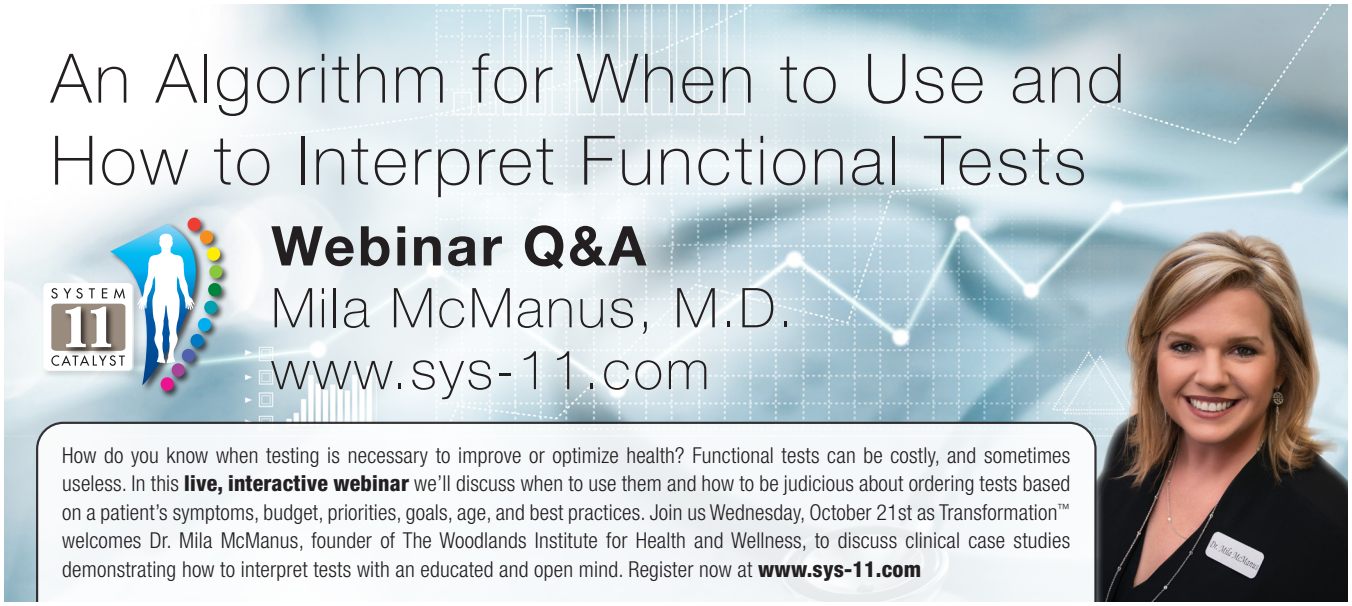

What stool analysis tests do you use? Is Viome a good one?

I've used Genova, but mainly use Doctor's Data now since it's a little less expensive than Genova. Viome can be helpful too. Doctor's Data and Genova give more information, including digestive and inflammatory markers, and if dysbiotic flora is found, it tells you what antibiotics and natural herbals will work on it.

When addressing mental health issues, can you address how the SNP genotype test helps in recommending a treatment protocol in contrast to a neurotransmitter test which would inform on more specific results?

Both tests can be helpful. The SNP testing tells you that a mood or sleep disorder may be due to a SNP in a gene that's involved in the metabolism of neurotransmitters. If someone has anxiety and has SNP in MTHFR and COMT, that could explain the anxiety. And there are "work arounds," so we would tell the patient to work on stress management since s/he has a hard time clearing adrenalin (due to COMT SNP). And the patient may respond well to magnesium and progesterone, e.g. , with MTHFR one needs to have active forms (methylated) of B vitamins. Neurotransmitter testing will tell you what actual neurotransmitters are high or low, and then recommend supplements to reduce or boost them. If in the patient's budget, i would recommend both, depending on severity and number of issues.

I would still first balance hormones, address gut health, and add basic nutrients to address mood / sleep / anxiety (e.g., magnesium, 5-HTP, etc.), and if symptoms persist, then would consider one or both tests. A lot of the time I never have to order the neurotransmitter testing. I do recommend the SNP testing for all patients because it's providing genetic information we can use to optimize health in

many ways and help reduce risk for cancer, heart disease, etc. On one of my slides I provided contact information for Brad Mullens who is a GX (SNP) specialist and trains providers. You can ask him questions, schedule training, and/or refer your patients to him for interpretation of SNP results. He can be reached at 512-803-8035.

What type of testings would you recommend for a diabetic who has neuropathy (from shingles)?

If it's certain that the neuropathy is post-herpetic neuralgia, energy medicine can be an excellent option to reduce/relieve the pain—PEMF, FSM, Acupuncture. If it's possible the neuropathy has other causes such as diabetes, nerve damage, autoimmune disease, etc, I would refer to a neurologist for further evaluation with imaging, EMGs, and such. If you're asking more about how to manage a diabetic, I follow HgbA1c, Liver Enzymes, Lipids, CRP. A good functional test in this case would be a nutrient analysis, whether using organic acid tests or Spectracell. Supplement regimen should include chromium, magnesium, and lipoic acid as well as antioxidants important for cardiovascular health such as Vitamin C. I'm also a big fan of CT heart scans that provide calcium scoring. I recommend this for all patients over 50, not just diabetics) Advanced lipid profiles are good to follow as well.

If the hypothalamus gland is not functioning and the person is 78 and has insomnia, what's the best way to address this?

Assuming you mean actual damage to the hypothalamus, and a work up has been completed, this patient may need support with several different hormones including hGH, estrogen, progesterone, adrenal hormones, etc. Progesterone is great for promoting good sleep. Melatonin is easy and cheap and should be 1st line. Most people are deficient in magnesium which is also important for sleep, as is Vitamin B6. I would analyze the patient's sleep hygiene as well regarding lights on at night; blue light exposure from cell phones, TVs, and such; activities in bed, etc. I would look at what medications the patient takes, as insomnia could be a side effect of a medication or other supplement. Consider trying devices such as Apollo Neuro and the Fisher Wallace Simulator®. Neurofeedback can be helpful for insomnia.

Insomnia is one of the most common symptoms of EMF exposure/sensitivity. You can read about EMFs in these articles I wrote over the summer: https://woodlandswellnessmd.com/5g.html/ and https://woodlandswellnessmd.com/self-care-for-emf-protection.html/ and/or read Dr. Joseph Mercola's book called *EMF*D*. L-theanine is a great amino acid that can enhance sleep and can be taken with all the above. CBD/Hemp oils are often helpful. Therapeutic peptides wouldn't be 1st or 2nd line therapy options, but consider CJC-1295/Ipamorelin combo, DSIP, or SEMAX. And lastly (which

maybe should be firstly), deep breathing exercises and warm bath close to bedtime. Heat increases parasympathetic nervous system, as does deep breathing. The 4-7-8 technique works well.

It seems every lecture on hormones you come across has a different philosophy on hormone testing (don't do, saliva, urine, serum). I understand you are saying that you don't test, but if you were to test hormones, which do you select, and why?

If a patient is on topical forms of hormones (vaginal cream, other creams, patches), I ONLY use saliva testing, as serum levels don't correlate. For baseline testing on someone who is NOT on hormones, I'll check serum levels and use the patient's insurance when possible. If someone is on pellets or pills, serum levels are fine as well. You CAN use urine or saliva, but I like to save a patient's money where I can, so I prefer serum for this. If on troches, you should use serum or urine because saliva results will look falsely high.

What age are you starting DEXA scans? And is insurance paying for the frequency of testing that you are recommending?

It depends on the patient. If someone is in their early 30s and has been on a lot of steroids, has strong Fhx, and/or has all the risk factors of being petite, female, and Caucasian, I'll start testing then. Or if a woman has a lot of lean muscle mass, is an athlete, low risk, I may wait til her 50s. For men, I rarely order DEXA unless there are risk factors. Otherwise I will start in a woman's 40s. Standard of care is to start screening much later, but I want to catch it early when natural interventions are much more helpful. Insurance usually will cover the initial one. Typically they cover every 2 years. If a woman does have osteopenia or osteoporosis, they will typically cover annually in my experience. On occasion I'll want to repeat the scan at 6 months if someone has severe osteoporosis and I want to make sure therapies are working (PEMF, hormones, strontium, etc) since time is of the essence. I warn patients that insurance likely won't cover, so I give them contact info for a facility that charges ~$100 cash. I also have a lot of patients on health share plans or who have high deductibles that I'll send to the cash facility.

Please repeat the NA: K pearl.

Lower sodium and higher potassium can indicate adrenal insufficiency. (It's not always the case; I showed in the case study that the patient had the same Na and K at followup and was doing MUCH better.) Cortisol and Aldosterone, made by the adrenals, have mineralocorticoid effects. They both

cause sodium to go up. Aldosterone will cause potassium to go down. So if these are low, sodium will tend to be lower and potassium will tend to be higher

Please provide thyroid ratio info since not enough time to review.

This is beyond the scope of what I can explain here, but I'll try briefly. T4 and T3 should be similar on serum levels. So if you see that T4 is in the middle of the normal reference range, and T3 is barely in range on the low side, you can surmise that the patient is NOT effectively converting T4 into T3, regardless of whether the patient is taking thyroid medication. If you're checking RT3 (Reverse T3), which I often do, you can look at that in a similar fashion. If the RT3 is much higher relative to the T3, you've got a serious functional hypothyroid issue going on!

Love to hear more about how you treat Lyme Disease! Having a hard time with patients. There are many functional medicine training courses for physicians. Can you recommend one?

I've been to A4M, IFM, and AMMG. I haven't been to ACAM but have heard good things. I've also been to ILADS (Lyme conference). Having been to several, I can say that I'm partial to A4M, although I've seen some amazing speakers at all of the conferences. A4M and IFM are the most popular in my neck of the woods as far as I can tell. I also enjoy the online summits! You can find those all over when you start digging—Lyme summit, Mold Summit, Cancer summit, EMF summit, and so on. You can also look for local training provided by companies such as Transformation Enzymes!!

What company do you use for SNP testing?

I use GX Sciences.

What resources do you advise to patients for healing emotional trauma?

I offer up some free suggestions, e.g., The Healing Code book, and EFT (emotional freedom technique) which a form of tapping and there is free information about this online. I also recommend therapy / counseling, possibly EMDR, FSM (frequency specific microcurrent), a chiropractor who specializes in "BEST" (soft touch), neurofeedback, off the top of my head. I'm sure I'm missing some here.

Is it possible to balance hormonal imbalance when a patient is on hormonal contraception?

Not so much. Sometimes I will add progesterone cream when a patient is on OCPs and will explain that while it shouldn't affect the contraceptive effect, I haven't seen a double blinded, placebo controlled study to prove it. If someone is on OCPs for something other than contraception, it's easier. And it's still OK to add adrenal hormones/support when needed. I encourage patients to switch to condoms, natural family planning, or ask their partner to have vasectomy if they are done having children. Sometimes I have to pick my battles. I take into consideration the patient's age and severity of symptoms, too.

Will we have access to the powerpoint or recording?

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