Biodesign Institute® uses plants to manufacture potential treatment for the Ebola virus and other diseases

By harnessing the natural design rules of the very biology that sustains life on this planet, Biodesign researchers are finding new ways to address global challenges.

2014: Largest ever Ebola outbreak in West Africa

2011: The Biodesign Institute/Mapp report protection of mice against Ebola challenge using either a vaccine or antibodies produced in plants

2005: New idea for an Ebola vaccine/treatment

2002: ASU begins collaboration with Mapp Biopharmaceutical, Inc. to generate plant-based therapeutics

2000: Plant-based vaccine development team assembled at Arizona State University

1976: First outbreak of Ebola virus in Africa. 90% mortality rate

This is the first time that a tobacco-produced therapeutic antibody has been used to treat people.

Ebola Outbreak

- Over 1700 infected
- Over 900 deaths

In 1588, a Virginian named Thomas Harriet promoted smoking tobacco as a viable way to get one’s daily dose of tobacco.

In 1776, during the American Revolution, tobacco helped finance the Revolution by serving as collateral for loans the Americans borrowed from France.

In 1964, the Surgeon General’s report on “Smoking and Health” came out, allowing the government to regulate the advertisement and sales of cigarettes.

In 1988, A Virginian named Thomas Harriet promoted smoking tobacco as a viable way to get one’s daily dose of tobacco.

Can plants generate therapies for:
- West Nile Virus
- Dengue Fever
- Norwalk Virus
- Pneumonia
- Plague
- AIDS

Tobacco plant
Nicotiana

www.biodesign.asu.edu