

- Green Road project to research healing properties of Mother Nature
- Former HHS Secretary discusses diversity in the health care field

Clinical Center

NIH...Turning Discovery Into Health®

2016 employee survey results show high workplace satisfaction

According to the 2016 NIH Clinical Center Employee Survey, administered to over 1,000 federal employees, 77 percent of the center's staff reported being satisfied with Clinical Center. The Clinical Center's response ranked higher than the 69 percent national average satisfaction rate amongst U.S. hospital employees and the 68 percent satisfaction rate amongst other U.S. employees surveyed.

The survey, administered in February 2016, also found that 74 percent of respondents are satisfied with their current position. Employees reported that they are engaged, confident they can accomplish their work goals and feel completely engaged at work.

The Clinical Center Office of Workforce Management and Development, in partnership with the Society of Human Resource Management, developed the survey to focus on actionable results and allow for targeted analysis by department, supervisory role and position type. This is one of the first surveys to be conducted of Clinical Center employees where results were compared to other U.S. hospitals and employees.

Survey Highlights

The contribution your work has on the overall mission of the organization

- 83% Clinical Center Employees
- 75% Other U.S. Hospital Employees
- 71% Other U.S. Employees

The work itself (it is rewarding)

- 82% Clinical Center Employees
- 74% Other U.S. Hospital Employees
- 72% Other U.S. Employees

While at work I'm completely focused on my work projects

- 85% Clinical Center Employees
- 75% Other U.S. Hospital Employees
- 69% Other U.S. Employees

NIH study shows that patients with PIEZO2 mutation have problems with proprioception, or body awareness

Experts working in the NIH Clinical Center have found that there may be a 'sixth sense' intertwined with hearing, sight, taste, smell and touch that the human body greatly depends on for body awareness throughout daily life. In late September, the National Institutes of Neurological Disorders and Stroke (NINDS) and the National Center for Complementary and Integrative Health published a paper in the *New England Journal of Medicine* on their finding that a gene called PIEZO2 controls specific aspects of human touch and proprioception – a "sixth sense" describing the ability to sense the body's place in space.

Imagine being blindfolded and asked to walk forward, or to touch an object in front of you. For most people, while it may be uncomfortable, they'd likely be able to do it with little trouble. But the two patients with mutations in the PIEZO2 gene had significant movement and balance problems and a loss of some forms of touch. When blindfolded, the patients had extreme difficulty walking which caused them to stagger and stumble from side to side. Without being able to look at where they were going or to see the object they were supposed to touch in front of them, they could not guess what direction their body was moving. But, despite their movement and touch difficulties, they both appear to cope with these challenges by rely-



Patient Damiana attempts to touch a target with her finger while blindfolded as a part of a study in the NIH Clinical Center.

ing heavily on vision and other senses.

One patient, 10-year-old Damiana, flew from California to the CC last year to participate in the trial. In a recent NPR interview, her mother, Diana Sawyer explained that her rare genetic mutation had always baffled doctors and that "She was very late at doing everything," especially walking. While Damiana is extremely bright intellectually, she has physical difficulties. She can only take a few steps on her own due to abnormalities in her feet and hips and curvature in her spine.

Dr. Carsten G. Bönnemann, senior investigator at NINDS and a co-leader of the study, believes that these findings, and future studies, may lead to more clues to a variety of other neurological disorders.

More details: <http://go.usa.gov/xkpZF>

Atrium café renovation set for November, new marketplace serving Starbucks to open in 2017

At the end of November, Au Bon Pain in the Clinical Center atrium will close and renovations will begin on a café featuring a Starbucks "We Proudly Brew" program. The space, scheduled to re-open in February 2017, will include a full line of Starbucks beverages, similar to the coffee bar in Building 35. The marketplace is part of a new contract with Eurest, which manages most on-campus cafeterias.



A temporary café will provide food and beverages until the new marketplace opens in the New Year.

STAFF SURVEY *from page 1*

Areas for improvement include career advancement opportunities, funded training opportunities, tuition reimbursement, and career development opportunities for learning and professional growth.

In addition, 40 percent of employees said that they were skeptical that any action will be taken in response to the results of this survey. In an email to employees in September, Dr. John I. Gallin, director of the Clinical Center, said "I am committed to dispelling this belief and ensuring that the NIH Clinical Center responds to the employee survey results. I will also share these results with the new Chief Executive Officer to assist in developing strategic and operational planning."

The Office of Workforce Management and Development has provided each department head with a copy of their individual survey results so they can address individual strengths and weaknesses effectively. In addition, the office is developing programs to respond to the identified areas for improvement, which will be announced in the upcoming months.

View the results (NIH staff only): http://intranet.cc.nih.gov/owmd/employee_survey.html

MARKETPLACE *from page 1*

The marketplace is part of a 2015-2020 contract with Eurest, which manages most on-campus cafeterias. It will sell sushi, sandwiches, wraps, salad, soup, baked goods and beverages. There will be multiple cash registers and order lines, self-service kiosks and a more efficient layout to help customers order and pick up items faster.

During the renovation, temporary service will be provided in front of the current Au Bon Pain entrance. The seating area in the center of atrium will be shifted to make room. The temporary service will include hot coffee and tea; bottled beverages; assorted pastries and muffins; yogurt, hard-boiled eggs, and fruit cups; sandwiches, salads, and wraps; sushi trays; and sweet and savory snacks. No espresso drinks or other specialty beverages (e.g. smoothies) will be available.

Green Road project to research healing properties of Mother Nature

About a mile from the NIH Clinical Center, on the campus of Naval Support Activity Bethesda, a new research initiative was launched Sept. 26 to scientifically measure the healing effects of exposure to nature. Among those to celebrate the Institute for Integrative Health's opening of the Green Road project was Dr. Ann Berger, chief of the Pain and Palliative Care Service at the NIH Clinical Center.

Berger, and many others, have worked and supported the creation of the Green Road, which is a natural healing environment for injured service members receiving medical care at Walter Reed National Military Medical Center. The Green Road is also open to service members' families. The two-acre garden includes a streamside wheelchair and walking path and commemorative and communal pavilions. The Institute for Integrative Health, a non-profit organization that aims to create a wellness and medical model for society, led the project.

As with any research trial, one of the most important components to its creation was determining the metrics to use to evaluate results. Berger was instrumental in developing the questions participating veterans will answer as part of the study to quantify and evaluate the psychological, social and spiritual aspect of spending time in nature.

Beginning in 2017, the two-year study will request veterans' responses to the questionnaire both before and after they visit the Green Road. According to the Institute for Integrative Health, studies will also look at biomarkers of stress, use natural language processing to analyze participants' journals and stories and examine changes in gene expression. The study will compare how veterans respond to traveling by foot or wheelchair on two different



After walking the Green Road, above, veterans will answer a questionnaire created by Dr. Ann Berger, NIH Clinical Center chief of Pain and Palliative Care.

routes across the naval base. One is a high-traffic urban route along Rockville Pike and the other is on the Green Road.

Specifically, the project will research how spending time in nature contributes to the healing of service members with Post Traumatic Stress Disorder, traumatic brain injury and other traumatic injuries.

The physical aspects of healing can be quantified through measurements of blood pressure, heart rate and temperature as well as sweat samples. It is much harder to measure intangibles like psychological, social and spiritual healing, said Berger.

The research that come from this project could have far reaching implications for planning and funding green spaces on other military bases, as well as in cities and other health institutions.

"Working with the other health providers and also meeting with the architects and focus groups and veterans who contributed to the project has been an amazing experience," said Berger. "This research is so important because it's what patients care about. We can't cure all diseases, but what we can do is heal the person – make them feel whole – that is what psychological, social and spiritual healing is about."

More details: <http://tiih.org/what-we-do/build-healthy-communities/green-road-project/>. NIH CC Pain and Palliative Care: www.cc.nih.gov/palliativecare/index.html

Read more online! Scan the barcode or visit www.cc.nih.gov/about/news/newsletter.html



- New Animal Research Community Tribute now located on the south lawn of the CC
- NIMH brain imaging trial and NIAAA trial looking into alcohol cues seek participants

Use a downloaded app on a smartphone or tablet to scan the Quick Response (QR) barcode. You will be directed to the CC News online.

Clinical Center News

Editor: Molly Freimuth

Contributors: Cindy Fisher, Donovan Kuehn, Maria Maslennikov, Rachel Wolf

National Institutes of Health Clinical Center
10 Center Drive, Room 6-2551
Bethesda, MD 20892-1504

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Contact: 301-594-5789
Molly.Freimuth@nih.gov



Clinical Center

Hospital updates from Health Information Technology Day

On Sept. 29, in honor of National Health Information Technology Week, the Clinical Center held Health IT Day to highlight upcoming changes and provide training opportunities on the medical record system, secure health messaging, patient and clinician portals, and more. Key takeaways from some the sessions include:

Enterprise scheduling system goes live in October to better communicate and coordinate patient care

Denise Ford, chief of the Department of Patient Relations and Recruitment Services, shared information on the CC's new enterprise scheduling system that went live Oct. 3. The new system provides real time, accurate patient appointment information in CRIS to over 4,000 users. The system replaces scheduling.com, a third-party scheduling system which has been used in the CC since 2005.

Over 210,000 patient appointments are scheduled in the CC annually. In 2015, the new system was fully implemented in the Dental Clinic, Rehab Medicine Department and Radiology and Imaging Sciences. With the knowledge gained from the rollout in those three areas, the CC implemented Phase 1 of the enterprise scheduling system in October throughout the remaining 29 clinics, day hospitals and procedure/testing areas. Scheduling.com has been officially "retired" and all areas previously using Scheduling.com are now up and running on the new enterprise scheduling system in CRIS. Phase 2 of the implementation, which will link medical orders to appointments and standardize

the appointment request process, will be completed in early 2017.

Department of Laboratory Medicine replaces CareFusion with new SoftID software to improve efficiency, safety

Chung-Hee Row, with the Department of Laboratory Medicine, presented a session on the replacement of CareFusion specimen collection system with SoftID. SoftID is an electronic positive patient tracking solution which provides phlebotomists and nurses with an efficient, mobile and dependable means of verifying patient identification for blood collection. The new system, which began in November, will "improve workflow efficiency and patient safety," according to Row.

Among many updated features, the new system will now provide staff with a barcode label for specimens that informs them, with greater specificity than ever before, which test tube is required for a test. For example, for a glucose blood sugar level test staff need a grey test tube topper, for a complete blood count test staff need a lavender tube topper, and if the bleeding time of a patient is being tested, then staff need a blue tube topper. With so many classifications of color and size for tubes, the new labels placed on them now have more text space to better identify the actions needed



Elaine Ayres (center), deputy chief in the laboratory of informatics development, Frank Mickey (left), from the Department of Clinical Research Informatics, and Heather Bridge, from the Office of Human Subjects Research Protections, discuss e-consenting and test the tablet consent form.

which allow staff to complete faster and safer testing.

Department of Clinical Research Informatics and Health Information Management Department pilot e-consenting

The Department of Clinical Research Informatics and Health Information Management Departments (HIMD) have an e-consenting pilot underway in Radiation Oncology. As part of the pilot, staff are using mobile devices/tablets to consent patients with an electronic "fillable" document that is saved and uploaded into CRIS (the medical record system).

"The ultimate goal [is to] expand it throughout the hospital," said Tricia Coffey, chief of the HIMD, who presented during the days' events.

Former HHS Secretary Sullivan discusses diversity in the health professions



The Honorable Dr. Louis W. Sullivan, U.S. Secretary of Health and Human Services from 1989–1993, spoke at the National Library of Medicine's History of Medicine Lecture in the Clinical Center Oct. 4. In his presentation, based on his recently-published memoir, "Breaking Ground: My Life in Medicine," Sullivan shared with the audience a variety of personal and professional experiences impacting his life. Sullivan, who knew by the age of five that he wanted to be a doctor, broke racial barriers in becoming the first African American resident at New York Hospital-Cornell Medical Center in 1958. He later went on to found the Morehouse School of Medicine. View the lecture: <http://go.usa.gov/xkVRf>

NCI-NHLBI investigator earns Distinguished Clinical Teaching Award

The 2016 NIH Distinguished Clinical Teaching Award was presented to Dr. Sawa Ito Sept. 21. Ito was recognized for her commitment to training future clinical investigators at the NIH and her contributions to medical education.

She is the associate director of the jointly-sponsored National Cancer Institute and National Heart, Lung, and Blood Institute Hematology Oncology Fellowship Program. Ito has authored over 25 peer-reviewed publications and is the principal investigator or co-investigator on six NIH clinical trials. Each year, the award is decided by a vote of the clinical fellows and presented to an individual who exemplifies the ideals of a mentor, teacher, clinician and researcher.

Following the presentation of the award, a CC Grand Rounds Contemporary Clinical Medicine: Great Teachers Lecture was given by Dr. H. Clifford Lane, clinical director of the National Institute of Allergy and Infectious Diseases. His lecture, titled 35 Years of HIV/AIDS: A View from the Ground Level, can be viewed online: <http://go.usa.gov/xkVVR2>



The NIH Fellows Committee presented an honorary plaque to Dr. Sawa Ito.

Upcoming Events

View lectures online: <http://videocast.nih.gov>

Family Caregiver Day Fair and Expo

Nov. 15, 2016, 11:00 a.m. – 2:00 p.m.
7th floor, Clinical Research Center
NIH and outside exhibitor resources will be available for family caregivers. No registration required.

Gingerbread House Decorating Contest

Dec. 5, 2016 – Jan. 3, 2017

North Atrium

Enjoy the 13th annual contest and vote for your favorite decorated house in person or on Facebook: <https://www.facebook.com/NIHClinicalCenter>. For more information, contact Ann Marie Matlock: amatlock@cc.nih.gov.

NIH Clinical Center Director's Annual Address and Awards Ceremony

Dec. 16, 2016, 1:00 p.m. – 3:00 p.m.

Building 10, Masur Auditorium

The event will honor CC employees and their exemplary contributions to NIH.

Energetic 3-year-old receives gene therapy for inherited disorder of the immune system

With his collection of stuffed animal dogs lined up on his bed, and his favorite fake bugs tucked by his side, 3-year-old pediatric patient Everett Schmitt received gene therapy for X-linked severe combined immunodeficiency (XSCID) Sept. 15 in the NIH Clinical Center.

Schmitt is enrolled in a clinical trial with the National Institute of Allergy and Infectious Diseases (NIAID) for XSCID, referred to by some people as "Bubble Boy Disease." It is caused by an abnormality in a gene that affects the growth and development of immune cells such as white blood cells. Schmitt, and others with XSCID, have difficulty fighting infections.

"He's the youngest so far in this trial," Schmitt's mother Anne Klein said. "He's handled everything really well and continues to show his incredible strength and pleasant nature."

"He seems like a little old soul with a good sense of humor," she added.

Just before the gene therapy infusion, Schmitt was calmly buzzing his fake bug around his room and onto the shoulder of Dr. Harry Malech, chief of the Laboratory of Host Defenses and Genetic Immunotherapy Section in NIAID. His critter then would lunge from his hands into the arms of his nurses, who each have their very own matching bug to keep in their pockets. To add to the smiles in the room, his parents put on a funny pair of clown glasses and snuck up on Malech.

"My immediate family has always had silly pranks in our lives. So we try to pass that on to our kids starting early to develop a sense of humor," Klein said.

His care team celebrated the gene therapy infusion by calling it his "birthday" because he's getting new and improved cells and truly a second chance in life. The team sang Happy Birthday and brought cake and presents to his bedside. In addition to his real birthday, Schmitt has had one other "transplant birthday". At just 7-weeks-old, he received a stem cell trans-

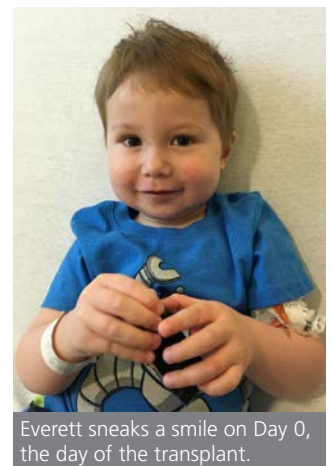


Dr. Harry Malech (far left), chief of the Laboratory of Host Defenses and Genetic Immunotherapy Section in National Institute of Allergy and Infectious Diseases (NIAID), joins Brian Schmitt, Everett Schmitt, Anne Klein, research nurse Sandra Anaya-O'Brien (NIAID) and staff clinician/principal investigator Dr. Suk See De Ravin (NIAID).

plant from his mother who was a half-match donor but the donor cells began causing rare complications a little more than a year ago.

The hope with lentiviral gene transfer treatment, which he received, is to use good genes to replace defective genes. A lentivirus is a virus that has been modified to carry corrected genes into the blood through corrected stem cells. By collecting an individual's stem cells and modifying them with a lentivirus, the gene-corrected cells can be returned into the blood to help produce normal healthy immune cells. Staff members from the NIH Clinical Center Cell Processing Section in the Department of Transfusion Medicine, who worked on preparing Schmitt's new cells, came down to his room and waved as he was undergoing the infusion.

For now, "we just wait for a while to see how things go," Klein said. But for Schmitt, he just continues to have fun doing typical 3-year-old boy activities like making a secret hideout in his room where he trades "birthday and Nick Jr. Paw Patrol secrets" with his stuffed animals.



Everett sneaks a smile on Day 0, the day of the transplant.