



Predictive Health Today

Emory-Georgia Tech Predictive Health Institute

Winter 2012

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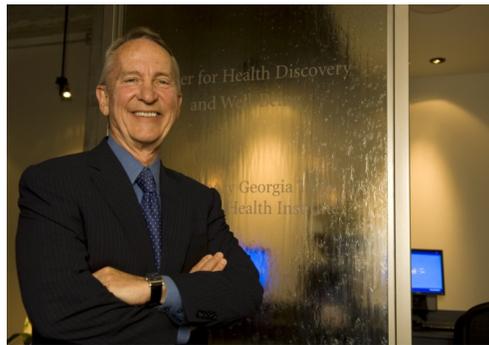
Learn more about the Emory-Georgia Tech Predictive Health Institute and the Emory-Georgia Tech Center for Health Discovery and Well Being® by visiting us on our blog, on Facebook, and on Twitter.

Read about new health discoveries, health tips, and more at Discovering Your Health blog, [click here](#). Learn about our upcoming events and initiatives on Facebook, [click here](#). Find us on Twitter, [click here](#).

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Welcome from the Director



Kenneth L. Brigham, MD

Welcome to the inaugural issue of "Predictive Health Today," a newsletter of the [Emory-Georgia Tech Predictive Health Institute](#). Begun in 2005, the Institute leads a new and innovative model of health care called Predictive Health that focuses on maintaining health rather than treating disease.

Predictive Health research links the exper-

tise of the systems biology, systems engineering, genomics, and biomedical engineering at Georgia Tech with Emory programs in anthropology, public health, nursing, medicine, and human genetics. It also relies on the expertise of ethicists, behaviorists, health economists, and other disciplines from across the universities.

The Institute aims to change health care by creating a model of care that uses new tools of bioscience to identify and measure fundamental processes that define health and detect the earliest deviations from an optimally healthy state. That information will provide rationales for interventions that keep people healthy rather than treat established disease. Predictive Health is on the cutting edge nationally, leading a change from the paradigm of medically-oriented disease care to a system based on "health" care.

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Microbiome Experts Meet at Emory

The Seventh Predictive Health Annual Symposium was held on Dec. 2, 2011 and focused on health and the human microbiome. The human microbiome consists of the microscopic organisms, such as bacteria, fungi, and viruses which reside throughout the body.

The Emory-Georgia Tech symposium covered the microbiome's connection to chronic disease, inflammation, and immunity.



Lita M. Proctor, PhD, HGRI, Presenter

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Predictive Health Today

Message from the Director continued ...

Our approach aims to move the medical system away from disease focus to a "health" focus, thus altering the deployment of resources away from reactive approach to a proactive one. This health focus includes mind, body, and spirit, and is a comprehensive approach to evidence-based influences on human health.

As our demonstration model, the [Emory-Georgia Tech Center for Health Discovery and Well Being®](#) has combined an interdisciplinary research core with a clinical testing ground for interventions based on predictive biomarkers of health, disease risk, and prognosis that are aimed at keeping people healthy.

The Center has developed a cadre of novel health professionals (Health Partners) who work with program participants to develop a personalized plan aimed at enhancing health and well being.

This action plan, carried out with a Health Partner, is based on detailed health and risk assessments that provide an overall picture of current health and identify opportunities for improving.

This is the health care of the future - keeping people healthy, happy, and productive - now.

Microbiome Meeting continued...

"There's increasing information that the human microbiome is a critical player in many of the chronic diseases we're interested in," said Ken Brigham, MD, director of the Emory-Georgia Tech Predictive Health Institute. "The information about the human microbiome and its relationship to disease is exploding."

The symposium was sponsored by The Emory-Georgia Tech Predictive Health Institute and the [Atlanta Clinical & Translational Science Institute](#).



Dr. Lita M. Proctor, Human Microbiome Project, National Human Genome Research Institute, National Institutes of Health, closed

with "The Human Microbiome: 2011 and Beyond."

Learn more about the [NIH effort](#). Click [here](#) to watch videos from the meeting.

"Personal microbiota is not inherited - it is acquired in each new generation," said Dr. Lita M. Proctor.

Health Partners Support Healthy Behaviors



A Health Partner is key to participant success at the EmoryGeorgia Tech Center for Health Discovery and Well Being®.

A Health Partner collaborates with a participant to determine specific individual health goals with a defined plan that is

achievable and practical.

A Health Partner interacts with participants at agreed-upon intervals between the in-person visits to discuss progress with their personal plan usually by email or telephone, and serves as a source of information, an aid in navigating available resources that the participant may use to realize his/her goals, as well as an advisor who provides value-neutral support and accountability. [Read more.](#)

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Predictive Health Undergraduate Minor Takes Off

Predictive Health is developing new multidisciplinary education pathways that will prepare biomedical scientists to conduct and lead health focused research.

These pathways will be designed to create a comprehensive educational experience that will produce multi-disciplinary professionals trained to understand healthy human function with an expertise in the sciences of nutrition,

exercise, behavioral motivation, and interpersonal interactions.

A Predictive Health minor provides students with an opportunity to learn about health as a positive state and provides a new perspective for the future of our health care system, says Michelle Lampl, director of the [Emory Center for the Study of Human Health](#) and co-director of the Emory-Georgia Tech Predictive Health Initiative – who



developed the minor and its educational track.

Also read about the Predictive Health path in Emory's Molecules to Mankind PhD program - [M2M](#).

Research News: Vitamin D Linked with Stiff Arteries

Research from the Emory-Georgia Tech Predictive Health Institute has found that a lack of vitamin D, even in generally healthy people, is linked with stiffer arteries and an inability of blood vessels to relax.

The results add to evidence that lack of vitamin D can lead to impaired vascular

health, contributing to high blood pressure and the risk of cardiovascular disease.

Study participants who increased their vitamin D levels were able to improve vascular health and lower their blood pressure. The 554 participants were Emory or Georgia Tech employees -average age 47 and generally healthy.

The data was presented by Ibhar Al Mheid, MD, a cardiovascular researcher at Emory University School of Medicine, at the annual American College of Cardiology.

[Read more](#) about the study.

“We found that people with vitamin D deficiency had vascular dysfunction comparable to those with diabetes or hypertension,” said Dr. Al Mheid.

Corporate Programs Initiative Underway

The Emory-Georgia Tech Center for Health Discovery and Well Being® draws on the best and brightest of the two collaborating institutions. We have developed a Corporate Program that can define and measure health, identify risks well before disease develops, and engage workers in caring for their health and re-



duce disease risk. Most experts agree that we are paying too much for health care. We think part of the

answer is an increased focus on keeping people healthy. In a company setting, this group would be considered High Health Opportunity employees since they present an opportunity to reduce risk and thus to prevent progression to disease with its attendant human and dollar costs.

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Emory-Georgia Tech Predictive Health Institute

Predictive Health Today Emory-Georgia Tech Predictive Health Institute and the Emory- Georgia Tech Center for Health Discovery and Well Being®

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The Emory-Georgia Tech Predictive Health Institute is a new and innovative model of health care that focuses on maintaining health rather than treating disease. The Institute aims to change the future of health care by creating a model of health using new tools of bioscience to identify and measure risks and deviations from health, to develop common processes that promote health maintenance.

One of the cross-cutting initiatives in Emory's strategic plan, the Predictive Health Institute includes not only medicine, public health, and nursing, but also anthropology, ethics, behavior, health policy, law, business, and religion.

For more on how the Institute has put this model into practice for individuals and companies, visit the Center for Health Discovery and Well Being®. The Center provides programs designed to help Corporate Partners achieve optimal health for their employees.

*We help you start from
where you are, working
together to help you
flourish.*



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Corporate Initiatives continued ...

The Center provides deliverables that can enable a company to identify and reach High Health Opportunity employees:

* Situation Assessment: Our team generates a high-level assessment of a sample of a company's workforce; identifies the High Health Opportunity group.

*Evaluation: A demonstration project that defines the opportunities and demonstrates the kinds of results that can be expected. The project sum-

mary is data-driven and provides a clear picture of current needs and opportunities.

*Solutions: We address the key considerations of how to approach the needs of High Health Opportunity employees within a current framework and provide expertise on an approach to effectively enhance a company's efforts.

[Read more.](#)

“We are staying focused on people while they are healthy. First we have to define health. What about the distinction between health and exemplary health?”

“What is different about people who are healthy, bright and creative as opposed to people who can't be diagnosed with a disease but who just aren't as healthy as they ought to be?”

**Kenneth Brigham, MD,
Director**
[Bio](#)