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Medical Research Scholars Program fellows present findings at year-end event

NIH...Turning Discovery Into Health®

# **Clinical** Center

## One disease: two approaches

### Lecture shows how treating Ebola in Liberia and the Clinical Center required distinct strategies

Imagine having to perform a life-saving procedure. Now imagine having to do that same work in a diver's suit. That was the reality for Clinical Center clinicians working to save patients from Ebola virus infections.

On May 27, the Clinical Center hosted a Grand Rounds lecture, Ebola: From the Monrovia Medical Unit to the ICU, which featured two medical professionals with different experiences in treating Ebola.

Dr. Anthony Suffredini, the deputy director of the Department of Critical Care Medicine, gave an overview of the pathogenesis and pathology of Ebola. He also outlined the challenges in providing care for critically-ill patients with Ebola virus disease.

Due to Ebola's highly infectious nature, unique treatment strategies must be adopted to care for infected patients. Health care workers must wear personal protective equipment (PPE) to limit any exposure to the highly-contagious bodily fluids from patients. In West Africa, the elevated temperature and humidity in the treatment facilities limit the time that health care workers in PPE can spend with patients. In contrast, the controlled environmental conditions in the U.S. and Europe allow for continuous bedside care for patients. EBOLA LECTURE page 4



tion from the audience at a Clinical Center Grand Rounds lecture. Childs participated in the U.S. Public Health Service Commissioned Corps response to the Ebola crisis in Liberia. Dr. Anthony Suffredini from the Clinical Center also presented at the lecture.

### Alan Alda and Roger Rosenblatt discuss how NIH can effectively communicate science

The NIH Clinical Center welcomed Alan Alda, actor, director and screenwriter, and Roger Rosenblatt, essayist, novelist and playwright, to talk to staff about the merging of arts and sciences and the conversational way to communicate science at the NIH.

Alda, commonly known for his role as Hawkeye Pierce in M\*A\*S\*H, and Rosenblatt, who's written for the Washington Post, Time Magazine and PBS NewsHour, brought the crowd to roaring laughter multiple times as they recalled their experience in successfully, and not so successfully, engaging with an audience, telling a story

and making a 'powerful point' without a PowerPoint presentation. Both Alda and Rosenblatt come from the Center for Communicating Science at Stony Brook University. Alda founded the center and Rosenblatt serves as a distinguished professor of english and writing. The May 21 event was a part of an innovation lecture series held by the National Institute of Mental Health. The lecture filled Masur Auditorium and drew over 1,500

views on videocast: http://go.usa.gov/3XQQQ.

STORYTELLING page 4



## Interns graduate Project SEARCH-NIH Program, eight hired at NIH

The Clinical Center celebrated the fifth graduating class of the Project SEARCH-NIH Program June 5. Project SEARCH provides young adults with intellectual and developmental disabilities the opportunity for vocational education and training to prepare for competitive employment opportunities.

Since 2010, 53 interns have graduated and 36 have been hired at the NIH – a 79% hire rate! More than 80% of those who were hired by the NIH are still employed in their position.

Meredith Beck, along

with eight other 2015 graduates of the internship program, will transition from



Project SEARCH graduates gathered June 5 to celebrate their accomplishment with family, friends, co-workers and supervisors. From left to right: (back row) Kerem Kolan, Adam Hoffman, Christopher Frawley, Yuchen Gu, (front row) Meredith Beck, Hayley Doyle, Chris Pagonis, Lydia Vreeland, Melissa Tebi. Not pictured: Rachel Williams

their role as a Project SEARCH intern to an NIH staff member. Beck enables the Clinical Center Office of Administrative Management to conduct their work more efficiently by streamlining the process for analyzing funding packages. She enjoys interacting with the people whom she works with and others that she meets inside the Clinical Center.

"I joined the Project SEARCH Program because it looked interesting when I researched it," said Beck. "I'm so happy that I decided to participate and I'm excited to begin my new job here at the Clinical Center!"

Learn more about 10 month Project SEARCH program at NIH and its partners: http:// www.cc.nih.gov/projectsearch/

## **Upcoming Events**

View most lectures: http://videocast.nih.gov

The Children's Inn at NIH: 25th Anniversary Symposium; At the Intersection of Hope & Science: 25 Years of Advancing Medical Discoveries

June 18, 2015, 2:00 p.m. – 5:30 p.m. Masur Auditorium

The symposium will highlight The Inn's history, especially its role in advancing medical research. Physicians and families will share their stories and scientific advances. The event will look to the future of The Inn and the next 25 years of medical discovery.

#### Clinical Center Grand Rounds Lecture Hematopoietic Stem Cell Transplantation: Perspectives; T Cell Transplantation: Developments

June 24, 2015, Noon – 1:00 p.m. Lipsett Amphitheater Presented by Crystal Mackall, MD, NCI and Ronald Gress, MD, NCI.

### 8th Annual Siblings Day: Celebrating 'Super Sibs'

July 14, 2015, 9:00 a.m. – 3:30 p.m.

Clinical Center and The Children's Inn at NIH

A day to enable patients' brothers and sisters to feel proud of the important role that they play at home and on the health care team. The day will include hands-on art activities, lunch, therapeutic games and a "Super Sib" award ceremony and ice cream social. Open to the siblings of Clinical Center pediatric patients. Registration required: http://goo.gl/OOL4Ny

## Clinical Center celebrates the dedication of nursing workforce



Nursing Department executive leadership served their dedicated colleagues a warm breakfast after their night shift during Nurses' Week. From left to right, Dr. Barbara Jordan, Diane Walsh, Dr. Gwen Wallen, CAPT Ann Marie Matlock, Dr. Clare Hastings, Dr. Deb Kolakowski, Ray Nudo and Dr. Cheryl Fisher.

To recognize the hard work of the nursing staff, who provide both clinical research expertise and health care to patients, the Clinical Center celebrated Nurses' Week May 6-12. Activities included a breakfast, afternoon reception and an evening shift snack cart; lectures on the ethics of caregiving and provider challenges and the critical role of the oncology nurse; a U.S. Public Health Service nurse recognition webinar and other daily events sponsored by individual patient units. The week was hosted by the Nursing Department's Recognition and Retention Committee in partnership with Nursing Department leadership.

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

Clinical trial volunteers needed

• NIH minority health promotion day

• Take your child to work day

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

### Clinical Center News

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## 'Future doctors of America' present research accomplishments

Medical Research Scholars Program says farewell to third class, welcomes 55 students in the fall



With nearly a year of NIH research completed, 42 Medical Research Scholars Program (MRSP) participants presented their scientific research to the NIH community and guests May 11-12 in the Foundation for Advanced Education in the Sciences classrooms and terrace.

During the two-day event, these medical, dental and veterinary students presented on topics such as adoptive cell transfer targeting unique cancer mutations; focal electro-oculogram for use in macular diseases; visual exploration in Parkinson's disease; stress reactivity of cortisol in a nationally-representative sample of adolescents; and MRI/Ultrasound fusionguided targeted biopsy detecting clinicallysignificant prostate cancer in the central gland correlating with index lesion. The presentations summarized their mentored biomedical research projects with an NIH investigator who matched students research interests and career goals.

In addition to the oral presentations, poster sessions were added to the event for the first time.

Dr. Susan Leitman, director of the MRSP, praised the 2014-2015 class and credited them as "poised, professional, confident, highly-knowledgeable, data-driven and well-spoken" individuals who "showed a real understanding of science in general and scientific method and analysis."

MRSP scholar Abdulkareem Agunbiade, a third-year medical student at the University of Chicago Pritzker School of Medicine stated, "One of the favorite things I like about the MRSP is that I have the great opportunity to live with, bond with and learn from the future doctors of America."

Fellow MRSP scholar Taufiq Salahuddin, a third-year medical student at Wake For-

est University School of Medicine, also said "From mentorship with your [principal investigator] to faculty within the MRSP and the NIH in general – everybody is very supportive. Just living with 41 other Medical Research Scholars has been incredibly awesome."

In late April, the NIH announced the 2015-2016 MRSP class, the fourth and largest class in the program's history. The 55 talented and diverse students include 25 females and 13 students from underrepresented minority groups. The new class will travel from their 37 U.S.–accredited universities to the NIH campus to begin their basic, clinical or translational research in August 2015.

Learn more about the poster presentation topics, scholars and MRSP: http:// www.cc.nih.gov/training/mrsp/. View details on the new 2015-2016 class: www. nih.gov/news/health/apr2015/cc-22.htm

## NIH Blood Bank has new location off campus for platelet donation

In June, the NIH Blood Bank opened a Platelet Donor Center in Rockville where all platelet donations will now take place.

The Blood Bank collects blood and blood products for transfusions to NIH patients and collects blood components for research in NIH laboratories. To increase the Department of Transfusion Medicine's research capabilities of cell products, the NIH Blood Bank moved all platelet and granulocyte donations from the NIH Clinical Center to its new location at 5625 Fishers Lane, Rockville, Md., 20852.

Whole blood donations will continue to be accepted only at the NIH Blood Bank on the Bethesda campus.

Platelets are cells that help the blood to clot. Their job is to rush to the site of an injury. Once there, they form a barrier, help the damaged organ or blood vessel stop bleeding and give the body a chance to heal.

More than 30,000 units of platelets are

transfused to treat patients undergoing cancer therapy, organ and tissue transplants and for other diseases. Platelet donation involves a two-hour process called plateletpheresis in which platelets are removed from whole blood, concentrated and collected.

The new Platelet Donor Center has four platelet apheresis stations and one station for granulocyte donation. Granulocytes are a type of white blood cell that fight bacteria and fungi. Patients with bone marrow failure syndromes, or those undergoing



chemotherapy or marrow transplantation, often do not make enough of their own granulocytes to prevent serious infections.

Walk-ins are welcome, but donors are encouraged to schedule an appointment in advance due to the length of the donation process. The center is adjacent to the Twinbrook Metro Station. Donors may use reserved parking in the garage behind the building.

Make an appointment: (301) 496-4321 or www.cc.nih.gov/blooddonor/ appointment.html

## EBOLA LECTURE from page 1

Diagnostic testing and imaging for patients are also limited due to the infectious risk posed by the patients' body fluids.

Captain Dr. Richard Childs, clinical director, senior investigator and chief for the transplantation Immunotherapy Section of the Hematology Branch for the National Heart, Blood and Lung Institute, then spoke on the U.S. Public Health Service (USPHS) Commissioned Corps Ebola response in Liberia and his experience caring for patients at the Monrovia Medical Unit (MMU).

Four teams comprised of USPHS Commissioned Corps officers were deployed to run and staff the MMU. The 25-bed, state-ofthe-art field hospital was designed to treat health care workers who became infected with Ebola while tending to patients. The MMU opened its doors to Ebola patients Nov. 7, 2014. The unit was the only U.S. government entity to provide direct care to patients infected with Ebola in West Africa.

Childs outlined the safety procedures while treating patients: PPE was worn when seeing patients; all skin was covered; all gloves were double or triple-layered; PPE was decontaminated with bleach when removed; and safety officers coordinated with medical providers and nursing staff prior to patient visits.

The unique environment in Liberia meant

that specific procedures had to be followed to ensure the safety of the team. Caregivers monitored their vital signs before and after entering treatment areas. Anyone with a heart rate higher than 100 beats per minute, which is the upper range of a normal resting heart rate for adults, was not allowed to tend to patients. Due to the high temperatures, staff could only wear PPE for a maximum of two hours to avoid dehydration. This meant the team was unable to provide 24-hour continuous bedside observation of patients.

The field hospital admitted 42 patients, including 18 with Ebola and 24 with suspected Ebola virus. Remarkably, amongst the 18 patients with Ebola, all of whom were severely or critically ill, 10 survived.

"The mission of the MMU proved highly successful; survival rates were higher than those observed amongst conventional Ebola treatment units and it provided a safety net for health care providers and helped Liberia through its Ebola epidemic," said Childs.

Despite the dangers involved in caring for these patients, all 283 of the team members (26 of whom were from NIH) returned safely and free of infection.

Suffredini closed the lecture by describing the experience of treating a patient with Ebola in the Clinical Center's Special Clinical

Studies Unit. He reviewed the symptoms of Ebola, drawing on published reports of the treatment of the seven different patients treated in the U.S. He detailed the assessments and treatment of a patient treated at NIH this past March and April. The patient was transported from West Africa and arrived at NIH on the sixth day of his illness.

The symptoms started as profound weakness, skin rash, diarrhea and high fever for this patient but deteriorated to inflammation of the liver, low blood platelet counts, lung failure, confusion and delirium as well as kidney failure. As the infection began to resolve with treatment, the patient also experienced short-term memory loss, difficulty concentrating and eye inflammation.

After successful treatment, the Clinical Center discharged the patient April 9. Exactly one month later, Liberia was declared Ebola-free.

Suffredini cited several factors necessary in cultivating a successful medical strategy for treating Ebola-infected patients. These included leadership, teamwork and volunteerism.

"The Clinical Center had 19 different departments and specialties that worked together to help treat the Ebola-infected patient," said Suffredini. "Each one played a role in the patient's treatment and recovery."

Videocast: http://go.usa.gov/35g2R

## **STORYTELLING** from page 1

Below, Rosenblatt and Alda, challenge staff to become better communicators and offer techniques and advice to help.

- "The center of all of this is telling a story. It's the way that we can trust one another and gather from one another what is most valuable. We learn from stories. We live in the world of narration." - Rosenblatt said in hopes that scientists will be able to share a message about their work as if they were telling a story to a friend.
- "If the true story is not told as a story that's compelling. it won't be understood and it won't be remembered. We remember things that have an emotional tinge to them. To excite the brains of the people listening, with a word or two or situation that helps them feel something, will help them not just engage with it, but it will really help them remember it." - Alda said, while encouraging scientists not to 'dumb things down,' but, rather, convey a meaningful message that is usable.
- "Sometimes the analogy in writing, use of metaphor for example, can elevate the meaning both of the person who wishes to communicate the idea through analogy and the person receiving the analogy, so that both reach a kind of a plane of thought which doesn't violate the truth at all." - Rosenblatt
- "I wanted to see that conversational tone and the conversational language, the conversational vocabulary used by scientists when somebody like me wasn't there pulling it out of them." – Alda said as he explained that he'd often have to say to scientists 'I don't get it, what do you mean?'

### Patients, staff gather as panelists to discuss importance of women's health



On May 14, panelist Jamie Gentille, far left, shared her experience as a child infectto lead a happy and healthy life. Another patient as well as other NIH experts also

During National Women's Health Week, the NIH Office of Research on Women's Health and the FDA's Office of Women's Health hosted a panel event "Meet the Faces of Clinical Research: Beyond Inclusion." In an interactive and, at times, heart-wrenching discussion, clinical trial volunteers shared their unique paths and decisions to participate in NIH clinical trials and staff experts touched on the importance of women and diversity in clinical research. Visit our online issue to read the complete article. Videocast: https://youtu.be/F1\_7BmKLbnI