



# NHHPC eNews

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## Welcome New Members!

Since May, five new members have joined the NHHPC. We are excited to welcome Doximity, Gartner, Inc., The University of Illinois Urbana-Champaign, Beckman Institute (UIUC-U), Simplicity Health Systems, and Mobyquity Inc. Learn more about all of our members on the NHHPC website under Membership.

## Attention NHHPC Members!

Building upon NASA's recent successes in using prizes as a problem solving tool, we will assess how the NHHPC might use public-private prizes to stimulate human health and performance innovations over the next twelve months or so. Please let us know if you are interested in exploring the possibilities of a public-private partnership for a prize in this area. Use of public-private prizes to advance innovations will also be the topic of our next workshop for NHHPC members, to be held in June 2013. Please relay any interest or comments to [nasa-nhhpc@mail.nasa.gov](mailto:nasa-nhhpc@mail.nasa.gov) and watch for more details coming soon!



## Keep up-to-date on Twitter

We started our @NASAhumanhealth Twitter account in March and we now have over 600 followers! We tweet content such as NHHPC events, member news, member events, and more. Be sure to follow us for all the latest NHHPC news! If you have content you would like us to tweet, please tweet us at @NASAHumanHealth, or send via email to [nasa-nhhpc@mail.nasa.gov](mailto:nasa-nhhpc@mail.nasa.gov) or the Contact Us page on the NHHPC website.

# NHHPC News

## Member to Member Connect Summary

Dr. Nate Gross, Co-Founder of Doximity, presented “Closing the Communication Gap: Medical Error Prevention and Physician Behavior Analysis” for the August 15, 2012 Member to Member Connect (M2MC) webcast, with over 50 people participating in person or through WebEx. Medical errors are the fifth leading cause of death in the United States, a majority due to miscommunication or failure to communicate at all. One mobile technology startup in particular, NHHPC member Doximity, is taking a radical approach to modernize the physician communication that contributes to such medical errors. In this webcast, Dr. Nate Gross discussed how the government is catalyzing entrepreneurship in health technology, what insights his team has unearthed about communication behavior and how to impact it, and how a platform for medical-grade communication could enable countless other entrepreneurs and public-private partnerships. To learn more, contact Dr. Nate Gross at [ngross@doximity.com](mailto:ngross@doximity.com).

## Innovation Lecture Series Summary

Jeff Flatten, Researcher at the University of Washington, presented “Foldit and Games for Scientific Discovery” as the featured speaker for the HH&P Innovation Lecture Series (ILS) to the Johnson Space Center and NHHPC communities on August 3,

2012. Over 60 people participated in person or via WebEx for the engaging presentation. Foldit is an online multiplayer video game that enables anyone to contribute to real scientific discoveries in biochemistry. By combining the natural problem solving skills of humans with the raw number crunching power of computers, Foldit aims to accomplish what neither could do alone. Foldit has already made significant contributions to scientific problems, and the lessons learned from Foldit have the potential to be applied to a wide variety of scientific fields. See this presentation [Foldit and Games for Scientific Discovery](#).





# Member News

## Girlstart

Earlier this year Change the Equation ([www.changetheequation.org](http://www.changetheequation.org)), a consortium of 100 corporate CEOs, sought to identify effective programs as an example of 'what works' in STEM education in America--and what might be scaled up to improve STEM education in America. After a rigorous evaluation process of 100 applicants, two of Girlstart's core programs, Girlstart After School and Girlstart Summer Camp, were selected among the top 20! More information may be found at [Change the Equation](#).

## NSBRI Awards

The National Space Biomedical Research Institute (NSBRI) has renewed awards for its [Graduate Education Program in Space Life Sciences](#) to the Massachusetts Institute of Technology and Texas A&M University. In its seventh year, this innovative education program allows participating students to work toward a Ph.D. that focuses specifically on space life sciences. MIT and Texas A&M will each receive \$1 million over a five-year period. [View the press release](#).

## Astronauts with a Green Thumb

As the [rover Curiosity makes its journey to Mars](#), food scientists on Earth are exploring whether astronauts with a green thumb will be the key to feeding at least a six-person crew on a future mission to the Red Planet. "The big challenge is having a food system that is going to work for that long-duration mission," says [Michele Perchonok](#), NASA's Advanced Food Technology Project Scientist. [View the full CNN report](#).



## Challenge.gov

The Challenge.gov team, U.S Services Administration, was invited to give a presentation to the National Academy of Sciences Government University Industry Research Roundtable. The audience for the August 9 webinar included three federal agencies, four large corporations, and 19 different colleges and universities. Challenge.gov was discussed, as was the topic of challenges and prizes in general.

## Beckman Institute

The Beckman Institute at the University of Illinois at Urbana-Champaign is conducting new [small animal imaging technology research in our Biomedical Imaging Center](#). In addition, Professor John Rogers has invented "[smart sutures](#)". See more at <http://www.beckman.illinois.edu/>

## IiH UK

IiH UK, now a national charity, enables support and research for all those who suffer from Idiopathic Intracranial Hypertension, a serious impairment suffered by approximately 30,000 people in the UK and many more worldwide. No-one yet knows what causes IiH but the debilitating symptoms come from an excess of pressure on the brain and spine generated by cerebrospinal fluid. This can cause dreadful headaches, hearing problems, fainting and hallucination, blindness and life-threatening adverse movement of the brain. A major study of the biochemical mechanisms which might cause IiH and which also might be linked to obesity was approved for funding during early January 2012, led by Dr Alexandra Sinclair MBChB (Hons) MRCP PhD, the NIHR Clinician Scientist in Neurology and Honorary Neurology Consultant at University of Birmingham and University Hospitals Birmingham NHS Foundation Trust. See [www.iih.org.uk](http://www.iih.org.uk) for more news and milestones.

# Innovation and Challenge Successes

## General Services Administration

The U.S. General Services Administration reports that Challenge.gov has now been used by 47 different agencies and bureaus in the federal government. A recent addition to the family is the National Security Agency, quite a vote of confidence for the platform. On Challenge.gov, the public can now find 204 challenges to view, enter, or vote in. From June to July 2012, Challenge.gov added 9000 supporters. Supporters are visitors with a user name and password, who opt in to receive email updates on one or more challenges, so this is something to be proud of!

## Challenge.gov

The Challenge.gov team, U.S. General Services Administration, developed a [step by step challenge toolkit](#). Available on HowTo.gov, it's a great list of what you need to do to plan, implement, and improve challenge and prize programs.

## Mozilla Ignite Challenge

The White House Office of Science and Technology Policy has posted a [blog on challenges successes](#). NHHPC member Mozilla is featured for their [Mozilla Ignite Challenge](#), a multi-stage competition in which Mozilla and the National Science Foundation (NSF) invite designers, developers and everyday people to brainstorm and build applications for the faster, smarter Internet of the future. The initial "[Brainstorming Round](#)" of this competition just wrapped up in late August.

## University of Illinois

The University of Illinois and other innovators in the East Central Illinois area were [honored in February 2012](#).



Nominees and award winners pose for a photograph at the seventh annual Innovation Celebration at the Beckman Institute in Urbana on Thursday Feb. 23, 2012.

*Photographer: John Dixon/The News-Gazette*



# Upcoming Member Events

## 2012 Humans in Space Youth Art Competition

Inspire children around the world about space! The [International 2012 Humans in Space Youth Art Competition](#) is open, inviting youth 10-18 years old to submit their ideas about the future of human space exploration. Visual, literary, video and musical artwork



### Mission to Europa

Oriana Menendez, 17, US, 1st place overall, 2D visual, age 14-17 and 1st place art category subgenre: non-anime digital (2010 Competition)

entries will be accepted until October 21st, 2012. Anyone interested in helping, please relay the information about the competition to youth, teachers, parents and interested organizations and/or sign up to judge the artwork. You can also consider hosting an exhibit during the artwork world tour Fall 2013 through 2014.

## International Astronautical Congress

NHHPC members NASA, Wyle and the German Aerospace Center DLR will present a plenary and business forum on Improving the Quality of Life on Earth – Societal Impacts of Human Space Flight at the [International Astronautical Congress](#) in Naples, Italy on October 3, 2012. These events will address the successful use of partnerships to develop technologies that have benefits to human space flight and in challenging environments on Earth from the earliest possible stages of technology development. Visit [Upcoming Events on our website](#) for additional information and program details.

## Beckman Institute Open House

The Beckman Institute at the University of Illinois at Urbana-Champaign will host its next Open House on March 8-9, 2013. This event will coincide with the campus's annual [Engineering Open House](#).



# Collaborative Projects and New Connections

## P&G

New collaboration opportunity from P&G! P&G is looking for an abrasive material or simple finished product that can be used to mechanically grind, buff or polish delicate surfaces. The advantage of this product form is that it could be used in multiple directions and would not suffer from traditional nicks and cuts. One key function of the material or product is that it can remove protruding short soft hairy structures such as fine fibers or animal / human hairs fastened to a soft and delicate surface. To view additional requirements or to submit your idea please visit the [NHHPC website](#). Submissions are due by October 15, 2012.

## Center for Health, Culture, and Society

The [Center for Health, Culture, and Society](#) is interested in exploring the challenges and opportunities of providing mental health to nomadic populations in Kenya. This exercise would be useful in obtaining insights to reduction of barriers to health care in specialized populations. There's some baseline information on this population already. If anyone is interested in this project and can contribute, we'll be glad to hear from them.

## UTMB, FAA-CAMI, and NASA

UTMB, FAA-CAMI, and NASA collaborated with others to produce Flight Crew Medical Standards and Spaceflight Participant Medical Acceptance Guidelines for Commercial Space Flight for the [FAA Air Transportation Center of Excellence for Commercial Space Transportation](#), a partnership of academia, industry, and government developed for the purpose of creating a world-class consortium that will address current and future challenges for commercial space transportation. [View the full publication](#).

## GE Global Research

GE Global Research was awarded a three-year grant to develop and test enhanced ultrasound probe and measurement techniques for NASA. The study will investigate increased intracranial pressure (ICP) and its effects on the eyes. Potential ground-based applications of this technology include monitoring patients with traumatic brain injuries. The goal is to develop a new ultrasound probe that has the ability to take an entire volume of the eye with a single scan, providing 3-D information optimized for better image quality, and image-based measurement techniques for tracking changes in the structure and functioning of the eye. This project includes a joint commitment from the National Space Biomedical Research Institute (NSBRI) and GE. Work will get underway in October. [View the press release](#).



# Collaborative Projects and New Connections

## **NHHPC Education and Outreach working group**

Once again, NHHPC Education and Outreach working group members are challenging students in the 6th to 8th grades to dream of going where no one has gone before. After a successful initial launch last year, we are offering the challenge to design a mission to an asteroid for a second year. Complete guidelines and instructions for submitting an entry are coming soon to the [nhhpc.nasa.gov](http://nhhpc.nasa.gov) web site and the competition officially opens in October. The goal of the contest is to engage more students in the fields of Science, Technology, Engineering, and Math and to stimulate students by providing an opportunity for them to explore and discover NASA's mission. The competition closes in March 2013 and winners will have their work displayed on the NHHPC web site.

## **Center for Nutrition, Learning, and Memory**

The Center for Nutrition, Learning, and Memory (CNLM) is a new collaboration between Abbott Nutrition and the University of Illinois at Urbana-Champaign. This "[grand challenge](#)" in nutritional neuroscience is one way to connect to Illinois investigators.

## ***We want your input!***

Do you have other ideas for categories? News you want to share? Please send your feedback and input to [MoPad](#) at any time. NHHPC eNews will be collated and distributed on a quarterly basis. [E-mail us](#) if you have any questions.