**EB Report**

Dear Fellow ISV Members:

The 9th Annual Vaccine and ISV Congress is less than 75 days away. The preliminary program is currently listed on the Congress website. There is still time to submit any late-breaking abstracts and registration deadline is 17 August 2015. Remember: Join ISV before registering for the Vaccine Congress and you will save $100 dollars on registration. And membership to join ISV in 2015 is FREE! We would like to remind ISV members that 2015 is an Election Year for ISV Officers and Executive Board Members. Any ISV member can nominate another ISV member or self-nominate for any of the Board Officers or Positions. All ISV Members will be receiving emails in the near future with details on the process for nominations and voting. You do not have to be present at the Congress in Seoul in order to vote, but you do have to be an ISV member at the time of the voting process in October, 2015.

Also, we would like to remind you that the 5th Computational Vaccinology Workshop at ISV (CV5 @ ISV) is a satellite workshop to be held on Saturday, October 17, one day prior to the 9th Vaccine & ISV Annual Congress. The goal of this workshop is to provide a platform for international collaboration and sharing of information on the topic of computational vaccinology. 2015 marks the fifth year of the Computational Vaccinology Workshop at ISV, previously known as the ISV Pre-conference Computational Vaccinology Workshop (ICoVax). Abstract submissions are due August 15th for full-length papers and September 1 for posters – submission details here. Registration for the workshop is US$100. Places are limited so we recommend that you book early using the online registration system. Sponsored by Epivax.

**Vaccine News**

Malaria Vaccine: Why A Vaccine That Works Only A Third Of the Time Is Still A Good Deal

By Jason Beaubien of NPR

Malaria sickens tens of millions each year and kills roughly 500,000, mainly in Africa. A vaccine has been seen as the holy grail in global efforts against the disease. Today, the European Medicines Agency recommended for approval a malaria vaccine. It's been in the works for three decades. It's called RTS,S — the initials stand for the component parts of the vaccine; it's also known as Mosquirix. And it's noteworthy for being the first human vaccine ever against a parasite, targeting *Plasmodium falciparum.*

The recommendation for approval paves the way for its use in the developing world. Unfortunately, the vaccine turns out to have more than a few limitations. Yet scientists are confident it can still make a huge difference in the fight against malaria.

Unlike vaccines for measles or polio that work more than 90 percent of the time, this new vaccine has an efficacy rate between 26 and 36 percent. [Click here for the full story.]

**9th Vaccine & ISV Congress**

Preparations continue for the 9th Annual Global Vaccine and ISV Congress scheduled for Seoul, South Korea. The Congress will be held 17-20 October 2015. All meetings, welcome reception, lunches, poster sessions will take place at the Lotte Hotel. Late-breaking abstracts are still being accepted for the Congress at the congress website.

Registration DEADLINE IS: 17 AUGUST 2015

Career Development Workshop:

Identifying & Achieving your Dream Job
Tuesday - 20 October 2015

This workshop is intended to provide young investigators (students, post-docs, and early faculty) the opportunity to get advice from senior internationally known scientists, both MDs and PhDs. The panelists will give brief introductions about their training and careers, highlighting key factors such as mentor selection, international training, tips for obtaining funding, ways to increase visibility, career options, etc. Attendees will have the opportunity to ask their own questions as well. The panel will be chaired by Dr. Margaret Liu (Conference Co-Chair, President-elect, ISV), ProTherImmune, Adjunct Prof. at Karolinska Institute, and University of California, San Francisco, and former Senior Advisor, Bill & Melinda Gates Foundation.

Panelists include: Prof. Joon Haeng Rhee, MD-PhD, (Conference Co-Chair), Professor, Chonnam National University Medical School, South Korea; Dr. Ioanna Skountzou, MD-PhD, Assistant Professor, Emory University, USA; Prof. Ken Ishii, MD-PhD, (ISV Executive Board Member), Project leader, National Institute for Biomedical Innovation (NIBIO), Professor, Osaka University, Japan; Dr. Nathalie Garcon, Ph.D., CEO/CSO BIOASTER, formerly Vice-president, Vice-Head of Global Vaccine Centre for Adjuvants and Technology Innovation, GSK; Dr. Marcelo Sztain, M.D., Professor, University of Maryland, USA.

The aim of the 9th Vaccine & ISV Congress is to provide a forum for researchers, professionals and policy makers to present, share and exchange the latest cutting edge discoveries in vaccines and vaccinations. We hope to facilitate new collaborations between experts in the field and inspire new and innovative ideas in vaccine development.

ISV is a 503c Non-Profit organization. If you have questions or comments please contact us by visiting our website.
While vaccination is the best way to prevent infectious diseases, development of emerging virus vaccines represents a major challenge. The unpredictable nature of emerging viruses, such as MERS, Ebola or pandemic influenza, makes impossible to conduct efficacy trials, as the location and magnitude of the outbreaks, as well as of the specific virus strain causing it, are extremely difficult if not impossible to predict before their emergence. On the other hand, once an outbreak emerges, there is no time to conduct controlled efficacy trials in order to deploy an effective vaccine on time to contain the outbreak.

The 2009 pandemic influenza virus provided one example of the problems associated with vaccines against newly emerging viruses. Such influenza virus originated from a swine H1N1 influenza virus strain and it was detected in humans only after it was already widely disseminated in Mexico. The outbreak extended quickly to US and the rest of the world, and by the time a pandemic H1N1 vaccine was available and started to be used, the pandemic outbreak had already reached peak infections, and influenza infection cases were in decline. Thus, the vaccine was unable to impact the magnitude and severity of the first wave of infections. Fortunately, this pandemic influenza virus did not cause a large number of severe and lethal human infections, as in the case of previous influenza virus pandemics. Nevertheless, many human lives were lost that could have been prevented by vaccination, if a vaccine would have been available at earlier times.

The lack of a timely vaccine has also hampered the control of the recent ebolavirus outbreak, which is still ongoing although at a lower magnitude, and has devastated the public health system and the economy of several Central West African countries, with more than 10,000 human lives claimed. Previous ebolavirus outbreaks were characterized by high mortality but small number of geographically confined humans cases in remote and underpopulated areas in Central Africa. The virus is thought to jump from a bat reservoir into humans where it undergoes human to human transmission mainly due to contact with infectious body fluids. While ebolavirus human transmission is quite ineffective as compared to other acute and established human virus infections, it was generally accepted that sooner or later, an outbreak would reach one or more larger cities in Africa, where containment would be more difficult and the number of cases would be several orders of magnitude higher. Despite that, the development of ebolavirus vaccines has been a very slow process, due to low priority and to the challenges associated with licensing a vaccine with only animal model data in the absence of (impossible to conduct unless a major outbreak occurs) efficacy trials in humans. The recent Efficacy of an Adjuvanted Herpes Zoster Subunit Vaccine in Older Adults

Himal Lal, M.D., Anthony L. Cunningham, M.B., B.S., M.D., Olivier Godeaux, M.D., Roman Chibibek, M.D., Ph.D., Javier Dez-Domingo, M.D., Ph.D., Shinn-Jang Hwang, M.D., Myron J. Levin, M.D., Janet E. McElhaney, M.D., Airt Poder, M.D., Joan Puig-Barberá, M.D., M.P.H., Ph.D., Timo Vesi-kari, M.D., Ph.D., Daikazu Watanabe, M.D., Ph.D., Lily Workx, M.D., Ph.D., Toufik Zahaf, Ph.D., and Thomas C. Heineman, M.D., Ph.D. for the ZOE-50 Study Group


BACKGROUND: In previous phase 1–2 clinical trials involving older adults, a subunit vaccine containing varicella–zoster virus glycoprotein E and the AS01B adjuvant system (called HZ/su) had a clinically acceptable safety profile and elicited a robust immune response.

A new vaccine for Malaria, RTS,S, has been recommended for approval. However, this new Malaria Vaccine is effective in 33% of people vaccinated. Where do you think resources against malaria should be directed? Which do you think is most effective in fighting malarial infections in people?

1. The new malaria vaccine
2. Providing bed nets
3. Mosquito control programs
4. Not sure

Visit our website to record your vote!

Emilio A. Emini, Ph.D.

is the HIV Program Director at Bill & Melinda Gates Foundation for the Global Health. Dr. Emini was the Chief Scientific Officer and Senior Vice President of Vaccine Research at Pfizer Inc. Previously, Dr. Emini served as Senior Vice President and Head of Vaccine Development at the International AIDS Vaccine Initiative. He was also the founding Executive Director of Merck’s Department of Antiviral Research and the Vice President of Merck’s Vaccine and Biologics Research. Dr. Emini received his doctoral degree in 1980 from the Cornell University Graduate School of Medical Sciences in the fields of microbiology, genetics and biochemistry.

To read more, visit our website!
outbreak, while boosting the speed and resources put into ebola-virus vaccines, has not been contained by vaccination, as vaccines with proven efficacy in animal models were not available for human use on time.

MERS coronavirus infections in humans have first been described in 2012. This virus in now known to be endemic in several Middle East countries, and human infections likely involves camel to human and human-to-human transmission. MERS disease is a clear reminder of the SARS coronavirus outbreak, both diseases caused by a zoonotic coronavirus that induces acute respiratory syndrome infections in humans, and with the ability to spread from human to human. Although concerns were raised about the potential impact of this virus in humans in the near future, MERS vaccine development has been impaired by the lack of appropriate resources given to this, and the constrains associated with the development of animal models and the lack of clinical human efficacy trials, which are not possible to be conducted due to the low number of current human infections. The recent outbreak of imported MERS in Korea in the absence of a human MERS vaccine reminded us once more of what these emerging viruses can cause and how much time is lagging behind effective vaccines that can contain these outbreaks.

Pandemic influenza, Ebola and MERS are just three examples of predictable outbreaks for which experimental preclinical vaccines are available, but which lack of a rapid path to approval for human use, a step that is necessary for vaccines to make and impact in future and potentially more devastating outbreaks. Let’s not wait for one more outbreak to realize the need for a different strategy that allows for a more rapid deployment of vaccines against emerging and zoonotic viruses.

Kids around the world face many challenges to getting immunized.

More than 21 million children in low- and middle-income countries missed out on vaccines in 2013. Many of them live in extreme poverty, conflict zones or remote areas. Meanwhile, mistrust and misinformation are gaining momentum worldwide.

The 9th Vaccine and ISV Congress will take place in Seoul, South Korea. Are you getting excited?

Here’s a flavor of South Korea.

The flag of South Korea, also known as the Taegukgi (also spelled as Taeyeukgi, literally "Taeguk flag") is the national flag of South Korea. It has three parts: a white background, a red and blue Taeguk in the center, and four black trigrams, which are selected from the original eight, on each corner of the flag.

The flag’s background is white, which is a traditional Korean color, common to the daily attire of 19th century Koreans. It represents peace and purity. The circle in the middle is derived from the philosophy of yin and yang and represents the balance of the universe. The blue section represents the negative cosmic forces, and the red section represents the opposing positive cosmic forces. The trigrams together represent the principle of movement and harmony. Each trigram represents one of the four classical elements.[1]

These four trigrams are described in the table below:

<table>
<thead>
<tr>
<th>Name in Korean</th>
<th>Nature</th>
<th>Seasons</th>
<th>Cardinal directions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geon (乾)</td>
<td>heaven</td>
<td>spring</td>
<td>east</td>
</tr>
<tr>
<td>ri (離)</td>
<td>sun</td>
<td>autumn</td>
<td>south</td>
</tr>
<tr>
<td>Gam (坎)</td>
<td>moon</td>
<td>winter</td>
<td>north</td>
</tr>
<tr>
<td>Gon (坤)</td>
<td>earth</td>
<td>summer</td>
<td>west</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Four virtues</th>
<th>Family</th>
<th>Four elements</th>
<th>Meanings</th>
</tr>
</thead>
<tbody>
<tr>
<td>humanity</td>
<td>father</td>
<td>heaven</td>
<td>justice</td>
</tr>
<tr>
<td>(仁)</td>
<td>(父)</td>
<td>(天)</td>
<td>(正義)</td>
</tr>
<tr>
<td>justice</td>
<td>daughter</td>
<td>fire</td>
<td>fruition</td>
</tr>
<tr>
<td>(義)</td>
<td>(女)</td>
<td>(火)</td>
<td>(結實)</td>
</tr>
<tr>
<td>intelligence</td>
<td>son</td>
<td>water</td>
<td>wisdom</td>
</tr>
<tr>
<td>(智)</td>
<td>(子)</td>
<td>(水)</td>
<td>(智慧)</td>
</tr>
<tr>
<td>courtesy</td>
<td>mother</td>
<td>earth</td>
<td>vitality</td>
</tr>
<tr>
<td>(禮)</td>
<td>(母)</td>
<td></td>
<td>(生命力)</td>
</tr>
</tbody>
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We would like to thank two of our supporting partners: