Potomac-Bethesda Rotary Club News

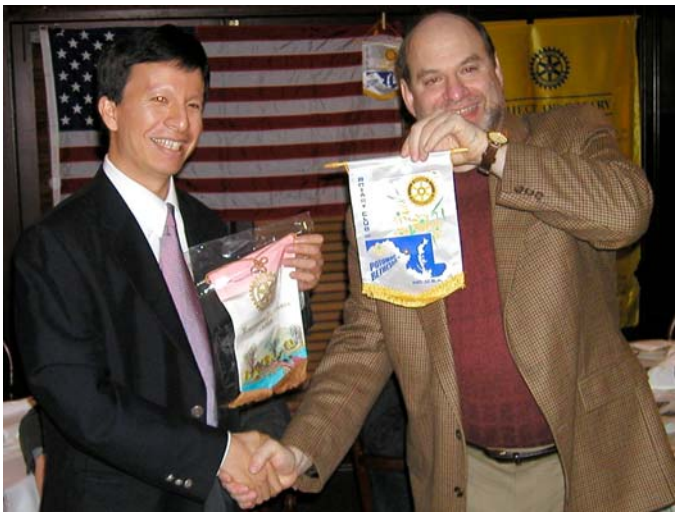
Upcoming Events

January 18 - 6:30pm Rotary Club Meeting
New Member Installation
of Nabil Bedewi by Edco Bailey;
Anil Alpay Classification Talk
January 25 - 6:30pm Rotary Club Meeting
February 1 – 6:30pm Rotary Club Meeting
February 8 – 6:30pm Rotary Club Meeting
Vocational Speakers
February 13 – 10:08am Richard Montgomery
High School Vocational Day (Dick Alsmeyer)
February 13 – 7pm Manna Center
February 15 - 6:30pm Rotary Club Meeting
Public Health of Maryland

Rotary Meeting Report:

Kathy Tassis and Karl Hille

Visiting the club for the first time on January 11 was Kathy Tassis, guest of Steve Naron. Also visiting was Karl Hille, Senior Science and Health Writer for the Baltimore Examiner, who was very interested in hearing the evening's speaker, Dr. Michael Greger. Dr. Greger is Director of Public Health and Animal Agriculture at The Humane Society of the United States. He made a compelling presentation on the origins and potential impact of pandemic influenza. His book is available online at BirdFluBook.com and an excerpt is included on page 2.



Welcome Rotary Ambassadorial Scholar Tomohiko Kamiya Studying at the Georgetown University Law Center:

"Since I began to work as a Rotary Ambassadorial Scholar, I have had a great experience in understanding many people coming from different countries, not only at my school but also in various Rotary events. Although the internet pervades our daily lives and we can communicate without meeting via computer, I am sure face-to-face meetings, exchanging ideas directly, are still really important for understanding and respecting each other. In my school, I was aware that our classmates come from 55 different countries who speak 37 different languages,

(continued on page 2)

Thanks so much for the contributions to the Peter McWhite Memorial Scholarship Fund:
Dick Alsmeyer, Nabil Bedewi, Lou Fettig, Dick Gordon, Jerry Gross, Noel Howard, Bill Johncox, Bob Nelson
Please make your contribution payable to the Potomac-Bethesda Rotary Foundation and send to President-Elect Don Smith

Membership Classifications Needed

Do you know someone in the following vocational classifications? Just invite them to a Rotary meeting or let our Membership Committee make the contact for you.

Insurance Agent
School Principal
Builder-Developer
Home-Based Business Owner
Pharmacist
Hotel Manager
Restauranteur
Ambassador
Automobile Dealer

Rotary Ambassadorial Scholar Tomohiko Kamiya *(continued from p. 1)*

but meeting, talking and discussing together are definitely important in understanding each other.

Rotary has scholarship programs for goodwill and world peace and the Ambassadorial Scholarship program is one of them in order to achieve Rotary's goals. The Rotary Ambassadorial Scholarship program is a great and important program because we have more chance to make speeches in the Rotary Clubs and be involved in the cultural exchange events in each region. I really appreciate your listening and providing great support for our Ambassadorial Scholars in Washington, DC. I will continue to take more responsibility to understand each other and seek the peace of the world in the academic year 2007. And, I will go beyond my personal goal, committing the life-long relationship between you and me, your club and my club as long as I live. Since the beginning of this role, I clearly understand that humans are born to love and to be loved. That's the most valuable thing that I have learned in last couple of months. Thank you very much! Have a great year!"

[Tomohiko's email: tk233@law.georgetown.edu]

Guest Speaker Dr. Michael Greger "Pandemic Influenza"

"Most of us know the flu—influenza—as a nuisance disease, an annual annoyance to be endured along with taxes, dentists, and visits with the in-laws. Why worry about influenza when there are so many more colorfully gruesome viruses out there like Ebola? Because influenza is scientists' top pick for humanity's next killer plague. Up to 60 million Americans come down with the flu every year. What if it suddenly turned deadly?

H5N1, the new killer strain of avian influenza spreading out of Asia, has only killed about a hundred people as of mid-2006. In a world in which millions die of diseases like malaria, tuberculosis, and AIDS, why is there so much concern about bird flu?

Because it's happened before. Because an influenza pandemic in 1918 became the

deadliest plague in human history, killing up to 100 million people around the world. Because the 1918 flu virus was likely a bird flu virus. Because that virus made more than a quarter of all Americans ill and killed more people in 25 weeks than AIDS has killed in 25 years—yet in 1918, the case mortality rate was less than 5%. H5N1, on the other hand, has officially killed half of its human victims.

H5N1 took its first human life in Hong Kong in 1997 and has since rampaged west to Russia, the Middle East, Africa, and Europe. It remains almost exclusively a disease of birds, but as the virus has spread, it has continued to mutate. It has developed greater lethality and enhanced environmental stability, and has begun taking more species under its wing. Influenza viruses don't typically kill mammals like rodents, but experiments have shown that the latest H5N1 mutants can kill 100% of infected mice, practically dissolving their lungs. The scientific world has never seen anything like it. We're facing an unprecedented outbreak of an unpredictable virus.

Currently in humans, H5N1 is good at killing, but not at spreading. There are three essential conditions necessary to produce a pandemic. First, a new virus must arise from an animal reservoir, such that humans have no natural immunity to it. Second, the virus must evolve to be capable of killing human beings efficiently. Third, the virus must succeed in jumping efficiently from one human to the next. For the virus, it's one small step to man, but one giant leap to mankind. So far, conditions one and two have been met in spades. Three strikes and we're out. If the virus triggers a human pandemic, it will not be peasant farmers in Vietnam dying after handling dead birds or raw poultry—it will be New Yorkers, Parisians, Londoners, and people in every city, township, and village in the world dying after shaking someone's hand, touching a doorknob, or simply inhaling in the wrong place at the wrong time.

Mathematical models suggest that it might be possible to snuff out an emerging flu pandemic at the source if caught early enough, but practical considerations may render this an impossibility. Even if we were able to stamp it out, as long as the same underlying conditions remain, the virus would presumably soon pop back up again, just as it has in the past.

This book explores what those underlying conditions are. The current dialogue surrounding avian influenza speaks of a potential H5N1 pandemic as if it were a natural phenomenon—like hurricanes, earthquakes, or even a "viral asteroid on a collision course with humanity" —which we couldn't hope to control. The reality, however, is that the next pandemic may be more of an *un* natural disaster of our own design.

Since the mid-1970s, previously unknown diseases have surfaced at a pace unheard of in the annals of medicine—more than 30 new diseases in 30 years, most of them newly discovered viruses. The concept of "emerging infectious diseases" used to be a mere curiosity in the field of medicine; now it's an entire discipline. Where are these diseases

coming from?

According to the Smithsonian Institution, there have been three great disease transitions in human history. The first era of human disease began with the acquisition of diseases from domesticated animals, such as tuberculosis, measles, the common cold—and influenza. The second era came with the Industrial Revolution of the 18th and 19th centuries, resulting in an epidemic of the so-called "diseases of civilization," such as cancer, heart disease, stroke, and diabetes. We are now entering the third age of human disease, which started around 30 years ago—described by medical historians as the age of "the emerging plagues." Never in medical history have so many new diseases appeared in so short a time. An increasingly broad consensus of infectious disease specialists has concluded that nearly all of the ever more frequent emergent disease episodes in the United States and elsewhere over the past few years have, in fact, come to us from animals. Their bugs are worse than their bite.

In poultry, bird flu has gone from an exceedingly rare disease to one that crops up every year. The number of serious outbreaks in the first few years of the 21st century has already exceeded the total number of outbreaks recorded for the entire 20th century. Bird flu seems to be undergoing evolution in fast-forward.

The increase in chicken outbreaks has gone hand-in-hand with increased transmission to humans. A decade ago, human infection with bird flu was essentially unheard of. Since H5N1 emerged in 1997, though, chicken viruses H9N2 infected children in China in 1999 and 2003, H7N2 infected residents of New York and Virginia in 2002 and 2003, H7N7 infected people in the Netherlands in 2003, and H7N3 infected poultry workers in Canada in 2004 and a British farmer in 2006. The bird flu virus in the Netherlands outbreak infected more than a thousand people. What has changed in recent years that could account for this disturbing trend?

All bird flu viruses seem to start out harmless to both birds and people. In its natural state, the influenza virus has existed for millions of years as an innocuous, intestinal, waterborne infection of aquatic birds such as ducks. If the true home of influenza viruses is the gut of wild waterfowl, the human lung is a long way from home. How does a waterfowl's intestinal bug end up in a human cough? Free-ranging flocks and wild birds have been blamed for the recent emergence of H5N1, but people have kept chickens in their backyards for thousands of years, and birds have been migrating for millions.

In a sense, pandemics aren't born—they're made. H5N1 may be a virus of our own

hatching coming home to roost. According to a spokesperson for the World Health Organization, "The bottom line is that humans have to think about how they treat their animals, how they farm them, and how they market them–basically the whole relationship between the animal kingdom and the human kingdom is coming under stress." Along with human culpability, though, comes hope. If changes in human behavior can cause new plagues, changes in human behavior may prevent them in the future."

Giving Hope, And Hands
Rotary Funds Give Invaluable Gift Of Prosthetic Limbs In Africa, Asia

By John Darling for the Mail Tribune

It's just a simple $50 spring-loaded plastic prosthetic hand, but it's changing lives in the Third World – and two Ashland residents are heading up fundraising and leading overseas trips to get prosthetics like this distributed, all free of charge.

Working with funding from local and regional Rotary clubs, Tim Bewley and Dr. Carol Fellows have taken the strap-on hands to Vietnam and east Africa, so far equipping 230 amputees, enabling them almost immediately to write, operate a computer, tie shoes and, as one recipient put it, "walk down the street, tall and proud, a complete man."

The project, called "Give Hope – Give a Hand," started as an informal partnership between the Ashland Rotary Club and Michael Mendonca, a Rotarian from Menlo Park, Calif., whose firm, Stack Plastics, a plastic injection-mold company, had begun manufacturing the devices.

The hands were designed by Southern Californian Ernie Meadows, an industrial design engineer who wanted to create a legacy for his daughter Ellen, who was killed in a car crash. Meadows wanted to invent a cheap, simple hand – and his conditions were that it be free and that no one would profit from it, said Mendonca.

Bewley, who recently resigned as co-director of Rogue Valley Television to head the new Ellen Meadows Prosthetic Hand Foundation, has in the past 13 months traveled the Third World with Mendoca, Fellows, Ashland Rotary President Jim Dunn and their spouses, handing out the hands to dozens of queued-up amputees and "always, the first thing they want to do is grab a pen and write," said Bewley. "What they learn in the first day is nothing short of astounding – counting paper money, cutting meat, hoeing a garden – and just feeling like a whole person, not having what they feel is a symbol of disgrace, an empty sleeve hanging down."

The LN-4 hand (LN stands for "Ellen") has three curved, fixed digits opposed by two moveable digits that stay locked on an object until the whole hand is tipped back at the wrist, freeing the moveable digits. It is operated by the real hand or by pushing it against anything. It's strapped on, not surgically attached, and has high-grip ribbing on the inside of digits.

Some $75,000 has been raised among Rotarians to create a mold for mass production of the LN-4 in China – and a like amount for the next model, the LN-4A, improved and made larger for adult male hands.

As the project spreads to hundreds of thousands of likely recipients around the world, the foundation plans to create an endowment fund, so it can be self-sustaining. During this process, said Bewley, "Rotary will be playing a huge role."

It's now a nonprofit separate from Rotary – and Bewley will become executive director when he finishes his upcoming year as governor of Rotary District 5110 in Southern Oregon and Northern California.

It was originally thought the hands would go mostly to children maimed by land mines, but surveys of African recipients show they're going to people of all ages, with 45 percent injured by "social violence," such as robberies, political oppression and domestic abuse.

The chopping off of hands with machetes is a common form of intimidation in Africa, Bewley noted, and is often intended to keep the victim from using the trigger on a gun. The second-largest cause of hand loss is vehicle and other accidents.

Little technology, skill or funding is available toward the effort of reattaching damaged limbs.

"The vast majority of replacements are for the dominant hand," said Dunn, "and if you want to appreciate what it's like to live without your dominant hand, just try working around the house with your dominant hand behind your back for a while. It's very heart-warming and gratifying to help people get that back."

Target populations for free hands are identified by Rotary "group study exchange teams" – groups of professional, non-Rotarian people taken on expense-paid, month-long tours as "social ambassadors," promoting peace and goodwill, said Bewley.

Three trips have been made this year to the east-central African nations of Rwanda, Kenya, Uganda and Tanzania, sometimes with help from Rotary clubs in those regions. In between trips, Bewley and Fellows have made highly successful fundraising presentations to 68 Rotary clubs in this stateside region, he said.

As his first act with the new hand, an African named Moses wrote the traditional "Allahhu Akbar" (God is great) in Arabic, said Bewley, then in English for Americans to read,

announcing with a laugh, "This hand writes in many languages!" The typical reaction among recipients who are otherwise usually expressionless from post-traumatic stress is to burst into huge smiles and start making the hand do new, previously impossible tasks, he said.

Americans giving away free things in countries with Muslim populations might be viewed dubiously, and in Uganda they were barred by militia who assumed they were CIA agents, said Bewley – that is, until one commander, who happened to be a Rotarian, got things straightened out, Bewley said.

The simple hand prosthetics continue in use with 99.9 percent of recipients in follow-up surveys, said Fellows, while expensive, chip-driven Western models prove complicated and are often set aside.

While helpful to those in need, the field work also has a life-changing effect on foundation workers, with Fellows saying, "Whatever we can do in the world community to make a difference is great – it has a huge emotional impact on them and us."

Mendonca, in a phone interview, said, "It's a life-changing opportunity, such as we don't get very often, if ever. You sign up for it or not, but if you do, it goes way beyond any job or task and you feel immensely accountable. You're changing lives and you need to perpetuate the process."

Bewley said, "the gifting of hands has made me a more compassionate person and defined a purpose for my life."

The Foundation is suggesting the hands be given in the name of oneself or, as a present, in the name of family, relatives and friends. Donations may go to the Ellen Meadows Prosthetic Hand Foundation, 1983 Crestview Drive, Ashland OR 97520 or via www.LN-4.org online. For more information, e-mail emphf@LN-4.org.

John Darling is a freelance writer living in Ashland. E-mail him at jdarling@jeffnet.org.

Laos Joins Rotary world

The Lao People's Democratic Republic, also known as Laos, has become the newest Rotary country with the establishment of a club in Vientiane, the administrative capital. Chartered on 18 October with 35 members, the Rotary Club of Vientiane is part of RI District 3360. The Rotary Club of Chiangmai Thin-Thai-Ngam, Thailand, sponsored the charter of the new club. Laos is a landlocked, Southeast Asian country of 6.4 million people, bordered by Vietnam, Cambodia, Thailand, Myanmar, and China.

Send your photos and articles to Bob.Nelson@NASA.gov for inclusion in the Rotary Club newsletter.

Potomac-Bethesda International Rotary Club