

Betsy says HI!!!!

Announcements

The next LABQUEST meeting will be Wednesday, May 13, 2026 at “WeAchieve”, 10501 New Hampshire Ave.

Science Report Highlights

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

- Weight Reduction - FDA has approved a higher dose version of a previously approved medication for this indication.
- Stunning Public Health Success! - In 2024 fewer than 10% of US adults smoked a cigarette.
- Drinking Water Nitrate Contamination From California Dairies
- US Air Taxi Trials Begin This Summer
- First Humanoid Robot Warriors
- Hypersonic Wind Tunnel Advances

Science Report

Vaccination and medical advice should come from your doctor or your pharmacist ... not from this Report or the internet. Everyone should consider maintaining current vaccinations, and many states are simplifying vaccine access.

Vaccine and Therapeutic News -

- Weight Reduction - FDA has [approved](#) a higher dose version of a previously approved medication for this indication, Wegovy HD, from [Novo Nordisk](#) (Bagsværd Denmark).
- Lyme Disease Vaccine Candidate - Pfizer (New York NY), and Valneva (Lyon France), have [announced](#) strong preliminary results for their vaccine candidate PF-07307405 (LB6V, formerly known as VLA15) for this indication.
- Pulmonary, Musculoskeletal, Inner Ear Imaging - [GE HealthCare Technologies](#) (Chicago IL) has [announced](#) FDA 510(k) clearance for its AI-assisted, [single photon CT X-ray system](#) True Definition DL for use in imaging and diagnosing these indications ... builds on previously approved Deep Learning applications for other indications. Faster image acquisition, reduced motion artifacts, greater patient through-put, better resolution.
- Stunning Public Health Success! - Smoking has become uncool. In 2024 fewer than 10% of US adults smoked a cigarette. [Details](#) and a [publication](#). Based on federal data, but [not reported](#) by the federal government.

Other Health Science News -

- Obsessive Compulsive Disorder (OCD) - Videos describing the symptoms, [here](#) and [here](#). International OCD Foundation website, [here](#) - contains a 'Find Help' section, including a quick self-screener.
- Alzheimer's Disease (AD) - [The Focused Ultrasound Foundation](#) (Charlottesville VA) has [reported](#) encouraging preliminary results of a clinical trial using focused ultrasound to reduce amyloid plaques in the brains of volunteers by repeatedly opening the blood-brain barrier - verified by before-and-after positron emission tomography (PET) scans. A reduction in behavioural symptoms was also observed. [Publication](#). Non-invasive, very promising new approach.

- [Norovirus](#) - There are currently no approved drugs or vaccines to prevent norovirus infection. Researchers at the National University of Singapore have now developed a [natural product derived from fermented carrots](#) that could prevent human norovirus infections by blocking the virus from attaching to their host cells in the body. Stay tuned.

Practical Nutrition -

- [Is There Chocolate In Your Chocolate?](#) - Because of shortages and cost increases, some manufacturers have been reducing or even [eliminating](#) cocoa from products formerly described as chocolate. Ghana and Côte d'Ivoire, recently subjected to successive floods and drought, produce 70% of the world's chocolate. Read the contents label.
- [Step Up Your Ramen](#) - not complicated. First sauté onions, garlic or ginger in the pan. Then add ramen, chicken stock, season to taste and boil. Healthy, tasty and fast. [Details](#). For extra zip, and antioxidants, use scissors to clip off some leafy cuttings from that fresh head of watercress you've been keeping in the fridge, with its roots in water for freshness. Whole wheat ramen for more fiber?
- [Good Seeds](#) - Adding chia/[flax](#)/pumpkin/sesame/sunflower seeds to your diet can boost heart health, improve digestion, and provide a range of essential nutrients, according to a clinical dietitian and a gastroenterologist, [here](#) ... includes a dietary rundown for chia/flax seeds. Choose organic; ground form is most digestible; refrigerate seeds.
- [Mediterranean And MIND Diets Can Combine To Slow Brain Aging](#) - [Details](#) and a [publication](#).

Environmental Science News -

- [Bald Eagle Nest](#) - Live cam view of the nest in Big Bear Valley California, [here](#). Jackie and Shadow come and go. [choose view, turn on sound, EST minus 3 hours]. [Background](#). [turn on sound] Update 4/6: eaglets!!
- [Drinking Water Nitrate Contamination From California Dairies](#) - is a growing issue in the Central Valley area. In some counties [40% of drinking water wells](#) are above safe limits. The State Water Board has now drafted an order to fix that. Likely to be controversial, and will raise costs, but needed.
- [UK Solar Grants To Be Accelerated](#) - The UK's \$18 billion '[Warm Homes Plan](#)' would install [rooftop solar \(backed by batteries\) in family homes, up to a cost of \\$16,000](#). Timely, and solar power equipment installs quickly. [Jason W.]
- [Temperature/Rainfall/Drought Forecasts](#) - from the US National Weather Service Climate Prediction Center, [here](#).
- [Largest Solar Farm In UK Approved](#) - [Springwell Solar Farm](#) in Lincolnshire ... 7 square miles, 800 MW, power for 180,000 homes, 40-year lifespan, [details](#). By: [EDF](#) and [Luminous Energy](#). Energy independence was a goal.

Other Science News -

- [US Air Taxi Trials Begin This Summer](#) - The [eVTOLs](#) are coming this Summer! Under a [federal program](#) allowing test flights before final FAA certification, flights carrying people and cargo will begin in eight regions across the US, including New York, New Jersey, Texas, Florida, and Albuquerque, New Mexico. Quiet, efficient, zero emission, runways not required, can operate autonomously. [Details](#)
- [First Humanoid Robot Warriors](#) - The first [Phantom MK-1](#) battle robots from Foundation are being tried out (and agentic AI trained) on the Ukraine battlefield. Details, and a narrated video, [here](#). [Foundation Future Industries](#) (San Francisco CA). The future is now.
- [Robots Should Take Some Human Jobs](#) - [Hyundai](#) (Seoul S. Korea) has announced the Unmanned Firefighting Robot for use in active fire situations, and other high risk scenes too dangerous for humans ... equipped with advanced self-driving-assistance, 6x6 in-wheel motor system, AI-

enhanced cameras, and a high-pressure self-illuminating hose. [Details](#), and a very dramatic video that speaks for those who run *toward* fire.

- [Hypersonic Wind Tunnel Advances](#) - China's [JF-22 hypersonic wind tunnel](#) has been operating for about 3 years: speeds up to Mach 30 (23,000 MPH), 548' long, 13' wide, simulation run duration 130 milliseconds. During reentry from orbit, speeds can reach Mach 25. The rest of the world has some catching-up to do on testing.
- [First US Army Deployment Of Hypersonic Dark Eagle System](#) - Seen recently at a joint exercise in Australia, [here](#).
- [Relativistic Time Dilation](#) - Given that the real Tau Ceti star system is 11 light years from Earth, the film 'Project Hail Mary' got the math right. See a simple explanation of time dilation [here](#) ... no calculus, or transcendental equations.

[Nice Thing](#) - Peaceful [skip ad, full screen]

[One Summer's Day](#) - from 'Spirited Away', Joe Hitaichi, London Symphony Orchestra, [here](#). [Henry K.]

Useful Health And Nutrition Websites -

- [Health Biomarker Websites](#) -
 - o [NIH BMI Calculator](#) - [NIH](#) National Heart, Lung and Blood Institute [calculator](#). Find your Body Mass Index (BMI).
 - o [Basal Metabolic Rate \(BMR\)](#) - Your BMR is how many calories you burn just sitting in your chair, [calculator](#).
 - o [Body Roundness Index \(BRI\)](#) - Estimate your *visceral* fat, [details](#) and [calculator](#). Harvard background, [here](#).
 - o [Are Your Stools Healthy?](#) - Check the Bristol Stool Chart [here](#). You should be a Type 3 or 4. Not complicated. [Details](#).
- [Nutrition Websites](#) -
 - o [Is Your Favorite Food Ultra-Processed?](#) - and good substitutes. Northeastern University [TrueFood Dashboard](#).
 - o [Most Nutritious Vegetables and Fruits Rank-Ordered by CDC](#) - List [here](#). Chinese cabbage = bok choy.
 - o [Misleading Words For Sugar](#) - High-fructose corn syrup, sucrose, barley malt, dextrose, maltose and rice syrup are all [forms of sugar](#). Erythritol and Xylitol have been [linked to heart disease and stroke by Cleveland Clinic researchers](#), and should be avoided as food additives. Chemical sugar substitutes to be avoided: acesulfame potassium, advantame, allulose, aspartame, brazzein, lactitol, maltitol, mannitol, neotame, rebaudioside A (reb-A), saccharin, sorbitol, thaumatin and trehalose.