

2016 BioenergizeME Infographic Challenge: Education in Bioenergy

Bioenergy is an emerging industry in the US and around the globe.



Its growth has attracted government grants, private investments, and research from educational institutions.



Last year, Congress introduced the Bioenergy Act of 2015, beginning a DOE initiative to fund and support innovation in Bioenergy.^[1]

BIOENERGY RESEARCH INSTITUTES

The Department of Energy has funded 3 different Bioenergy Research Institutes around the US, each with several universities as partners.^[2]

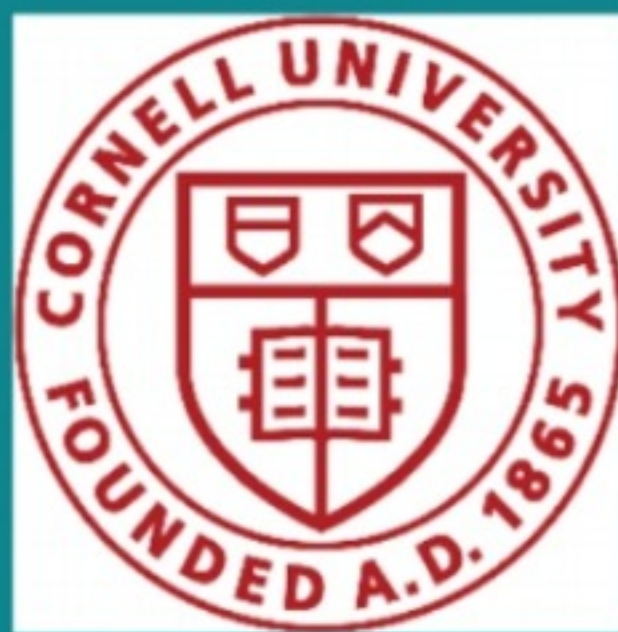
Each pin represents partners of the 3 Bioenergy research institutes



Key

University Partner

Bioenergy Education in New York



Cornell University is a partner of the BioEnergy Science Center, the only partner located in New York State

Their undergraduate chemical engineering program teaches knowledge of the chemical processes that convert biomass to energy. They teach the ability to lead a team and communicate, which is a key skill to have as a professional scientist.^[3]



Bioenergy-related college majors^[4]

Microbiology

Mechanical Engineering

Biochemistry

Chemical Engineering

Agricultural Engineering



At the University of Rochester, a bioenergy researcher teaches a course on biofuels, focusing on the chemical processes of their creation.^[5]

Stony Brook University manages Brookhaven National Laboratory in partnership with Battelle Memorial Institute, as the Brookhaven Science Associates (BSA). BNL is involved with the the use of enzymes to decompose biomass for bioenergy.^[6]



The New York State University of Environmental Science and Forestry has received a 7 million dollar grant to investigate how to lower costs of feedstock for bioenergy production.^[7]

Sources:

- <http://energy.gov/science-innovation/energy-sources/renewable-energy/bioenergy>
- <http://www.energy.gov/eere/bioenergy/bioenergy2015>
- http://genomicscience.energy.gov/centers/brochure_archive/BRCbrochure2010webFinalURLs_LR.pdf
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- <https://www.cheme.cornell.edu/cbe/academics/undergraduate/curriculum/objectives.cfm>
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- <http://energy.gov/eere/education/explore-bioenergy-technology-careers>
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- <http://sb.cc.stonybrook.edu/news/general/2014-11-12-brookhaven-science-associates-awarded-brookhaven-lab-management-contract.php>
- <http://www.esf.edu/communications/news/2014/>

Images courtesy of Pictochart

This infographic was created by students from Smithtown High School East in St. James, NY, as part of the U.S. Department of Energy-BioenergizeME Infographic Challenge. The BioenergizeME Infographic Challenge encourages young people to improve their foundational understanding of bioenergy, which is a broad and complex topic. The ideas expressed in these infographics reflect where students are in the learning process and do not necessarily reflect the state of knowledge of the U.S. Department of Energy or other experts in the bioenergy industry.

