

Questions Asked During Live Webinar Broadcast on 10/09/19



Genetics of SUD and Neurotransmitter Solutions

Presenter: Lyle Fried, CAP, ICADC, CHC

If I have a client that had an addiction to opioids, stop should they had the GARS preformed as part of their treatment plan?

A: Absolutely it will help the treatment provider understand their overall genetic risk to opioid liability and also provide a precision solution as well to balance brain dopamine

Where can we send people to have this genetic testing done? Anything online?

A: There are several options and which is best for you depends on your needs. Feel free to email me for details at LyleFried@bellsouth.net or call my cell at 772-332-8711.

If someone has RDS and early testing may be a positive way for prevention of SUD. Is the GAR available for any provider or is it more complicated to get?

A: Very simple, you can order online, no Rx needed. You can also refer the families directly to a provider. I recommend that for your first experience you work with someone who has plenty of experience in reviewing the results with the patient. I am available at no cost to do the first one with you.

You stated 33% of the population is risk. What is it on a state level?

A: We do not know state by state, but this percent is based on only one gene variation. We believe it is much higher since the laboratory doing the testing is finding a much higher risk percentage in the USA with all 10 genes being tested.

I would like to learn more. Can you provide links to some of this research, specifically Dr Blum, too, as well as your new article?

A: Yes, if you email me at LyleFried@bellsouth.net, I can send specific papers I am involved with, or I can connect you directly with Dr. Blum for his extensive research links.

When someone has a drug of choice of say, Opiates, then what's the odds they test positive for the opiate risk gene?

A: There is a confusion here, because the brain is not carved out just specifically toward opioids, or alcohol, or psychostimulants. The phenotype is RDS, not any particular drug. With that said the GARS test does display variants in genes specifically linked to opioid receptors as well.

What impact will this have on PAWS?

A: There have been studies showing that using this precision approach can help reduce PAWS symptoms. I used this approach with about 100 patients during detox and found that by using a higher dose we were able to reduce intensity and duration of PAWS. While 100 is not going to get us statistically significant data, it was a very intriguing start.

Can you explain the reward cascade on more time?

A: Yes this could be explained but generally know that it is a cascade of the brain reward circuitry involving a number of neurotransmitters working in concert to cause just the right amount of dopamine to be released at the reward site of the brain to help us feel good and give us motivation and reduction of stress.

Do you teach about the gut brain connection and serotonin pathway? I would like a list of dopamine boosting foods. What are those exactly?

A: Yes, that is another teaching I do. There is also a good book called, "Dopamine for Dinner", by Joan Borsten that is an excellent source for a detailed understanding of this. The list of foods is rather extensive, but feel free to email me for more details.

When you give different nutrients and know they are bioavailable for that client? Their microbiome might not be healthy and thus cannot take in the nutrients to where they are needed. Any suggestions for this?

A: Yes this is true, so is the absorption issue, especially in alcoholics. While in the past we used nano technology to assist in absorption, most of the current nutraceuticals available do not contain nano. For this reason, the dosage may need to be increased in these cases to get the full effect. There are also gut biome tests that can be done to help us resolve the gut issues that many be interfering with nutrient absorption.

Where might someone access precision treatment for SUD's?

A: Once again there are several sources and the one that is best for your needs may vary. I can address this question it is rather easy if you email me at LyleFried@bellsouth.net or call my cell at 772-332-8711.

Are there commercially available formulas combining amino acids that would be appropriate for any client without knowing their genetic profile?

A: Absolutely. There are a few "catch-all" formulas that can be recommended. If you let me know the issues you're trying to resolve I will gladly make a recommendation. You can reach me at LyleFried@bellsouth.net or 772-332-8711.

When do you anticipate this testing and treatment will enter into accepted EBP to be covered by Insurance or Medicaid?

A: Working on that now and we expect there will be an answer this year. But in the meantime, the cost is not prohibitive - starting at about \$199 for the test and \$59 for the precision amino products. Some more complex testing that includes gut biome and blood type may cost more and some more comprehensive formulas may be more, but these are good starting points.

I am curious as to how things like food or sex changes the reward system. For example, in drug addiction the use of the drug become part of survival and we crave more and our brains put it as a key to survival. Does food or sex do the same or is it different?

A: Absolutely they do, but not as powerfully as drugs. Dr. Blum has written on this commonality.

Which slide specifically addresses how amino acids impact this process positively?

A: Slides 33-42 show the specific neuronutrients for each genetic variant. As for how each nutrient works, that is not in the slides in detail. Essentially, all neurotransmitters are made by an amino precursor. Some use certain co-factors to be converted to the neurotransmitter. The various mechanisms vary and there simply isn't enough space here to detail it.

How can GARS support the prescribing of medications specific to neuro transmitter modulation such as Campral, Gabapentin (GABA), Naltrexone (Endorphin), Wellbutrin (dopamine) etc? A pharmaceutical vs nutraceutical approach is needed.

A: GARS has the benefit of also addressing some medications, but PGX testing is also available.

Could pregnancy affect testing?

A: No.

What about addictions such as masturbation and pornography, is this correlated similarly to the other substances and behavior?

A: Yes very much so, and Dr. Blum wrote a paper "Drugs Sex and Rock N Roll". You can look it up for more details.

How does this affect anhedonia?

A: Yes very much so. As dopamine function is impaired from not only drugs, but food and sex, one has the unwanted possibility of having anhedonia. Dr. Blum wrote a paper on this as well.

Are these epigenetic or genetic traits?

A: The GARS is DNA (genetic) and the precision product is epigenetic repair. The traits themselves are often tied to both. I describe it this way... "Genetics loads the gun, and life (epigenetics) pulls the trigger."

I was wondering why is there variance in the DRD2 allele between different racial groups?

A: There is variance of all gene polymorphisms across all ethnic groups not just DRD2.

What are the stats for persons of African descent and Caucasian descent DRD2 A1 gene?

A: African Americans carry DRD2 A1 in about 50% of the population. In Caucasian it varies – Jews 6 % Native American 85%

What medication was it that the African American clients metabolized faster?

A: Buprornorphine

How does this affect a food addict?

A: The food addict has similar neurogenetic deficits and is one subset of RDS

Where can I find the amino acid/ food prescriptions for SUD's and other addictions?

A: There are numerous resources. A very good book was written by Julia Ross called, "The Mood Cure" and it is available online and at bookstores. You can also feel free to contact me directly for specifics. LyleFried@bellsouth.net or 772-332-8711.

Is it a mistake to lower caffeine intake so as to stop its GABA blocking activity and so lessen anxiety/anger and other over arousal problems that come with too little GABA due to too much caffeine?

A: GABA has a number of effects, see Blums paper on Caffeine in PUBMED – Also, too much GABA blocks dopamine release.

What do you think the biological or evolutionary reason for homosapiens having the RDS gene? I believe that there is a reason for everything.

A: For one thing having lower dopamine could have been an evolutionary advantage for competing in a strange world. You may remember my example of the bear in the woods. If we are in danger, having less of the "feel good" neurotransmitters and more of the "fight or flight" neurotransmitters can help us survive an attack. See Blums paper on Humans vs Apes.

Could you further elaborate how the amino acid treatment affects the particular genes?

A: This is not simple, and some versions are patented information. Essentially, the right combination of precursors and co-factors help target the imbalances by feeding the brain what it needs to achieve homeostasis (balance). It is not that they affect the genes, but that they address the imbalances caused by the genetic variants.

How do we explain persons in the same family with the same parents who exhibit differences in the way GARS manifests, like one sibling who struggles with SUD and one does not?

A: Much too complicated to go into here, but always remember **P-G +E**.

P phenotype is the condition e.g. Happiness

G is the genetics of neurotransmission (signal transduction)

E is environment

So, 50% gene and %50 Epigenetics or environment