

Betsy says HI!!!!

Announcements

The next LABQUEST meeting will be Wednesday, November 13, at 12:30 in the GSA trailer.

Science Report Highlights

Betsy and Dan thought all the items in following science report from Charles were interesting but most liked the following:

- CDC Recommends That Pneumococcal Vaccination Start At 50
- Alternating Electrical Fields For Treating Lung Cancer
- The Brain Has Its Own Microbiome
- Recent Off-Shore Wind Project Approvals - including the Maryland Offshore Wind Project
- US Postal Service Next Generation Delivery Vehicle (NGDV)
- SpaceX Starship Super-Heavy Booster - was captured in a 'chop-sticks'

Science Report

Self-Protective Measures -

You should get your medical advice from official sources, your doctor, or your pharmacist ... not from this Report or the internet. Per recommendations by FDA and CDC, everyone should maintain current vaccinations for the three respiratory viruses: Covid, flu and RSV (for RSV, adults [over 60](#) and children [younger than 8 months](#)) - unless your doctor advises against it based on your medical record. Adults over 50 should have had the [Shingrix vaccine for shingles](#) (two doses 2 to 6 months apart, good indefinitely). Adults over 50 should have the Pneumococcal Vaccine.

- [CDC Recommends That Pneumococcal Vaccination Start At 50](#) - Up from 60 previously, [here](#).
- [CDC Reports E. Coli Outbreak In Colorado And Nebraska Associated With Eating McDonald's Quarter Pounders](#) - see details [here](#). 10 people have been hospitalized. One older person in Colorado has died. October 25 FDA update [here](#).
- [FDA Egg Safety Advisory](#) - [here](#).
- [NIH BMI Calculator](#) - Use the [NIH](#) National Heart, Lung and Blood Institute [calculator](#) to find your Body Mass Index (BMI). Above 25 - overweight. Above 30, check with your doctor, consider better nutrition, and exercise.
- [Basal Metabolic Rate \(BMR\)](#) - Your BMR is how many calories you burn just sitting in your chair. Use the [calculator](#) to get your BMR. Then consult the exercise table to see how many calories you can consume daily with your current exercise plan and still maintain your current weight.
- [Body Roundness Index \(BRI\)](#) - is a new medical screening tool for estimating *visceral* fat, [details](#). Use a calculator to get your BRI [here](#). Additional background from Harvard, [here](#). Results to your doc.

Vaccine and Therapeutic News -

- Gastric Or GEJ Adenocarcinoma - FDA has [approved](#) Vyloy (zolbetuximab-clzb from Astellas Pharma for this condition.
- Alternating Electrical Fields For Treating Lung Cancer - FDA has [cleared](#) marketing of Novocure GmbH's 'Optune Lua', a portable, battery-powered device that produces alternating electrical fields, called tumor treating fields (TTFields), within a patient's body to treat metastatic non-small cell lung cancer. A new approach.
- mRNA Cancer Vaccine Shows Promise - The Moderna (Cambridge MA) cancer vaccine candidate [mRNA-4359](#) is showing [encouraging preliminary Phase 1 human trial results](#) for solid tumors (lung cancer, melanoma).
- World's First Ovarian Cancer Vaccine - is [under development by researchers at the University of Oxford](#) in the UK Before they can progress to human trials, they must first identify the proteins on the surface of early-stage ovarian cancer cells that are best recognised by the immune system, and test how effectively the vaccine kills models of the disease in a lab. It's a lab experiment at the moment. Because there is no screening test for ovarian cancer, it is often detected late. Stay tuned.
- Minimally Invasive Inguinal Hernia Repair - FDA has [authorized](#) marketing of the [Distalmotion](#) (Lausanne Switzerland) 'Dexter L6 System', an electromechanical surgical system (robot) for repairing inguinal hernias through minimally invasive procedures using high-precision surgical endoscopic instruments.

Other Health Science News -

- FDA Advice On Options For Dealing With Fall Allergies - Details and a video [here](#).
- The Brain Has Its Own Microbiome - and some of the microbes are similar to those in the gut microbiome. This [surprising new discovery](#) will lead to new approaches for treating diseases of the brain, including dementia.
- Are Your Stools Healthy? - Check the Bristol Stool Chart [here](#). Ideally you should be a Type 3 or 4. This simple check, that you can routinely do yourself in a few seconds, may help catch a problem early, and could provide important information for your doctor. [Details](#).

Practical Nutrition -

- Watercress - tops the CDC list of the most nutritious fruits and vegetables, [here](#). Lay description of its nutritional value, [here](#). A list of the runners-up, [here](#).
- Kimchi - See 9 health benefits, explained by registered dietitians, [here](#). Probiotic, active culture, very healthy.
- A Day Of High Fiber High Protein Eating - by a registered dietitian, [here](#). Tune-up: treats are needed, but try substituting a mango frozen yogurt bar, or other flavor, for the ice cream - to reduce saturated fat.
- Green Tea - has good antioxidants (catechins), and may have other health benefits, [here](#). Limited evidence.
- Yellow Onions Or White Onions - They're pretty much interchangeable. White onions are a little milder. See chefs discuss the minor differences [here](#). Onions are healthy.
- Coca Cola Recalls Zero Sugar Drink - because it contains *full sugar*. See the FDA recall notice for 'Minute Maid Zero Sugar Lemonade' [here](#). Further background [here](#).
- Misleading Words For Sugar - High-fructose corn syrup, sucrose, barley malt, dextrose, maltose and rice syrup are all [forms of sugar](#). Certain blood alcohols sometimes used as sweeteners, such as Erythritol and Xylitol, are made by the body and occur naturally in certain foods - but in

very small amounts. They have recently been [linked to heart disease and stroke by Cleveland Clinic researchers](#), and should be avoided as food additives.

- [Is Your Favorite Food Ultra-Processed?](#) - and if so, what's a good substitute. View the Northeastern University [TrueFood Dashboard](#).
- [Most Nutritious Vegetables and Fruits Rank-Ordered by CDC](#) - See the list [here](#). Chinese cabbage = bok choy.

Environmental Science News -

- [DC's First Dog Bar - 'Dog Daze Social Club'](#) is opening in Logan Circle. Don't miss the 'puppy yoga' and 'doggo adoption' events. [Karen W., Jenna D.]
- [Lost Biblical Tree Resurrected From 1000 Year Old Seed](#) - An ancient seed from a cave in the Judean Desert has now been grown into a 14-year-old tree that scientists can compare genetically to other species. [Details](#).
- [Recycling Old Concrete Blocks](#) - Researchers at the University of Tokyo have discovered how to [reuse old concrete blocks](#) by grinding them up into a fine powder, and reacting them with CO2 to make a material known as '[calcium carbonate concrete](#)', strong enough to be used in new structures.
- [Recent Off-Shore Wind Project Approvals](#) - including the Maryland Offshore Wind Project, [details](#).
- [Cuyahoga River Is Back](#) - and the [first fingerling river sturgeon](#) were recently released there, about a mile from Cleveland Ohio's Lake Erie Shore. Each is equipped with a micro-transmitter to track its progress, and steer additional releases next year. There was a time when the river actually *burned* from being an unregulated dumping ground for industry. The situation inspired the creation of the Environmental Protection Agency (EPA), and the subsequent US Clean Water Act put a stop to the dumping. EPA and other federal agencies then put in the huge funds to reengineer the combined sewer systems of Akron and Cleveland, to prevent raw sewage overflows during intense rain events. Next up - [removal of a series of dams](#), including now the Gorge Dam (after 832,000 cubic yards of contaminated trapped sediment has been removed, 3-year project). Similar things are happening in the DMV in DC (Anacostia and Potomac Rivers), and Alexandria VA (Potomac). The model was created in Ohio. Great long term progress, with more to come. [JD W.]
- [Manufacturing Building Materials From Grass](#) - '[Plantd](#)' (Charlotte NC) has developed a process for making [building materials from fast growing perennial grasses](#). and has now [announced a 30-acer solar farm](#) that will make the entire process Carbon *negative*.
- [US Postal Service Next Generation Delivery Vehicle \(NGDV\)](#) - The new battery electric trucks, with many modern features that get [rave reviews from their USPS drivers](#), have finally begun arriving ... in Atlanta. The recharge stations for them were installed there in January. USPS will buy [all electric vehicles from 2026](#).
- [Walk To Washington National Airport](#) - from Crystal City in Arlington VA via a now approved and funded 1,300 feet long pedestrian bridge called the [CC2DCA multimodal connection](#). It's expected to be a five minute walk, and will provide a direct path across the Parkway from the planned Virginia Railway Express station at 2011 Crystal Drive. \$57.2million, along with road improvements and new public and employee parking.
- [FAA Final Rule On Air Taxi Pilot Training](#) - VTOL all-electric air taxis are now [one step closer](#) to going into commercial service. Maybe sometime next year. [photo](#)
- [Greenlink West Transmission Project In Nevada](#) - The 525 kV, [350 mile grid extension line extending from Las Vegas to Reno Nevada](#) has been cleared by the US Department of the

Interior. It has a 4,000 MW capacity, enough to power 4.8 million homes, and will allow the interconnection of numerous wind, geothermal and solar energy projects along its path. An additional 210-mile-long, 525 kV extension, Greenlink North, is under review.

- Incoming Japanese Government Announces Continuation of Nuclear Power Plant Restarts - The 11 currently operating produce 11 GW. There were 54 before the Fukushima incident. Tokyo Electric Power Co (TEPCO) plans to restart its Kashiwazaki-Kariwa nuclear power plant, the world's largest (8 GW, 7 reactors), but still needs clearance from Niigata prefecture. TEPCO maintains that the new earthquake proofing is sufficient.

Other Science News -

- SpaceX Starship Super-Heavy Booster - was captured in a 'chop-sticks' maneuver as it returned to its launch base. Details and an amazing video, [here](#). Reuse of the booster will greatly reduce launch costs. Nice work!
- Europa Clipper Launched To Jupiter's Moon Europa - See a video of the launch on a SpaceX Falcon Heavy rocket, [here](#). The mission for the European Space Agency (ESA) is to search for conditions that might support life on Europa. The trip is expected to take 5.5 years. Bon Voyage!
- Tellurium-Based Thermoelectric Generator - is under development by First Tellurium (Vancouver Canada) subsidiary PyroDelta - generates electrical power based on any heat source, no moving parts, completely silent. Generators for emergency and recreational use described [here](#). In development - you'll be hearing about it.

Nice Thing - [Jenna D.]

Daughter of the Regiment (La Fille du Régiment) - a Gaetano Donizetti opera sung in French - 1839.

- Ah, Mes Amis - An aria with 9 high Cs for the tenor, as explained by Opera Anna - [here](#).