

[“There must be some sort of echo chamber that this is all coming out of”](#)
Interview with Amanda Seigler about bogus autism research at universities:
Part 1

December 26, 2020

Transcribed by Julie Ann Lee

(Theme song - soft piano music)

Anne: Hi and welcome to Noncompliant. I’m your host, **Anne Borden King**. Today on the show I’m talking with **Amanda Seigler**, an advocate for children’s rights and an autistic rights advocate doing work to stop phony and abusive autism treatments. Amanda is on the board of Autistic Inclusive Meets – United States chapter, and runs the website and group Fierce Autie which expertly debunks a lot of autism pseudoscience. You may have seen Amanda on Dr. Oz, or read about her work on NBC News. We have worked together too, most publicly on an Op-Ed for the *New York Times* about phony COVID cures. I’m very glad to have Amanda on the show today.

Welcome Amanda!

Amanda: Hi, thank you for having me!

Anne: Today’s topic is: **When Autism Research is Abusive**. We’re asking today “what is the line between legitimate research and unethical approaches to human subjects – especially autistic children?” So much of Amanda’s work and mine focuses on kind of underground or unregulated health products where sellers claim their products can cure autism. But we’re equally committed to fighting the above-ground pseudoscience, that is when pseudoscience makes its way into the research labs and even the halls of academia.

We know that donors drive a lot of the research, especially at large universities, and most in research acknowledge that there’s a problem with that when, as the *New York Times* reported, convicted pedophile, Jeffrey Epstein was given his own office at Harvard – seemingly just for being a big donor and without regard for the fact that he was pushing junk science and eugenics-based research when we hear about things like that we have to stop and think “what’s going on at our universities?”

How much of university research is driven by reasonable inquiry, and how much is driven by donor dollars? What is the impact that **donor-driven research** has on the credibility of these institutions and how does this trickle down to benefit unregulated pseudoscience? In fact, as we’re about to see with the example of Duke University’s autism research, sellers of unregulated autism cures sometimes get their strength and can *leverage customers* based on hype from mainstream pseudoscience at universities.

We’re gonna talk about two studies, **Duke’s experiments** where they’ve been sedating autistic preschoolers and injecting them with stem cells to see if it makes them less autistic. (Spoiler alert... it doesn’t.) And we’re also going to talk about the **Yale experiments** recently, where they frightened

autistic children for about an hour to prove...well, they didn't actually prove anything, as we'll be talking about. They thought they were proving something. Of course with both [studies], there is a lot of **community outrage** including a petition on both of them demanding justice for the children.

So, let's start with the Yale experiment. Amanda can you describe what these experiments were like?

Amanda: Sure, both Yale experiments or...?

Anne: Yeah, maybe let's start with the frightening children experiment?

Amanda: Okay. So they had 42 toddlers that where... the mean age was about 22 months... and they were using 'socially-related events' to see how autistic toddlers react to a stimuli that should induce fear.

Anne: What were the stimuli that they...how did they set things up? They put the kids in a room, right and were their parents with them?

Amanda: [Parents were present in the room but not allowed to interact with their child, including a prohibition on comforting them]. No-one was talking to them or touching them or anything like that, and the stimuli were- there were several: a female stranger wearing dark clothing, a hat, sunglasses entering the room, approaching the child, and leaning towards the child for approximately 3 seconds and the person was about a meter away from the child...

Anne: Hmm.

Amanda: ...the stranger didn't touch the child and that was it. It was 3 seconds at a time. They... frightened the child that way and then backed away. There was a large mechanical spider crawling towards the child 3 times; a mechanical dinosaur with red light-up eyes, approaching the child 3 times; a female stranger with dark clothes wearing 3 grotesque masks- sort of like you would find the silicone masks for Halloween.

[5:04]

Anne: Hmm.

Amanda: One right after another while entering the room briefly and maintaining a meter-and-a-half distance from the child. There was a 30-second break in between stimuli to make sure that the child's moods would 'go back to a neutral condition'. I really don't think that a child being scared is going to be not scared in 30 seconds. They didn't touch or engage with the toddler out of fear. There were a couple of parents who said 'no,' and they pulled their children out.

Anne: Mm-hmm.

Amanda: They video-recorded and encoded for peak intensity of the distress level, they looked at facial, vocalizations, how they looked visually to the threatened stimuli.

Anne: Mm-hmm.

Amanda: And they were looking to see what the researchers call 'emotional regulation strategies.'

Anne: Hmm

Amanda: A child under 2 years old is not going to really be able to self-regulate that well.

Anne: Right.

Amanda: A typical child of that age really can't.

Anne: These were toddlers that they were experimenting on.

Amanda: Right. They were babies! They weren't even 2. They were babies!

Anne: Mm-hmm.

Amanda: And they had some typical [appearing] toddlers. They used the typical toddlers as a control group, but there were more autistic toddlers than typical toddlers in the study- but the autistic toddlers were frightened more times than the typical ones.

Anne: Hmm. You mean, they did the experiment on them more?

Amanda: Exactly.

Anne: Mm-hmm. What were they trying to prove? Just how scared different kinds of toddlers get?

Amanda: They were trying to see what kind of reaction an autistic toddler would have in comparison to a typical toddler.

Anne: And then- for what purpose? I mean, did they have a purpose? Did they have some sort of a conclusion like "Oh and therefore in conclusion X, Y, Z" or what?

Amanda: Their reasoning was to "help clinicians". It just doesn't make any sense to me why they did this or what they were trying to get out of it.

Anne: They gave some excuse. They said something like they coded it for "peak intensity of facial and vocal distress" basically and what they wanted to do was they wanted to see people's atypical responses to social versus non-social threats and then they kind of extrapolated that, that maybe that could be an indicator of future social anxiety in social situations. So, they were almost talking about like shyness. I found it so hard to understand what they were really trying to figure out.

I mean they were kind of saying 'oh well, this could lead to better interventions' but it's really unclear like what kind of interventions they're even talking about. For example, they said the autistic kids didn't make as much eye contact with the lady that came in wearing the scary masks. I don't know what that really says, you know? I don't know *what any of these results are* really - how they are really actionable. And they don't really seem to explain it in the study, do they?

Amanda: No, they really don't. But one thing I found really interesting in the study, there were a handful of parents who pulled their children out.

Anne: Mm-hmm.

Amanda: And it makes me wonder what the packets for informed consent really said and I can't find it - it's not available anywhere.

Anne: Mm-hmm. Yeah, obviously it was upsetting to parents to see their kids being scared by things [and] the parent was in the room [and] they were told not to interact or engage with their child. So, the parent would just be sitting in the room and that would be weird for the child, too. Like “why isn’t Mom talking to me?” I mean, that’s not really comforting to just have Mom sit there and not be able to help them.

So I would imagine that their anxieties would be already ratcheted up by being in a strange environment. I can’t imagine that it would be very *scientific* given all the outside pressures and stimuli as well...even if it were ethical, which it wasn’t. And then furthermore it doesn’t prove anything. It doesn’t show anything like ‘some kids can get more scared than other kids’... *really*? You know I think the NIMH gave them a couple hundred thousand dollars to do this!

[9:55]

Anne: People are comparing this study to like the Milgram experiments [or the Zimbardo experiments] where you had students acting like prison guards over other students. These were also approved by the ethics committee, but then later the Milgram experiments were held up as an example of how not to do social research. I’m just wondering if maybe this is a bit like the Milgram experiments, where sociology students are going to be studying this years to come “how not to do research on children”. What are your thoughts about that in relationship to Milgram and some of the previous studies?

Amanda: , I do think they are- they’re not exactly the same, but I do think they are similar and I do find it interesting that Milgram was a Yale Professor.

Anne: Mm-hmm.

Amanda: Coming from the same institution. The parents are complying with the researchers like the participants in the Milgram experiment were following orders. And I know the Milgram experiment was really to see how people could act the way they were during the Holocaust when people just said ‘hey, I’m just following orders’.

Anne: Mm-hmm.

Amanda: And he was trying to see exactly how people thought by conducting this experiment. At the same time, the parents [in the current study] watching their children at not even 2 years old be scared on purpose by these strangers and they do nothing about it.

Anne: Yeah, the parents who stayed in the study would have some pretty complicated feelings, I think, later if they ever try to explain it to anyone or if they had felt a tug in their heart and didn’t know what to do when their child got scared ...much like the people in the Milgram experiment where really it was an upsetting experience for all of them or most of them.

Amanda: I think it’s a scary thing cause the Milgram experiment took place in the 1960s and here we’re in 2020 and we are still hearing about unethical studies like this.

Anne: Right and this study wasn’t even to show how compliance can be a problem or you know the kind of things that people do like giving people fake electric shocks [in the Milgram experiments]. All that stuff’s been stopped anyways, but at least that was studying human behaviour in terms of how *problematic* it is that people comply. Here it was really like that they were really hoping that people

would comply, and they were really *hoping that the children would get scared* so they could measure how scared they were!

It's just really hard to- to wrap my head around and then I'm wondering, now there's been a backlash by researchers and also by the autistic community which really took to social media very quickly, including autistic researchers. Yale had to respond, Yale wrote an explanatory statement sort of trying to explain the study. What about the reasoning in that statement? Did you see that statement by Yale?

Amanda: Whoa! Yes, I did. I was not very impressed by it to say the least. They were saying it was reviewed and approved by the **Yale Institutional Review Board**. But in my experience an independent review board should really be used for all studies so nothing seems impartial. That was the whole purpose of the review boards.

Anne: Mm-hmm.

Amanda: They claim that it was conducted in accordance with strict federal regulations, but they wouldn't name the regulations in regards to ethics in Science and Research. They would not name the specific code of ethics and how it aligned with it, and they don't address the 'ethics violation' [accusation] at all. They don't use an outside review board like I said...

Anne: Mm-hmm.

Amanda: ...and if they're employed by Yale, it's a **conflict of interest**. We don't know how they came to this decision that this study was okay.

Anne: Right, right. And the **funding** may be part of it. It got a lot of funding. There's sometimes this pressure, I think, to approve studies if they've received funding, if they're bringing in funding to a university. There can be conflicts around that especially if it's the same review board like you were saying. My "favourite" thing that they said was 'To the best of our knowledge this is the first study examining whether in the early stages of ASD children exhibit atypical responses to threat on an emotional level.' And I thought "well, it's probably the first experiment of this sort because *nobody else would do this kind of experiment!*" You know?

Amanda: Not everyone looks around "okay, I'm gonna take 42 babies and scare them."

[15:03]

Anne: Mm-hmm. It's just...

Amanda: I came across an autistic Yale graduate. She went to graduate school there and she emailed and asked if they talked to any autistic researchers and [Yale] gave a really blanket answer and they didn't respond to her questions at all. What they said was, 'thank you for concern about the study. Researchers followed all federal and institutional guidelines in designing and conducting this study and actively solicit community feedback on research guidelines. Their statement can be available here,' which is the statement that we're talking about.

Anne: Mm-hmm.

Amanda: So, they did not address anything, at all.

Anne: Right, right. I mean because it's *very common sense* to autistic people when they look at a study like that--I'm not sure why it's not common sense to everybody--that this is a bad idea to just put kids in a room and scare them and to extrapolate it to say well 'this could lead to later negative emotional responses to novel social situations'. So, again they seem to be saying that autistic people have anxiety about meeting new people and they're somehow relating that to sitting in a room with your parent not speaking to you and having a lady come in and stare at you wearing a weird mask. Like, there must be some sort of an echo chamber that all of this is coming out of...

Amanda: There must be, because also while doing research about this exposing children this young and I could also speak from experience from a child I adopted who is 20 months old that if the child experience something like this, they're very likely to develop PTSD.

Anne: Yeah, it's not good and it gets written on the body. And at this young they're not going to even understand what had happened of them. I was thinking of things like arachnophobia – one could develop a fear of spiders because they might remember this thing that they had to go and do that with their mother and... It's really weird. And then the goal of the study they claim was to study anxiety and depression by... it seemed basically by causing anxiety. Is that how... is that an okay way to study anxiety you know, 'let's *make* people anxious.'

Amanda: Yeah- let's make people anxious and give them a lifetime of mental health issues-

Anne: Mm-hmm. They didn't have any...it just doesn't provide any answers

Amanda: No.

Anne: I mean, it's not sustainable I think once they start backtracking the statements. I think that this study's not gonna go anywhere. I think maybe even get retracted. What do you think?

Amanda: In a perfect world I would hope it would get retracted if they got enough pushback.

Anne: Well, I hope so. I mean the community is really stepping up and that's one thing I really like to see- I liked seeing the petition and all of the work that came out of the autistic community of kind of a reality check about "hey, we're watching you guys. Don't just think that you can just take money and do a study like this."

I think it's one of the most clear examples I've seen of putting...autistic people under a microscope and studying them, claiming it's for their own good but actually causing stress for them with no benefit.

Amanda: Ye, there was absolutely no benefit for those children. No benefit for anybody. They just frightened babies for no reason.

Anne: Yeah, when I heard about it, I didn't believe it! Like, I saw someone tweeting about it and I was like, I'm gonna read this study, like this- there must be something else. It was hard to believe.

Amanda: That's what I thought too! I said no, this can't be right!

Anne: Yeah, right!

Do you want to talk about another study that's coming out of Yale which is where they're putting **nicotine patches** on people who can't give informed consent to try if nicotine patches will change their behaviour. How about that study?

Amanda: There were 2. One involved in an adolescent – they wouldn't give an age, while he was hospitalized.

Anne: Hmm.

Amanda: Just “adolescence is between 11 and 17”.

Anne: Mm-hmm.

Amanda: So a child that's not even legally old enough to smoke is going to be subjected to nicotine.

[20:04]

Anne: Mm-hmm.

Amanda: And there is no way that the child can give informed consent. His mother did. They say it worked but... Using a highly **addictive** substance to try to medicate meltdowns instead of figuring out why he's meting down to begin with?

Anne: Mm-hmm. And it's a **neurotoxin** as well.

Amanda: Exactly.

Anne: A neurotoxin so, nicotine is really one of the biggest- big- is a bad thing. I was thinking, too, maybe we should talk a little bit about how... Well, what was the second study before we...?

Amanda: The second study studied 8 adults between the ages of 20 and 28 who were only eligible if they were being taken care of by somebody. If an autistic was independent they were not eligible.

Anne: Okay.

Amanda: They originally interviewed 18. Most of them were eligible, then after the study was completed found that somebody didn't fill out the behaviour assessment right, cause there was a checklist. Yeah, we all love those checklists! The caregiver had to fill out behaviour checklists. It was a double-blind cross study where half would get the nicotine patches; half would get a placebo. The second week, it would be straight placebo, and then the third week they would switch. So, whoever got the nicotine the first time would get the placebo the next time and vice versa. And what I find interesting about both studies – The human brain is not fully developed until you're 25. The majority of all the participants, the adolescent and most of the adults in the other study would have had their brain chemistry altered because their brain had not finished developing yet. It was very- it was grossly irresponsible.

Anne: Ye, I mean it's an addictive substance as well, so it's hard to understand how that could pass by an ethics review board, either.

Amanda: A very interesting component though all of this, **Autism Speaks** partnered with Yale and donated \$185,000 to have these studies conducted. On the paperwork it will show Autism Speaks as a research partner.

Anne: Yeah.

Amanda: And Autism Speaks does not hide it, they actually have it listed on their website - how much they donated and what they thought... All right let me pull up what Autism Speaks said about this. All right.

What [Autism Speaks said](#) is:

“Aggression is highly comorbid with autism spectrum disorder (ASD) and is a strong predictor of negative outcomes for patients and families. Current pharmacological options for aggression are of limited efficacy for many and can result in further morbidity. Better understanding of the neurobiology underlying aggression in ASD and novel pharmacological treatment strategies rationally derived from these mechanisms are required to solve this critical problem. Genetic, neuropathological, and animal model studies have found abnormalities of the nicotinic...”

Anne: Nicotinoids or whatever?

Amanda: Ye, , “...acetylcholine receptor...” With these medical terms I’m more familiar with the animal terms.

Anne: Right.

Amanda: “... system in brains of people with ASD, and nAChRs influence the properties of essentially all major neurotransmitter systems. The nAChR agonist nicotine reduces aggression in multiple animal models, and our preliminary data suggests its effect is via activation of the $\alpha 7$ receptor.”

Anne: Okay

Amanda: “...CHRNA7, the gene for $\alpha 7$, is deleted.” It says there’s a “ microdeletion syndrome, which phenotypically can [cause] ASD and aggression.”

[25:03]

Anne: Oh, okay. (laughter)

Amanda: (laughter) Because, , yeah.

Anne: That’s what they think, you know?

Amanda: Yeah, *that’s* ‘what causes autism’.

Anne: The jury’s out on what causes autism, but, yeah.

Amanda: It “hypothesizes that modulation of nAChR signaling might be a novel treatment strategy for aggression in ASD. This hypothesis will be tested by 1) identifying the neurocircuitry and pharmacology underlying nicotine’s anti-aggressive effect in mouse models of aggression and ASD, and 2) determining the efficacy of transdermal nicotine for aggression in ASD in a pilot clinical trial.”

Okay, I’m gonna-

Anne: Okay.

Amanda: - I’m gonna make a note that **mice...** [it] is scientifically impossible for them to be autistic. It just can’t happen.

Anne: Ye, I can't- I don't know how they figure out...I don't know if they're playing little RPG games or you know exactly...they decide that their mice [are autistic] or where they do something to make the mice what they *think* is autistic but it's not really autistic. The mice studies are highly problematic, and it's always mice because we're so you know evolutionarily close to mice or whatever, but mice are still not people. Right?

And the thing about people is that behaviour and aggression and things like that are very **relational**. They're very about relationships; they're about trauma; they're about experiences; they're about so much more than like a little rat with a patch on it.

So, I was wondering if maybe we should talk a little bit about first of all the fact that this study was again funded by an outside source. It was funded by Autism Speaks and so you have to wonder if there was persuasion used to do the study, cause 'hey, we're gonna get some money. We can do a study and it brings money into the university.' This incredible pressure that university research institutions have to bring in dollars that sometimes they may fund something that is really questionable from a health standpoint in this case. And then I think there are a lot of assumptions that go along with it as well, especially the aggression study about the causes of aggression.

They seem to be saying that autism *causes* aggression rather than the circumstances that people are in where let's say they can't- they don't have **access to communication**, and they find that frustrating and they lash out and act out. Maybe they have a lifetime or 10 years of being put into really segregated, frustrating situations where people don't really understand them. So there are a lot of really root causes for this aggression that don't get solved by just slapping a nicotine patch onto a person.

Amanda: No!

Anne: These are *people*, right?

Amanda: Right.

Anne: So, maybe we could talk a little about what can we actually do to help people out that are having aggression and what are the real causes of this?

Amanda: So, there is this one person I worked with years ago before I knew I was autistic. She was a **Willowbrook** victim. I don't know if you know what Willowbrook is?

Anne: Can you explain?

Amanda: Yes. Willowbrook was a school in Staten Island that- well, they said it was a school. It was really an institution...They were beaten, they were starved, neglected. It was a really a horrible thing, and a reporter wanted to see what was going on behind the scenes, not what the facility wanted them to see. So, she went undercover, got a job there and was able to expose them and was able to get the people out. When I was living in upstate New York, I worked for an agency that worked with one of the survivors and she had a very hard time with aggression and self-injuries because she was having nightmares every night.

Anne: Mm-hmm.

Amanda: She was constantly having memories – she had severe PTSD, and no amount of nicotine patches you put on her arm is gonna make that go away.

Anne: Yeah.

Amanda: And I'm a firm believer, **behavior is communication**.

Anne: Mm-hmm.

Amanda: And aggression isn't caused by "a microdeletion of a gene". Even people who aren't autistic, they have aggression every once in a while because they're just not happy with what's going on or something happened.

[30:05]

Anne: Right.

Amanda: You're not going to put a nicotine patch on somebody just because they're upset.

Anne: Well it kind of goes back to that divide between the Autism Speaks type world, where it's like "give something to the child, do something to the child, impose something on the child, cure the child", right? And that it's all about "taking care of the autism". Versus the more **social model of disability** where we're saying "why don't we look at the environment that the child is in or that the adult is in and try to make changes to that environment, use **trauma informed care**, try to get this person **access to communication**, and all of the **de-escalation strategies** that are used around the world to try to deal with aggression that work?

And, none of that is kind of present in this other approach which is the Autism Speaks approach and unfortunately they're the ones that have the funding that they can hand to universities. It's much more difficult to get trials and studies going about de-escalation strategies or peaceful approaches to helping people- or trauma informed approaches. It's very much driven by money which is frustrating.

Amanda: It is.

Anne: Because there are better solutions, right?

Amanda: Mm-hmm. And one thing interesting about the adolescent – as I was reading through the case study...

Anne: Mm-hmm.

Amanda: ...It showed that he was in what they called "intensive behavior therapy" and we all know what that is.

Anne: Mm-hmm. Yup.

Amanda: And I could bet money that that was probably the cause of some of his aggression.

Anne: Right. How do these intensive behaviorist approaches **cause trauma and increase aggression** in people that are put into them?

Amanda: Oh, I could tell you from personal experience.

Anne: Mm-hmm.

Amanda: Okay, so before I knew I was autistic, I was diagnosed as severe ADHD which I didn't think that was diagnosed as that, whatever, and according to the psychologist I was supposed to be in a behavior modification program so I could focus better. So, every day after school, Monday through Friday, I was in my room. This ABA therapist came to the house and I would have to sit in a plastic desk with the tray that folded over. And I would have to practice making eye contact. I had to sit on my hands, because I had- my hands were "too loud".

Anne: Hmm.

Amanda: I had to ask for things "appropriately". I needed to look at someone while I was talking to them. And if I wasn't complying, things that brought me comfort were taken away.

Anne: Mm-hmm.

Amanda: And if you're taking away something that brings someone comfort, and you're trying to break them it's going to cause psychological issues down the road.

Anne: Right, right. And we can see with people who are adults now, who have been through that kind of program and that was ABA and *this person* went through IBI which is intensive, which means it was 35 to 40 hours a week of it. And in the ABA and IBI centres, we know there have been lawsuits children being **restrained**, of children being put into **isolation** rooms. A lot of traumatic experiences that they're coming out of.

Amanda: Mm-hmm.

Anne: So, without healing that trauma you've not...we're not helping these people and aren't those the people who we're supposed to be helping? The goal of a lot of the behaviorist approaches and a lot of the things that Autism Speaks seems to be supporting isn't about that. It's just about making people more compliant by making them more afraid.

It kind of goes back to making people afraid and compliant and back to the residential institution- the Willowbrooks, the places that we were talking about where it was really just about getting people to be compliant and not anything about having them have a good life and feel good. So the goals are actually different. I mean, maybe this would achieve their goal – the nicotine patch-- but doesn't achieve a *worthy goal*, in my opinion.

[34:51]

Amanda: Right. I was able to get ahold of the informed consent from the adult study and there was a warning in the informed consent: "a discontinuation of the nicotine patch after use for seven days may result in symptoms of nicotine withdrawal which include headache, upset stomach, nausea, anxiety and irritability."

Anne: Hmm.

Amanda: “Previous studies in adult non-smokers have shown this risk to be extremely rare even after periods of seven days. However, nicotine patches have not been studied systematically in adult individuals with ASD and if you experience these symptoms please call the study staff.”

Even before they did the study, they knew there was a chance of withdrawal!

Anne: Mm-hmm. Dependency too, then.

Amanda: Yes.

Anne: On a product.

Amanda: For people who are routine driven. So, even they would just do it automatically. And that definitely leaves autistic people open for the risk of dependency or addiction.

Anne: Yeah, and there isn’t informed consent because the people are being pressured into it. First of all, the parents sign the consent for them and [study participants are] dependent on their parents.

Amanda: Right.

Anne: Even the adults are dependent on their parents. They don’t have the capacity, the **freedom to be able to say no** to these kinds of experiments--which is the biggest issue. That’s an issue people don’t often like to touch. I don’t know why, but it maybe shows how we look at vulnerable people in our society. That nobody’s wondering “is it really okay that they are not consenting to these things that cause risk in their life?” This is like the bigger question, right?

Amanda: I completely agree. Like, you’re **preying on these people because they can’t tell you no**.

Anne: Mm-hmm. Do you have any further thoughts on the nicotine study itself?

Amanda: Instead of trying to find out why a person is upset they try to medicate it. Maybe if you fix the problem, they won’t be upset anymore?

Anne: Mm-hmm.

Well, thank you very much. This has been a really interesting podcast. We’re going to continue in the next podcast to talk about the same topic with another study, so for now we’re saying goodbye to Amanda Seigler, the activist and children’s rights advocate.

Thank you so much Amanda!

Amanda: Thank you so much for having me.

(Theme song – soft piano music)

Anne: You’ve been listening to Noncompliant: The podcast. I’m your host Anne Borden King. Noncompliant is recorded at MCS Recording Studios. Engineered by TJ Liebgott and Nathan Greavette.

—

Articles mentioned:

Lewis, A.S., van Schalkwyk, G.I., Lopez, M.O. *et al.* An Exploratory Trial of Transdermal Nicotine for Aggression and Irritability in Adults with Autism Spectrum Disorder. *Journal of Autism and Developmental Disorders* 48: 2748–2757 (2018). <https://doi-org.myaccess.library.utoronto.ca/10.1007/s10803-018-3536-7>

Macari, S.L., Verneti, A. and Chawarska, K. (2020), Attend Less, Fear More: Elevated Distress to Social Threat in Toddlers With Autism Spectrum Disorder. *Autism Research*. <https://doi-org.myaccess.library.utoronto.ca/10.1002/aur.2448>

Schalkwyk, G. I., Lewis, A. S., Qayy, Z., Koslosky, K., Picciotto, M. R., & Volkmar, F. R. (2015). Reduction of Aggressive Episodes After Repeated Transdermal Nicotine Administration in a Hospitalized Adolescent with Autism Spectrum Disorder. *Journal of Autism and Developmental Disorders*, 45(9), 3061–3066. <https://doi.org/10.1007/s10803-015-2471-0>