

RESEARCH

Creating Solutions to Conquer 21st Century Challenges

Georgia State University is addressing 21st century challenges to critical quality of life issues by combining state-of-the-art facilities and top-notch researchers to investigate global challenges including health concerns, education and economic development.

Advancing health

Georgia State researchers collaborate with colleagues across campus and around the world to:

- **Combat chronic diseases** by working to better understand the molecular basis of inflammatory diseases so treatments can be developed.
- **Expedite therapeutic intervention** through the development of biomarkers that will help detect and identify infectious diseases, cancers and developmental disorders.
- **Battle dangerous viruses** that pose a risk to human health, and work to create effective interventions.
- **Prevent and control HIV/Aids** by working to develop a method for locating the potential point of transmission of HIV/Aids, which could significantly add to its control and prevention.

Improving literacy skills

Georgia State University is quickly becoming a leader in the field of education with researchers working to:

- **Improve literacy outcomes for deaf and hard-of-hearing children** by creating the National Research and Development Center for Literacy and Deafness, the first of its kind to focus on deaf children.
- **Advance adult literacy** through the study of underlying cognitive and motivational issues of adults who struggle with reading, and

work to develop and pilot reading interventions that will improve literacy among this population.

- **Help children develop speech and language skills** by working to impact the international knowledge base about communication assessment research for children with neuro-developmental disorders and diverse language backgrounds. This research is intended to provide guidance to health care professionals as they provide clinical intervention services to this population.

Supporting economic development

Researchers help developing and transitional economies by working with officials to:

- **Enhance research on business issues in developing economies** by encouraging cross-disciplinary and collaborative activities focused around the development issues by pursuing related themes such as “peace through commerce” and “globalization, peace and sustainable development.”
- **Assist governments of developing countries** by working with the government, business, academia and the public at large from developing and transitional economies to provide policy-focused training programs.

Technology Transfer

Georgia State holds more than 225 patents. Recent innovations include technology that will be used to:

- Reduce suffering associated with chronic and communicable diseases
- Create a microscope that may see genetic base pairs in DNA
- Help doctors better detect prostate cancer
- Develop an antimicrobial spray to prevent infection in burn victims

Recent licensed products include:

- A wireless water usage metering system, which can be utilized in commercial buildings to detect system leakages as small as 1/10 of a gallon.
- An antigen for B virus, a virus living in non-human primates that can pose a threat to researchers who are accidentally exposed to the virus.
- A potentially transformative solution for extending the shelf-life of fruits and vegetables.

Quick Facts

- External funding = \$66.5 million, with \$41.2 million in federal awards (fiscal year 2012)
- Named among Top 15 places for researchers to work in academia by *The Scientist* in 2011
- The Parker H. Petit Science Center; a \$150 million state-of-the-art facility, named one of the best new research facilities in the Southeast by *Southeast Construction* magazine.
- Home to one of the world's largest tiled display arrays in the world, the Visualization Wall displays 200 million pixels and is used by researchers in fields such as public health, biology, chemistry and geosciences.