By Ted M. Ross—Treasurer

Fellow ISV Members: The nominations for the next Executive Board of ISV have been received and the final voting will be completed by 20 October 2015 at the conclusion of the 9th Annual Vaccine and ISV Congress. Three individuals have been nominated for the three officer positions and are running unopposed and a slate of 14 candidates are nominated for the 7 open Executive Board positions. The new Executive Board will serve a 2-year term from 2015-2017 that will end with the XIth ISV Congress. Adolfo Garcia-Sastre is stepping down as President when his term ends and will serve as a member of the Executive Board as Past-President. In the near future, members will receive a Ballot, Voting Instructions, and a brief biography of each nominee from the ISV General Office. Voting can be accomplished by email or in person at the annual ISV meeting held during the Congress (Tuesday, 20 October 2015).

Nominees for the General ISV Executive Board include:

Alejandro Chabalgoity – Uruguay
Annie De Groot – USA
Clarisa de Sousa – Brazil
Denise Doolan – Australia
Indresh Srivastava – USA
Jeff Ulmer – USA
Joon Hae Rhee – South Korea
Linda Klavinskis – UK
Nik Petrovsky – Australia
Niranjan Sardesai – USA
Randy Albrecht – USA
Ray Spier – UK
Steve Black – USA
Yiwu He – USA

Nominees for ISV Officers:

President-elect: David Weiner – USA
Treasurer: Shan Lu – USA
Secretary: Ted Ross – USA

Once the votes are tallied, an announcement will be distributed with the names of the next ISV Executive Board.

By Margaret A. Liu, M.D.

Many of us who work in the vaccine field think of vaccines by categories: pediatrics, global health, emerging and epidemic diseases, travelers, or even bioterrorism. Some of us often ignore a type of vaccine that we may need from a personal perspective sooner than we would admit: vaccines for older adults. In July of this year, The Alliance for Aging Research issued a White Paper addressing certain aspects of underutilization of vaccines by this demographic, and provided recommendations for how to increase vaccination rates for older adults in the US. The white paper was focused on four existing vaccines: influenza, pneumococcal, shingles, and tetanus.

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The challenges, however, are not simply underutilization, not simply in the US, and not simply for these four diseases in older people (note that I’m avoiding the use of the word “elderly”!). The diseases targeted are clearly important for protection of this age group. However immunizing older individuals is also important because of their role in transmission of disease, even for diseases such as pertussis, which we think of as a pediatric disease. When grandparents and grandchildren spend time together, they transmit pathogens in both directions.

So what are the issues and the challenges for developing and utilizing vaccines for adults in general, and for aging adults in particular? What diseases do we need to target, and what is the immunologic milieu for older adults?

Once maternal antibodies wane, infants must develop their own immunity (preferably by vaccines rather than through illness) to the many pathogens they may encounter. We tend to think of adults as having already encountered many of those pathogens either in nature or from immunizations. Of course an adult can travel, a new disease may emerge, etc. resulting in exposure to new pathogens. But in addition to such de novo encounters, key issues include both waning immunologic memory and the decreased capability of the immune system known as immune senescence. The latter involves both innate and adaptive immune responses, and in particular T cells. Immune senescence has a host of implications for fighting, or recovery from, infections. In addition, the elderly may respond less well to immunizations. To illustrate, let us examine the disease known as Shingles.

Shingles, also known as herpes zoster, occurs in nearly a third of people in the US, arising from a reactivation of the virus that causes chicken pox years after the person has recovered from chicken pox or had the (live) varicella vaccine. While some people get zoster due to immunosuppression (either from immunosuppressive drugs, certain cancers, or HIV), many cases arise in older individuals, with the incidence increasing with age. The first vaccine developed to prevent shingles had an efficacy of about 50% for preventing shingles in people 60 years of age or older. However, the efficacy declined from a high of 64% in the youngest decade vaccinated (the 60s) to 18% for people ≥80 years of age. A newer vaccine has a higher overall efficacy rate (97.2%) that remained the same in all age groups, ranging from 50 years of age to a tier of people ≥70. Nevertheless, the earlier vaccine illustrates the challenge of stimulating the aging immune system. As another example, a high dose influenza vaccine is made each year, specifically for use in people aged 65 or older. Another challenge for vaccine usage in the elderly is how to make sure that people get their needed immunizations. Most infants receive their vaccinations via immunizations performed neonatally (when they are still in a hospital for birthing) and at subsequent periodic pediatric exams. In addition, in many places documentation of immunizations is mandatory in order for students to enroll in schools. The elderly may not have such specific interactions with health care providers to ensure regular immunizations, and since some vaccines are given at long boosting intervals, (such as tetanus with a minimal interval of 5 years to the next dose) individuals may not remember when it is time for a boost.

For those of us working to develop new vaccines, let us remember to keep the aging population in mind, both in terms of the specific disease targets, and in terms of the specific challenges of the aging immune system.
**Vaccine News**

**Pregnancy Is the Best Time for Some Vaccines**

*By JANE E. BRODY on health and aging.*

On Dec. 20, 1968, I was in Minnesota for a family wedding and got the flu; what I didn’t get, to my surprise, was my period. With a fever of 104 degrees, I was too sick to eat or even go to the bathroom unaided for 10 days. Returning to New York on Sunday night of New Year’s weekend, I was struggling to breathe and too weak to walk.

My husband carried me down the block to the home office of a doctor, who quickly diagnosed double pneumonia and prescribed antibiotics and codeine cough medicine. The pneumonia resolved but was followed by two more respiratory infections that required further treatment.

I was three months pregnant before I finally felt well. Six months later, I gave birth to miraculously healthy, full-term identical twins. I had dodged a bullet.

But not every pregnant woman who develops the flu — or some other vaccine-preventable infection — is so lucky. The flu is one of a number of infections, especially those accompanied by a high fever, that can cause serious pregnancy complications, including miscarriage, birth defects, premature delivery and even death.

If this sounds scary, it’s meant to be. Too many women go through pregnancy unprotected by readily available vaccines that can prevent irreversible harm to the woman, her unborn child or infant before the baby is old enough to be immunized directly.

Most women now of childbearing age are too young to have witnessed the harm associated with these infections before there were vaccines to prevent them that could be administered before or during pregnancy. Far too many have succumbed to fear-mongering by people who wrongly believe vaccines do more harm than good.

Experts are especially alarmed by the fact that, unlike with other aspects of medical care, highly educated people are most likely to resist vaccination.

“The rise in nonimmunization of children is clustered in high-income areas,” Dr. Mark H. Sawyer, a pediatrician and infectious disease specialist at the University of California, San Diego, said at a recent meeting held by the March of Dimes to emphasize the importance of pregnancy-related protection. *Click here to read entire article.*

**History of Vaccines**

**1879  First Laboratory Vaccine**

Louis Pasteur produced the first laboratory-developed vaccine: the vaccine for chicken cholera (*Pasteurella multocida*). Pasteur attenuated, or weakened, the bacteria for use in the vaccine. He happened upon the method of attenuation by accident: in his lab, he was studying fowl cholera by injecting chickens with the live bacteria and recording the fatal progression of the illness. He had instructed an assistant to inject the chickens with a fresh culture of the bacteria before a holiday. The assistant, however, forgot. When the assistant returned a month later, he carried out Pasteur’s wishes. The chickens, while showing mild signs of the disease, survived. When they were healthy again, Pasteur injected them with fresh bacteria. The chickens did not become ill. Pasteur eventually reasoned the factor that made the bacteria less deadly was exposure to oxygen.

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*The Centers for Disease Control released the Star Wars poster in 1977.*