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**Can Our Immune System Be Used to Treat and Prevent Melanoma Growth?**  
*CINJ Physician-Scientist Receives Grant from the  
Melanoma Research Foundation to Explore this Possibility*

**New Brunswick, New Jersey, January 22, 2007** – Jonathan H. Lee, M.D., surgical oncologist at The Cancer Institute of New Jersey and Assistant Professor of Surgery, UMDNJ-Robert Wood Johnson Medical School recently received a \$50,000 Career Development Grant Award from the Melanoma Research Foundation for his proposal, “The Molecular Mechanisms of Melanoma Sentinel Node Immunosuppression.”

Localized melanomas are often curable by surgery alone, but once melanoma spreads to other parts of the body, it can cause significant problems, including death. More than 80% of melanoma patients who will eventually die of their disease already have undetectable disease present in other parts of the body at the time of their initial diagnosis. While a therapy that can prevent growth of melanoma in these organs can significantly improve survival, unfortunately, the mechanism by which these small sub-clinical diseases grow into large life-threatening lesions remains unknown. This poses a significant problem in designing a therapy that can prevent melanoma growth. However, significant evidence exists to support the idea that melanoma progression and growth is partly dependent upon melanoma-induced disruption in our immune system. Regional lymph nodes contain immune regulatory cells that can fight offending agents (including melanoma), and sentinel lymph nodes are the first lymph nodes to which melanoma spreads. Thus, evaluation of tumor-related immune responses in the sentinel lymph nodes provides a unique opportunity to understand the initial phase of interaction between melanoma and our immune system.

“By identifying the specifics of how melanoma disrupts our immune system, we can potentially design a therapy that can use our own immune system to effectively combat and deter melanoma growth, states Dr. Lee. “Application of such strategy is not just limited to melanoma, but could be applied to a variety of cancers with regional nodal metastasis.”

The Career Development Grant Award from the Melanoma Research Foundation (MRF) is awarded as a means to encourage junior investigators to enter the field of melanoma research. The MRF is a national non-profit health organization whose mission is to fund research to find more effective treatments and a cure for melanoma, to educate clinicians, related healthcare providers, patients and families about melanoma prevention and treatments, and to advocate on behalf of the melanoma patient and scientific community.

**About The Cancer Institute of New Jersey**

The Cancer Institute of New Jersey is New Jersey's only National Cancer Institute-designated Comprehensive Cancer Center, and is dedicated to improving the prevention, detection, treatment and care of patients with cancer. CINJ's physician-scientists engage in translational research, transforming their laboratory discoveries into clinical practice-quite literally bringing research to life. The Cancer Institute of New Jersey is a Center of Excellence of UMDNJ-Robert Wood Johnson Medical School. To support CINJ, please call The Cancer Institute of New Jersey Foundation at 1-888-333-CINJ.

The Cancer Institute of New Jersey Network is comprised of hospitals throughout the state and provides a mechanism to rapidly disseminate important discoveries into the community. Partner Hospitals: Robert Wood Johnson University Hospital, Atlantic Health System (Morristown Memorial Hospital, Mountainside Hospital, Overlook Hospital). Affiliate Hospitals: Bayshore Community Hospital, CentraState Healthcare System, Cooper University Hospital (CINJ at Cooper),\* Jersey Shore University Medical Center, JFK Medical Center, Monmouth Medical Center, Raritan Bay Medical Center, Robert Wood Johnson University Hospital at Hamilton (CINJ-Hamilton), Saint Peter's University Hospital, Somerset Medical Center, Southern Ocean County Hospital, The University Hospital/UMDNJ-New Jersey Medical School,\* and University Medical Center at Princeton. *\*Academic Affiliate*

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