



GLEANINGS

ISSUE #2, SPRING 2020

UNMC Professor: Development of Polio Vaccine was Remarkable

By Elaine J. Allen

The advent of vaccines to prevent viral illnesses came as a result of the Salk and Sabin Polio vaccines, according to a professor of internal medicine and microbiology at the University of Nebraska Medical Center (UNMC).

"It was a remarkable development," Dr. Geoffrey Thiele told the April 4th NPSA meeting, which was held for the first time via a Zoom video conference.

Dr. Thiele teaches rheumatology and immunology to medical students at UNMC. He spent more than an hour to explain why vaccination is important, why it takes so long to develop vaccines, and the history of vaccine regulation in the United States.

Why is it important to immunize people against viruses? "The purpose of immunization is to block the spread of the virus to its target organ or at the site of infection," he said. In addition, "immunizing a population stops the spread of the infectious agent to susceptible hosts." This is called "herd immunity."

Classical vaccines are subdivided into two groups, based on whether they stimulate an immune response on infection.

Types of Vaccines:

1. *Live*, or attenuated, vaccines contain a version of the living microbe that has been weakened in the lab so it cannot cause disease. Live vaccines are the "closest thing to natural infection," Dr. Thiele explained. These vaccines are "good teachers of the immune system."

- Advantages: "They elicit strong cellular and antibody responses and often confer lifelong immunity with only one or two doses."
- Disadvantages: a) Dangerous for immunosuppressed individuals and so may revert to a virulent viral form; b) Almost always needs to be refrigerated to keep it alive.

Vaccines (Continued on Page 2)

Do We Do... or...Do We Don't?

By Millie Malone Lill



Day 3011 of self-isolation: Should I put on my mask and venture out? But where would I go? Are any stores open?

Do I remember which of the vehicles in the basement garage is mine? I think it is a blue one. No, wait, that's not right. I distinctly remember giving that blue van to my son Jim. Oh, yes. Right. Now I remember! It's that big white van in the only handicapped parking spot. Should be relatively easy to find.

I probably should get dressed first, yes? Do any of my clothes still fit? No, I can't wear that muumuu. It's really more of a nightgown, not so much actual clothing. If I wear a sweatshirt and sweatpants, I will be decently covered, but it's already 80 degrees out there. Nope, better find something cooler. Not shorts, no way, after trying them on and glancing in the mirror, I find I look way too much like a busted can of biscuits. That look would not even be suitable for Walmart!

Millie's column (Continued on Page 3)

Vaccines *(Continued from Page 1)*

Why Does this Take So Long and Why so Few Vaccines

B. Pre-clinical Stage

- 1) Tissue culture, cell culture and animal testing to evaluate the:
 - a) Safety of the vaccine
 - b) Immunogenicity
 - c) Ability to provoke an immune response
- 2) Usually includes mice and monkeys
 - a) May help in determining a safe starting dose
 - b) Adapt the candidate vaccine for a study
 - c) Immunize animals and then challenge with the pathogen to see if the vaccine protects the animal
 1. Many vaccine candidates fail at this stage
- 3) This stage last about 1-2 years and usually involves researchers in private industry

2. Inactivated vaccines are produced in the laboratory by killing the disease-causing microbe with chemicals, heat, or radiation.
 - Inactivated vaccines include polio, hepatitis A, influenza and rabies, among others.
 - Among the disadvantages: a) Do not offer lifelong protection; b) Booster shots are required, and c) Larger doses must be used.

During his presentation, Dr. Thiele outlined why so few vaccines are developed for viruses. Most vaccines take between 18 months to 2 years to go through the three phases of study before the vaccine can be approved and manufactured. "It takes time, energy and a ton of money," he said.

In the United States, he explained government regulations "increase cost and time to conduct research and decrease the willingness of laboratories to do research and conduct the clinical trials necessary before making vaccines available to the public."

Dr. Thiele gave a brief history of vaccine development: "In response to the contamination of a smallpox vaccine and a diphtheria toxin that ended up in making some recipients very ill in the late 1800s, the U.S. Congress passed the Biologics Control Act on July 1, 1902," he said.

This act regulated the sale of viruses, serums, toxins, and analogous products by creating the Hygienic Laboratory, now known as the National Institutes of Health. The act allowed the government to control vaccine production, he explained.

In 1944, the United States Public Service Act mandated federal government-issued licenses for biological products, including vaccines.

In 1954, a poliovirus vaccine accident, known as the Cutter incident, caused the Division of Biologics Standards to oversee vaccine safety and regulation. This oversight department was renamed the Bureau of Biologics and placed in the FDA. This agency, now called the Center for Biologics Evaluation and Research, is actively working with labs to monitor the development and safety of a coronavirus vaccine.

Dr. Thiele recommended reading and watching a video interview with Yale historian Frank Snowden before his death in 2007: *"How Epidemics Change Civilizations."*

Millie's Column

(Continued from Page 1)

OK, the yoga pants, then. And a blouse. Yes, the one I bought at a rummage sale and it was too big. Well, not anymore! I don't know if I should really be as relieved about that as I am. OK, I'm dressed. I will avoid looking in the mirror. But wait! I must do something with my hair. Comb it, at least. Yikes. It used to be chin length, but now it is double-chin length! Even my bangs! I look like Cuzzin Itt from the Addams Family. Oh well, it's been so long, I'm sure no one will recognize me.

How long has it been? Well, I started in early March and it is May. What? Only May? Is it still 2020? Sure seems a lot longer!

Actually, it really hasn't been all that bad. I get my meals delivered by Meals on Wheels. My groceries are also delivered. My grandkids call to see if I need anything. One day I even got an emergency bag of Dove chocolates delivered to my door by my granddaughter. You might think running out of chocolates doesn't qualify as an emergency, but I assure you, it does! And thank goodness, my granddaughter understood that fact.

I worry about the health care workers, the people in "essential" businesses who must go to work, no matter what. Worrying doesn't solve anything, though. So, I will hunker down a bit longer, avoid too much TV news. Good news is not a paying commodity, you know, so you won't hear much of it on the nightly news. I will avoid people awhile longer. I think you should, too.

Thank goodness for technology that allows us to have meetings online via Zoom or Skype or see our loved ones via Facetime or video chat. Life is still pretty good, if you just count your blessings instead of the days you've been isolated.



Nebraska Polio Survivors Association Foundation Board of Directors

President:

Edward B. Roche, Ph.D.
117 Bellevue Blvd S
Bellevue, NE 68005-2440
Home: 402-292-3781
Email: ebroche@cox.net

Vice President and Secretary:

Kusum Kharbanda, Ph.D.
770 N. 93rd St., Apt. 4B4
Omaha, NE 68114-2674
Work: 402-995-3752
Email: kkharbanda@unmc.edu

Treasurer:

Larry Weber, CPA
Weber & Thorson PC
11205 Wright St., Ste. 220
Omaha, NE 68144-4719
Work: 402-330-9900
FAX: 402-330-4022
Email: larry@weberthorson.com

At-Large Members:

Karen Dulany
8027 S 69th St
La Vista, NE 68128-4372
Home: 402-339-8480
Email: kjdulany@msn.com

Charles "Chip" Mackenzie, Ph.D.
14601 Laurel Ave
Omaha, NE 68116
Mobile: 402-212-0152
Email: chipmackenzie@gmail.com

Executive Director / Gleanings Editor

Elaine J. Allen
PO Box 6076
Omaha, NE 68106
Voice mail: 402-932-5426
Email: npsa.org@hotmail.com

2020 NPSA Meetings via Zoom

Our normal meeting place may not be available until after the pandemic allows outsiders into the building. Until further notice, our meetings will be held via Zoom telephone/video conferences so that more of our members can attend safely. You are all invited to attend, no matter where you live!

If you would like to be invited to our secure Zoom meetings, please send your email address to npsa.org@hotmail.com and you will be sent a registration email message. You have two options to participate in our Zoom meetings:

1. Call in via a phone number (provided at the time of registration)
2. Or, to join via video, download the Zoom app on your smartphone or computer.

We will meet from 2:00 – 4:00 Central time on the following dates:

June 7: Topic to be announced, via email, one week in advance

July 12: Annual Ice Cream Social, place to be determined

August 2: Topic to be announced, via email, one week in advance

September 13: Topic to be announced, via email, one week in advance

October 4: Annual Reunion and Luncheon, program announced in Summer issue of Gleanings

November 1: Topic to be announced, via email, one week in advance

2020 First Quarter List of Donors

Eleanor Devlin, Omaha, NE

Dixie and Ronald Eldridge, Pawhuska OK

In memory of daughter, Ronda C. Eldridge

Susan Kneten, Fort Worth, TX

Margie Miksch, Platte Center, NE

In memory of Maxine Glaser and Ramona

Euteneuer

Carroll Olson, Atkinson, NE

Mr. Donald Osentowski, York, NE

Mrs. Eileen Peterson, Bertrand, NE

In memory of husband, Gary Peterson

Marcia and Patrick Quinn, Scottsdale, AZ

Bob Sugden, Sterling, NE

We encourage our readers who value this newsletter, or those who want to honor or memorialize a polio survivor, to send a tax-deductible gift to the address below:

**Nebraska Polio Survivors
Association
PO Box 6076
Omaha, NE 68106**

June 15th is World Elder Abuse Awareness Day

This year's theme for World Elder Abuse Awareness Day (WEAAD) 2020 is **Lifting Up Voices**. This theme serves as a platform for unifying Elder Justice and Violence Against Women by sharing the lived experiences of older people throughout the world.

Many online resources are listed in the table below to help you identify signs of elder abuse and common scams that target elders.



Online Resources	Web Addresses
Atlanta Post-Polio Association	www.atlantapostpolio.com
Nebraska Polio Survivors Association	Website: www.ne-polio.org Facebook page: www.facebook.com/NebraskaPolioSurvivorsAssociation
PA Polio Survivors Network	www.papolionetwork.org
Post-polio Health International: PHI offers many helpful resources online.	Home Page: www.post-polio.org Provider Directory (PDF): www.post-polio.org/net/PDIR.pdf
A Wall Street Journal interview (video and text) with the late Yale historian Frank Snowden before his death in 2007. Snowden lived through the 1918 Spanish Flu pandemic.	How Epidemics Change Civilizations (https://hshm.yale.edu/news/wall-street-journal-interview-frank-snowden-how-epidemics-change-civilizations)
World Elder Abuse Awareness Day 2020 Website and Materials	https://eldermistreatment.usc.edu/weaad-home/
Elder Justice Training Materials and Videos: Nebraska Dept. of Health & Human Services	http://dhhs.ne.gov/Pages/Aging-Elder-Justice-Training.aspx
Elder Fraud PDF: Nebraska Dept. of Health & Human Services	http://dhhs.ne.gov/Medicaid%20SUA/Elder%20Fraud.pdf
Signs of Abuse: Nebraska Dept. of Health & Human Services, Adult Protective Services	http://dhhs.ne.gov/Pages/Adult-Protective-Services.aspx

NPSA Mission Statement

The mission of the Nebraska Polio Survivors Association is to educate the public and the health care community concerning polio and post-polio syndrome and to respond to the needs of individuals who suffer from the syndrome through group meetings, educational programming and newsletters, financial and other support of research concerning the syndrome and the circulation of research results.

Nebraska Polio Survivors Association
PO Box 6076
Omaha, NE 68106

NON PROFIT
ORG.
U.S. POSTAGE
PAID
Omaha, NE
Permit No. 1575

Dear Reader: Please help us keep our mailing list up to date. If your address has changed or the person to whom this was addressed has died, please return this form with your changes and/or the name and address of your friend/family member. If you prefer an electronic copy, you may send an email request to: npsa.org@hotmail.com. **Thank you for your help in keeping our postage and printing costs down!**

Name: _____

Street Address: _____ **Phone:** _____

City/State/Zip: _____

Email address (if you prefer an electronic copy): _____