandrasegaran
Johns Hopkins University - School of Public Health
“Targeted Engineering of the Human Genome in Stem Cells”

Dr. Nancy Craig
Johns Hopkins University - School of Medicine
“Genome Engineering of Human Stem Cells for Gene Therapy”

Dr. Shengyun Fang
University of Maryland, Biotechnology Institute - Medical Biotechnology Center
“Ubiquitination-Dependent Regulation of Oct-4 Activity”

Dr. Ricardo Feldman
University of Maryland, Baltimore - School of Medicine
“A Model for Generation of Gaucher-Specific Human Embryonic Stem Cells, and for Reconstitution of Glucocerebrosidase Expression in Human Embryonic Stem Cell-Derived Macrophages”

Dr. Paul Fishman
University of Maryland, Baltimore - School of Medicine
“Transcription Factor Driven Differentiation of Neural Stem Cells”

Dr. Gary Fiskum
University of Maryland, Baltimore - School of Medicine
“Stem Cell Antioxidant Gene Preconditioning for Improved Cell Survival and Neurologic Outcome after Traumatic Brain Injury”

Dr. John Fisher
University of Maryland College Park – School of Engineering
“Human Mesenchymal Stem Cells for Craniofacial Bone Regeneration”

Dr. M. Jafri
University of Maryland, Baltimore - School of Medicine
“A Delivery System for Stem Cells”

Dr. Candace Kerr
Johns Hopkins University - School of Medicine
“Defining Genes Associated with Human Stem Cell Pluripotency and Self-Renewal”

Dr. Hai-Quan Mao
Johns Hopkins University - Whiting School of Engineering
“Engineering an Artificial Neural Stem Cell Niche”

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Dr. Andrew McCallion
 Johns Hopkins University - School of Medicine
 "Illuminating Human Cardiac Development and Disease through Transcriptional Analysis in Differentiating Human Embryonic Stem Cells"

Dr. Guo-li Ming
 Johns Hopkins University - Institute for Cell Engineering
 "Mechanisms Regulating Self Renewal of Human Embryonic Stem Cells"

Dr. Akhilesh Pandey
 Johns Hopkins University - School of Medicine
 "Proteomic Characterization of Neural Differentiation in Human Embryonic Stem Cells"

Dr. Adam Puche
 University of Maryland, Baltimore - School of Medicine
 "Regulating Stem Cell Migration in the Adult Brain"

Dr. Hamid Rabb
 Johns Hopkins University - School of Medicine
 "Isolation, Expansion and Regenerative Potential of Human Adult Kidney Derived Stem Cells"

Dr. Karen Zeller
 Johns Hopkins University - School of Medicine
 "Myc's Role in Maintenance and Tumorigenicity of Human Embryonic Stem Cells"

"The Maryland Stem Cell Research Commission was pleased and impressed with the quality and breadth of the grant applications received in this first cycle under the state's stem cell research funding program, especially in light of the unusually short timeframe available for applicants to prepare their submissions," said Linda Powers, chairwoman of the Commission. "By funding basic and translational research with high scientific merit, it is our goal to help support cutting edge science in the state, and bring new treatments to patients. The Commission is especially pleased to have received from the General Assembly, with the strong leadership and support of Governor O'Malley, an appropriation of \$23 million for a second year of grant funding in FY 2008. The Commission is very much looking forward to receiving an even broader pool of high quality applications in the next cycle."

Grants awarded from the Maryland Stem Cell Research Fund are contingent upon the Principal Investigator having obtained all applicable approvals from an Institutional Review Board (IRB) and an Institutional Animal Care and Use Committee (IACUC), and having signed an agreement with the Maryland Technology Development Corporation (TEDCO) setting forth the scope of each project and the requirements relating to diligent execution of the project, sharing of any new cells lines, publication of results, and the like. Details of the awards will be finalized by TEDCO and the Principal Investigators on each project, in connection with the execution of grants agreements over the next several weeks.

The amounts of the awards will be disclosed once final terms are negotiated and the agreements are signed with the Principal Investigators. Research activity can then begin immediately.

The Commission will be continuing to meet on a nearly monthly basis, and at its upcoming meetings will begin planning for the FY 2008 program cycle. The Commission plans to review and evaluate the

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first year of operations, establish a tentative timeframe for applications for funding in FY 2008 and review the content and status of other states' stem cell programs and initiatives. In the legislative session just concluded, the Maryland Stem Cell Research Fund received an appropriation of \$23 million that can be awarded during FY 2008 for stem cell research.

The Commission received 86 applications in response to its two official Requests for Applications (RFAs) for funding. Grants awarded under these two RFAs will fund basic and translational research with human stem cells of all types, as defined in the Maryland Stem Cell Research Act. The goals of this program are to broaden and advance basic knowledge of human stem cell biology that will be relevant for eventual development of clinical applications, and to enable, support and accelerate such clinical applications for prevention, diagnosis and treatment of human diseases and conditions. The Commission sought the widest range of research topics that may achieve these goals.

The work funded must be conducted in Maryland. The scientists and clinicians conducting the work must be employed or retained by an eligible Maryland-based organization while doing so. Such employment or retainer may be permanent or temporary, full-time or part-time.

All Principal Investigators funded will be required to present their interim and final research results at an annual in-state symposium and in Annual Reports to the Maryland Stem Cell Research Commission.

New cell lines initially developed with this funding will be required to be shared with other qualified researchers. Applicants may require the receiving researchers to pay reasonable compensation for the new cell lines. Applicants will be free to decide, at their discretion, whether and to what extent to cover such new cell lines with intellectual property and contractual protections.

Consistent with NIH practices, pursuant to the Maryland Stem Cell Research Act of 2006, the Commission considers grant applications confidential and does not release specific application data for projects that are not recommended for funding.

Questions by applicants may only be addressed by email, through the following contact:
MSCRFinfo@MarylandTEDCO.org.

Established as an independent unit within the Maryland Technology Development Corporation (TEDCO), the Maryland Stem Cell Research Commission was set up to establish criteria, standards and requirements to ensure that stem cell research financed by the newly established Maryland Stem Cell Research Fund complies with state law. A \$15 million Maryland Stem Cell Research Fund has been established in FY 2007 to promote state-funded stem cell research by public and private entities in the state. For more information about the Maryland Stem Cell Research Fund and a list of Commission members, please visit www.MarylandTEDCO.org.

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