

## **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:

- Maryland Vax Act of 2026
- Are Weight Reduction Patients Hitting The Hot Sauce?
- Heart Failure
- New Cholesterol Management Guidelines
- Bedroom Temperature And Heart Health
- 5 Dietary Plans Linked To Longer Life
- New UltraHigh Voltage Transmission Line Proposed For Virginia
- Ukrainian Interceptor Drone In Demand Worldwide

### **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.

- Maryland Vax Act of 2026 - allows the state to set vaccine recommendations independently of federal recommendations. The [Maryland Secretary of Health will have the responsibility](#), relying on scientific evidence and guidance from medical organizations such as the American Academy of Pediatrics (AAP), American College of Obstetricians and Gynecologists (ACOG), and American Academy of Family Physicians (AAFP) - [effective 7/1/26](#).

### **Vaccine and Therapeutic News -**

- Type 2 Diabetes - Novo Nordisk (Bagsværd, Denmark) has [announced](#) FDA approval of its once weekly Awiqli (insulin icodec-abae) insulin treatment for this indication ... **one weekly injection, rather than 7.**
- Addiction Psychiatry And Weight Reduction Drugs - A professor of Psychiatry at Brown University sees a link between the reduction in craving for food from the use of weight reduction drugs, and a reduction in craving for addictive substances. See her basis for that claim, [here](#). [Bernie A.]
- Are Weight Reduction Patients Hitting The Hot Sauce? - Weight reduction drugs work by creating a sensation of being full ... eating less. Some also report taste changes: sweet things taste sweeter, salty things taste saltier. And [some report that their food tastes more bland](#). Sales of hot sauce are up. No scientific studies. Coincidence?
- Heart Failure - Japan’s Ministry of Health has approved the world's first *regenerative* cardiac therapy based on human induced pluripotent stem cells (iPSC). The treatment is designed to *repair* damaged heart tissue, not just slow down disease progression. [Details](#). Patients with

advanced heart disease often face limited options, including heart transplantation. [Cuorrips](#) (Tokyo Japan). [Publication](#).

- [New Cholesterol Management Guidelines](#) - The American Heart Association, with 10 other medical groups, have issued new guidelines addressed to the 86 million US adults with high [LDL cholesterol](#). Earlier screenings, lower LDL cholesterol targets, and a one-time test for lipoprotein(a) ... Lp(a) ... are among the recommendations. See the 5 must-know takeaways [here](#).

### Other Health Science News -

- [Natural Light, And Blood Sugar](#) - [Details](#). There's not a direct connection, but consistent daytime light paired with darker evenings supports better sleep, and quality sleep is correlated to steadier next-day glucose control.
- [Bedroom Temperature And Heart Health](#) - Warmer nighttime temperatures stress the body during sleep. Core body temperature usually drops at night for deeper, healthier stages of [REM sleep](#). In a warmer room, the brain signals the heart to work harder to pump blood toward the skin in an effort to release heat, raising the heart rate, making deep sleep more difficult to achieve [Details](#). Summary: ideal 69-75° F. [Publication](#).
- [Choosing The Best Sleeping Position](#) - begins with whatever facilitates easy breathing and a relatively linear neck/spine alignment. Quality sleep is important for both mental and physical health. [Details](#).
- [First Evidence That The Gut Virome Affects The Way Gut Bacteria Process Carbohydrates](#) - This recently [published](#) research (mice) suggests the possibility that viruses could be a tool for regulating blood glucose spikes for gastrointestinal diseases such as diabetes. Stay tuned for the [extension](#) of this research to human subjects. [Details](#).
- ['Frequentist' Or 'Bayesian' Statistics](#) - *that* is the question ... that biostatisticians have been passionately wrangling over at FDA for some decades. Now the Agency has put out [draft guidance](#) on how the [Bayesian approach](#) can be used in preparing data for FDA review, the goal being more timely and accurate reviews. [Details](#).
- [Statins As Early As Age 30?](#) - New recommendations from the American College of Cardiology, and the American Heart Association, shift the focus on assessing and reducing the risk of cardiac disease to earlier ages. [Publication](#). They recommend starting with an assessment of blood lipids as early as age 30. [Background](#). "We know 80% or more of cardiovascular disease is preventable ...".
- [Tight Hips And Lower Back Pain From Prolonged Sitting/Inactivity](#) - See the Pigeon Pose recommended by a yoga instructor. Details and a video, [here](#). Slowly/carefully at first, and stop immediately if painful.

### Practical Nutrition -

- [Sourdough Bread](#) - is easier to digest than regular bread, and because it is fermented [can improve mineral absorption](#) while supporting steadier blood sugar. Finding a version made with whole grain flour is even better. Details from three registered dietitians, [here](#). Big brand white-flour bread is just empty carbs ... little nutrient value.
- [Avocados And Sleep](#) - There are several [reasons](#) to suppose that a daily avocado might help ... and they're tasty. See the published study [here](#).
- [Benefits Of Magnesium](#) - Most get sufficient Magnesium from natural foods in their diet, but check the levels in the blood work of your most recent physical. See [this article](#) for the benefits,

the symptoms of deficiency, sleep improvements, and a list of some natural foods rich in Magnesium. Use supplements only with a doctor's advice.

- [5 Dietary Plans Linked To Longer Life](#) - A recently [published](#) study, based on 105,000 healthy adults, showed that strong adherence to any of the [5 diets studied](#) was associated with an increased life span of 1.5 to 3 years.
- [DASH Diet Reduces Risk Of Cognitive Decline](#) - A recently [published](#) study indicated that the [DASH](#) diet (Dietary Approaches to Stop Hypertension) for blood pressure control, and diets with lower hyperinsulinemia and inflammation biomarkers, were *also* associated with a lower cognitive decline risk and better cognitive function.
- [Couscous Or Quinoa Healthier?](#) - [Quinoa](#), according to a registered dietitian, [here](#).

## 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]
- [US/Japan Nuclear Power Project](#) - The [GE Vernova](#) (Cambridge MA) and Hitachi (Chiyoda Japan) joint venture 'GE Vernova Hitachi Nuclear Energy' has [announced](#) a \$40 billion plan to build small modular reactors (SMRs) in Tennessee and Alabama using its BWRX-300 water-cooled, natural circulation SMR design. In Tennessee the location is likely to be the [Clinch River](#) site near Oak Ridge. The site in Alabama is still to be decided. White House announcement [here](#). [Mack and Karen W.]
- [Data Centers Co-Located With Floating Offshore Wind](#) - "Before we go *off-world*, we should go *offshore*," according to [Aikido Technologies](#) (San Francisco CA). The company's football-field-size floating platforms would have a 3-4 MW data hall in each of their three floatation pontoons, back-up batteries, and a back-up connection to the grid on land. [Details](#). A proptype will be installed in the North Sea off the coast of Norway this year, with a proposal under consideration for a commercial scale project in UK offshore waters targeted for 2028 - cheap cooling, uses no land, one pontoon has facilities for temporary crew. This is a concept that could be used worldwide, so wish them well.
- [New UltraHigh Voltage Transmission Line Proposed For Virginia](#) - The 115 mile, 765kV, Campbell to Culpeper, '[Valley Link](#)' transmission line proposed by [Appalachian Power](#) (Columbus OH) will run through the following Virginia counties: Campbell, Appomattox, Buckingham, Fluvanna, Goochland, Louisa, Orange and Culpepper. Details and a map of the two proposed routes, [here](#).
- [Kentucky Has Solar](#) - and [doubled its solar capacity in 2025](#) by adding 1 GW, to reach a total of 1.7 GW. Sunshine!
- [Kentucky Gets Batteries](#) - [Anthro Energy](#) has announced groundbreaking for construction of its Lithium Ion battery *electrolyte* plant in Louisville KY. The plant will manufacture the company's proprietary electrolyte 'Anthro Proteus', and will be the only domestically owned and operated large-scale *electrolyte* production facility" in the US. [Details](#).
- [Oklahoma Gets Solar](#) - The [NextEra Energy](#) (Juno Beach FL, video) 2,000-acre, 250 MW solar farm, Skeleton Creek Energy Center, is now under construction in northwest Oklahoma, having overcome considerable local [pushback](#).
- [New Solar Cell Manufacturing Facility In South Carolina](#) - [Suniva](#) (Norcross GA) has [announced](#) plans to construct a new solar cell plant in Laurens SC - \$350 million, 4.5 GW, 620,000 ft<sup>2</sup>, first production 2Q27. [Fran McC.]
- [West Texas Seniors Get Wind Farm Benefits](#) - in Crockett County TX (2,800 residents in 2,800 square miles). The [NextEra Energy](#) wind farm finances the [Senior Center](#), bingo games and

lunches, rural transit, Meals on Wheels, emergency services, and other senior benefits. Wind generates [29% of power in Texas](#), second only to natural gas.

- [Coal Ash Cleanup In Virginia And West Virginia](#) - [Appalachian Power's](#) 1919 Glyn Lyn coal fired power plant, on the New River in [Giles County VA](#), closed in 2015. In compliance with VA law, the company has now applied for permits in VA and WV to create a [capped-off, lined landfill](#) on the WV side of its site for the plant's 6.8 million cubic yards of toxic (arsenic, cadmium and mercury) coal ash. The \$340 million bill will be passed on to its VA and WV customers
- [Deep Cold Water Reefs](#) - lie thousands of feet deep in total darkness. They were once thought to be rare, but the latest estimates suggest that cold-water coral reefs cover about twice as much area as shallow-water coral reefs, [details](#). They are now being explored by autonomous, deep-submersible robots using cameras and other instruments. [New species](#) are being discovered.
- [Living Seawalls In Pompano Beach Florida](#) - Smooth modern seawall material is very unwelcoming to attaching organisms like oysters and other filter feeders that purify the water and form the base of the food chain for fish. See the [porous and highly configured shapes](#) being designed for South Florida homeowners to hang over the sides of their seawalls to accommodate the attachment of sea life and form living seawalls. They can also be configured as mangrove planters. [Kamal S., Bette Anne S., Marlene T]
- [Paraquat](#) - is a very toxic herbicide commonly used by US farmers for weed control ... repackaged for use in the US at the [Syngenta](#) facility in New Iberia LA (an area along the Mississippi River known as cancer alley). It's banned in 70 countries, generates lawsuits like mushrooms, and the manufacturer has now [announced](#) that it will cease manufacturing it worldwide in June.

#### Other Science News -

- [King Qashqash Of Makuria in Nubia](#) - was thought to be just a legend, but a 500 year old manuscript archeologists discovered recently in present-day Sudan proved that he was quite real. [Details](#) and a [publication](#) (map).
- [Quiet Supersonic Jet](#) - The second test flight of NASA experimental X-59 took place in March. The plane landed safely, good data was gathered, and supersonic passenger air-travel came one step closer. NASA video [here](#).
- [Ukrainian Interceptor Drone In Demand Worldwide](#) - The [Sting](#) [video], manufactured by Ukrainian mil-tech company [Wild Hornets](#) (Kiev Ukraine): 175 mph, cost effective at \$2,000, 360° antenna, range 23 miles, max altitude 23,000 ft, climb. rate 98 ft/sec, high explosive payload, 3,000 Russian Shahed drones downed in 7 months since 6/25, 80-90% hit rate, production capacity 10,000 units/mo. [Details](#)
- [Ukraine Sends Over 200 Antidrone Advisors To Assist Persian Gulf Countries](#) - [Details](#) and a video.
- [World's First Transport Of Antimatter By Truck](#) - The [92 antiprotons on the truck](#) would have instantly annihilated on contact with ordinary matter, generating a shower of very intense radiation, but all went well with this aspect of the [BASE experiment](#) at [CERN](#) in Switzerland. The next step is to begin transporting antiprotons down the road to [Leibniz University Hannover](#) (Hanover Germany), and perhaps other laboratories that are capable of performing very-high-precision antiproton measurements. Drive carefully, and [don't forget to pack the antimatter!](#) [Sonja B.]

Nice Thing - The most convincing/engaging *space opera* is based on the possibilities (and limitations) of *real* science. In this case the actual present medical use of induced comas, the actual space-telescope-based knowledge of Tau Ceti astrology (11 light years distant), and an understanding of the well

established time-contraction aspects of Einstein's Theory of Relativity. And then there's the agentic-AI communications system for communicating with the alien "Rocky".

- [Project Hail Mary](#) - Movie trailer, 2026, [here](#). [full screen]
- [Project Hail Mary](#) - Explanation of the story arc, [here](#). [full screen]
- [Project Hail Mary](#) - Based on a 2021 [book](#) by Andy Weir.

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#### Useful Health And Nutrition Websites -

- Health Biomarker Websites -
  - [NIH BMI Calculator](#) - [NIH](#) National Heart, Lung and Blood Institute [calculator](#). Find your Body Mass Index (BMI).
  - [Basal Metabolic Rate \(BMR\)](#) - Your BMR is how many calories you burn just sitting in your chair, [calculator](#).
  - [Body Roundness Index \(BRI\)](#) - Estimate your *visceral* fat, [details](#) and [calculator](#). Harvard background, [here](#).
  - [Are Your Stools Healthy?](#) - Check the Bristol Stool Chart [here](#). You should be a Type 3 or 4. Not complicated. [Details](#).
- Nutrition Websites -
  - [Is Your Favorite Food Ultra-Processed?](#) - and good substitutes. Northeastern University [TrueFood Dashboard](#).
  - [Most Nutritious Vegetables and Fruits Rank-Ordered by CDC](#) - List [here](#). Chinese cabbage = bok choy.
  - [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.