



PIEDMONT TRIAD BIOTECHNOLOGY ASSETS AND SECTOR NICHES

The **three economic sector niches** we are working to develop are:

1. Regenerative Medicine
2. Medical technology and devices
3. Nanobiotechnology

SIGNIFICANT ASSETS FOR BIOTECHNOLOGY IN THE REGION

- **Guilford Genomic Medicine Initiative:** develop human genome data for Alzheimer's, heart diseases and cancer, in Guilford County – UNCG, Duke, Moses Cone Health System [*Vince Henrich* , (336) 334-4775]
- **Gateway University Research Park,** Greensboro: joint campus between NCAT and UNCG; 850,000 sq. ft, \$250 million investment [*John Merrill* (336) 375-9232]
- **National Center for the Biotechnology Workforce,** Winston Salem: at Forsyth Technical Community College; develop biotechnology workforce curriculum nationwide [*Russ Read* (336) 734-7651]
- **Piedmont Triad Research Park,** Wake Forest University, Winston-Salem: 220 acres expected \$1Billion investment for probably the largest urban research park for technology in the US [*Bill Dean* (336) 716-8676]
- **Center of Innovation for Nanobiotechnology:** Consortium between Wake Forest University, UNC Greensboro and NC A&T State University for developing nanobiotechnology economically statewide: Director Brooks Adams, Cell: 804-363-9574 brooks.adams@comcast.net;
- **Institute of Regenerative Medicine at Wake Forest University,** Winston-Salem: novel clinical therapies for the functional repair and replacement of diseased tissues and organs [*Anthony Atala* (336) 716-5701]
- **Wake Forest and Brigham and Women's Program for Botanical Lipids,** Winston-Salem: development of medical foods and supplements from plants to combat allergies and chronic inflammatory disease [*Larry Rudel* (336) 716-2821, *Ski Chilton* (336) 713-7105]
- **Tengion, Inc,** Winston-Salem: developing neo-bladder based on Dr. Atala's licensed technology [*Tim Bertram* (336) 201-0152]
- **Wake Forest Babcock Demon Incubator:** provides startups with business planning, management assistance and recruiting, investor introductions, grant writing assistance, regulatory consulting, medical device engineering, nanotech development with the WFU Nanotechnology Center, and support from student interns from the Babcock School of Management. [*Tom Clarkson* (336) 831-5686]
- **Medical Device Enterprise Accelerator,** Spring Med LLC, provides expertise in product development, regulatory, marketing and management for emerging companies [*Jon Wilson* (336) 748-0402]
- **Nanoscience Enterprise Accelerator,** QuarTek Inc., provides expertise in product development, regulatory, marketing and management for emerging companies [*Reyad Sawafta* (336) 316-0088]

- **Technology Transfer Offices** at Wake Forest University, NC A&T State University and UNC Greensboro [*Michael Batalia (336) 716-3729, Doug Speight (336) 334-7995, Jerry McGuire (336) 256-1298*]
- **BioNetwork Pharmaceutical Center:** for community college curriculum development and educational dissemination of short courses: joint program between Forsyth Tech and Guilford Tech [*Doug Drabble (336) 748-4672*]
- **Four Research Universities:** with about \$260 million sponsored research: Wake Forest University, NC A&T State University, UNC Greensboro, Winston Salem State University [*Radhakrishnan (336) 334-7995, Rosemary Wander (336) 256-0232, Sally Shumaker (336) 716-3838, Mark Welker (336) 758-5758*]
- **Conference Host:** North Carolina CED Biotechnology Conference in 2006 and 2008 in Winston Salem [*Advisory Committee for Biotechnology in the Piedmont Triad: Sam McCormick (336) 734-1853, John Merrill (336) 375-9232, Peggy Low (336) 728-9226*]
- **Two Angel Funds:** Inception MicroAngel Fund (IMAF) and Piedmont Angel Network (PAN) [*Troy Knauss (336) 235-0941, Tim Janke (336) 334-7005, Lou Anne Flanders-Stec (336) 605-6000*]
- **Biotechnology degrees—AAS—2 year** at two community colleges: Forsyth Tech with the largest biotech program in the state and Alamance CC with the oldest program in the state. Seven other colleges have a 1+1 degree agreement with FTCC [*Gary Green (336) 734-7201, Martin Nadelman (336) 578-2002*]
- **Southeast Regional Headquarters for BioLink:** a national educational consortium of colleges to train the workforce in biotechnology [*Bill Woodruff (336) 506-4224*]
- **Joint School Nanoscience & NanoEngineering,** Dean Jim Ryan (336-217-5128); Entering class of grad students in 2009; school completed in 2011 on Gateway University Research Park Campus; joint between NCA&T and UNCG
- **Eastern Regional Headquarters of the USDA Research Center for Soil Science,** Greensboro; one of three in the US; Gateway University Research Park Campus
- **Economic Cluster of companies:** 120 companies (35 –Bioscience; 35 – Medical Technologies and related science; 55 – Service and support)
- **Engineering Research Center for Revolutionizing Metallic Biomaterials,** North Carolina A&T State University. The center will perform research in biomedical engineering, including implants that could help children with birth defects and minimize invasive procedures.
- **Armed Forces Institute for Regenerative Medicine (AFIRM):** Anthony Atala, M.D. Wake Forest University Health Sciences, \$45 M grant to repair battlefield injuries via regenerative medicine in collaboration with the University of Pittsburg and Rutgers University

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The North Carolina Biotechnology Center

Rev. January 8, 2009