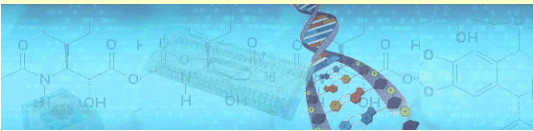


History of the C3B

The Center for Bioelectronics, Biosensors and Biochips (C3B) was officially dedicated in October 2000 as an academic center for engineering research and instruction involving engineered biosystems at Virginia Commonwealth University in Richmond, Virginia. In less than five years, the C3B has established a well deserved reputation for innovative and multidisciplinary research at the confluence of Engineering, Chemical Biology, and Medicine. The C3B's collaborative culture fosters a team-oriented research approach exemplified by its collaborative efforts with other university departments and by earning research grants from government agencies such as the National Science Foundation and Department of Defense. In January 2006 the C3B joined the supportive and innovative research environment of the College of Engineering and Science at Clemson University, an academic institution that is renowned for its research success. The C3B is currently housed in 5,000 sq-ft of newly renovated laboratory, bio-clean room facilities, and offices in the Clemson University Research Park in Anderson County, South Carolina.

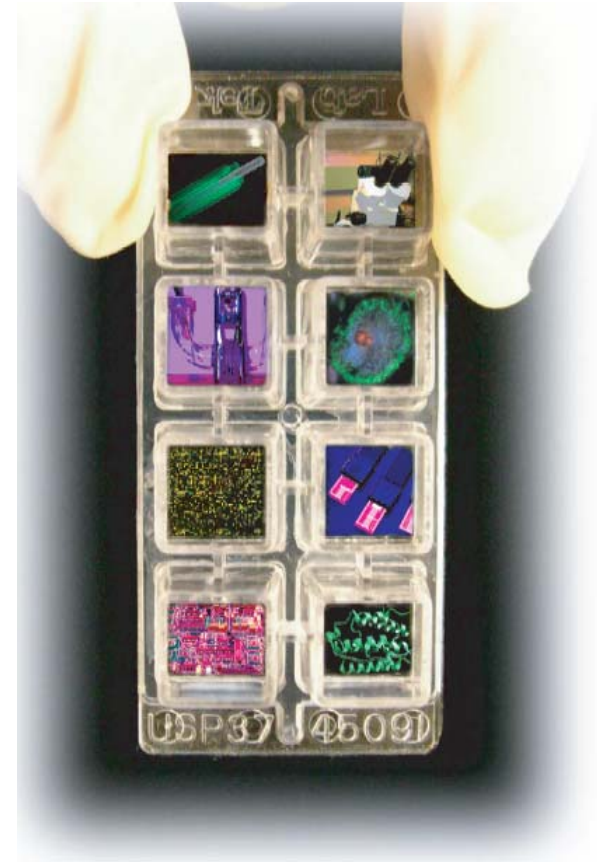


21st Century Research Revolution

The 21st century portends advances in genomics, nanobiotechnology, biomaterials, biointerfaces and bioinformatics that together promise to revolutionize the conduct and fruits of biotechnology research. The National Institute of Health (NIH) has recognized that traditional research methods should be supplemented with an interdisciplinary research approach, "...one that broadens the scope of investigation into biomedical problems, yields fresh and possibly unexpected insights, and may even give birth to new hybrid disciplines that are more analytically sophisticated." The C3B is well positioned to conduct interdisciplinary research through its collaborations with other Clemson University research centers and departments, as well as with other universities. For current information on C3B research projects, please visit www.biochips.org.

CLEMSON
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The Center for Bioelectronics, Biosensors and Biochips (C3B)



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Our Vision

An integrative research and education enterprise that is oriented toward service, is actively managed and directed by the constituency it serves, and is focused on providing leadership and excellence to the scientific and technological area of bioelectronics, biosensors and biochips

Our Mission

The Center for Bioelectronics, Biosensors, and Biochips at Clemson University is dedicated to excellence in research and development of engineered biosystems in the service of human health and medicine.

Government and Industry Partnerships

The C3B is a subscription-based Industry University Cooperative Research Center (IUCRC). The C3B welcomes companies of all sizes to join as members of the C3B Consortium. Member companies subscribe to the general or core research, provide in-kind contributions of goods or services, participate in the annual meetings, and sponsor research projects. The C3B has received research grants from government agencies such as the *National Science Foundation* and the *Department of Defense*.

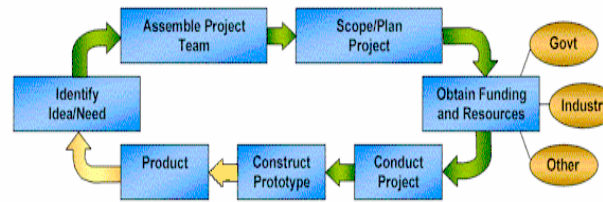


Image courtesy of Lincoln University

Project Driven Research

The research conducted in the C3B labs is project driven, following a process cycle that involves identifying critical path problems, developing new methodologies, processes or approaches, and constructing test beds. When research results are promising, the project progresses to the product development and pre-commercialization phases in conjunction with our industrial partners.

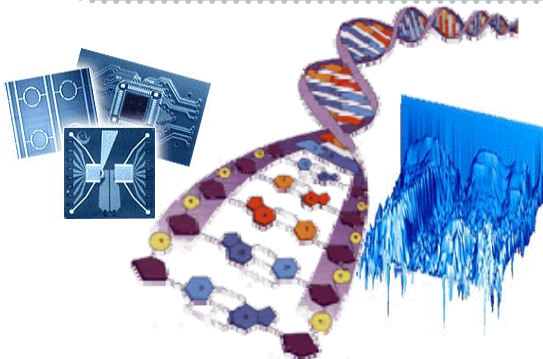
State of the Art Research Facilities at Clemson University

The 5,000 square-foot C3B laboratories and offices are well-equipped with the latest test and measurement tools to conduct scientific inquiry into molecular bioelectronics using single walled carbon nanotubes, implantable biosensors, microfluidics DNA biochips and advanced signal processing. In addition to its academic collaborations, the C3B is also a part of a broader network of inter-organizational research capabilities located in the Clemson region.



C3B Platform Projects

- Implantable biosensors for trauma monitoring during mass casualty
- Cell-based neurotoxicity array biosensor
- DNA biochips for brain tumor cancer diagnostic and prognostics
- Electronic NOSE for trauma monitoring
- Sub-cellular monitoring using nanobiosensors and nanobeacons



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