

Etaluma Supports New RegeneratOR Test Bed with LS460 Microscope

San Diego, Calif., March 14, 2021 – Etaluma is collaborating with the RegeneratOR Test Bed, a new regenerative medicine endeavor in North Carolina, by providing its technology to help support start-up and early-stage companies in the regenerative medicine space.

This partnership will help accelerate the growth of these scale up companies by providing a unique technology that optimizes the environment for optimal manufacturing of cells, tissue, and organs without the need of building a brick and mortar GMP facility. Etaluma makes compact and high performance microscopes and imaging modules that run on a single USB cable with remote PC control and can be used in harsh environments such as hypoxia chambers and incubators. Their small size allows easy positioning and ergonomics for the microscopy application.

“We are thrilled to be part of the RegeneratOR Test Bed program and believe our microscope form factor, performance, and utility will be a powerful part of an integrated regenerative medicine workflow,” said Chris Shumate, Ph.D., CEO and Co-Founder of Etaluma.

The RegeneratOR Test Bed serves as an economic development driver, helping to accelerate the growth of start-ups and scale-up mid-to-large-sized companies with innovative and emerging technologies through access to state-of-the-art biomanufacturing equipment, industry expertise, talent, and training programs to support novel prototyping and commercial product development.

The RegeneratOR Test Bed was created by two driving forces of the regenerative medicine field: the [RegenMed Development Organization](#) (ReMDO), a non-profit foundation headquartered in Winston-Salem, NC, that is dedicated to advancing the field nationwide, and the [Wake Forest Institute for Regenerative Medicine](#) (WFIRM), the largest regenerative medicine institute in the world. The RegeneratOR Test Bed is located in WFIRM lab space.

Etaluma is a privately-held bioimaging technology company founded in 2009 and headquartered in San Diego, Calif. The company offers a dramatic new concept in digital fluorescence microscopy that combines high resolution; power, control and image capture via USB connection directly to a computer; and greater versatility, including the capability for time-lapse and live videos. Providing true next-gen microscopy, the compact, inverted design allows imaging in a wide range of labware and settings, including live cell imaging in incubators, hoods, and other challenging locations.

Joshua Hunsberger, PhD, Chief Technology Officer of ReMDO, said that Etaluma’s technology will be a game changer for start-up companies. “This support offers start-up and early-growth companies in our region a technology advantage where they can advance their process development within our RegeneratOR Test Bed and see for themselves the benefits of choosing this modular GMP manufacturing process,” he said.

Anthony Atala, MD, director of WFIRM, credits Etaluma for trusting the vision. “We believe this region has a lot to offer in terms of helping these companies be successful, and, at the same time, we can advance the regenerative medicine field nationally.”

The RegeneratOR Test Bed is one of three focused areas that operate through ReMDO’s RegeneratOR, a first of its kind initiative in regenerative medicine to promote biomanufacturing scale-up and automation to make technologies more affordable, and speed up the translation to clinical practice. The other two focus areas are:

- ReMDO’s **RegeneratOR Business Incubator** – supports innovation from research to commercialization for regenerative medicine start-ups and growth companies by providing space and support, including market potential validation, benefit analysis, financial planning, budgeting, and comprehensive business plans.
- ReMDO’s **RegeneratOR Workforce Development** – a resource that connects an educational ecosystem of colleges, university programs and technical schools with biomanufacturing staff, engineers, and research leaders to train highly skilled biomanufacturing technicians and researchers.

The RegeneratOR is a key component of the regenerative medicine ecosystem called the Regenerative Medicine Hub (RegenMed Hub) and is positioned to be a national leader in regenerative medicine innovation. The RegenMed Hub, based in the [Innovation Quarter](#), brings together and draws upon the resources and talent available through the Wake Forest enterprise – the Medical Center, the School of Medicine, the University and Innovation Quarter.

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About Etaluma: Etaluma has revolutionized fluorescence microscopy by replacing the oculars with a computer screen, the arc lamp with LEDs, the CCD camera with a CMOS and greatly simplified the design. A short and simple optics path yields resolution and sensitivity that beats the big 4. The compact and low power microscope modules can be integrated into clinical and research instruments. We offer a custom platform development architecture that's greatly accelerates instrument development for our partners.

About the Wake Forest Institute for Regenerative Medicine: The Wake Forest Institute for Regenerative Medicine is recognized as an international leader in translating scientific discovery into clinical therapies, with many world firsts, including the development and implantation of the first engineered organ in a patient. Over 400 people at the institute, the largest in the world, work on more than 40 different tissues and organs. A number of the basic principles of tissue engineering and regenerative medicine were first developed at the institute. WFIRM researchers have successfully engineered replacement tissues and organs in all four categories – flat structures, tubular tissues, hollow organs and solid organs – and 15 different applications of

cell/tissue therapy technologies, such as skin, urethras, cartilage, bladders, muscle, kidney, and vaginal organs, have been successfully used in human patients. The institute, which is part of Wake Forest School of Medicine, is located in the Innovation Quarter in downtown Winston-Salem, NC, and is driven by the urgent needs of patients. The institute is making a global difference in regenerative medicine through collaborations with over 400 entities and institutions worldwide, through its government, academic and industry partnerships, its start-up entities, and through major initiatives in breakthrough technologies, such as tissue engineering, cell therapies, diagnostics, drug discovery, biomanufacturing, nanotechnology, gene editing and 3D printing.

About the RegenMed Development Organization: The mission of the RegenMed Development Organization (ReMDO) is to accelerate the discovery and translation of regenerative medicine therapies. ReMDO is a 501(c)3 non-profit organization that manages a clinical translation initiative that includes thought leaders, representatives from leading US research centers, government representatives, and companies of all sizes. ReMDO conducts research to de-risk technologies and speed up the translation of regenerative medicine to clinical practice and to the global market. ReMDO manages the world's first and only professional organization dedicated solely to advancing the regenerative medicine field, the Regenerative Medicine Manufacturing Society (RMMS), and the Regenerative Medicine Manufacturing Innovation Consortium (RegMIC), which manages a private-public partnership of industry and academic members focused on scaling up technologies.