NIH Is Key to Protecting Americans’ Well-Being, Azar Says at Town Hall Meeting

BY ERIC BOCK

New Health and Human Services Secretary Alex Azar, who was sworn in on Jan. 29, views himself as a conductor of a symphony orchestra. He says his role isn’t to be the best violinist, but to get the best violinist to play his or her best and work in harmony with the rest of the orchestra.

“That’s a different task than feeling the need to do it yourself.”

HHS is “one-fourth of the U.S. government. I calculated the other day that if you stacked us up against [all other] governments, at $1.2 trillion we are the fifth largest nation on Earth. We are bigger than the British Empire,” he said. “We have been given a lot and to whom much is given, much is expected. And with $1.2 trillion, we have a lot that we must deliver on.”

Azar said that as the premier biomedical research agency in the world, NIH plays an important role in helping HHS meet its mission of enhancing and protecting the well-being of all Americans. The agency has support from people around the country and from its leaders.

While on his first official visit to campus, Azar met with NIH leadership, toured labs and was introduced to patients.

Azar also said it’s important “we not get complacent just doing things the way we’ve always done.” He encouraged staff to work within a resource- or choice-constrained environment. Employees should challenge orthodoxies and think of options they’d never considered, he said.

SEE AZAR, PAGE 4

SOUL MAN

Moreland Speaks at First ‘Science & Philosophy’ Event

BY CARLA GARNETT

Perhaps neuroscientists should focus solely on the brain and leave matters of the mind to philosophers. It’s a popular view held by many academic philosophers as well as neuroscientists. After all, both heady disciplines are equally fascinating and multi-faceted, and some investigators of each may only agree that one may never fully understand or explain the other.

On the other hand, “The problem is that complexity is the enemy of meaningful work,” said Lisa Bodell, CEO of Futurethink and author of Why Simple Wins. “It holds you back from driving growth, from reaching mission, from creating value.”

KEEP IT SIMPLE

To Be Productive, Dispense With Complexity, Says Bodell

BY DANA TALESNIK

Life keeps getting busier and more complicated. Are we making things more difficult than they need to be?

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Celebrating another great CFC season, p. 3.
Celebrate National DNA Day, Apr. 25

In recognition of National DNA Day, NHGRI will host its annual speaker series with guest Dr. Olivier Noel, CEO of DNAsimple, a startup company that helps accelerate genetic research by connecting DNA donors with research scientists. He has also been featured on ABC’s Shark Tank. The event will take place on Wednesday, Apr. 25 from 4 to 5:30 p.m. in Lister Hill Auditorium, Bldg. 38A.

Olivier will discuss entrepreneurship and startups in science. For details on the lecture or to register to attend in person, visit https://www.genome.gov/20519689/celebrate-dna-day-with-nhgri/.

National DNA Day commemorates the successful completion of the Human Genome Project in 2003 and the discovery of DNA’s double helix in 1953. This year marks the 15th anniversary of the project’s completion. The goal of the day is to offer students, teachers and the public an opportunity to learn about and celebrate the latest advances in genomic research and explore how those advances might affect their lives.

For more information on National DNA Day, visit https://www.genome.gov/10506367/national-dna-day/.

Join the Conversation About Alzheimer’s Research Participation Through Apr. 15

The National Institute on Aging seeks ideas from the wider community—advocates, clinicians, people with dementia, family members, caregivers, researchers and site coordinators—about how to overcome barriers and optimize participation in Alzheimer’s research.

Clinical trials and studies are critical to finding a treatment or cure for Alzheimer’s disease. Yet efforts in many cases to engage participants in Alzheimer’s research have not been able to keep pace with the need. NIA convened this effort, joined by colleagues at the Alzheimer’s Association, researchers and others dedicated to trying to solve this problem.

How can you help? Go to NIA’s IdeaScale community (http://bit.ly/ADrecruit) to contribute your own ideas, browse ideas that have already been submitted, comment and vote for your favorites.

NIA is looking for ideas on how to optimize recruitment by building trusting relationships in local communities, raising national awareness about participation in studies, enhancing the capacity of study sites, tracking progress and cultivating a science of recruitment. The IdeaScale community will be open through Apr. 15.

Visit http://bit.ly/ADrecruit to join the conversation with the National Institute on Aging on how to improve Alzheimer’s research participation.

Share your ideas!

National DNA Day

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NIH closed out its 2017 Combined Federal Campaign with a fun-filled appreciation and awards ceremony on Mar. 8 at Lister Hill Auditorium, Bldg. 38A.

“This year’s campaign was a victory for NIH as we exceeded our goal of $2.2 million toward charities in the U.S. and abroad,” said campaign co-chair and NINDS director Dr. Walter Koroshetz. NINDS served as the lead NIH agency for the 2017 campaign.

The CFC is the federal government’s largest workplace giving campaign, raising millions of dollars for local, national and international charities. This year, some 10,000 charities participated in the National Capital Area CFC.

“I’m proud to say NIH has raised more than $2 million for the CFC each year for the past 13 years,” said NIH director Dr. Francis Collins, who also served as NIH co-chair and HHS chair. “HHS is one of the lead federal agencies in the CFC and NIH represents about half of all dollars collected by HHS.”

NIH held dozens of events to encourage employee participation. Koroshetz introduced the campaign’s Olympic theme at the kickoff last September, which included remarks by Special Olympics chair Dr. Timothy Shriver and three of NIH’s own Special Olympians. Another campaign highlight was the 3-on-3 Directors’ Basketball Challenge in front of a standing-room only crowd at the Clinical Center outdoor court.

“I don’t think anyone knew how fiercely competitive the institute directors and their teams could be,” said NINDS deputy director for management Dr. Maureen Gormley, who emceed the awards ceremony. “They played full-contact games and ended with three jammed fingers.”

She had the crowd laughing at several “What would Walter do?” video clips of the games, with multiple choice answers about the NINDS director’s on-court antics. Life-size cutouts of Koroshetz in his game-day T-shirt were posted at various NIH locations during the campaign.

“The results speak for themselves,” said Collins about the NIH response to the campaign theme “Show Some Love.” During the ceremony, Koroshetz passed the campaign’s Olympic torch to NCATS director Dr. Christopher Austin, who, with NCATS Executive Officer Keith Lamirande, will chair the NIH CFC in 2018.
“Every couple hundred thousand dollars is maybe a young researcher who can get a grant who otherwise wouldn’t be able to get a grant.”

-HHS SECRETARY ALEX AZAR

Azar
CONTINUED FROM PAGE 1

“Every single dollar that we save is a dollar in R01 [an NIH research project grant program] funding that we can put out there,” he said. “Every couple hundred thousand dollars is maybe a young researcher who can get a grant who otherwise wouldn’t be able to get a grant.”

In response to a question from NIH director Dr. Francis Collins about HHS’s ability to respond to a global pandemic, Azar said that while it’s impossible to be fully ready to face infectious disease threats, “we’re better prepared than we were yesterday and we’re better prepared than we were a decade ago.”

Tackling the opioid epidemic will be a key priority for Azar during his time as Secretary. Addiction is a “medical condition, not a moral failing by those involved,” he said. “We need to use science and evidence-based methods of treating those who have fallen into the trap of addiction.”

One of those methods is medication-assisted treatment, which provides addicts with one of several pharmacologic options, usually combined with social and behavioral interventions.

“We need to be constantly studying what works, disseminating the best information about what works, the best practices among the states,” he said. “We’re going to be putting a lot of money out there.”

Azar said he spoke recently with the President about the possibility of vaccines for opioid addiction and influenza and immunotherapy for cancer. The President “cares deeply about the mission of NIH and the science that you all are advancing,” he reported.
Duke’s Black Launches NIEHS Diversity Speaker Series

By Kelly Lenox

Dr. Sherilynn Black of Duke University launched the new NIEHS Diversity Speakers Series recently, sharing compelling results from her previous role as founding director of the Office of Biomedical Graduate Diversity at Duke’s School of Medicine. She described new approaches that her office pioneered to welcome a more diverse group of students to the school. She is now associate vice provost for faculty advancement at Duke.

“There has been an exponential increase in applications from underrepresented individuals since we started these new recruitment practices [in 2011],” Black said, adding that the number of underrepresented students who ultimately enroll and begin studies in the medical school has nearly doubled.

Efforts to correct disparities in the numbers of men and women in the sciences led to changes that have not yet extended to race, she explained. This is despite research that demonstrates diverse teams have greater success at problem-solving and innovation.

A 2008 book by Dr. Scott Page of the University of Michigan documented the science behind diversity.

“Progress depends as much on our collective differences as it does on our individual IQ scores,” he wrote in The Difference. Black pointed out that people too often think of diversity only as a moral imperative. “They don’t think about it as a scientific concept that is intellectually vital for us to advance as a society,” she said.

“We were so pleased to have someone of Sherilynn’s caliber and achievements to kick off the series,” said Dr. Ericka Reid, who directs NIEHS’s Office of Science Education and Diversity and chairs the series planning committee. “Her insights are relevant here at NIEHS, as well as in academia.”

Black established a comprehensive program that involved multiple offices and addressed the entire process—from applying, to success in the program after a student enrolled. “It’s not just going out to conferences and saying, ‘You should apply,’” she said. For example, partnering with other departments across the university is one key to success. “We could not have had the changes that we’ve had by involving only the School of Medicine,” said Black, listing student groups, administrative offices and others who contributed to the new programs. Her office also partners with academic institutions outside of Duke, numbering 18 so far.

“Engaging people from different levels and different areas of the educational experience helps students see that we take this seriously.”

—Dr. Sherilynn Black

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Dr. Ericka Reid welcomes Black to NIEHS.
hand, both fields are subject to investigation, testing and the laws of logic. Research in neuroscience can’t avoid ultimate implications in the realm of philosophy.

Philosopher Dr. J.P. Moreland explored such dueling perspectives recently in his talk “Philosophical and Empirical-Neuroscience for Determining the Nature and Existence of Consciousness and the Soul,” the first lecture in a series hosted by the newly formed NIH scientia et philosophia interest group.

The philosopher began by citing a few prominent neuroscientists, including DNA structure co-discoverer Dr. Francis Crick and his colleague Dr. Christof Koch, who co-wrote articles two decades ago on studying consciousness. Moreland said Crick and Koch acknowledged in a 1998 Cerebral Cortex article “that the main attitude among neuroscientists is the nature of consciousness is ‘a philosophical problem and best left to philosophers.’ Elsewhere they claim that scientists should concentrate on questions that can be experimentally resolved and leave metaphysical reflections to philosophers.”

Koch, it should be noted, is world-renowned for his research on the neural bases of consciousness and his articles touting the latest neurobiological tools scientists are using to study it.

Listed by The Best Schools web site as “one of the world’s 50 most influential living academic philosophers,” Moreland is distinguished professor of philosophy at Talbot School of Theology, Biola University in La Mirada, Calif. He’s had considerable time and occasion to contemplate diverse perspectives on consciousness and his conclusion remains constant.

“I think neuroscientific contributions are best when dealing with correlations, causal relations or functional dependencies and discovering more and more details on those,” he said. “I think it is philosophical reflection that gets at the very fundamental heart of what exactly is consciousness and what it is that owns or possesses consciousness.”

Lest anyone be confused, Moreland defined the brain and brain events and the mind and conscious events as distinctly different. Just because something your brain does—call it a “brain event”—leads your mind to produce something—call it a “mental event”—does not necessarily mean that the two events are the same thing, he explained.

One—the brain—has definable and measurable physical properties that can be shown by electroencephalogram and positron emission tomography scan, for instance. Measurements of the mind’s properties, however, are far more elusive and difficult to document “from a third-person perspective, but have a distinct, qualitative texture or a ‘what-it-is-like’ to them that is made clear to focused, first-person introspection,” Moreland said.

Scientists and philosophers have been having mind-body discussions for many years, with all sides endeavoring to clarify and inform their own work as well as its relationship to the others. As a matter of fact, experts from several viewpoints have gathered for hours to debate the topic right here at NIH on at least a couple of occasions within the past 20-odd years.

On Feb. 27 in Masur Auditorium, however, Moreland flew solo and had just 60 minutes that he managed to stretch into 90 and beyond at a post-lecture reception in the FAES bookstore after the formal talk.

In what had all the elements of an advanced grad school course in philosophy—complete with syllabus and bibliography hand-outs upon entry—the professor talked about ontological questions and “the inadequacy of empirical neuroscientific methodology” to answer them.

Moreland discussed the Law of Identity (also known as Leibniz’s Law of the Indiscernibility of Identicals) and why you can’t just say the mind is the brain and the brain is the mind.

“Identity is not cause and effect, it’s not correlation and it’s not functional dependency,” Moreland explained. “Just because a mental state functionally depends for its obtaining on a brain state, that is not sufficient to show that the mental state is identical to the brain state.”

He went over such basic concepts as “mere property dualism,” “physicalism” and “substance dualism” and their differences. To illustrate, he explained how each theory would explain why someone might not be able to experience empathy.

The physicalist, for example, would say the person must have a misfiring neuron somewhere in his brain because otherwise a normal-firing neuron is identical to the feeling of empathy; locate/fix the mechanical problem and his ability to feel empathy should be restored. Not so fast, say the other camps.

Moreland said the two dualists would agree with each other, but for different reasons.

The mere property fan would argue that although empathy is a mind event—“a state of consciousness that can’t be reduced to
anything physical”—it happens in the brain and relies on a properly functioning brain in order to occur. “Just like if your eyes get put out, then you can’t have visual sensation, the sense of sight.”

The substance dualist, Moreland noted, would say, “I don’t think the brain is the kind of thing that can have consciousness. The proper nature of the owner of consciousness would have to be a part-less unextended spiritual entity of some kind, but while embodied, there will be an ontological cause-and-effect relationship that goes both ways. If your neurons [in the brain] don’t work then you will not be able to have feelings of empathy in the ego or the self. Occurrences of those feelings still rely on a properly functioning brain, but they are owned by a soul or self.”

Moreland also described the nature of phenomenal consciousness and its five states: sensations, thoughts, beliefs, desires and volitional exercises of active power.

Phenomenal consciousness, he explained, is what people experience as they’re coming to in the recovery room after surgery. Slowly they’re gaining an awareness that only they can experience.

“For any physical object, property or state, we all have equal access to that—including brain measurements—because they’re publicly accessible objects,” he explained. “Consciousness, however, has a way of being known that is not true of any physical state...The person who’s having the state is directly, uniquely aware by way of introspective, private access to the state of consciousness.”

Moreland closed with several arguments for the soul being distinct from the physical body. A person is separate from the gray matter that makes up his or her brain. For one thing, the brain can be divided and even have parts removed, but the individual—the person, the soul—remains the same throughout the diminished capacity of cognitive abilities or loss of brain function.

“The soul is an immaterial substance or thing that contains consciousness and enlivens or animates the body,” Moreland said. “If you don’t like the word ‘soul’ just substitute the word ‘self’ or ‘I’ or ‘ego’ or ‘mind.’”

For details about the new interest group and its upcoming meetings and events, visit https://oir.nih.gov/sigs/scientia-et-philosophia-interest-group.
“Dealing with companies that are complicated makes you not want to work with them,” Bodell warned.

Organizations of all sizes can simplify their practices, said Bodell, speaking at a recent Deputy Director for Management seminar in Masur Auditorium. And even small changes can yield big results.

Scripps Health in California, for example, wanted to reduce emergency room wait times, which averaged 8 hours. By simplifying the check-in process, they sped up admissions and increased revenues and patient satisfaction.

Not long ago another large organization, United Parcel Service, rolled out a new policy: no left turns. Bodell said this simple change is saving UPS drivers time and gas on each route while dramatically reducing carbon emissions. And customers are receiving their packages faster.

Simplicity saves time and money and it spares frustration, said Bodell, who related a personal story of trying to buy patio furniture with accumulated credit card points. After an initial runaround, the company mailed her 200 gift cards. Then the web site only let her enter 10 at a time. Many hours and headaches into her supposedly easy online purchase, she was fed up with the company.

“It might seem discouraging to try to simplify a large organization, especially a federal one, yet many large organizations are finding ways to ditch complexity in formal and informal ways. Merck, for example, has simplification teams. HBO and Google have bureaucracy-busting sessions.

Simplification can start within a branch or team, or with one person’s idea and a willing supervisor. Bodell offered suggestions to help put simplification into practice.

First, identify areas to simplify. Make a detailed list of 20 typical tasks, circle the few you consider most valuable and consider what can be eliminated. Then list desired work that you could finally get around to by eliminating extraneous tasks.

Another suggestion, which requires an open-minded supervisor, is to kill a stupid rule. Choose something that can be changed, said Bodell, something within your sphere of control that can make an impact.

Employees from every type of workplace identify the same disruptions to their productivity: meetings and emails. “You came [to this job] with a mission and a purpose,” said Bodell. “If you can’t get to it because of meetings and emails, that’s not good.”

Another step toward simplification is changing habits. Create a code of conduct unique to your work. Consider eliminating redundancies and prioritizing assignments. Is it possible to shorten meetings, emails and documents? Perhaps resolve to use clearer, jargon-free language.

If you eliminated 1 report or meeting, or whittled down a meeting by 20 minutes, how much more would you get done? Be your own chief simplification officer, said Bodell. Do one thing at a time, see progress and that will inspire you to tackle the next thing. Keep eliminating rules and simplifying.

By killing complexity, the organization builds customer trust, retains staff and shows it can respect individuals’ time.

“If you get the work right, you get the culture right, because you can get to the work that matters,” she concluded.
QUEASY QUASISPECIES

Encapsulated Viruses Are More Infectious Than Single Ones

BY ERIC BOCK

Once thought to infect cells as a single discrete unit, viruses such as poliovirus, rotavirus and norovirus have now been found to be more infectious when they are wrapped up together in capsules called vesicles than as a single virus, said Dr. Nihal Altan-Bonnet at a Director’s Seminar Series in Bldg. 1’s Wilson Hall on Feb. 23.

Viruses were thought to enter cells, replicate and exit as single particles that would then go on to infect other cells.

“This is how pretty much everybody—including myself—was thinking of viral transmission,” explained Altan-Bonnet, senior investigator and head of the Laboratory of Host-Pathogen Dynamics in NHLBI’s Cell Biology and Physiology Center.

Thanks to advances in imaging and spectroscopic technologies, this view is beginning to change as scientists can now observe how viruses transmit themselves between cells.

Another advance in our understanding of viral transmission has come from new genetic sequencing methods that have revealed that most viruses don’t always copy themselves when they infect a cell—something that’s “particularly true for RNA viruses,” Altan-Bonnet noted.

This type of virus has its genetic code on strands of RNA. These viruses inject their genetic material into the host cell to replicate themselves.

Whereas previously everyone thought that the progeny viral genomes would be exact copies of the parental viral genome, new sequencing methods have revealed that there is a high level of genetic variation among the replicated RNA genomes.

As a consequence of this finding, these viral progeny genomes are now called “quasispecies.”

Altan-Bonnet was curious to know what happened to these viruses as some of them, even with mutations, were still able to transmit infection, go on to another cell and evade detection by the immune system. So she began imaging cells infected with an RNA virus—poliovirus. A few hours after infection, Altan-Bonnet noticed vesicles containing clusters of polioviruses forming on the cell’s surface and budding off.

Before she began her experiments, Altan-Bonnet thought the free poliovirus particles would replicate more efficiently than the same number of poliovirus particles encased in a vesicle. She reasoned that since the particles were independent of one another, they would have opportunity to sample more physical space and infect many more cells.

That was not the case, however. The free poliovirus-infected cell cultures did not yield more virus than the cell cultures infected with vesicles.

She thinks this is because when one or two viruses infect a cell, replication is not that efficient: it takes time for an RNA virus to replicate, and if a virus has a mutation that affects its ability to replicate, the process stops. All the while, the host cell’s defenses are trying to stop the virus from replicating.

“A single viral genome, entering a cell, is going to be up against a lot until it gets enough viral proteins made and viral genome replicated to take over the entire cell,” she said.

However, when multiple viruses in a vesicle infect a cell, they’re “going in with, essentially, an army.”

“Impressive studies”...
Immune Cells in Retina Can Regenerate

Immune cells called microglia can completely repopulate themselves in the retina after being nearly eliminated, according to a new study in mice from scientists at NEI. The cells also re-establish their normal organization and function.

The findings point to potential therapies for controlling inflammation and slowing progression of rare retinal diseases such as retinitis pigmentosa (RP) and age-related macular degeneration (AMD), the most common cause of blindness among Americans 50 and older. A report on the study was published online Mar. 21 in Science Advances.

“Neuroinflammation is an important driver of the death of neurons in retinal diseases,” said the study’s lead investigator Dr. Wai Wong of NEI. “Our study is foundational for understanding ways to control the immune system in the retina.”

Control of the immune system is important for developing new treatments for a variety of eye conditions, including AMD, RP or for certain types of retinal injury.

The retina is a thin layer of cells in the back of the eye that includes light-sensing photoreceptor cells and other neurons involved in transmitting visual information to the brain. Mixed in with these cells are microglia, specialized immune cells that help maintain the health of the retina and the function of retinal neurons.

Microglia are also present in other parts of the central nervous system, including the brain. In a healthy retina, communication between neurons and microglia is important for maintaining the neuron's ability to send signals to the brain.

When the retina is injured, however, microglia have an additional role: They migrate quickly to the injury site to remove unhealthy or dying cells. However, they can also remove healthy cells, contributing to vision loss.

Studies show that in degenerative retinal disorders such as AMD and RP, inhibiting or removing microglia can help retain photoreceptors and thus slow vision loss. But return of microglia is still important to support the retina’s neurons.

Islet Transplants Boost Quality of Life for People with Type 1 Diabetes

Quality of life for people with type 1 diabetes who had frequent severe hypoglycemia—a potentially fatal low blood glucose (blood sugar) level—improved consistently and dramatically following transplantation of insulin-producing pancreatic islets, according to findings published online Mar. 21 in Diabetes Care. The results come from a phase 3 clinical trial funded by NIAID and NIDDK.

The greatest improvements were seen in diabetes-related quality of life. Islet recipients also reported better overall health status after transplant, despite the need for lifelong treatment with immune-suppressing drugs to prevent transplant rejection. Researchers observed these improvements even among transplant recipients who still required insulin therapy to manage their diabetes.

The study was conducted by the NIH-funded Clinical Islet Transplantation Consortium.

“Although insulin therapy is life-saving, type 1 diabetes remains an extremely challenging condition to manage,” said NIAID director Dr. Anthony Fauci. “For people unable to safely control type 1 diabetes despite optimal medical management, islet transplantation offers hope for improving not only physical health but also overall quality of life.”

Pancreatic islets release the hormone insulin, which helps control blood glucose levels. In type 1 diabetes, the body’s immune system attacks and destroys the insulin-producing cells in islets.

People with the disease must take insulin to live, but insulin injections or pumps cannot control blood glucose levels as precisely as insulin released naturally from the pancreas. Even with diligent monitoring, blood glucose can often reach levels that are higher or lower than normal.

A low blood glucose level, or hypoglycemia, typically is accompanied by tremors, sweating, nausea and/or heart palpitations. These symptoms prompt the person to eat or drink to raise their blood glucose.

People with type 1 diabetes who are at high risk for hypoglycemic events have to practice caution every moment, even while sleeping. It is an exhausting endeavor that—like the events themselves—can keep them from living full lives,” said NIDDK director Dr. Griffin Rodgers. “Although islet transplantation remains experimental, we are very encouraged by these findings, as we are by the rapid improvements in other treatments to help people with type 1 diabetes monitor and manage their blood glucose, including artificial pancreas technology.”

International Team Confirms New Genetic Mutation Link to ALS

Kinesin family member 5A (KIF5A), a gene previously linked to two rare neurodegenerative disorders, has been definitively connected to amyotrophic lateral sclerosis (ALS) by an international team from several of the world’s top ALS research labs. The findings identify how mutations in KIF5A disrupt transport of key proteins up and down long, thread-like axons that connect nerve cells between the brain and the spine, eventually leading to the neuromuscular symptoms of ALS.

The discovery, published Mar. 21 in Neuron, was led by Dr. Bryan Traynor of NIA and Dr. John Landers of the University of Massachusetts Medical School, Worcester, with key funding support from NIA, NINDS and several public and private sector organizations. Genetic data collected by teams of scientists worldwide contributed to the project.

It took a comprehensive, collaborative effort to analyze a massive amount of genetic data to pin down KIF5A as a suspect for ALS, also known as Lou Gehrig's disease. To zero in on KIF5A, the NIH team performed a large-scale genomewide association study, while the University of Massachusetts team concentrated on analyzing rare variants in next-generation sequence data. More than 125,000 samples were used in this study, making it by far the largest such study of ALS performed to date.

“The extraordinary teamwork that went into this study underlines the value of global, collaborative science as we seek to better understand devastating diseases like ALS,” said NIA director Dr. Richard Hodes.

“These types of collaborative data collection and analysis are important in identifying the pathways underlying disease and in developing approaches to treatment and prevention.”
NIAMS director Dr. Stephen Katz was recently awarded the Gold Medal by the American Academy of Dermatologists (AAD), the highest tribute and is presented on a “very selective basis to acknowledge outstanding and exceptional service in the field of dermatology.”

Katz has been director of NIAMS since August 1995 and was also a senior investigator in NCI’s Dermatology Branch from 1974 to 2014. He has focused his research on immunology and the skin. His work has demonstrated that skin is an important component of the immune system, both in its normal function and as a target in immunologically mediated disease.

Katz and his colleagues have studied Langerhans cells and epidermally derived cytokines, in addition to adding considerable new knowledge about inherited and acquired blistering skin diseases.

The award acknowledges Katz’s “lifetime commitment and contributions to dermatology, medicine and science at a national and international level.”

Flu Vaccine Study Recruits Healthy Volunteers

Vaccine Research Center researchers seek healthy volunteers, ages 18-50, for a study testing an investigational influenza vaccine study. Scientists are testing new vaccines to determine whether they are safe and effective in preventing the flu. Compensation is provided. For more information, call 1-866-833-5433 or email vaccines@nih.gov. Read more at https://go.usa.gov/xn7U8. Refer to study VRC316.

Healthy Volunteers Needed for Malaria Vaccine Study

NIH researchers seek healthy volunteers, ages 18-50, for a study testing an investigational malaria vaccine at the Clinical Center. Compensation is provided. To learn how to participate, call the Office of Patient Recruitment, 1-866-444-2214 (TTY 1-866-411-1010). Read more at https://go.usa.gov/xs54r. Refer to study 17-H-0067.

Volunteers with Leukemia Needed

NHLBI researchers need volunteers with CLL (chronic lymphocytic leukemia) or small lymphocytic lymphoma (SLL) for a new investigational treatment study. Researchers are adding pembrolizumab (an immunotherapy agent) to standard treatment. If you have received treatment for CLL and progressed or have high-risk genetic changes such as deletion 17p, TP53 mutation, NOTCH1 mutation or complex cytogenetics, you may be interested in participating. To learn more, call the Office of Patient Recruitment at 1-866-444-2214 (TTY 1-866-411-1010). Read more online at https://go.usa.gov/xnYae. Refer to study 17-H-0118.

NIDDK Study Seeks Overweight Men

NIDDK researchers are seeking overweight/obese men, 18-50 years old, to participate in a study looking at a potential link between consumption of processed foods and the development of metabolic syndrome. Participants will be required to remain in the hospital for 1 month on 2 separate occasions and eat only the meals provided by NIH during that time. Compensation is provided. To learn more, call the Office of Patient Recruitment at 1-866-444-2214 (TTY 1-866-411-1010). Read more at https://go.usa.gov/xRRE7.

NHLBI Study Needs Patients

NHLBI researchers are testing two low doses of danazol on individuals with short telomere disease and bone marrow disease, lung or liver disease. For more information, call the Office of Patient Recruitment, 1-866-444-2214 (TTY 1-866-411-1010). Read more at https://go.usa.gov/xnP3m. Refer to study 18-H-0004.
Pop quiz—which organism:
• Has a backbone but no jawbone
• Contains two different genomes
• Can make a full recovery after its spinal cord is severed
• Is a culinary delicacy in some places but a predatory parasite that decimates native species elsewhere?

Okay, it’s the sea lamprey.

At the 3rd annual NIGMS Director’s Early-Career Investigator Lecture, Dr. Jeramiah Smith, an assistant professor at the University of Kentucky, will describe how his research on this organism is shedding light on cancer biology, tissue regeneration and vertebrate evolution.

Titled “Ancient Bloodsuckers, Disposable Genes and What It All Means,” the lecture takes place Tuesday, Apr. 17 at 2 p.m. in Natcher Conference Center, Balcony B.

Open to everyone in the scientific community, the lectures are designed to introduce students at the undergraduate level and beyond to cutting-edge science while inspiring them to pursue biomedical research careers. After a 30-minute lecture, Smith will answer questions from students about his research and career path.

NIH trainees are encouraged to attend the lecture and submit questions in advance via info@nigms.nih.gov or #eci-lecture on Twitter. For details, see https://www.nigms.nih.gov/News/meetings/Pages/2018-NIGMS-Directors-Early-Career-Investigator-Lecture.aspx.