NAADAC – Alco-Genes -07/14/2021

TRANSCRIPT PROVIDED BY CAPTIONACCESS LLC

support@captionaccess.com www.captionaccess.com

* * * * *

This transcript is being provided in a rough-draft format. Communication Access Realtime Translation (CART) is provided in order to facilitate communication accessibility and may not be a totally verbatim record of the proceedings.

* * * *

>>JESSICA O'BRIEN: My name is Jesse O'Brien I am the training and professional content manager here for addiction professionals. I will be the facilitator for this training experience the permanent homepage is.[Email] make sure to bookmark this website so you can stay up-to-date on the latest in addiction. It is provided by Axis Please Check Your Most Recent Confirmation Email or Q&A Checkbox for the Link to Use Closed Captioning. We Are Using Zoom Webinar for Today's Live Event. You Will Notice This in Control Panel That Looks like the One on My Flight Here at the Bottom of Your Screen. There Are Two Main Items You Need to Be Aware of. On This Menu. This Is New, We Are Switching off from Go to Webinar to Zoom Webinar. It Looks Different, Feels a Little Different. You Might Want to Stay Tuned Once You Know the Platform. You show It out. Anyway, the Two Things to Pay Attention to Are the Q&A Box and If You Open the Q&A Box You Can Ask Questions to the Host and the Panelists. They Will Reply to You by Taxing the Q&A Window or Answer Your Question Life during the Webinar. You can upload questions that have been posed. They will go to the top of the list. the other thing to pay attention to is the chat box that allows you to send messages to the host and attendees. Those are the two to pay attention to. Any questions we do not get to today. It is only a one-hour webinar. Time is tight. Any questions we don't get to on the webinar or Q&A. We will send them to the presenters for them to take the time to answer, and then we post those on the webpage where you registered for this webinar. So, that is Zoom webinar. As you probably already know every NAADAC webinar has its own webpage for everything you need to know about the webinar. Immediately following the light of that you will find the online CE quiz link on the exact same website you use to register for the webinar. Everything you need to know about this particular webinar is a.[website] If this is your first time going through our process, please make sure to follow the instructions guide. That is right under the online CE quiz link. That will help guide you through the process. You can email us at [email] Please note, if you do need your certificate to say life

on it. Please make sure to complete the CE quiz within the next 24 hours. So, let me introduce you to today's presenters. The first Doctor Kenneth Bloom has been featured in almost every news media outlet in the world. His alcoholism, gene discovery was featured in the top 50 scientific discoveries in discovery magazine. His discovery work in the genetic mutations causing reward deficiency syndrome is addiction RDS personally patented genetic tests genetic addiction risk score. He has over 600 publication and journal including finance, nature, Journal of American Medical Association, proceedings, National Academy of Sciences, frontier psychiatry and author 17 books. Doctor Bloom is currently chief in the Bloom Institute. His full research at Western University health sciences by medical scientists. We also have Richard Paul Green CEO position recovery of substance use for San Antonio Texas he is a national speaker author and researcher in the field of addiction the parliamentarian of the Texas Board of edition professionals Richard has held the sea in the national public policy with NAADAC since 2014. Past chairman of the San Antonio College chemical dependency program advisory board and serves on the opiate task force. Change in quality 23 somatic experience therapy, and integrated addiction medicine treatment. Green is publishing sorry Richard is publishing research only DWIs and lectures on the opioid use disorder and has been a keynote speaker at the national NAADAC conference. You will turn on your camera there here together on one screen. And you yourself should have keyboard and mouse control. I will stop my video and meet myself. Go ahead.

>>KENNETH BLUM: IM Kenneth Blum it is my pleasure to be here at NAADAC. We will go forward with some of the scientific basis of deficiency syndromes and genetic testing and Richard Greene will follow up with some of the applications, and then we will close the session. Basically, and first part of the discussion we are going to try to understand the concept of deficiency syndrome. Reward deficiency syndrome. That is something that I actually developed the idea in 1995. To just summarize reward deficiency syndrome is a relative failure of the dopamine system which plays a major part in bringing reward mechanisms. Now,

the syndrome has been linked to open up monarchic system. When you use drugs there is an acute excess of dopamine chronically there is a deficit of dopamine. Substance use disorder is one sick while I of reward deficiency syndrome of RDS can include drugs, non-drugs we call process addictions. It involves compulsive and impulse of behaviors. Now, the important thing is that since 1995, over 200 papers on reward deficiency syndrome on reward deficiency is about 1300 papers. The good news is that the encyclopedia around normal clinical psychology actually featured reward deficiency syndrome as a clinically accepted psychological disorder. Now, just to give you an idea. It is kind of like a behavioral octopus. It is involved in many many mental health conditions. Just to give you an idea as you can see it is involved in all addictive behaviors. Involved in impulsive behaviors. Obsessive-compulsive behaviors. Even personality disorders. Now, we just do not pick and choose this. We have studies around the globe that show that the dopaminergic system is associated with all of these behaviors. Especially, the reduced dysfunction of dopamine. Now, dopamine is not the only thing involved. Explaining on how that comes to be. Now, we developed in 1989 separated reward cascade. This is the way we think the brain works in terms of the area of the brain involved in pleasure seeking, motivation, stress, and those kinds of behaviors. So, schematic to give you an idea of what we are talking about. We are talking about what we call the mesolimbic system. To be dealing with the hypothalamus. The hypothalamus when you stimulate that area it releases serotonin. Serotonin acts on a number of receptors in the hypothalamus to stimulate [Name] Endorphins. That then releases all the endorphins to affect the opioid receptor is one of them to be a receptor and [Name] Receptor. What happens is when that happens the next process is interaction of the in the system, we have GABA. GABA protects up into the mental area where you have glutamate receptors. Glutamate's role is to release dopamine at the reward site that is called the [Word?]. It is inhibitory and fine-tuned just the right amount of dopamine to be released at the [Word?] To affect one's pleasure, motivation, stress levels and those kinds of behaviors. So,

that is sort of how it works. The important thing here is you remember that there is more in the dopamine system. Although the end result is dopamine. There are other nutrients involved. Now, explain this a little bit more. There are common mechanisms between drugs and nondrug behaviors. That is very important because nondrug addictive behaviors are very shocking, hoarding all addictive behaviors cause the acute release of dopamine this release and result in dopamine deficiency where it goes on chronically that leads to what we call hypodopaminergia which means low dopamine tone. That is a common mechanism across either drugs or behavioral addictions that we call RDS. Now, we all want to be happy. What we seek is a happy brain. I am going to show this to you in a more simple way. It is developed by Margaret [Name]. I will show at you and see if we can make some sense out of this. We look at the happy brain cascade. Now, what I told you was there is an interaction of these new interests in the [Word?] Of the brain. Take a look at the GABA. The GABA in this particular case and anti-seen genetically that will load on and have an unhappy brain. The GABA is so strong that when it actually gets released because the endorphins are not very powerful. The GABA is so strong, it inhibits the activity through the BTA to the [Word?] Drive to release dopamine. The dopamine molecule. The dopamine is small when you look at the happy brain, which is normal, but GABA is much smaller. Everything is in balance. The dopamine is released properly. Good. That is the way we get into the idea of well-being. That is the happy brain. So, hopefully when we are happy. That is where you want to be. That is not easy to get. That is where we want to get to. Now, I put paper is called all roads lead to dopamine. I have been criticized because I said dopamine. Remember, it is the interaction of the transmitters. Dopamine is the last final step in the equation because of this function, to all of these addictive behaviors. Now, let me get some basic understanding. We know now by using function magnetic imagery. We can actually see the effect of certain behaviors of certain elements on dopamine release. Above the rest now food by the way can actually release dopamine at six percent above rest. That may not sound like the

last, it really is. Nine percent by the way for music. Cocaine is 22 percent; sex is probably off them out. These kinds of behaviors acutely release dopamine. We seek these behaviors because it is kind of a relief. Especially, if they have a genetic to having low dopamine. We will explain as we go along. I am sorry I went backwards. So, just to summarize dopamine is released into the synopsis. The brain to enhance well-being, motivation and to reduce stress. Remember stress is a tremendous trigger for relapse. Stress induces the release of the stress molecule norepinephrine and dopamine blocks the effects. By the way, dopamine is released 100 times above normal with the stress. The reason dopamine causes feelings of well-being and pleasure which we talked about. Here is a police poll question. Here is the you and the word deficiency should be given to ICD 11 coast taught an additional correction and diagnosed by substance use go ahead and put your response in. I will give you a few seconds to get your votes in.

>>JESSICA O'BRIEN: We want to hear your thoughts. As Rick said it is market research. So, let us know your thoughts. Also, do not forget to put your questions in the Q&A box. I will give about five more seconds before I close this and show the results. All right, there you go screenshot it. Those are the poll results. I am going to stop sharing the results and is back to you.

>>RICHARD PAUL GREEN: Okay. So, over the years since the early 70s. We became very interested in ways in which we could affect for example alcohol intake. So, we will discuss the development something called KB 220.

>>KENNETH BLUM: KB 220 will explain as a nutraceutical that we develop and change over the years. There are probably now over 50 papers on this particular complex, I should say. Now, before we get in to understanding what we need to understand about KB 220 what are the types of behavior we have to understand that there is a relationship between genetics and environment. We have three types that we developed in 1978. The first type is called born. With a genetic deficiency the new transmitter system in the brain plus the environment so the craving behavior is equal to any deficiency of the nutrients plus the environment.

Stress your tinnitus may be normal. The environment reduces the neurotransmitters you need in the brain. Type III, as drug system toxicity. The more you drink, for example, that affects the synthesis of the neurotransmitters in the brain. We will give you some examples. First, we talk about type I born to have a high risk for reward deficiency syndrome behavior or all addictions basically. What we like to show you here is the and animal models we can actually differentiate types of risks for alcoholism. Or for the preference of alcohol. Or thinking of alcohol. We have one type which is an animal model. That by the way loves to go to the bar. Loves to drink. Then you have another animal model that really doesn't know which way to go but to sit down and have a drink, no big deal. Then you have another animal model that hates alcohol. That is the DBA animals. You have different types of genetic bread animals. Which we did a lot of studies on. One of the studies that we did gave us a clue in the early 70s, as to why so many animals have differential likings for alcohol. What we found was that it had to do with whether or not in their brain they had a high or low amount of Dorothy Cole.[Word?]. If you look to the left that is the DBA animal. They have a high [Word?] But low drink then we go to the end see 50 8J mice also have low Enkephalin and they drink a lot. That gave us a clue that maybe if we do something with the training system. We can alter the intake of alcohol. Then, we came to type II. Type II is your genetics okay. But your [Word?] Is causing a decrease of neurotransmitters due to stress? That can be very problematic. You can imagine, stress lowers endorphins. Then that increases [Word?]. You can see going down this water I have stress. Then, you drive the animal off, he says oh my God I need a drink. My endorphins are low. It was shown very clearly, this is in Ohio I did not do this work. So that the levels compared to a stress animal it is low in the pituitary low in the corpus strike anime they were four degrees centigrade, and they do not like it for 10 minutes. And there stressed and the endorphin levels go down. As endorphin levels go down. The drinking of the stress animals goes up. Compared to those that do go through stress. Where the endorphin levels are normal. That fits very well with

the story we showed you earlier. Type III is very interesting. Because we want to ask the question what happens if you drink alcohol for say 20 years. What does the endorphins look like? What you see here is that chronic alcohol lowers the brain. What you see here on the top is a hamster that was not drinking alcohol just drinking water. We did not give them a chance to drink alcohol. The Brown is the endorphin levels. If you look at the one below. It was a different animal who was drinking alcohol for a year over water. Hamsters love alcohol by the way. The other one is another example. That animal has a little less endorphin normally. The other animal also chose the same thing. That the alcohol and morphine by the way and benzos by the way and cocaine by the way can reduce the synthesis of endorphins. It is like 20 years of drinking in the human condition. Too much of a good thing can be toxic. That is for sure. Now, the question is if you are drinking for 20 years does that mean your endorphin levels are gone forever? The answer is number It takes three years after the absence we can get back to normal. Next question.

>>JESSICA O'BRIEN: All right, here we go. I believe that Jean heredity is blank percentage of the cause of addiction. Go ahead and cast your vote. Give everyone a few seconds to get us in. Great, both are coming in quickly. About five more seconds. All right, thank you for your post I will close the pole. Share the results so you can see them. Most people said 20 to 49 percent of the cause of addiction. So, maybe you will give us the right answer. All right I will stop sharing results and you can go ahead.

>>KENNETH BLUM: Okay so now we will come to the Pro dopamine regulator. I call it Pro dopamine regulator because basically that is what we are doing. We are trying to balance dopamine in the brain. We do not want to increase it too much. We didn't we want to live from low to get to normalization. That is easier said than done. But I think I will show you evidence over the years that we think that we are getting pretty close to accomplishing that. So, hang in with me. We will see if we can get through this. In that regard. So, one of the first things we did and the 70s, by the way this paper was not published in 1987. We did the

work in the 70s. We did what we call pharmacogenetics conversion. Of high craving to low craving. What we did is we use those animals that I talk to you about the C 57 black mice is the one that we started with. There is something called alcohol acceptance experiment where you starve the animal for 24 hours no water. Then, you give him alcohol. It says how much alcohol are they going to drink? 57 of course drinks more than the DBA would you see is the pink. When we gave a substance for 18 days, and that substance was called D phenylalanine you can see that we converted the craving response actually even lower than the DBA animals that did not drink alcohol very much compared to the C 57 black mice. Now the question is what is this magical substance? Let's explain. So, based on the original work we developed the whole concept of nutrient therapy when you look at D phenylalanine it says opioid peptide D banal online is a substance that inhibits the enzyme that can destroy the Coloma finite or any of the endorphins. It just splits it out. It is called the [Word?]. If you put D phenylalanine and you inhibit the system from working. That means you can raise the level of the [Word?] Endorphins. You inhibit it in terms of the enzyme to destroy the endorphin molecule. So, the D phenylalanine raise the level of the endorphins in the brain. Then we use all of these other precursors, and you don't have time to go over any one of them. The way to the process. Through the cascade that I showed you. Dopamine, [Word?] And even the actual breakdown of the dopamine and serotonin. They all work in concert to just release the right amount of dopamine into the reward system of the brain to bring about happy brain. Let's put it that way. Now, and another experiment using variance of this Pro dopamine regulation. This is an experiment in humans. We showed you can actually reduce craving and take a look at the 30-day mark of people coming out of treatment. If you continue to use this supplement when you come out of treatment. You still have a nice reduction of craving behavior. That is very important. Now, we show relapse. Very remarkable studies for cocaine, alcohol, heroin. You can just look and see that we have beautiful a fact in terms of relapse and by the way, it is up to 12 months. By the way, these particular

studies they have all been involved with DWIs and – through the whole criminal justice system. That is what this is all about. By the way I actually never told this to Richard. This is very good support for one in court. I never even talk to you about that. So, one of the biggest problems in treatment especially, and residential treatment. It is the idea that in five days, people want to get out of treatment. Client out of windows, get out of hospitals. They go against medical advice. It is called the AME rate which you know probably better than I know. We wanted to see what happens compared to placebo if we take patients and put a group with placebos, group with this complex or cocktail. Does that affect for example cocaine AMA rate? And residential treatment. Also, alcohol. If you can notice, I think if you can notice. With the cocaine, it is 37.5 good people jump out of the treatment center. When you put in the S GX it is only 4.2 percent. If you look at the alcohol it is very similar. So, we have a positive effect to keep people into treatment. That is very important. As you can imagine. Now, also a big push now to go to [Word?] Instead of going to [Name] And methadone. Some excuse of people says why key people addicted. It may be about harm reduction, but it may have other effects that you do not like. [Name] Is sort of an answer that says hey the plants up. Maybe this is something useful not forever, but to be used at least six months to a year something to help people in treatment. We did an experiment in 2004, by the way and San Antonio with the now deceased Thomas Pate. He had one of the biggest methadone treatments in San Antonio. So, what happened when it came out it is a long acting, he wanted to see whether or not by using it what it works instead of the methadone or anything else. He put people on it and we looked at a thousand patients to see the average compliance and how long on Naltrexone who may have originally been on opioids like methadone last with Naltrexone. It was only 37 days. They went right back to using drugs and opioids. So, we came in and we took a dozen of these patients and put them on the Pro dopamine, and we followed them with Naltrexone. The compliance went to 262 days we don't know how long after that. That is a very interesting idea we are saying A you are using Naltrexone, but you

increase your compliance if you get dopamine balance. Along with it. Naltrexone is just a distinction psychologically. It does not do anything more than just block the focus where you get from opioids for example. We also show animal work binge drinking is extreme as you know a big problem especially with young people these days we showed by using this Pro dopamine regulation in rats that it absolutely released day drinking to business drinking. This was done in.[Name] And Howard University. A real clue to the binge drinking problem. It also works for that. Now, the biggest thing is what is going on in the brain on people who are using KB220 is optional magnetic resolution. We went to Florida and use animal models with big magnets and looked up function magnetic resolution, but I will not go through all of them. I will let you look at this on. This is one showing that in the left it ties into that region of the brain. You can look at the placebo. Compared to KB220z you see there is this orange coloration. That is bold activation that is dopamine. I don't have time to explain it all. But this is a 3D representation. What is going on here? The 3D representation where if you minus you still see beautiful responses across the various parts of the brain. So, we are getting active bold activation of dopamine we look at 65 brands here is the real take-home message. The real take-home message is that it is known that at rest, we need function connectivity which means that one part of the brain to another part of the brain plus another part of the brain. That is the point. What we found also is that there is action and by using KB220z and recruitment dopamine neurons across areas of the brain. One area which we see in green is the.[Word?]. It is involved in relapse. It is involved in we show specifically that this complex recruits for dopamine neurons to reduce that. Because that area is very infected in terms of increasing dopamine neurons recruitment. That is what we call neural plasticity. Now, heroin addicts. If you look 16 months absent heroin addicts we look at probably many more. We will just show you five. The top is the call date. Nucleus competence. The bottom is the cerebellum. The top shows no dopamine coming out. The orange is dopamine. Too much for the cerebellum. Which is involved in the reward processes. After you do KB220z

you get bounced. Dopamine starts coming out with function imaging. The cerebellum where there is too much it is balance. That is a picture of dopamine homeostasis. On the other – – it was developed from [Name] Years ago. You increase activity and increase will be at activity. You get relaxation. One hour after KB220z in absent similar in cocaine addicts. Dependent people we get [Word?]. The next thing we'll do is talk about how we went about finding the first gene. We will go through that pretty quickly. We did the work in 1990. We found the first gene for alcoholism that was done was called the dopamine [Word?]. By the way, that was involved in 100 million people. Carries variant is involved in terms of African-American. They have a high amount Asians very high 60 percent. We have developed from their over 30 years later. Called the genetic addiction risk score. Basically, what we did here is we tend liturgies. [Name] Based on the risk for each gene. We did a metal analysis and thousands of patients. We got will were called ratios which is how significant. Anytime you are above one. You carry any one of these variants for alcohol use disorder. It says you have a significantly great risk for alcohol use disorders and if you do not carry any one of these risk galleons. There was not enough sample so we could not get into that above one ratio. The good news is that when we look at middle analysis across the board. Meta-analysis correction. We show very much in favor of the GARS representing alcohol use disorder compared to when you don't have any risk of these genes in your system. We actually were able to determine in patients the possibility of what is the degree of risk using this. It is a very predictive model. We as the ASI the clinical model to predict variance to drugs. When we do the GARS test. We have done this and 273 people. The results are pretty remarkable. Because we saw in these 11 alleles actually 10 genes. If you have four alleles you have a significant risk for drug severity. If you have seven of these alleles you have a significant risk for alcoholism. So, generally was showing that at least the foundation for a piece of the genetic addiction risk severity test. Goes on to at least alcohol disorder and drug disorder like opioids. I will leave you to show the applications. The Richard Green. Sorry I took a little

long. I needed to explain that.

>>RICHARD PAUL GREEN: Okay how do we do this? Let me see really quick. Okay let me get this Up here. The GARS and the future is not. What if we covered so far? We know what reward deficiency syndrome is. We know addiction and addiction process addictions are [Name] Of reward deficiency system which is a problem with dopamine in the brain. We note the GARS will help uncover the genes that lead to that we note that KB220z improve treatment. I treatment center we are using the test regularly. In fact, our state license even says that we treat addiction as a symptom or a sequela of reward deficiency system. The state had no problem doing that. Let's talk about it. Let's siphon. Real quickly, this is what we will talk about. Really quick, so we know will reward deficiency syndrome is. We how do we diagnose it? We have proposed diagnostic criteria. We will talk about how to use the test which actually puts a report for substance use disorder and psychological screening and treatment planning. Right now, this is no secret. We genus and I finalize our getting to work with FDA to get what is called a general health risk version of this test out. We will be talking more about that in the future. We will talk about using this test before someone determines whether they would be a good candidate with their physician of course, for chronic opioid use. In chronic pain. We will talk about preparation for geriatric surgery as all chemical dependency counselors know and unseen. Especially the wine the gastric sleeve bariatric surgeries tend to have a higher incidence of the special alcohol use disorder later on after surgery. Then we'll talk about some work near and dear to my work. Precision recovery the only patients that we really tree. There are some exceptions people who are habitual DWI offenders. These are people who have felony DWI charges were previously convicted of felony DWI. Which Texas means they have a minimum of three DUI's or DWA with other extenuating circumstances. In general, our patients have 5.3 DWA ice. These are the uses we are working on. These are the uses that we are using right now. This is the future and the present. There are some caveats. There is not a DSM code for RDS. There is no ICD 11 code.

No FDA indication for the GARS or Pro dopamine RDS. That is being addressed in the future. There are ways to use it. This is the proposed diagnostic criteria. Which will be working with the DSM maybe five or or 56. Board and authors and publishers to get. I would really, we would really appreciate your feedback on this proposed criterion. So, the PowerPoint is available at the bottom of the slide. At the bottom of the screen or Allison will be happy to show you how to get that. Please feel free to download this, print this, look at these criteria. How are we as addiction counselors going to diagnose this properly. What we are working with is looks to be pretty good is you need a GARS which is a saliva base or cheek base genetic test. Handsome other criteria which break into two parts. Either a co-occurring disorder usually of addiction or something like that. And or some personality trait. Again, we would really like to hear more about what you think that is. We actually have, I can send it to you if you have it. My email is available again through the website. Or through the webinar software. The criteria sheets that we used to diagnose this in the clinic. Right now, we can do our normal diagnosing for substance abuse disorder and co-occurring disorders. Then, we had reward disorder. This is unfired addiction medical officer. Fully integrated counseling. Then the FO nine code or F 99 code F 99 more often than not. Love your feedback on that. On which code you think we should be using psychiatric other or other psychological conditions for reward deficiency syndrome. Also, we are proposing often, and our clinical notation and when we talk to people. The standard of care for reward deficiency syndrome when somebody is showing acute reward deficiency syndrome in the form of active addiction would be and are vigilant and combination of IV NAD and D phenylalanine along with oral KB 220. The branded KB220z is restored in. If you hear me say restored and I mean KB220z. Skip this for the sake of time. Maybe. Let me go back one slide. Talks about using the GARS test for assessments. Again, the GARS does not assess or diagnose anything. It always needs proper validation by a trained professional opinion or counselor. These are some of the other issues other than substance use disorder that the GARS can find we use the time clients may have

in addition to any to be screened for. I have personally used this test. Administered after more than a 10- or 20-hour assessment. We do very thorough forensic assessment at precision recovery. The documentation is going to be entered into a court of law. Found someone being at risk of say PTSD, gone back to the trauma assessment, trauma history questionnaire etc. uncovered issues that were not uncovered in the original assessment. I find the GARS test to be an excellent way just screen for co-occurring issues besides substance abuse disorders. There are some issues out there. It can take a while to figure out what the patient may have as we all know. Do I need to talk about the opioid crisis? I think that one number says that 91,000 people in 2021 overdosed it says 2021. 10,000 more than the year before. We haven't opioid use disorder problem. We have an addiction crisis with opioids. A lot of that is coming from the chronic pain disorder. Even though they have written guidelines and how they should be using opioids for long-term pain. There are still people getting opioid for long-term treatment of pain. Even though the data does not show it helps beyond six months. What do we do? We propose the GARS can help a physician or healthcare practitioner can use opioids at all with the patient or user long-term. So, quickly, there was a study done with the hundred and 21 people of patients that were on in the prescribed opioid for at least six months. 12 months at least 12 months. Thanks Ken. Had a pretreatment pain score at least 6/10. They were on some big doses. Morphine equivalent of 600 milligrams for men. Those staying on longer 95 percent of those hot predisposition for substance use disorder as verified by the GARS test. Drugs. Again, what does that mean? Someday I hope before the decision is made to put someone on opioid long-term. The GARS will be administered. There is me. This is some of the work that I have been preparing to publish actually. Sorry. Do we go to the polls first or do this?

>>JESSICA O'BRIEN: We have two minutes.

>>RICHARD PAUL GREEN: Long story short. We had about 26 people that we have documented and are pushing about 50 total that we have presented GARS

and court for sentencing mitigation. These are people facing felony DWA I charge for the counties they were charset they usually go to prison. So far, more than 40 of them have not gone to prison. No one has gone to prison who we presented this result to show this is a biological disease addiction rather than a moral thing. Should we do the poll question?

>>JESSICA O'BRIEN: Skip and wrap up. Wrap it up.

>>RICHARD PAUL GREEN: I have to do this to wrap it up. That is important. That is what we just talked about. Check surgery. Turns out people who have bariatric surgery have a high incidence of high GARS and high alcohol scores as we spoke to. How do you purchase this? If you want to have your patient or you yourself would like to use the GARS test. Here are the two websites where you can do this. You can also purchase through this website the KB220z that matches your specific mutations that is on proper. Proper GARS burden so you can get the right version of the settlement. Precision. Again, this is really important. We hope to present this information someday. Working on textbooks around this theory of addiction equation. Genes are necessary to have true addiction. The people we see are not people who go through detox. Then they are okay. The genetic burden has to be there plus introduction to the reward or drugs. Low socioeconomic in order for addiction to exist. You can see genes are half of it. So, that is it. I think we should wrap it up what you think?

>>JESSICA O'BRIEN: Thank you guys. We don't have time for questions. I see there are about 22 and a question box. Be prepared to type up all of your answers. Then, we will post on the webpage. So, you can go back and see get answers to your questions from Doctor Bloom and Rick. It is the exact same website where you registered for this webinar. The web address is right at the top. You can see it there. So, again if you need it to stay late. Make sure to complete the sequence within the next 24 hours. Some upcoming webinars look forward to. The second partner LGBT Q series is this Friday. Tune into that. If you missed the first one it is available on demand. Many of you may be aware that the conference is open for conference if you register early, and you save up

to hundred and $51 in the and September 15. Go ahead and register. We will also have six pre-conferences, three different days. You can choose one of the other or take them on demand. Those are six CEs. Exciting stuff. You can check us on the web address is at the bottom of the slide. Starting July 23, we have our advance in technology in the addiction profession. This is designed for helping professional who is dedicated to learning more about how to incorporate technology in the treatment and recovery. You can learn more about that again at the website there at the bottom of the screen. It is a specialty series. It is a pay in advance and apply for the certificate after you have taken all the in the training series. Lots of good information there. Speaking of specialty online. If you missed the wellness and recovery in the addiction professionals serious it is available online. We have the last one last month. Lots of good recovery support. Skills and services and tips in there. Incorporating wellness into recovery. I recommend you check it out and you can see that the website at the bottom. Benefits of being a NAADAC member. My personal feelings and to top off with into webinars. We get free CDs and most of the women are that they benefit from member. If you are licensed or credentialed, you know you have to get CE credits and continuing education credits. Check out the benefits most applicable to you. Consider joining if you are not a member. That is if it reminder a survey will pop up at the end of this webinar. Take some time, give us your feedback. Getting back to the presenters. We use that feedback to inform our future learning experiences. Doctor Bloom, Rick thank you for your expertise to get ready for lots of questions sending your way to email. Stay connected to us at LinkedIn Facebook and twitter. I hope everyone has a great day.