Office of University Marketing and Communication
10900 Euclid Avenue • Cleveland, Ohio 44106-7017
Phone 216 368-4440 • Fax 216 368-3546 • www.case.edu

October 24, 2009

Contact: Marv Kropko
(216) 368-6890
mrk107@case.edu

Case Western Reserve University, University Hospitals Case Medical Center and Bioptigen Establish Exclusive Licensing Agreement

Technology Helps Doctors and Researchers Diagnose and Seek Cures for Eye Diseases

CLEVELAND and RESEARCH TRIANGLE PARK, N.C. – CASE WESTERN RESERVE UNIVERSITY AND UNIVERSITY HOSPITALS CASE MEDICAL CENTER HAVE GRANTED TO BIOPTIGEN, OF RESEARCH TRIANGLE PARK, N.C ., AN EXCLUSIVE INTELLECTUAL PROPERTY LICENSING AGREEMENT FOR FOURIER DOMAIN OPTICAL COHERENCE TOMOGRAPHY (FDOCT), AN IMAGING TECHNOLOGY DEVELOPED FROM RESEARCH AT THE UNIVERSITY'S DEPARTMENT OF BIOMEDICAL ENGINEERING.

ADVANCES IN FUNCTIONAL FDOCT ARE EXPECTED TO ENHANCE THE EARLY DIAGNOSIS AND TREATMENT OF EYE DISEASES, MOST NOTABLY DIABETIC RETINOPATHY, WHICH AFFECTS MANY OF THE 15 MILLION AMERICANS SUFFERING FROM DIABETES. THESE FUNCTIONAL CAPABILITIES INCLUDE COLOR DOPPLER FDOCT FOR VISUALIZING AND QUANTIFYING BLOOD FLOW AND SPECTROSCOPIC FDOCT FOR IMAGED TISSUES AND FLUIDS.

THE LICENSED TECHNOLOGY WAS CREATED BY JOSEPH IZATT, FORMERLY ON THE BIOMEDICAL ENGINEERING FACULTY AT CASE WESTERN RESERVE AND NOW PART OF THE BIOMEDICAL ENGINEERING FACULTY AT DUKE UNIVERSITY, AND ANDREW ROLLINS, WARREN E. RUPP ASSOCIATE PROFESSOR OF BIOMEDICAL ENGINEERING AT CASE WESTERN RESERVE.

IZATT, DIRECTOR, CHAIRMAN AND CHIEF TECHNOLOGY OFFICER AT BIOPTIGEN, JOINED DUKE IN 2001 WHERE HE IS PROFESSOR OF BIOMEDICAL ENGINEERING AND OPHTHALMOLOGY AND PROGRAM DIRECTOR FOR BIOPHOTONICS AT THE FITZPATRICK CENTER FOR PHOTONICS.

"OBSERVED CHANGES IN BLOOD FLOW WITH FUNCTIONAL FDOCT CAN HELP DIAGNOSE AND MARK PROGRESS OF DISEASES AND TREATMENT FOR A NUMBER OF EYE DISEASES, ESPECIALLY IN OLDER PATIENTS," ROLLINS SAID.

THE EARLY VALIDATION OF THE TECHNOLOGY IS THE RESULT OF A COLLABORATIVE ENDEAVOR WITH UNIVERSITY HOSPITALS CASE MEDICAL CENTER.

"WE ARE PLEASED TO PLAY A KEY ROLE IN BRINGING THIS TECHNOLOGY FROM THE RESEARCH LAB TO USE IN PATIENTS," SAID PHIL COLA, VICE PRESIDENT OF RESEARCH, UNIVERSITY HOSPITALS CASE MEDICAL CENTER. "THIS TECHNOLOGY PROMISES TO HELP PATIENTS STRUGGLING WITH EYE DISEASE."

IN COOPERATION WITH CASE WESTERN RESERVE AND DUKE, BIOPTIGEN HAS COMMERCIALIZED ULTRA-HIGH RESOLUTION FDOCT IMAGING SYSTEMS PROVIDING RESEARCHERS AND CLINICIANS WITH THE TOOLS

TO STUDY, IDENTIFY, TRACK AND TREAT EYE DISEASE, FROM THE CORNEA TO THE RETINA AND AT THE VERY EARLIEST STAGES.

"BIOPTIGEN IS VERY PLEASED TO EXTEND ITS RELATIONSHIP WITH CASE THROUGH THIS NEW TECHNOLOGY AGREEMENT. THE INTELLECTUAL PROPERTY LICENSED BY CASE IS FUNDAMENTAL TO OUR ABILITY TO PROVIDE THE HIGHEST PERFORMANCE FDOCT IMAGING SYSTEM TODAY AND TO DEVELOP NEW CLINICAL TOOLS THAT WILL DRAMATICALLY EXTEND THE CLINICAL VALUE OF FDOCT INTO THE FUTURE," SAID ERIC BUCKLAND, DIRECTOR, PRESIDENT AND CHIEF EXECUTIVE OFFICER OF BIOPTIGEN.

"AS PART OF THE LICENSING AGREEMENT, CASE WILL BECOME AN EQUITY PARTNER IN BIOPTIGEN, FURTHER STRENGTHENING OUR RELATIONSHIP," SAID MICHAEL HAAG, DIRECTOR OF BIOMEDICAL LICENSING AT CASE. OTHER TERMS OF THE AGREEMENT WERE NOT DISCLOSED.

"WE LOOK FORWARD TO WORKING WITH BIOPTIGEN TO INCORPORATE THE CASE TECHNOLOGY AND EXPAND THEIR PRODUCT PORTFOLIO TO ADDRESS MEDICAL DISCIPLINES BEYOND OCULAR IMAGING," HAAG SAID.

THE COMPANY WAS INCORPORATED IN NORTH CAROLINA FIVE YEARS AGO TO COMMERCIALIZE OCT, AN IMAGING TECHNIQUE SIMILAR IN FUNCTION TO ULTRASOUND, BUT USING LOW-POWER LIGHT RATHER THAN SOUND WAVES TO ENABLE REAL-TIME NON-INVASIVE IMAGING OF INTERNAL TISSUE MICROSTRUCTURE, ADVANCING CRITICAL APPLICATIONS IN DRUG DEVELOPMENT, GENETICS RESEARCH, TISSUE ENGINEERING AND MEDICAL VISION. BIOPTIGEN WAS CO-FOUNDED BY ERIC BUCKLAND AND JOSEPH IZATT.

###

Case Western Reserve University is among the nation's leading research institutions. Founded in 1826 and shaped by the unique merger of the Case Institute of Technology and Western Reserve University, Case Western Reserve is distinguished by its strengths in education, research, service, and experiential learning. Located in Cleveland, Case Western Reserve offers nationally recognized programs in the Arts and Sciences, Dental Medicine, Engineering, Law, Management, Medicine, Nursing, and Social Work.

For more information visit http://www.case.edu.

Bioptigen, Inc. is known for its pioneering in vivo optical imaging technology allowing researchers and clinicians to see pathologies at their earliest stages. The sophisticated SDOCT hardware and software system enables real-time non invasive imaging of internal tissue microstructure at an unmatched level of precision and depth. Bioptigen's system extends the application space to cover a wide range of human and animal subjects. These advances make it possible for researchers to open up new avenues of biological exploration and development, and clinicians to foster advances in disease detection and management.

For more information visit http://bioptigen.com.

University Hospitals serves the needs of patients through an integrated network of hospitals, outpatient centers and primary care physicians. At the core of our health system is University Hospitals Case Medical Center. The primary affiliate of Case Western Reserve University School of Medicine, University Hospitals Case Medical Center is home to some of the most prestigious clinical and research centers of excellence in the nation and the world, including cancer, pediatrics, women's

health, orthopedics and spine, radiology and radiation oncology, neurosurgery and neuroscience, cardiology and cardiovascular surgery, organ transplantation and human genetics. Its main campus includes the internationally celebrated UH Rainbow Babies & Children's Hospital, ranked second in the nation for the care of critically ill newborns; UH MacDonald Women's Hospital, Ohio's only hospital for women; and UH Ireland Cancer Center, part of the NCI-designated Case Comprehensive Cancer Center.

For more information visit http://www.uhhospitals.org.