Press Release

For Immediate Release

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Cleveland Clinic Doctors and Materials Experts to Open Materials, Medicine, and Nanotechnology Summit

Experts Highlight Innovative Work with Materials, Nanotechnology and Medical Devices

CLEVELAND (August 7, 2006) – Renowned keynote speakers will describe the spectrum of materials-related challenges in orthopedics and spinal disorders, cardiovascular diseases, neurology and neurosurgery, and minimally invasive surgery at the upcoming Materials, Medicine and Nanotechnology Summit, to be held in Cleveland, Oct. 2-5, 2006.

Hosted by Cleveland Clinic, ASM International and the Nano-Network, the Summit will bring together clinicians, materials experts and medical device manufacturers and suppliers to discuss the latest materials advances, nanotechnology discoveries and medical applications for the healthcare industry.

Plenary keynote speakers from Cleveland Clinic include:

- **Edward C. Benzel, M.D.,** *Chairman of the Cleveland Clinic Spine Institute and Director of the Neurological Surgery Residency Training Program.* An internationally recognized thought leader in spine surgery and biomechanics, Dr. Benzel has authored numerous texts and seminal articles. His creativity and innovations have led to the definition of new operative procedures, the development and commercialization of several ground breaking and field changing spinal implants, and the creation of a Cleveland Clinic spin-off company using Micro-Electro-Mechanical Systems (MEMS) for orthopedic applications. Dr. Benzel will discuss the future of spine surgery and opportunities for using micro- and nanotechnology that enable neurosurgeons and orthopedic surgeons to perform therapies that were previously thought impossible, and to monitor patients more accurately and with greater safety.

- **Leonard A.R. Golding, M.D.**, *Director of the Innovative Ventricular Assist System (IVAS) Program at Cleveland Clinic*, who will discuss the state-of-the-art cardiac pump for use in patients with terminal heart failure that was developed at Cleveland Clinic. The pump is designed to replace the function of the left ventricle muscle – either partially or completely – in these patients. The pump is part of the CorAide Cardiac Assist System which is currently in clinical trials in Europe.

- **Ali Rezai, M.D.,** *Chairman of the Center for Neurological Restoration and Director of the Brain Neuromodulation Center at Cleveland Clinic*. Dr. Rezai is one of the leading functional neurosurgeons in the world and was among the first in the country to perform a highly promising neurosurgery procedure involving the use of a "pacemaker" for the brain that halts the occurrence of tremors in patients with Parkinson's disease. At the Summit, Dr, Rezai will discuss the brain surgery technique called deep brain stimulation and the pacemaker device that has led to improved quality of life from patients suffering with Parkinson's disease, migraine headaches or other chronic pain syndromes, depression, obsessive-compulsive disorders, and stroke survivors.

Plenary keynote speakers representing ASM's Materials and Processes for Medical Devices initiative include:

- **Dana J. Medlin, Ph.D.,** *Associate Professor, Materials & Metallurgical Engineering Department, South Dakota School of Mines and Technology.* A leading expert on materials for orthopedic applications who was previously principal engineer for Zimmer Inc., Medlin will describe major trends in minimally invasive surgical (MIS) procedures, which radically reduce the size of the surgical incision and potentially causes less damage to the soft tissue surrounding the replaced joint. Results of MIS include less postoperative pain, shorter hospital stays, faster recovery times and an overall lower cost to the health care system.

- **Sanjay Shrivastava, Ph.D.,** Principal Engineer, Abbott Vascular Devices. Shrivastava was named one of the 100 most notable people in the medical device industry by *Medical Device & Diagnostic Industry* magazine and has been instrumental in developing materials for implantable medical devices. He will describe the impact of materials on the development of minimally invasive procedures and implants, which have replaced many complex surgical procedures during the past decade. Currently developing novel stent materials at Abbott Vascular Devices in Redwood City, California, Shrivastava also worked for Edwards Lifesciences on novel processes and materials for heart valves and peripheral stent applications.

The Summit will feature a Nanomedicine track focused on biomedical sensors, drug delivery, cellular diagnostics, tissue engineering and clinical opportunities for nanoparticles. A parallel program track on Materials and Processes for Medical Devices (MPMD) will recognize the role of materials selection and processes in the development of new devices.

On Monday, Oct. 2, the Summit will feature a day of Materials and Processes for Medical Devices training courses covering polymers, basic metallurgy, Nitinol, and fracture and fatigue for medical devices. Morning sessions are designed for engineers and materials professionals, with afternoon sessions designed for clinicians and medical practitioners.

Please visit the conference website at www.nanomedicinesummit.org for registration and exhibitor information.

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