

NEWS RELEASE
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SCRA MUSC Innovation Center, Charleston Is Open for Business

Grand opening ceremony held today at 645 Meeting Street

*Speakers included: Mayor Joe Riley, City of Charleston
Dr. Raymond Greenberg, President, MUSC
Dr. Andrew Kraft, Vortex Biotechnology Corp.
Dr. Ryan Fiorini, Immunologix, Inc.
Bill Mahoney, SCRA CEO*

CHARLESTON, SC – December 18, 2009 – SCRA, the Medical University of South Carolina (MUSC), and the City of Charleston held a grand opening ceremony today for the [SCRA MUSC Innovation Center, Charleston](#), at 645 Meeting Street. The fully-renovated facility attracts and supports start-up companies with wet lab and equipment space, primarily in concert with entrepreneurs commercializing MUSC research. With this collaboration, SCRA is fulfilling legislative mandates identified in the Innovation Centers Act focused on the commercialization of new knowledge-based health care discoveries.

“We celebrate the opening of the SCRA MUSC Innovation Center. This will be a vital research incubator and laboratory facility and will focus interest and attention on the capability of this area to foster the knowledge based bio-tech industry. While continuing the City’s commitments in the Cooper River Bridge Community Mitigation Partnership Agreement, the facility will bring significant economic development benefits of financial investment and job creation for the 21st century economy,” said Mayor Joseph P. Riley, Jr, City of Charleston. “In addition, the community is looking forward to the benefit of a 24-hour police substation as well as a new community meeting room.”

Four start-up companies, all created from technology formed at MUSC, are already slated to be headquartered in the new Center as of January (**company profiles are included at the conclusion of this press release**):

- [Immunologix](#) has created a technology that allows replication of human antibodies from cells recovered from discarded immune tissue. This technology meets the current need of antibody-based therapeutics through an in-vitro system.
- [Microbial Fuel Cell Technologies](#) is commercializing the use of microbial fuel cells as emerging waste reduction and alternative energy technology products in the forms of Hydrogen and Ethanol.
- Neurological Testing Services investigates pharmaceutical compounds in models associated with neurodegenerative diseases including Parkinson's, Alzheimer's, stroke and epilepsy.
- Vortex Biotechnology Corp. – Vortex focuses on the development of inhibitors of Pim protein kinases, which are key regulators of prostate cancer and certain leukemias. Vortex designs, synthesizes and evaluates proprietary Pim inhibitors, with the goal of moving an agent into clinical testing for the treatment of cancer.

“Our partnership with MUSC and The City of Charleston is a prime example of effective collaboration that fosters the Knowledge Economy in South Carolina,” said Bill Mahoney, SCRA CEO. “SCRA is dedicated to improving the economic environment in Charleston and across South Carolina by investing our capital in an infrastructure that is supporting the creation of high-paying, knowledge economy jobs.”

“The opening of the Innovation Center marks a signal event for economic development in Charleston and South Carolina,” said Ray Greenberg, MUSC President. “The young companies housed in the incubator, many spun off from research at the Medical University, will be the engines that drive the development of the bioscience industry in the future. We are so pleased to partner with the City of Charleston and SCRA to meet this important need.”

Mahoney said the property provided by the City is a key location for an innovation center that provides easy access, visibility and economic opportunity for the citizens of Charleston. “Now operational, this facility is a technology-based cornerstone for the upper Meeting Street area that will complement nearby retail and residential developments,” he said.

SCRA has provided funding and support for 130 new knowledge-based start-ups in South Carolina since its inception in April, 2006, through its SC Launch program. That program has attracted more than \$71M in add-on private equity investment in South Carolina companies. According to a recent survey by The University of South Carolina Moore School of Business, jobs facilitated by SCRA and SC Launch provided per capita annual wages between \$55,000 and \$77,000 and SCRA operations made a >\$1.4B economic contribution in South Carolina during 2007.

Following are profiles of the companies moving into the SCRA MUSC Innovation Center:

Neurological Testing Services

Neurological Testing Services (NTS) was founded on the research of MUSC Assistant Provost, Dr. Mark Kindy in 1999. The company investigates pharmaceutical compounds in models associated with neurodegenerative diseases that include Parkinson's disease, Alzheimer's disease, stroke and epilepsy.

NTS assists companies and inventors to realize the positive applications of their novel compounds with a diverse application of model testing procedures. The pharmaceutical industry is one of great dynamics. The cost-effective service of NTS allows for analysis of drugs without the hassle or the cost of large-scale production. Through *in-vivo* validation, compounds that could cure several of the world's most prevalent health conditions are tested for efficacy.

Through state-of-the-art drug testing services of NTS, the continued development of effective brain and nervous system therapies can progress at a faster rate. Disorders of the brain and nervous system affect more than 100 million people in the Western world. The majority of the industrialized world's long-term care costs result from brain-related disorders. NTS is committed to supporting the development of effective therapies to reduce cell loss associated with neuronal injury.

Dr. Kindy, who joined the MUSC faculty in 2002 as a professor in the department of neurosciences, was previously Director of the Neuroscience Institute, Associate Director at the Center on Aging, and the Associate Director of the SC Spinal Cord Injury Center.

Dr. Kindy is internationally renowned for his research on the role of signaling mechanisms in injuries that decrease blood flow and for the role of the RAGE receptor in amyloid diseases such as Alzheimer's. He has published more than 100 articles and has been a member of the editorial board of several scientific journals including the Journal of Alzheimer's Disease and Neuroscience Research Communications.

Vortex Biotechnology Corp.

Vortex Biotechnology Corporation is a drug discovery company recently spun-out from the Medical University of South Carolina. Vortex focuses on the development of inhibitors of Pim protein kinases, which are key regulators of prostate cancer and certain leukemias. Vortex designs, synthesizes and evaluates proprietary Pim inhibitors, with the goal of moving an agent into clinical testing for the treatment of cancer.

Co-founded by Dr. Andrew Kraft and Dr. Charles Smith, the company is based on a patent jointly filed by Kraft and Smith. Smith's research interests center on drug

discovery and cancer pharmacology. His projects relate to signaling systems involved in tumor growth, and have been continuously supported by multiple grants from the NIH and other sources for nearly 20 years. He has more than 80 research publications, and multiple US and international patents.

Dr. Smith completed his Ph.D. at Michigan State University, and has held appointments at Duke University, the University of Hawaii, the Fox Chase Cancer Center, and Pennsylvania State University. He is currently a Professor of Pharmaceutical Sciences at MUSC, holds a South Carolina Center of Economic Excellence Endowed Chair, and also serves as the Director of the Drug Discovery Core Facility at MUSC.

Dr. Smith is also the Founder of Apogee Biotechnology Corporation, an early-stage drug discovery company focused on the development of proprietary compounds for the treatment of cancer and inflammatory diseases.

In June 2004, Dr. Kraft, a medical oncologist and nationally recognized researcher with previous appointments at National Cancer Institute (NCI) designated comprehensive cancer centers in Colorado and Alabama, accepted the position as Director of the Hollings Cancer Center. Dr. Kraft is a Professor of Medicine and Biochemistry and Molecular Biology as well as Associate Dean of Oncologic Affairs at MUSC. He also holds the distinguished William H. Folk, M.D. Chair in Experimental Oncology.

Dr. Kraft received his Bachelors of Science degree (summa cum laude) in biology from Bucknell University in 1971, and his medical degree from the University of Pennsylvania in 1975. He then completed his residency at the Mount Sinai Hospital in New York.

Dr. Kraft spent the next five years at the National Cancer Institute in Bethesda training in the Laboratory of Pathophysiology and completing his clinical fellowship in hematology/oncology. His research focus is targeted in the areas of prostate cancer, sarcomas, and novel cancer drug development, and he has been continuously funded since 1990 from the National Cancer Institute, Department of Defense and Prostate Cancer Research Foundation. He is a member of numerous societies including the American Society for Clinical Investigation, Association of American Physicians, American Association of Cancer Research and the American Society of Hematology and he has more than 100 peer-reviewed publications in leading journals such as the *Journal of Biologic Chemistry*, *Molecular Cell Biology*, *Blood* and *Oncogene*.

Microbial Fuel Cell Technology

Microbial Fuel Cells (MFC) is a startup renewable energy technology company based on technology created by Dr. Hal May, Ph.D. of the Medical University of South Carolina. The company uses a technology that utilizes bacteria to essentially create energy. This is done through application of a microbial and bioelectrochemical approach for the efficient production of biofuels. This technology offers promise for 24-hour remote power, increased biofuel production from inexpensive resources, and use of cellulose-based, or waste materials, for feedstocks.

Co-founders, Dr. Hal May and Dr. Michael Nelson, have the mission of offering efficient renewable fuel production processes, but are also exploring other ways to use biocatalysts. Examples include the production of additional fuels and chemicals, or manufacturing of bioelectrical devices and sensors.

Dr. May serves as co-founder of MFC Tech. Dr. May brings over twenty years of professional experience in research and development of innovative environmental treatment systems. Most of his professional career has been focused on anaerobic microbiology associated with the biodegradation of waste and toxic compounds, and the production of biofuels.

Dr. May serves as a microbiology professor at the Medical University of South Carolina (MUSC). He is also a faculty member of the Marine Biomedicine & Environmental Science Center at MUSC, and an adjunct member of the faculty at the Center of Marine Biotechnology, University of Maryland Biotechnology Institute. As a research professor at MUSC, he has investigated the performance of microbial fuel cells for producing energy and treating biological wastes.

Prior to his tenure at MUSC, Dr. May directed concept development and scale-up to commercial units for treatment of various industrial waste streams for Celgene Corporation.

Dr. May did his doctoral thesis at Virginia Polytechnic Institute and State University (Virginia Tech) where he investigated the microbial mechanisms of anaerobic digestion of organic material and the production of methane.

Dr. Nelson currently serves as President and Chief Operating Officer for the company. He has over twenty-five years of experience in academic and private environmental research and development.

Dr. Nelson is an inventor on three US patents in the area of microbial methods for treatment of organic wastes. As a contract manager for the US Environmental Protection Agency, Dr. Nelson directed the work of a research team investigating biological treatment of organic waste, and fate and transport of wastes in the environment. During his years at private environmental remediation and consulting firms, Dr. Nelson served as both a senior scientist and general program manager. His work involved directing the work of field and lab personnel, staffing, business development, grants, budgeting, and stockholder reporting.

Dr. Nelson did his doctoral thesis at the University of Texas which focused on the biochemical mechanisms involved in the biodegradation of aromatic compounds. His post-doctoral work at Virginia Tech focused on the biochemical aspects of the anaerobic conversion of acetate to methane.

To learn more about MFC Technologies, visit their website at www.mfctech.net

Immunologix

Immunologix is an emerging company formed around a licensed technology from the Medical University of South Carolina. The company is based on a technology that allows replication of human antibodies from cells recovered from discarded immune tissue, such as whole blood or tonsils. This technology meets the current need of antibody-based therapeutics for any known biological target through a 100% *in vitro* system. This process offers reliability and cost savings over traditional antibody production methods.

Named as one of the “Top Ten” finalist in the SE BIO Plan/Competition, Immunologix was founded by Dr. Doug Carnes, CEO, and Dr. Ryan Fiorini, COO and is an SC Launch company. Prior to Immunologix, Dr. Carnes was the founder and CEO of Carnes Communications Inc (CCI), a Medical Education organization, providing CME education to medical professionals at healthcare conferences. Prior to the sale of CCI

in 1996, it maintained 125 employees with \$25M in annual revenue. Prior to CCI, Dr. Carnes spent 13 years with Smith Kline & French (SK&F) in marketing and sales. Dr. Carnes currently serves on two Boards of Directors in various positions.

Dr. Fiorini received his Ph.D. in Microbiology and Immunology, focusing much of his thesis work on the therapeutic use of monoclonal antibodies in septic transplant patients. In addition to his scientific background in the antibody field, Dr. Fiorini received his MBA and Masters in Health Administration (MHA), giving him a well rounded scientific and business background. Dr. Fiorini's focus for the company includes, business development, day-to-day operations of the laboratory and expanding opportunities to apply the technology platform.

To learn more about Immunologix visit their website at: www.immunologix.com

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About SCRA (<http://www.scra.org>)

SCRA is a global leader in applied research and commercialization services with offices in South Carolina, Ohio and in McLean, Virginia. SCRA collaborates to advance technology, providing technology-based solutions with assured outcomes to industry and government, with the help of research universities in SC, the US and around the world.

About MUSC

Founded in 1824 in Charleston, The Medical University of South Carolina is the oldest medical school in the South. Today, MUSC continues the tradition of excellence in education, research, and patient care. MUSC educates and trains more than 3,000 students and residents, and has nearly 11,000 employees, including 1,500 faculty members. As the largest non-federal employer in Charleston, the university and its affiliates have collective annual budgets in excess of \$1.6 billion. MUSC operates a 750-bed medical center, which includes a nationally recognized Children's Hospital and a leading Institute of Psychiatry. For more information on academic information or clinical services, visit www.musc.edu or www.muschealth.com.

About SC Launch (<http://www.sclaunch.org>)

SC Launch, an SCRA collaboration, assists entrepreneurial start-up companies with up-front counseling, seed-funding, and access to a powerful resource network. The SC Launch mission is to help generate knowledge economy jobs in South Carolina, enhance the state's quality of life and provide opportunity for all South Carolinians in the new economy. For more information please visit www.sclaunch.org.

About The City of Charleston

Charleston is consistently recognized as one of the best places to live and work in America by a diverse group of respected national publications and think tanks including Inc, Forbes, Conde Nast, Entrepreneur, American Style and the Milken Institute. Against the backdrop of one of America's most beautiful cities, the growth of technology-intense and knowledge-based business and skilled professionals in our community is occurring at an unprecedented rate.