# BD Biosciences Announces Second Set of Winners of Expanded Research Grant Program

Becton, Dickinson and Company
**(June 03, 2010) --**
BD Biosciences, a segment of BD (Becton, Dickinson and Company), announced today the seven winners of the spring 2010 cycle of its expanded Research Grant Program. These winners will receive research reagents valued at a total of $70,000 to conduct innovative cellular analysis research.

"BD is committed to helping advance life science research and ultimately the discovery of new therapies," said Robert Balderas, Vice President of Biological Sciences, BD Biosciences. "This commitment extends beyond developing state-of-the-art research tools to supporting the very work that may one day improve our understanding of disease and lead to effective new treatments for some of societys most deadly and debilitating conditions."

An independent panel of distinguished scientists selected the winners. Each grant recipient will receive a $10,000 grant of research reagents to help carry out their research. The winners of the BD Biosciences Research Grant Program for the spring 2010 cycle are:

**Angela Archambault, Ph.D.**, a senior research technician in the Department of Neurology, Washington University in St. Louis. Dr. Archambaults research focuses on the roles of dendritic cells in mediating experimental autoimmune encephalomyelitis (EAE), an inflammatory central nervous system disease in mice that models multiple sclerosis. Archambault hypothesizes that cells participating in the inflammation arise from the bone marrow as dendritic precursor cells. Archambaults goals are to characterize these cells, establish a timeline for their activation, and eventually identify cells and pathways that might be suppressed pharmacologically as potential treatments for multiple sclerosis.

**Paul Ashwood, Ph.D.**, an assistant professor in the Department of Medical Microbiology and Immunology at the University of California, Davis, and the M.I.N.D. Institute. Dr. Ashwoods group is involved in developing a cell-based model of autism to study the effects of immune dysfunction on the development and course of the disease. The immune system is thought to play a role in the pathophysiology of autism and other neuro-developmental disorders. Testing specific hypotheses is complicated by the lack of an adequate animal model for autism. Ashwoods research uses monocytes, which are readily accessible from blood. Monocytes are believed to be the precursors of brain macrophages and microglia, the activation of which is one component of immunologic phenomena associated with autism.

**Walter "Sunny" Dzik, M.D.**, Co-Director of the Blood Transfusion Service at Massachusetts General Hospital and an associate professor of pathology at Harvard Medical School in Boston. Dr. Dziks research focus is malaria, a parasitic disease

that kills nearly 1 million people per year worldwide. Dzik studies the adhesion of malaria-infected red blood cells to platelets and blood vessels. These interactions are mediated by a malaria parasite protein, PfEMP-1, which is expressed as "bumps" on the blood cell surface and, in platelets, the protein CD36. Adhesion results in blood cell clumping, which leads to sometimes-fatal blood vessel obstruction.

**Julia Kirshner, Ph.D.**, an assistant professor of biological sciences at Purdue University. Dr. Kirshners research focus is multiple myeloma, an incurable white blood cell cancer with nearly a 100 percent relapse rate. Kirshner plans to devise methods based on cell surface markers to isolate cancer stem cells, drug-resistant cells that are believed to be responsible for the relapse of multiple myeloma. Goals of this project include designing new methods for studying cancer stem cells and obtaining enough cells for drug discovery, developing diagnostics for monitoring them in patients, and evaluating the effectiveness of an eventual drug therapy for multiple myeloma.

**Peter Walker, M.D.**, an NIH Postdoctoral Fellow and general surgery resident at the University of Texas, Houston.  Dr. Walker studies how stem cell therapy affects the inflammatory response in traumatic brain injury. Walkers work is based on the finding that the therapeutic benefits of stem cells arise from a systemic effect rather than through migration to the injury site, grafting, and differentiating into replacement cells. Walker hypothesizes that stem cells enter the spleen, where they recruit immune system-suppressing T-regulatory cells. In traumatic brain injury, these cells are believed to induce a neuro-protective anti-inflammatory response.

**Georgia Perona-Wright, Ph.D.**, a postdoctoral fellow at the Trudeau Institute in upstate New York. Dr. Perona-Wrights research focuses on the cytokine responses of CD8+ T-cells following influenza infection. Virus-specific CD8+ T-cells persist for many months after infection or vaccination. The presence of these cells enables the immune system to mount a stronger and faster response to any subsequent encounters with the virus, protecting the body against re-infection. But how well these CD8+ cells perform their job is influenced by the cytokine signals that they receive during their activation, and Perona-Wright is investigating which cytokine signals can boost the CD8+ cells response and which can restrain it. Ultimately, Perona-Wright hopes that knowledge of these signaling pathways will lead to vaccination strategies that are more effective against seasonal and pandemic flu, and perhaps with other developments will contribute to a universal influenza vaccine.

**Sheng Wu, Ph.D.**, a postdoctoral researcher in the Melanoma Oncology Department at MD Anderson Cancer Center at the University of Texas. Dr. Wu studies the mechanisms by which certain melanoma patients experience clinical responses to interleukin-2 therapy, while others do not. Wu and his colleagues hypothesize that non-responders possess defects in one or more cell signaling pathways, which "turn off" the responses to IL-2. They plan to investigate relevant immune system molecules systematically by comparing cells of responders and non-responders before and after treatment.

With these recipients, the BD Biosciences Research Grant Program will have

awarded 14 scientists with a total of $140,000 worth of research reagents to support research projects in one of seven core areas – stem cell, multicolor flow cytometry, cell signaling, cancer, immune function, infectious diseases and neurosciences.

**About the BD Biosciences Research Grant Program**

BD Biosciences Research Grant Program aims to reward and enable important research by providing vital funding for scientists pursuing innovative experiments to advance the scientific understanding of disease. The grant submissions are judged by a distinguished research panel of non-affiliated scientists. Through its grant program, BD Biosciences supports innovation in research and development that could lead to tomorrows scientific breakthroughs.  For more information, please visit: http://www.bdbiosciences.com/research/grant/winners/index.jsp [1].

**About BD**

BD is a leading global medical technology company that develops, manufactures and sells medical devices, instrument systems and reagents. The Company is dedicated to improving people's health throughout the world. BD is focused on improving drug delivery, enhancing the quality and speed of diagnosing infectious diseases and cancers, and advancing research, discovery and production of new drugs and vaccines. BD's capabilities are instrumental in combating many of the world's most pressing diseases. Founded in 1897 and headquartered in Franklin Lakes, New Jersey, BD employs approximately 29,000 associates in more than 50 countries throughout the world. The Company serves healthcare institutions, life science researchers, clinical laboratories, the pharmaceutical industry and the general public. For more information, please visit www.bd.com [2].

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