



Osiris Therapeutics Appoints Nuclear and Radiological Countermeasure Advisory Board

Leading Experts to Assist in Development of Prochymal™ for Emergency Preparedness Applications

COLUMBIA, MD, August 30, 2007 - Osiris Therapeutics, Inc. (NASDAQ:OSIR), announced the formation of a Nuclear and Radiological Countermeasure Advisory Board. The Advisory Board will provide guidance to the company on the development of Prochymal™ for use as a medical countermeasure for nuclear terrorism and other radiological emergencies.

Steven Bice, Martin Hauer-Jensen, M.D., Ph.D., Hans Klingemann, M.D., Ph.D., Thomas J. MacVittie, Ph.D., and Major General John S. Parker, M.D. US Army (Ret.), each recognized experts in areas that are relevant to the initiative, joined the Advisory Board to assist Osiris with its groundbreaking efforts to aid government agencies of the United States and its allies against the threats of nuclear and radiological attack.

"We are excited and honored to have assembled such an outstanding advisory board," said C. Randal Mills, Ph.D., President and Chief Executive Officer of Osiris. "Expert counsel and insight is critical to ensuring the program's success. Collectively, the members provide insight into the practical considerations of radiation countermeasure, optimal delivery options, best clinical practices, and cutting-edge research on the effectiveness of new treatments. Ultimately, their support will help protect both military and civilian populations."

Steven Bice served for 35 years with the Centers for Disease Control and Prevention (CDC), and served as the head of the Strategic National Stockpile (SNS) from its inception in 1999, until his retirement in 2005. Mr. Bice oversaw the establishment of the Emergency Operations Center for CDC, and managed continuous deployments of critical medical staff throughout the world to address medical emergencies including SARS, avian flu, and the tsunami in Southeast Asia.

Martin Hauer-Jensen, M.D., Ph.D. is a Professor of Surgery and Pathology at the University of Arkansas Cancer Research Center. Dr. Jensen leads a team that investigates the basic mechanisms of radiation injury and developing strategies to prevent, reduce, or treat radiation injury. Dr. Hauer-Jensen is a Project Leader and member of the Steering Committee for the Radiation Countermeasures Center of Research Excellence (RadCCORE) at Duke University and a reviewer and advisor for the Radiation Event Medical Management (REMM) group at the U.S. Dept. of Health and Human Services.

Hans Klingemann, M.D., Ph.D. is a Professor of Medicine and the Director of the Bone Marrow & Hematopoietic Stem Cell Transplant Program at Tufts University School of Medicine. Dr. Klingemann was one of the first physicians to use Prochymal successfully for the emergency treatment of the critically ill. Dr. Klingemann is an international authority in the field of stem cell transplantation whose publications include over 150 original manuscripts, 15 book chapters, 9 books, and many editorials and reviews.

Thomas J. MacVittie, Ph.D. is a Professor in the Departments of Radiation Oncology and Pathology at the University of Maryland, Baltimore. Dr. MacVittie is recognized internationally as an expert in radiation-induced injury and has published 135 peer-reviewed manuscripts and 42 chapters in books or proceedings. Dr. MacVittie is a member of the NIAID/FDA Medical Countermeasures Working Group (WG) as well as the CDC Strategic National Stockpile Radiation WG. He has served as an advisor to the WHO Collaborating Centers in Radiation Emergency Medical Preparedness and Assistance and as a member of NATO Radiation Research Study Groups.

Major General John S. Parker, M.D. U.S. Army (Ret.) is currently Senior Vice President supporting SAIC's efforts in national homeland defense and biological threat reduction. Among his many appointments in 37 years of distinguished military service, General Parker was Commanding General, U.S. Army Medical Research and Materiel Command; Special Assistant Secretary of Defense for Medical, Chemical and Biological Defense; and Commanding General of Medical Contracting Activity at Fort Detrick.

A more detailed biography for each member of the Advisory Board is available on our website at www.Osiris.com.



About Osiris Therapeutics

Osiris Therapeutics, Inc. is a leading stem cell therapeutic company focused on developing and marketing products to treat medical conditions in the inflammatory, orthopedic and cardiovascular areas. Osiris currently markets and sells Osteocel® for regenerating bone in orthopedic indications. Prochymal™ is in Phase III clinical trials for both Graft versus Host Disease and Crohn's disease and is the only stem cell therapeutic currently designated by FDA as both an Orphan Drug and Fast Track product. Osiris has also partnered with Genzyme Corporation to develop Prochymal™ as a medical countermeasure to nuclear terrorism and other radiological emergencies. The Company's pipeline of internally developed biologic drug candidates under evaluation also includes Chondrogen™ for arthritis in the knee, and Provacel™, for repairing heart tissue following a heart attack. Osiris is a fully integrated company, having developed capabilities in research, development, manufacturing, marketing and distribution of stem cell products. Osiris has developed an extensive intellectual property portfolio to protect the company's technology in the United States and a number of foreign countries including 47 U.S. and 167 foreign patents owned or licensed. More information can be found on the company's website, www.Osiris.com. (OSIR-G)

Forward-Looking Statements

This press release contains forward-looking statements. Forward-looking statements include statements about our expectations, beliefs, plans, objectives, intentions, assumptions and other statements that are not historical facts. Words or phrases such as "anticipate," "believe," "continue," "ongoing," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project" or similar words or phrases, or the negatives of those words or phrases, may identify forward-looking statements, but the absence of these words does not necessarily mean that a statement is not forward-looking. Examples of forward-looking statements include, but are not limited to, statements regarding the following: our product development efforts; our clinical trials and anticipated regulatory requirements; the success of our product candidates in development; status of the regulatory process for our biologic drug candidates; implementation of our corporate strategy; our financial performance; our product research and development activities and projected expenditures, including our anticipated timeline and clinical strategy for MSCs and biologic drug candidates; our cash needs; patents and proprietary rights; ability of our potential products to treat disease; our plans for sales and marketing; our plans regarding our facilities; types of regulatory frameworks we expect will be applicable to our potential products; and results of our scientific research. Forward-looking statements are subject to known and unknown risks and uncertainties and are based on potentially inaccurate assumptions that could cause actual results to differ materially from those expected or implied by the forward-looking statements. Our actual results could differ materially from those anticipated in forward-looking statements for many reasons, including the factors described in the section entitled "Risk Factors" in our Annual Report on Form 10-K filed with the United States Securities and Exchange Commission. Accordingly, you should not unduly rely on these forward-looking statements. We undertake no obligation to publicly revise any forward-looking statement to reflect circumstances or events after the date of this press release or to reflect the occurrence of unanticipated events.

For additional information, please contact Erica Elchin at 443.545.1834.