

WEBVTT

NOTE duration:"01:02:18"

NOTE recognizability:0.928

NOTE language:en-us

NOTE Confidence: 0.9452853

00:00:06.200 --> 00:00:08.960 Hello everyone and thanks for coming

NOTE Confidence: 0.9452853

00:00:08.960 --> 00:00:11.158 to our May Psychedelic Seminar,

NOTE Confidence: 0.9452853

00:00:11.158 --> 00:00:13.714 our last for this academic year.

NOTE Confidence: 0.9452853

00:00:13.720 --> 00:00:14.800 We have a treat today.

NOTE Confidence: 0.9452853

00:00:14.800 --> 00:00:16.880 David Oritzo from Imperial College

NOTE Confidence: 0.9452853

00:00:16.880 --> 00:00:18.960 in London will be presenting.

NOTE Confidence: 0.9452853

00:00:18.960 --> 00:00:20.598 He was invited by Mark Patanza.

NOTE Confidence: 0.9452853

00:00:20.600 --> 00:00:23.197 Thank you Mark for making this connection.

NOTE Confidence: 0.9251585

00:00:25.240 --> 00:00:26.920 So David is a.

NOTE Confidence: 0.949407447058824

00:00:28.930 --> 00:00:30.480 Senior Clinical Senior Lecturer in

NOTE Confidence: 0.949407447058824

00:00:30.480 --> 00:00:32.030 General Psychiatry at the Centers

NOTE Confidence: 0.949407447058824

00:00:32.081 --> 00:00:33.353 for Neuropsychopharmacology and

NOTE Confidence: 0.949407447058824

00:00:33.353 --> 00:00:35.049 Psychedelic Research at Imperial.

NOTE Confidence: 0.949407447058824

00:00:35.050 --> 00:00:37.690 He's a consultant psychiatrist at Saint
NOTE Confidence: 0.949407447058824

00:00:37.690 --> 00:00:40.122 Charles Hospital and he's very active
NOTE Confidence: 0.949407447058824

00:00:40.122 --> 00:00:43.149 in research using PET MRI and other
NOTE Confidence: 0.949407447058824

00:00:43.149 --> 00:00:45.156 techniques to investigate neurotransmitter
NOTE Confidence: 0.949407447058824

00:00:45.156 --> 00:00:47.562 abnormalities in the brain, modulations,
NOTE Confidence: 0.949407447058824

00:00:47.562 --> 00:00:49.770 modulation of neural circuitry,
NOTE Confidence: 0.949407447058824

00:00:49.770 --> 00:00:51.390 and in particular and of
NOTE Confidence: 0.949407447058824

00:00:51.390 --> 00:00:52.686 interest to this audience,
NOTE Confidence: 0.949407447058824

00:00:52.690 --> 00:00:55.111 psychedelics in which he is so he is the
NOTE Confidence: 0.949407447058824

00:00:55.111 --> 00:00:57.038 clinical director and the deputy head.
NOTE Confidence: 0.949407447058824

00:00:57.040 --> 00:00:58.515 Of the Center for Psychedelic
NOTE Confidence: 0.949407447058824

00:00:58.515 --> 00:00:59.400 Research at Imperial,
NOTE Confidence: 0.949407447058824

00:00:59.400 --> 00:01:01.428 which has been one of the real
NOTE Confidence: 0.949407447058824

00:01:01.428 --> 00:01:04.704 Trail Blazers in the in the modern
NOTE Confidence: 0.949407447058824

00:01:04.704 --> 00:01:07.879 era of psychedelic research.
NOTE Confidence: 0.949407447058824

00:01:07.880 --> 00:01:10.898 So David's talk today is psychedelic

NOTE Confidence: 0.949407447058824
00:01:10.898 --> 00:01:12.910 therapy for depression clinical
NOTE Confidence: 0.949407447058824
00:01:12.993 --> 00:01:14.919 and neuromechanistic data.
NOTE Confidence: 0.949407447058824
00:01:14.920 --> 00:01:17.035 We've actually seen compasses data
NOTE Confidence: 0.949407447058824
00:01:17.035 --> 00:01:19.833 recently and had a discussion there
NOTE Confidence: 0.949407447058824
00:01:19.833 --> 00:01:21.669 about psychological mechanisms.
NOTE Confidence: 0.949407447058824
00:01:21.670 --> 00:01:23.065 And we've done a little bit of neuro imaging.
NOTE Confidence: 0.949407447058824
00:01:23.070 --> 00:01:24.642 Actually Lucy Berkovich is here gave
NOTE Confidence: 0.949407447058824
00:01:24.642 --> 00:01:26.194 us a beautiful overview of neuro
NOTE Confidence: 0.949407447058824
00:01:26.194 --> 00:01:27.344 imaging earlier in the year.
NOTE Confidence: 0.949407447058824
00:01:27.350 --> 00:01:28.982 So we have that the audience
NOTE Confidence: 0.949407447058824
00:01:28.982 --> 00:01:30.070 is primed for this,
NOTE Confidence: 0.949407447058824
00:01:30.070 --> 00:01:30.946 for this material.
NOTE Confidence: 0.949407447058824
00:01:30.946 --> 00:01:32.406 And we very much look
NOTE Confidence: 0.949407447058824
00:01:32.406 --> 00:01:34.029 forward to seeing your work.
NOTE Confidence: 0.949407447058824
00:01:34.030 --> 00:01:34.310 Thank
NOTE Confidence: 0.933065561428571

00:01:34.310 --> 00:01:38.027 you so much for, for having me.
NOTE Confidence: 0.933065561428571

00:01:38.030 --> 00:01:40.390 Let me share my screen.
NOTE Confidence: 0.933065561428571

00:01:40.390 --> 00:01:43.550 Can you see this? Yeah,
NOTE Confidence: 0.94025373

00:01:44.750 --> 00:01:47.070 it's perfect. Good.
NOTE Confidence: 0.916794375882353

00:01:48.110 --> 00:01:51.161 OK. So, yeah, so thanks a lot for for
NOTE Confidence: 0.916794375882353

00:01:51.161 --> 00:01:54.426 the invite and for the kind introduction
NOTE Confidence: 0.916794375882353

00:01:54.426 --> 00:01:57.294 the obviously probably you know you know
NOTE Confidence: 0.916794375882353

00:01:57.294 --> 00:02:00.578 there will be a a great deal that is,
NOTE Confidence: 0.916794375882353

00:02:00.580 --> 00:02:03.828 is that probably familiar we can discuss
NOTE Confidence: 0.916794375882353

00:02:03.828 --> 00:02:07.950 some of it probably some here will be more
NOTE Confidence: 0.916794375882353

00:02:07.950 --> 00:02:11.266 MRI expertise than than I am I come more.
NOTE Confidence: 0.916794375882353

00:02:11.270 --> 00:02:14.714 From PIT originally and also as mentioned
NOTE Confidence: 0.916794375882353

00:02:14.714 --> 00:02:18.069 you know from clinical psychiatry,
NOTE Confidence: 0.916794375882353

00:02:18.070 --> 00:02:20.478 but in the center we we use
NOTE Confidence: 0.916794375882353

00:02:20.478 --> 00:02:21.802 different imaging modalities, MRI,
NOTE Confidence: 0.916794375882353

00:02:21.802 --> 00:02:24.138 G and and and also some PIT although

NOTE Confidence: 0.916794375882353

00:02:24.138 --> 00:02:25.986 you in the instruction you made

NOTE Confidence: 0.916794375882353

00:02:25.986 --> 00:02:28.390 it sound like I do a lot of PIT,

NOTE Confidence: 0.916794375882353

00:02:28.390 --> 00:02:30.070 It's difficult to fund some of that.

NOTE Confidence: 0.916794375882353

00:02:30.070 --> 00:02:32.555 So it's it's limited but we do

NOTE Confidence: 0.916794375882353

00:02:32.555 --> 00:02:35.090 some quite exciting stuff often

NOTE Confidence: 0.916794375882353

00:02:35.090 --> 00:02:37.270 quite small samples unfortunately.

NOTE Confidence: 0.916794375882353

00:02:37.270 --> 00:02:39.034 And the the nature of of of

NOTE Confidence: 0.916794375882353

00:02:39.034 --> 00:02:40.870 doing pet in academia I think

NOTE Confidence: 0.940253535555555

00:02:43.110 --> 00:02:46.350 as also you you in terms of Imperial College,

NOTE Confidence: 0.940253535555555

00:02:46.350 --> 00:02:49.510 I've been involved there since 2009.

NOTE Confidence: 0.940253535555555

00:02:49.510 --> 00:02:50.950 So for quite a long time.

NOTE Confidence: 0.940253535555555

00:02:50.950 --> 00:02:52.861 Obviously as a lot of you will

NOTE Confidence: 0.940253535555555

00:02:52.861 --> 00:02:54.211 know alongside both David Knott

NOTE Confidence: 0.940253535555555

00:02:54.211 --> 00:02:56.091 and and Robin Cart and a lot of

NOTE Confidence: 0.940253535555555

00:02:56.148 --> 00:02:58.030 other fantastic colleagues and in

NOTE Confidence: 0.940253535555555

00:02:58.030 --> 00:02:59.710 the last couple of years Robin has.
NOTE Confidence: 0.9433984125

00:03:01.770 --> 00:03:03.818 Migrated over to your part of the world
NOTE Confidence: 0.9433984125

00:03:03.818 --> 00:03:06.050 although on the other coast to San Francisco.
NOTE Confidence: 0.9433984125

00:03:06.050 --> 00:03:09.165 So he's over there still quite involved
NOTE Confidence: 0.9433984125

00:03:09.165 --> 00:03:11.934 in and we have very regular meetings he's
NOTE Confidence: 0.9433984125

00:03:11.934 --> 00:03:13.988 involved in supervision into some of the
NOTE Confidence: 0.9433984125

00:03:13.988 --> 00:03:16.435 trials that he initiated but that we
NOTE Confidence: 0.9433984125

00:03:16.435 --> 00:03:19.295 are still carrying out and then there's
NOTE Confidence: 0.9433984125

00:03:19.295 --> 00:03:22.264 some some new stuff where that he has
NOTE Confidence: 0.9433984125

00:03:22.264 --> 00:03:24.729 less in in involvement is but he's he's
NOTE Confidence: 0.9433984125

00:03:24.729 --> 00:03:27.217 in he's he's very involved still just to
NOTE Confidence: 0.9433984125

00:03:27.217 --> 00:03:31.290 to to make that clear okay so let me.
NOTE Confidence: 0.9433984125

00:03:31.290 --> 00:03:32.210 Go to the first slide,
NOTE Confidence: 0.9433984125

00:03:32.210 --> 00:03:38.016 this is just sort of a little overview of
NOTE Confidence: 0.9433984125

00:03:38.016 --> 00:03:40.210 the compounds that we're talking about,
NOTE Confidence: 0.9433984125

00:03:40.210 --> 00:03:43.650 phenothylamines, tretamines all together

NOTE Confidence: 0.924987034285714
00:03:46.170 --> 00:03:49.236 being the group of of psychedelics and.
NOTE Confidence: 0.924987034285714
00:03:49.240 --> 00:03:51.784 The classic cell genetic ones are
NOTE Confidence: 0.924987034285714
00:03:51.784 --> 00:03:55.158 the ones mainly in in focus of the
NOTE Confidence: 0.924987034285714
00:03:55.158 --> 00:03:58.346 work we're doing and but actually not
NOTE Confidence: 0.924987034285714
00:03:58.346 --> 00:04:01.008 particularly masculine and no longer
NOTE Confidence: 0.924987034285714
00:04:01.008 --> 00:04:03.920 much LSD work in our lab specifically.
NOTE Confidence: 0.924987034285714
00:04:03.920 --> 00:04:05.652 But these compounds together
NOTE Confidence: 0.924987034285714
00:04:05.652 --> 00:04:07.817 are typically the one referred
NOTE Confidence: 0.924987034285714
00:04:07.817 --> 00:04:10.278 to as the classic cell genetic,
NOTE Confidence: 0.924987034285714
00:04:10.280 --> 00:04:13.290 sometimes also including five Emile DMT.
NOTE Confidence: 0.924987034285714
00:04:13.290 --> 00:04:16.250 As we can see they are quite similar
NOTE Confidence: 0.924987034285714
00:04:16.250 --> 00:04:19.240 in structure to serotonin itself.
NOTE Confidence: 0.924987034285714
00:04:19.240 --> 00:04:21.825 Structure, which also informs some
NOTE Confidence: 0.924987034285714
00:04:21.825 --> 00:04:24.983 of the pharmacology mimicking to some
NOTE Confidence: 0.924987034285714
00:04:24.983 --> 00:04:27.959 degree effects of serotonin by agonizing
NOTE Confidence: 0.924987034285714

00:04:27.960 --> 00:04:31.158 range of receptors in the system.
NOTE Confidence: 0.924987034285714

00:04:31.160 --> 00:04:33.920 This is probably so familiar that I won't,
NOTE Confidence: 0.924987034285714

00:04:33.920 --> 00:04:36.600 you know spend too much time on this.
NOTE Confidence: 0.924987034285714

00:04:36.600 --> 00:04:39.738 Just mention obviously we have these
NOTE Confidence: 0.924987034285714

00:04:39.738 --> 00:04:41.830 associated compounds that sometimes
NOTE Confidence: 0.924987034285714

00:04:41.903 --> 00:04:44.763 are referred to psychedelics sometimes
NOTE Confidence: 0.924987034285714

00:04:44.763 --> 00:04:47.960 is atypical psychedelics MTMA that's.
NOTE Confidence: 0.924987034285714

00:04:47.960 --> 00:04:50.966 Is very progressed in the development
NOTE Confidence: 0.924987034285714

00:04:50.966 --> 00:04:53.901 maps finished have finished their phase
NOTE Confidence: 0.924987034285714

00:04:53.901 --> 00:04:57.100 three trials for PTSD and then Katz,
NOTE Confidence: 0.924987034285714

00:04:57.100 --> 00:05:00.600 Amin and and Ivocaine that could be
NOTE Confidence: 0.924987034285714

00:05:00.600 --> 00:05:03.480 described as dissociative psychedelics
NOTE Confidence: 0.924987034285714

00:05:03.480 --> 00:05:05.640 with overlapping phenomenology.
NOTE Confidence: 0.924987034285714

00:05:05.640 --> 00:05:07.070 But still.
NOTE Confidence: 0.924987034285714

00:05:07.070 --> 00:05:09.930 Also with some significant
NOTE Confidence: 0.924987034285714

00:05:09.930 --> 00:05:12.108 pharmacological differences in case,

NOTE Confidence: 0.924987034285714
00:05:12.108 --> 00:05:13.978 I mean already being repurposed
NOTE Confidence: 0.924987034285714
00:05:13.978 --> 00:05:15.879 and licensed and nasal spray
NOTE Confidence: 0.924987034285714
00:05:15.879 --> 00:05:17.997 for for for depression as well.
NOTE Confidence: 0.924987034285714
00:05:18.000 --> 00:05:21.860 So into mental health from
NOTE Confidence: 0.924987034285714
00:05:21.860 --> 00:05:24.799 medicine in terms of
NOTE Confidence: 0.9301902
00:05:27.080 --> 00:05:30.745 let me see here. Just a little
NOTE Confidence: 0.9301902
00:05:30.745 --> 00:05:32.070 bit more about the pharmacology.
NOTE Confidence: 0.9301902
00:05:32.070 --> 00:05:33.806 They stimulate these receptors.
NOTE Confidence: 0.9301902
00:05:33.806 --> 00:05:35.108 As I mentioned,
NOTE Confidence: 0.9301902
00:05:35.110 --> 00:05:38.070 one of them is a two way receptor
NOTE Confidence: 0.9301902
00:05:38.070 --> 00:05:42.950 abundant in high function regions,
NOTE Confidence: 0.9301902
00:05:42.950 --> 00:05:46.390 evolutionarily preserved, pronounced
NOTE Confidence: 0.9301902
00:05:46.390 --> 00:05:50.950 into the high function cortical areas,
NOTE Confidence: 0.9301902
00:05:50.950 --> 00:05:54.714 whereas SSRI&MDMA to the XG.
NOTE Confidence: 0.9301902
00:05:54.714 --> 00:05:56.719 Extreme degree work presynaptically on
NOTE Confidence: 0.9301902

00:05:56.719 --> 00:05:59.409 this sort of production side of things

NOTE Confidence: 0.9301902

00:05:59.409 --> 00:06:01.520 and releases and inhibits reuptake.

NOTE Confidence: 0.92399215

00:06:03.600 --> 00:06:06.540 Their the psychedelics more directly

NOTE Confidence: 0.92399215

00:06:06.540 --> 00:06:09.480 work on receptors including the

NOTE Confidence: 0.92399215

00:06:09.571 --> 00:06:12.075 two A and we can see that the

NOTE Confidence: 0.92399215

00:06:12.080 --> 00:06:14.408 more offensive they have for the

NOTE Confidence: 0.92399215

00:06:14.408 --> 00:06:16.636 2A the the more potent they are.

NOTE Confidence: 0.92399215

00:06:16.640 --> 00:06:19.148 As psychedelics. We can see the

NOTE Confidence: 0.92399215

00:06:19.148 --> 00:06:21.659 mapping the 2A receptor using PET.

NOTE Confidence: 0.92399215

00:06:21.660 --> 00:06:23.348 That they are distributed

NOTE Confidence: 0.92399215

00:06:23.348 --> 00:06:24.614 mainly cortical regions.

NOTE Confidence: 0.92399215

00:06:24.620 --> 00:06:27.224 They are difficult to quantify with

NOTE Confidence: 0.92399215

00:06:27.224 --> 00:06:32.105 PET in subcortical regions due

NOTE Confidence: 0.92399215

00:06:32.105 --> 00:06:34.660 to sort of poor signal to noise.

NOTE Confidence: 0.92399215

00:06:34.660 --> 00:06:37.805 We can use PET as well to establish

NOTE Confidence: 0.92399215

00:06:37.805 --> 00:06:40.625 the relationship between binding

NOTE Confidence: 0.92399215

00:06:40.625 --> 00:06:43.916 to this specific to a receptor

NOTE Confidence: 0.92399215

00:06:43.916 --> 00:06:45.916 and the intensity and also related

NOTE Confidence: 0.92399215

00:06:45.916 --> 00:06:47.740 for that matter to plasma levels.

NOTE Confidence: 0.92399215

00:06:47.740 --> 00:06:48.865 All that done.

NOTE Confidence: 0.92399215

00:06:48.865 --> 00:06:50.740 That Copenhagen group that I'm

NOTE Confidence: 0.92399215

00:06:50.740 --> 00:06:52.461 originally coming from where I did

NOTE Confidence: 0.92399215

00:06:52.461 --> 00:06:54.658 my PSD now I don't know starting

NOTE Confidence: 0.92399215

00:06:54.658 --> 00:06:57.050 that almost 20 years ago back in

NOTE Confidence: 0.92399215

00:06:57.050 --> 00:06:58.725 Copenhagen would get the most

NOTE Confidence: 0.92399215

00:06:58.725 --> 00:07:00.648 close and then people there.

NOTE Confidence: 0.92399215

00:07:00.650 --> 00:07:02.827 So they have done that and they're

NOTE Confidence: 0.92399215

00:07:02.827 --> 00:07:05.250 currently actually doing pet occupancy

NOTE Confidence: 0.92399215

00:07:05.250 --> 00:07:09.648 work with LSD as well at the moment.

NOTE Confidence: 0.92399215

00:07:09.650 --> 00:07:12.268 What what is a little bit interesting

NOTE Confidence: 0.92399215

00:07:12.268 --> 00:07:16.210 on on on the occupancy slide,

NOTE Confidence: 0.92399215

00:07:16.210 --> 00:07:17.570 pick it to the right.
NOTE Confidence: 0.92399215

00:07:17.570 --> 00:07:20.774 Is that if you look in the sort of
NOTE Confidence: 0.92399215

00:07:20.774 --> 00:07:24.786 low dose range with the that those
NOTE Confidence: 0.92399215

00:07:24.786 --> 00:07:27.890 doses that you can't see on the slide
NOTE Confidence: 0.92399215

00:07:27.890 --> 00:07:30.806 on the low part of the the the curve,
NOTE Confidence: 0.92399215

00:07:30.810 --> 00:07:33.762 they are in the range of what people
NOTE Confidence: 0.92399215

00:07:33.762 --> 00:07:36.690 use for micro dosing and that shows
NOTE Confidence: 0.92399215

00:07:36.690 --> 00:07:40.110 us that there's actually significant
NOTE Confidence: 0.92399215

00:07:40.110 --> 00:07:45.220 occupancy 3040% of doses that people.
NOTE Confidence: 0.92399215

00:07:45.220 --> 00:07:46.784 Use for micro dosing.
NOTE Confidence: 0.92399215

00:07:46.784 --> 00:07:48.739 So that means the pharmacologically
NOTE Confidence: 0.92399215

00:07:48.739 --> 00:07:51.002 on the two way could be some effects
NOTE Confidence: 0.92399215

00:07:51.002 --> 00:07:53.466 which I think is sort of a nice extra
NOTE Confidence: 0.92399215

00:07:53.466 --> 00:07:55.818 information from the occupancy work there.
NOTE Confidence: 0.92399215

00:07:55.820 --> 00:07:57.948 You can also see that if we say
NOTE Confidence: 0.92399215

00:07:57.948 --> 00:07:59.692 Lexing block the two way receptor

NOTE Confidence: 0.92399215

00:07:59.692 --> 00:08:01.602 then take the mute the static

NOTE Confidence: 0.92399215

00:08:01.602 --> 00:08:04.374 effect and also some mood improving

NOTE Confidence: 0.92399215

00:08:04.374 --> 00:08:07.099 effects shown in in some studies.

NOTE Confidence: 0.92399215

00:08:07.100 --> 00:08:10.579 So just this is now years back,

NOTE Confidence: 0.92399215

00:08:10.580 --> 00:08:13.009 six years, seven years back we did.

NOTE Confidence: 0.92399215

00:08:13.010 --> 00:08:16.006 At in period the first depression trial

NOTE Confidence: 0.92399215

00:08:16.010 --> 00:08:18.950 for for many years with a psychedelic

NOTE Confidence: 0.92399215

00:08:18.950 --> 00:08:21.350 intervention that was after we have

NOTE Confidence: 0.92399215

00:08:21.350 --> 00:08:23.455 been doing work in healthy people

NOTE Confidence: 0.92399215

00:08:23.455 --> 00:08:25.730 in order to establish some of the

NOTE Confidence: 0.92399215

00:08:25.730 --> 00:08:28.205 brain imaging effects and the neuro

NOTE Confidence: 0.92399215

00:08:28.205 --> 00:08:29.965 correlates to psychological effects

NOTE Confidence: 0.92399215

00:08:29.965 --> 00:08:32.049 of psychedelics and also safety and

NOTE Confidence: 0.92399215

00:08:32.050 --> 00:08:34.762 and getting familiar with using the

NOTE Confidence: 0.92399215

00:08:34.762 --> 00:08:37.316 combats and study them before we

NOTE Confidence: 0.92399215

00:08:37.316 --> 00:08:39.927 we took it back into a clinical.
NOTE Confidence: 0.92399215

00:08:39.930 --> 00:08:41.952 Indication and and that was depression
NOTE Confidence: 0.92399215

00:08:41.952 --> 00:08:44.402 some of the reasons why we did it
NOTE Confidence: 0.92399215

00:08:44.402 --> 00:08:46.300 in depression was that the effects
NOTE Confidence: 0.92399215

00:08:46.300 --> 00:08:49.897 that we saw in the healthy in a way
NOTE Confidence: 0.92399215

00:08:49.897 --> 00:08:52.340 counter at what was in the opposite
NOTE Confidence: 0.92399215

00:08:52.426 --> 00:08:54.886 direction of some of the moist.
NOTE Confidence: 0.92399215

00:08:54.890 --> 00:08:59.036 That list and and reproduced findings
NOTE Confidence: 0.92399215

00:08:59.036 --> 00:09:03.114 in depression with MRI including
NOTE Confidence: 0.92399215

00:09:03.114 --> 00:09:07.818 we saw reduction in in prefrontal
NOTE Confidence: 0.92399215

00:09:07.818 --> 00:09:10.074 activations areas that.
NOTE Confidence: 0.92399215

00:09:10.080 --> 00:09:13.517 In meta analysis come out as hyper
NOTE Confidence: 0.92399215

00:09:13.520 --> 00:09:17.195 activity with with the MRI and also
NOTE Confidence: 0.92399215

00:09:17.200 --> 00:09:21.512 BE and also a range of treatment
NOTE Confidence: 0.92399215

00:09:21.512 --> 00:09:23.675 with antidepressant effects have
NOTE Confidence: 0.92399215

00:09:23.675 --> 00:09:24.620 reduced those regions.

NOTE Confidence: 0.92399215
00:09:24.620 --> 00:09:27.492 So that was a part of the sort of
NOTE Confidence: 0.92399215
00:09:27.492 --> 00:09:30.000 imaging tick list things that we
NOTE Confidence: 0.92399215
00:09:30.000 --> 00:09:33.008 checked before we we moved it into.
NOTE Confidence: 0.92399215
00:09:33.008 --> 00:09:35.118 To patients obviously we also
NOTE Confidence: 0.92399215
00:09:35.118 --> 00:09:37.579 reviewed the existing at that point
NOTE Confidence: 0.92399215
00:09:37.579 --> 00:09:39.539 safety data and looked at
NOTE Confidence: 0.918543747666666
00:09:39.616 --> 00:09:42.448 reviewing of data from the first area in
NOTE Confidence: 0.918543747666666
00:09:42.448 --> 00:09:45.596 the 50 sixties before we did this trial.
NOTE Confidence: 0.918543747666666
00:09:45.600 --> 00:09:47.952 So this trial was an open
NOTE Confidence: 0.918543747666666
00:09:47.952 --> 00:09:50.040 label in 20 patients with.
NOTE Confidence: 0.918543747666666
00:09:50.040 --> 00:09:52.276 Treatment resistance or fulfilling
NOTE Confidence: 0.918543747666666
00:09:52.276 --> 00:09:54.512 criteria for treatment resistant
NOTE Confidence: 0.918543747666666
00:09:54.512 --> 00:09:57.229 depression and most of them severely
NOTE Confidence: 0.918543747666666
00:09:57.229 --> 00:09:59.139 depressed that baseline as you
NOTE Confidence: 0.918543747666666
00:09:59.139 --> 00:10:01.635 can see at at baseline on this
NOTE Confidence: 0.918543747666666

00:10:01.635 --> 00:10:03.526 graph where the patient depression
NOTE Confidence: 0.9185437476666666

00:10:03.526 --> 00:10:06.156 scores with quits are plotted.
NOTE Confidence: 0.9185437476666666

00:10:06.160 --> 00:10:08.590 So we did a test dose of 10 milligram and
NOTE Confidence: 0.9185437476666666

00:10:08.649 --> 00:10:10.953 then the real dose a week later was 25.
NOTE Confidence: 0.9185437476666666

00:10:10.960 --> 00:10:13.366 The 10 milligram was also due
NOTE Confidence: 0.9185437476666666

00:10:13.366 --> 00:10:15.456 to Caution and Ethics Committee
NOTE Confidence: 0.9185437476666666

00:10:15.456 --> 00:10:18.277 at that point back in 2000 and.
NOTE Confidence: 0.9185437476666666

00:10:18.280 --> 00:10:20.640 15 or something like that.
NOTE Confidence: 0.9185437476666666

00:10:20.640 --> 00:10:22.278 So we did this open label,
NOTE Confidence: 0.9185437476666666

00:10:22.280 --> 00:10:23.920 single arm proof of concept,
NOTE Confidence: 0.9185437476666666

00:10:23.920 --> 00:10:25.840 so no, no control condition.
NOTE Confidence: 0.9185437476666666

00:10:25.840 --> 00:10:29.035 We had to pray MRI at baseline and then
NOTE Confidence: 0.9185437476666666

00:10:29.035 --> 00:10:32.128 the day after the the 25 milligram dose.
NOTE Confidence: 0.9185437476666666

00:10:32.128 --> 00:10:35.040 So that was basically that trial and
NOTE Confidence: 0.9185437476666666

00:10:35.118 --> 00:10:38.313 and what we saw there was was good and
NOTE Confidence: 0.9185437476666666

00:10:38.313 --> 00:10:40.594 response overall obviously again open

NOTE Confidence: 0.918543747666666
00:10:40.594 --> 00:10:43.660 label important to mention to to to
NOTE Confidence: 0.918543747666666
00:10:43.746 --> 00:10:47.779 to mention again and as we get the bold bar.
NOTE Confidence: 0.918543747666666
00:10:47.780 --> 00:10:50.060 Nice and sustained effects overall
NOTE Confidence: 0.918543747666666
00:10:50.060 --> 00:10:52.836 for the group and that obviously
NOTE Confidence: 0.918543747666666
00:10:52.836 --> 00:10:55.504 induced a lot of yeah interest
NOTE Confidence: 0.918543747666666
00:10:55.504 --> 00:10:58.014 and optimism in the space.
NOTE Confidence: 0.918543747666666
00:10:58.020 --> 00:10:59.544 And I wouldn't say just that
NOTE Confidence: 0.918543747666666
00:10:59.544 --> 00:11:00.940 trial did the whole thing,
NOTE Confidence: 0.918543747666666
00:11:00.940 --> 00:11:04.322 it didn't but it it was part of what
NOTE Confidence: 0.918543747666666
00:11:04.322 --> 00:11:07.334 inspired some of the more commercial
NOTE Confidence: 0.918543747666666
00:11:07.340 --> 00:11:09.644 industry activities in the space to
NOTE Confidence: 0.918543747666666
00:11:09.644 --> 00:11:12.427 scale this up into larger scale files
NOTE Confidence: 0.918543747666666
00:11:12.427 --> 00:11:14.815 and as as as we know Compass have
NOTE Confidence: 0.918543747666666
00:11:14.815 --> 00:11:17.336 have done a multi set up phase two.
NOTE Confidence: 0.918543747666666
00:11:17.340 --> 00:11:18.098 Free trial,
NOTE Confidence: 0.918543747666666

00:11:18.098 --> 00:11:20.751 more recently we we we also saw
NOTE Confidence: 0.9185437476666666

00:11:20.751 --> 00:11:23.551 in this trial and that has been
NOTE Confidence: 0.9185437476666666

00:11:23.551 --> 00:11:26.418 seen in a lot of different studies
NOTE Confidence: 0.9185437476666666

00:11:26.418 --> 00:11:28.603 and different indications that the
NOTE Confidence: 0.9185437476666666

00:11:28.603 --> 00:11:30.439 treatment outcome is associated
NOTE Confidence: 0.9185437476666666

00:11:30.439 --> 00:11:32.283 with the subjective experience.
NOTE Confidence: 0.9185437476666666

00:11:32.283 --> 00:11:35.049 And more specifically when that is
NOTE Confidence: 0.9185437476666666

00:11:35.049 --> 00:11:37.929 sort of zoomed in a bit on aspects of
NOTE Confidence: 0.9185437476666666

00:11:37.929 --> 00:11:40.282 the acute experience meshes typically
NOTE Confidence: 0.9185437476666666

00:11:40.282 --> 00:11:42.792 things related to the psychological
NOTE Confidence: 0.9185437476666666

00:11:42.792 --> 00:11:46.160 peak or mystical type experiences here.
NOTE Confidence: 0.9185437476666666

00:11:46.160 --> 00:11:48.355 The construct ocnic boundlessness from
NOTE Confidence: 0.9185437476666666

00:11:48.355 --> 00:11:50.920 the altered state of consciousness scale
NOTE Confidence: 0.9185437476666666

00:11:50.920 --> 00:11:54.400 and we can see relationships between
NOTE Confidence: 0.9185437476666666

00:11:54.400 --> 00:11:56.278 the score there and the outcomes.
NOTE Confidence: 0.9185437476666666

00:11:56.280 --> 00:12:00.572 So single intervention with this,

NOTE Confidence: 0.918543747666666

00:12:00.572 --> 00:12:03.560 you know, lasting effect, not forever,

NOTE Confidence: 0.918543747666666

00:12:03.560 --> 00:12:06.514 but in this trial good sustained

NOTE Confidence: 0.918543747666666

00:12:06.514 --> 00:12:09.136 effects and then that the experience

NOTE Confidence: 0.918543747666666

00:12:09.136 --> 00:12:11.120 was related to the outcome.

NOTE Confidence: 0.918543747666666

00:12:11.120 --> 00:12:14.200 So all that obviously.

NOTE Confidence: 0.918543747666666

00:12:14.200 --> 00:12:16.475 Suggesting a new and different

NOTE Confidence: 0.918543747666666

00:12:16.475 --> 00:12:17.840 and interesting paradigm,

NOTE Confidence: 0.918543747666666

00:12:17.840 --> 00:12:19.332 Obviously not new new,

NOTE Confidence: 0.918543747666666

00:12:19.332 --> 00:12:21.731 but very different and new in

NOTE Confidence: 0.918543747666666

00:12:21.731 --> 00:12:24.386 conventional psychiatry in modern times

NOTE Confidence: 0.918543747666666

00:12:24.386 --> 00:12:26.550 because because that's not what what

NOTE Confidence: 0.918543747666666

00:12:26.550 --> 00:12:29.199 we're used to in in mental health.

NOTE Confidence: 0.918543747666666

00:12:29.200 --> 00:12:35.176 Then COMPASS did a larger version

NOTE Confidence: 0.918543747666666

00:12:35.176 --> 00:12:37.640 of it than logical next step which

NOTE Confidence: 0.918543747666666

00:12:37.716 --> 00:12:40.474 was to instead of just having 25

NOTE Confidence: 0.918543747666666

00:12:40.474 --> 00:12:42.003 milligram have different doses
NOTE Confidence: 0.9185437476666666

00:12:42.003 --> 00:12:44.910 of 1/10/25 and for that reason.
NOTE Confidence: 0.9185437476666666

00:12:44.910 --> 00:12:46.647 At that point that was in a way what
NOTE Confidence: 0.9185437476666666

00:12:46.647 --> 00:12:48.491 we would have done as our next study
NOTE Confidence: 0.9185437476666666

00:12:48.491 --> 00:12:50.268 sort of kind of logical next step,
NOTE Confidence: 0.9185437476666666

00:12:50.270 --> 00:12:52.706 but because that was what they ended
NOTE Confidence: 0.9185437476666666

00:12:52.706 --> 00:12:54.951 up doing endorsed and supported by
NOTE Confidence: 0.9185437476666666

00:12:54.951 --> 00:12:56.846 you know conversations also with
NOTE Confidence: 0.9185437476666666

00:12:56.846 --> 00:12:58.510 the FDA and so on,
NOTE Confidence: 0.9185437476666666

00:12:58.510 --> 00:13:00.430 we thought okay then then what,
NOTE Confidence: 0.9185437476666666

00:13:00.430 --> 00:13:02.425 what other questions that are
NOTE Confidence: 0.9185437476666666

00:13:02.425 --> 00:13:04.420 relevant for us to try
NOTE Confidence: 0.9312251658333333

00:13:04.504 --> 00:13:06.904 and address could be possible
NOTE Confidence: 0.9312251658333333

00:13:06.904 --> 00:13:09.494 different mechanisms of how the
NOTE Confidence: 0.9312251658333333

00:13:09.494 --> 00:13:11.756 psychedelics work in their in
NOTE Confidence: 0.9312251658333333

00:13:11.756 --> 00:13:13.860 the treatment of depression.

NOTE Confidence: 0.931225165833333
00:13:13.860 --> 00:13:16.937 And therefore we so,
NOTE Confidence: 0.931225165833333
00:13:16.937 --> 00:13:19.319 so here is a bit theoretical
NOTE Confidence: 0.931225165833333
00:13:19.319 --> 00:13:21.476 background that you with SSRIA lot
NOTE Confidence: 0.931225165833333
00:13:21.476 --> 00:13:23.780 of the action there is the steps to
NOTE Confidence: 0.931225165833333
00:13:23.849 --> 00:13:26.340 to work through the 1A whereas the
NOTE Confidence: 0.931225165833333
00:13:26.340 --> 00:13:29.040 psychedelics are agonizing the 2A
NOTE Confidence: 0.931225165833333
00:13:29.040 --> 00:13:32.611 as I mentioned and and the 1A effect
NOTE Confidence: 0.931225165833333
00:13:32.611 --> 00:13:36.157 can then reduce stress and also
NOTE Confidence: 0.931225165833333
00:13:36.157 --> 00:13:37.760 emotional responsivity, impulsivity,
NOTE Confidence: 0.931225165833333
00:13:37.760 --> 00:13:39.860 aggression, anxiety and so on.
NOTE Confidence: 0.931225165833333
00:13:39.860 --> 00:13:42.728 But that also for some patients.
NOTE Confidence: 0.931225165833333
00:13:42.730 --> 00:13:43.830 Come out.
NOTE Confidence: 0.931225165833333
00:13:43.830 --> 00:13:46.580 Particularly the reduction of emotional
NOTE Confidence: 0.931225165833333
00:13:46.580 --> 00:13:49.556 responsivity to some degree of of
NOTE Confidence: 0.931225165833333
00:13:49.556 --> 00:13:51.776 blunting as a side effect for some
NOTE Confidence: 0.931225165833333

00:13:51.776 --> 00:13:53.765 people with that treatment and with
NOTE Confidence: 0.931225165833333

00:13:53.765 --> 00:13:57.134 the psychedelics more in in work,
NOTE Confidence: 0.931225165833333

00:13:57.134 --> 00:14:01.100 suggesting that it reduces rigidity and
NOTE Confidence: 0.931225165833333

00:14:01.224 --> 00:14:05.686 flexibility and perseveration and yeah,
NOTE Confidence: 0.931225165833333

00:14:05.686 --> 00:14:07.240 so an increasing.
NOTE Confidence: 0.931225165833333

00:14:07.240 --> 00:14:07.968 Both cognitive,
NOTE Confidence: 0.931225165833333

00:14:07.968 --> 00:14:08.332 psychological,
NOTE Confidence: 0.931225165833333

00:14:08.332 --> 00:14:10.880 flexibility in emotional ability and so on.
NOTE Confidence: 0.931225165833333

00:14:10.880 --> 00:14:13.280 So two different magnetism through
NOTE Confidence: 0.931225165833333

00:14:13.280 --> 00:14:14.720 two different receptors.
NOTE Confidence: 0.931225165833333

00:14:14.720 --> 00:14:17.240 Although it's not that there's not
NOTE Confidence: 0.931225165833333

00:14:17.240 --> 00:14:19.952 also some other actions of both
NOTE Confidence: 0.931225165833333

00:14:19.952 --> 00:14:21.824 compounds and some psychedelics
NOTE Confidence: 0.931225165833333

00:14:21.824 --> 00:14:24.200 also work a lot on the 1A.
NOTE Confidence: 0.931225165833333

00:14:24.200 --> 00:14:26.720 So it's a bit of a simplified model,
NOTE Confidence: 0.931225165833333

00:14:26.720 --> 00:14:30.580 but nevertheless it then opens up for us.

NOTE Confidence: 0.931225165833333

00:14:30.580 --> 00:14:31.320 Yeah.

NOTE Confidence: 0.9234812

00:14:31.320 --> 00:14:33.092 Can I ask why so so that.

NOTE Confidence: 0.9234812

00:14:33.092 --> 00:14:34.996 I mean, it's an interesting conceptual

NOTE Confidence: 0.9234812

00:14:34.996 --> 00:14:37.190 model to divide the two aspects of.

NOTE Confidence: 0.9234812

00:14:37.190 --> 00:14:39.230 Of depression up in this way,

NOTE Confidence: 0.9234812

00:14:39.230 --> 00:14:42.346 but why would you say that that SSR

NOTE Confidence: 0.9234812

00:14:42.346 --> 00:14:44.494 I's for example act primarily on

NOTE Confidence: 0.9234812

00:14:44.494 --> 00:14:47.305 the 1A when really they're going to

NOTE Confidence: 0.9234812

00:14:47.305 --> 00:14:50.070 increase the half life of serotonin

NOTE Confidence: 0.9234812

00:14:50.070 --> 00:14:52.289 that it's released the the two a

NOTE Confidence: 0.9234812

00:14:52.289 --> 00:14:53.990 focus for psychedelics makes sense,

NOTE Confidence: 0.9234812

00:14:53.990 --> 00:14:55.245 although of course they also

NOTE Confidence: 0.9234812

00:14:55.245 --> 00:14:56.130 have one affinity.

NOTE Confidence: 0.9234812

00:14:56.130 --> 00:14:58.590 The 1A focus for the SSRI don't

NOTE Confidence: 0.9234812

00:14:58.590 --> 00:15:00.270 understand as opposed to for example,

NOTE Confidence: 0.9234812

00:15:00.270 --> 00:15:02.174 Buspirone which is A1A agonist and that
NOTE Confidence: 0.9234812

00:15:02.174 --> 00:15:04.362 would be a cleaner dissociation but
NOTE Confidence: 0.9234812

00:15:04.362 --> 00:15:07.158 also doesn't work very well clinically.
NOTE Confidence: 0.9234812

00:15:07.160 --> 00:15:07.560 No,
NOTE Confidence: 0.9352219

00:15:07.600 --> 00:15:11.158 absolutely. So it's a bit of,
NOTE Confidence: 0.9352219

00:15:11.160 --> 00:15:13.518 yeah, so, so this is right.
NOTE Confidence: 0.9352219

00:15:13.520 --> 00:15:15.718 Absolutely. They work by, as you say,
NOTE Confidence: 0.9352219

00:15:15.720 --> 00:15:19.514 by sort of increasing levels of serotonin.
NOTE Confidence: 0.9352219

00:15:19.520 --> 00:15:22.456 But it is established that in different,
NOTE Confidence: 0.9352219

00:15:22.456 --> 00:15:25.732 yeah models that the 1A play a
NOTE Confidence: 0.9352219

00:15:25.732 --> 00:15:28.289 significant role for the effects of.
NOTE Confidence: 0.9352219

00:15:28.290 --> 00:15:30.117 S s arise. So it it doesn't
NOTE Confidence: 0.9352219

00:15:30.117 --> 00:15:31.768 mean that there's not also some,
NOTE Confidence: 0.9352219

00:15:31.770 --> 00:15:33.336 there are some studies that also
NOTE Confidence: 0.9352219

00:15:33.336 --> 00:15:34.729 suggest some action through the 2A,
NOTE Confidence: 0.9352219

00:15:34.730 --> 00:15:38.056 but much, much more more through the 1A.

NOTE Confidence: 0.9352219

00:15:38.056 --> 00:15:42.205 And I think in in different studies and

NOTE Confidence: 0.9352219

00:15:42.205 --> 00:15:45.090 also preclinical models that action is

NOTE Confidence: 0.9352219

00:15:45.090 --> 00:15:47.250 associated with some of those effects

NOTE Confidence: 0.9352219

00:15:47.250 --> 00:15:49.800 there that are sort of different

NOTE Confidence: 0.9352219

00:15:49.800 --> 00:15:52.715 from what the 2A mechanism induces.

NOTE Confidence: 0.9352219

00:15:52.715 --> 00:15:55.505 But it yeah there's some degree

NOTE Confidence: 0.9352219

00:15:55.505 --> 00:15:57.200 of arbitrary separation by.

NOTE Confidence: 0.9352219

00:15:57.200 --> 00:15:58.796 Showing it in in this model,

NOTE Confidence: 0.9352219

00:15:58.800 --> 00:15:59.733 but you're right,

NOTE Confidence: 0.9352219

00:15:59.733 --> 00:16:02.220 if it was just about showing 1A versus

NOTE Confidence: 0.9352219

00:16:02.220 --> 00:16:04.390 2A then it is not particularly logical

NOTE Confidence: 0.9352219

00:16:04.390 --> 00:16:06.564 to do an SSRI. So it's it's yeah.

NOTE Confidence: 0.9352219

00:16:06.564 --> 00:16:09.473 So it was also just to also to see

NOTE Confidence: 0.9352219

00:16:09.473 --> 00:16:11.393 whether there was any different

NOTE Confidence: 0.9352219

00:16:11.393 --> 00:16:13.930 obviously in clinical outcomes between

NOTE Confidence: 0.9352219

00:16:13.930 --> 00:16:16.194 SSRI conventional pharmaco gold
NOTE Confidence: 0.9352219

00:16:16.194 --> 00:16:18.560 standard pharmacological therapy for
NOTE Confidence: 0.9352219

00:16:18.560 --> 00:16:21.560 depression and a psychedelic treatment.
NOTE Confidence: 0.9352219

00:16:21.560 --> 00:16:23.436 But when it came to brain mechanism,
NOTE Confidence: 0.9352219

00:16:23.440 --> 00:16:26.650 we were sort of thinking a bit in this model.
NOTE Confidence: 0.9352219

00:16:26.650 --> 00:16:27.290 If that makes sense,
NOTE Confidence: 0.937216685

00:16:27.810 --> 00:16:28.670 that does actually something that
NOTE Confidence: 0.937216685

00:16:28.670 --> 00:16:30.010 occurred to me as you were speaking.
NOTE Confidence: 0.937216685

00:16:30.010 --> 00:16:32.008 There is some literature mostly from
NOTE Confidence: 0.937216685

00:16:32.008 --> 00:16:33.970 animals that chronic SSR I treatment
NOTE Confidence: 0.937216685

00:16:33.970 --> 00:16:36.300 leads to down regulation of the two A.
NOTE Confidence: 0.937216685

00:16:36.300 --> 00:16:39.270 So it you could imagine that the SSR I
NOTE Confidence: 0.937216685

00:16:39.351 --> 00:16:42.406 leads to increase serotonin everywhere
NOTE Confidence: 0.937216685

00:16:42.410 --> 00:16:44.770 activates both 1A and 1-2 and two A.
NOTE Confidence: 0.937216685

00:16:44.770 --> 00:16:47.826 But 2A becomes down regulated by the chronic
NOTE Confidence: 0.937216685

00:16:47.826 --> 00:16:49.926 treatment and so the net enhancement in

NOTE Confidence: 0.937216685

00:16:49.926 --> 00:16:52.449 2A is limited by that down regulation.

NOTE Confidence: 0.937216685

00:16:52.450 --> 00:16:54.221 Isn't it that so that there may

NOTE Confidence: 0.937216685

00:16:54.221 --> 00:16:56.474 in fact that that may be a source

NOTE Confidence: 0.937216685

00:16:56.474 --> 00:16:57.660 of the specificity. Yeah.

NOTE Confidence: 0.906362092222222

00:16:57.660 --> 00:16:59.130 So, so you're saying that chronic

NOTE Confidence: 0.906362092222222

00:16:59.130 --> 00:17:00.915 gas is a right lead to down

NOTE Confidence: 0.906362092222222

00:17:00.915 --> 00:17:02.665 regulation of 2A and then there will

NOTE Confidence: 0.906362092222222

00:17:02.722 --> 00:17:04.458 be less mediate through the 2A and

NOTE Confidence: 0.9452853

00:17:04.500 --> 00:17:06.110 so. So that's SSRI is causing there

NOTE Confidence: 0.9452853

00:17:06.110 --> 00:17:07.900 to be more serotonin everywhere,

NOTE Confidence: 0.9452853

00:17:07.900 --> 00:17:10.260 but there's less 2A receptor.

NOTE Confidence: 0.9452853

00:17:10.260 --> 00:17:12.699 And so maybe it's awash on the 2A receptor,

NOTE Confidence: 0.9452853

00:17:12.700 --> 00:17:14.740 but an enhancement of signaling in the 1A,

NOTE Confidence: 0.9452853

00:17:15.180 --> 00:17:16.332 yeah, that's that's another

NOTE Confidence: 0.9452853

00:17:16.332 --> 00:17:18.060 way of of thinking about it,

NOTE Confidence: 0.9452853

00:17:18.060 --> 00:17:19.140 but that they are studies,
NOTE Confidence: 0.9452853

00:17:19.140 --> 00:17:21.522 but maybe they are not chronic
NOTE Confidence: 0.9452853

00:17:21.522 --> 00:17:23.110 in some animal literature.
NOTE Confidence: 0.9452853

00:17:23.110 --> 00:17:26.534 Blocking to A and with
NOTE Confidence: 0.9452853

00:17:26.534 --> 00:17:28.070 SSRI and seeing effects,
NOTE Confidence: 0.9452853

00:17:28.070 --> 00:17:29.495 but that's probably more acute
NOTE Confidence: 0.9452853

00:17:29.495 --> 00:17:31.628 studies in I think that's acute.
NOTE Confidence: 0.9452853

00:17:31.630 --> 00:17:33.950 Yeah, I think you're right.
NOTE Confidence: 0.9452853

00:17:33.950 --> 00:17:35.334 That's a good point.
NOTE Confidence: 0.9452853

00:17:35.334 --> 00:17:41.530 So yeah, so we then designed this trial.
NOTE Confidence: 0.9452853

00:17:41.530 --> 00:17:44.368 Where the people received 2 doses,
NOTE Confidence: 0.9452853

00:17:44.370 --> 00:17:47.190 2 sessions with with three weeks
NOTE Confidence: 0.9452853

00:17:47.190 --> 00:17:49.255 between of of psilocybin and
NOTE Confidence: 0.9452853

00:17:49.255 --> 00:17:51.880 then in the other arm they were
NOTE Confidence: 0.9452853

00:17:51.961 --> 00:17:53.826 they were they were randomized
NOTE Confidence: 0.9452853

00:17:53.826 --> 00:17:57.343 to either 259 patients total to

NOTE Confidence: 0.9452853

00:17:57.343 --> 00:17:58.408 either of these two conditions.

NOTE Confidence: 0.9452853

00:17:58.410 --> 00:18:00.713 So if they were in the red

NOTE Confidence: 0.9452853

00:18:00.713 --> 00:18:03.210 psilocybin I'm here with the we use

NOTE Confidence: 0.9452853

00:18:03.210 --> 00:18:06.639 compasses 25 milligram compound.

NOTE Confidence: 0.9452853

00:18:06.640 --> 00:18:07.396 If they were in that arm,

NOTE Confidence: 0.9452853

00:18:07.400 --> 00:18:09.680 then they would receive daily

NOTE Confidence: 0.9452853

00:18:09.680 --> 00:18:12.320 placebo version of the is a

NOTE Confidence: 0.9452853

00:18:12.320 --> 00:18:14.270 telegram and they would in both

NOTE Confidence: 0.9452853

00:18:14.270 --> 00:18:16.040 arm get exactly the sort of.

NOTE Confidence: 0.9452853

00:18:16.040 --> 00:18:16.798 Not exactly,

NOTE Confidence: 0.9452853

00:18:16.798 --> 00:18:18.693 because there might have been

NOTE Confidence: 0.9452853

00:18:18.693 --> 00:18:21.060 a bit more time with therapists

NOTE Confidence: 0.9452853

00:18:21.060 --> 00:18:22.990 due to the integration part

NOTE Confidence: 0.9452853

00:18:22.990 --> 00:18:25.065 of it after the psilocybin,

NOTE Confidence: 0.9452853

00:18:25.065 --> 00:18:27.990 but they received overall similar

NOTE Confidence: 0.9452853

00:18:27.990 --> 00:18:31.124 preparation support during the experience

NOTE Confidence: 0.9452853

00:18:31.124 --> 00:18:33.960 and integration session afterwards.

NOTE Confidence: 0.9452853

00:18:33.960 --> 00:18:35.349 The same room,

NOTE Confidence: 0.9452853

00:18:35.349 --> 00:18:36.738 same therapist same.

NOTE Confidence: 0.9452853

00:18:36.740 --> 00:18:38.312 Music and so on.

NOTE Confidence: 0.9452853

00:18:38.312 --> 00:18:40.670 And they got two placebo sessions

NOTE Confidence: 0.9452853

00:18:40.749 --> 00:18:43.325 in in when they were in the blue

NOTE Confidence: 0.9452853

00:18:43.325 --> 00:18:45.779 arm with the active acetalgram,

NOTE Confidence: 0.9452853

00:18:45.780 --> 00:18:47.580 first three weeks they got 10

NOTE Confidence: 0.9452853

00:18:47.580 --> 00:18:49.956 and then they were upped up to

NOTE Confidence: 0.9452853

00:18:49.956 --> 00:18:51.432 20 milligram afterwards for

NOTE Confidence: 0.9452853

00:18:51.432 --> 00:18:53.683 acetalgram which is pretty standard

NOTE Confidence: 0.9452853

00:18:53.683 --> 00:18:55.297 clinically with acetalgram.

NOTE Confidence: 0.9452853

00:18:55.300 --> 00:18:58.735 And obviously As for all studies

NOTE Confidence: 0.9452853

00:18:58.735 --> 00:19:01.204 and also for our first study it

NOTE Confidence: 0.9452853

00:19:01.204 --> 00:19:03.444 was done in in in in this sort

NOTE Confidence: 0.9452853

00:19:03.524 --> 00:19:05.540 of setting environment with.

NOTE Confidence: 0.9452853

00:19:05.540 --> 00:19:06.908 Some sort of pleasant,

NOTE Confidence: 0.9452853

00:19:06.908 --> 00:19:08.618 often a bit nature inspired

NOTE Confidence: 0.9452853

00:19:08.618 --> 00:19:10.257 decoration and dim light and music

NOTE Confidence: 0.9452853

00:19:10.257 --> 00:19:12.043 and eye mask and and and guides

NOTE Confidence: 0.9452853

00:19:12.043 --> 00:19:14.019 in the room and they were sort of

NOTE Confidence: 0.9452853

00:19:14.020 --> 00:19:16.468 prepared through a few I think

NOTE Confidence: 0.9452853

00:19:16.468 --> 00:19:18.603 3 preparation sessions with the

NOTE Confidence: 0.9452853

00:19:18.603 --> 00:19:20.718 same therapist that then followed

NOTE Confidence: 0.9452853

00:19:20.718 --> 00:19:23.608 them through the trial and also

NOTE Confidence: 0.9452853

00:19:23.608 --> 00:19:25.300 through integration afterwards.

NOTE Confidence: 0.9452853

00:19:25.300 --> 00:19:27.306 And okay.

NOTE Confidence: 0.9452853

00:19:27.306 --> 00:19:29.136 I actually had this slide,

NOTE Confidence: 0.9452853

00:19:29.140 --> 00:19:31.060 sorry the way that is explained.

NOTE Confidence: 0.9452853

00:19:31.060 --> 00:19:32.932 So you see the two arms to the left,

NOTE Confidence: 0.9452853

00:19:32.940 --> 00:19:34.308 the full dose.
NOTE Confidence: 0.9452853

00:19:34.308 --> 00:19:37.044 2/2 times with three weeks between
NOTE Confidence: 0.9452853

00:19:37.050 --> 00:19:38.919 and then in mirrored in the other
NOTE Confidence: 0.9452853

00:19:38.919 --> 00:19:41.217 arm by two one milligrams of the
NOTE Confidence: 0.9452853

00:19:41.217 --> 00:19:43.007 placebo levels in those item
NOTE Confidence: 0.9452853

00:19:43.007 --> 00:19:44.895 sessions and then either placebo if
NOTE Confidence: 0.9452853

00:19:44.895 --> 00:19:47.114 they got to the side and placebo
NOTE Confidence: 0.9452853

00:19:47.114 --> 00:19:49.610 instead of as a telephone and so on.
NOTE Confidence: 0.9452853

00:19:49.610 --> 00:19:51.326 And then they the the primary
NOTE Confidence: 0.9452853

00:19:51.326 --> 00:19:52.890 outcome was at six weeks.
NOTE Confidence: 0.9452853

00:19:52.890 --> 00:19:55.886 So that means after six weeks of
NOTE Confidence: 0.9452853

00:19:55.890 --> 00:19:57.450 is a terrible treatment and that
NOTE Confidence: 0.9452853

00:19:57.450 --> 00:19:59.150 would then be after the three
NOTE Confidence: 0.9452853

00:19:59.150 --> 00:20:02.370 weeks after the last of the two.
NOTE Confidence: 0.9452853

00:20:02.370 --> 00:20:05.225 Pull those psilocybin session or
NOTE Confidence: 0.9452853

00:20:05.225 --> 00:20:07.366 psilocybin session and then there

NOTE Confidence: 0.9452853

00:20:07.366 --> 00:20:09.358 was imaging sitting at that time

NOTE Confidence: 0.9452853

00:20:09.358 --> 00:20:11.560 point and also at baseline and then

NOTE Confidence: 0.9452853

00:20:11.560 --> 00:20:13.485 we followed them up for six months.

NOTE Confidence: 0.9452853

00:20:13.490 --> 00:20:16.856 So this is just to to show that like

NOTE Confidence: 0.9452853

00:20:16.856 --> 00:20:19.572 another other places we are building,

NOTE Confidence: 0.9452853

00:20:19.572 --> 00:20:23.424 not building but decorating spaces that

NOTE Confidence: 0.9452853

00:20:23.424 --> 00:20:28.567 are in a way a bit more specifically.

NOTE Confidence: 0.9452853

00:20:28.570 --> 00:20:29.959 Designed for for,

NOTE Confidence: 0.9452853

00:20:29.959 --> 00:20:32.274 for holding these spaces and

NOTE Confidence: 0.9452853

00:20:32.274 --> 00:20:33.890 providing this therapy.

NOTE Confidence: 0.9452853

00:20:33.890 --> 00:20:34.726 And now we have,

NOTE Confidence: 0.9452853

00:20:34.726 --> 00:20:35.980 and I don't know why I

NOTE Confidence: 0.931028756666667

00:20:36.034 --> 00:20:37.954 show this, but that's because we're

NOTE Confidence: 0.931028756666667

00:20:37.954 --> 00:20:40.336 a little bit proud that now we

NOTE Confidence: 0.931028756666667

00:20:40.336 --> 00:20:41.970 have our own clinic space within

NOTE Confidence: 0.931028756666667

00:20:41.970 --> 00:20:44.145 the health system, within the NHS
NOTE Confidence: 0.931028756666667

00:20:44.145 --> 00:20:46.370 National Health System in London,
NOTE Confidence: 0.931028756666667

00:20:46.370 --> 00:20:48.586 where we have been allowed to use the
NOTE Confidence: 0.931028756666667

00:20:48.586 --> 00:20:50.888 space it was previous in ECT clinics.
NOTE Confidence: 0.931028756666667

00:20:50.890 --> 00:20:52.180 That means we don't have to
NOTE Confidence: 0.931028756666667

00:20:52.180 --> 00:20:53.489 decorate and take it all down,
NOTE Confidence: 0.931028756666667

00:20:53.490 --> 00:20:54.687 which we have to do for years,
NOTE Confidence: 0.931028756666667

00:20:54.690 --> 00:20:55.998 which was quite exhausting.
NOTE Confidence: 0.931028756666667

00:20:55.998 --> 00:20:58.700 And now we have the rooms decorating.
NOTE Confidence: 0.931028756666667

00:20:58.700 --> 00:21:00.980 So yeah, any questions?
NOTE Confidence: 0.931028756666667

00:21:00.980 --> 00:21:01.340 I think the
NOTE Confidence: 0.904406193333333

00:21:01.420 --> 00:21:03.100 I just chuckling because we have
NOTE Confidence: 0.904406193333333

00:21:03.100 --> 00:21:05.004 to do that set up the decoration.
NOTE Confidence: 0.904406193333333

00:21:05.004 --> 00:21:06.600 I was just chuckling because we
NOTE Confidence: 0.904406193333333

00:21:06.653 --> 00:21:08.373 have to do that in our dosing room.
NOTE Confidence: 0.904406193333333

00:21:08.380 --> 00:21:09.334 We have to set everything up

NOTE Confidence: 0.9044061933333333
00:21:09.334 --> 00:21:10.429 and then take it all down and
NOTE Confidence: 0.9044061933333333
00:21:10.429 --> 00:21:11.416 then set it all up and then
NOTE Confidence: 0.9436081833333333
00:21:11.660 --> 00:21:13.736 take. It's so irritating isn't it?
NOTE Confidence: 0.9436081833333333
00:21:13.740 --> 00:21:15.532 So, so yeah. So we we we also
NOTE Confidence: 0.9436081833333333
00:21:15.532 --> 00:21:17.377 do that actually for some now.
NOTE Confidence: 0.9436081833333333
00:21:17.380 --> 00:21:19.324 I think now we're using the room and
NOTE Confidence: 0.9436081833333333
00:21:19.324 --> 00:21:20.900 the other side so frequently that
NOTE Confidence: 0.9436081833333333
00:21:20.900 --> 00:21:23.011 I think we are allowed to keep it
NOTE Confidence: 0.9436081833333333
00:21:23.011 --> 00:21:24.775 actually most of the time at least.
NOTE Confidence: 0.9436081833333333
00:21:24.780 --> 00:21:26.460 But this one is now sort of.
NOTE Confidence: 0.9436081833333333
00:21:26.460 --> 00:21:28.260 Permanent I don't know how permanent
NOTE Confidence: 0.9436081833333333
00:21:28.260 --> 00:21:30.396 until they kick us out but we we
NOTE Confidence: 0.9436081833333333
00:21:30.396 --> 00:21:32.119 have been allowed to do it and
NOTE Confidence: 0.9436081833333333
00:21:32.119 --> 00:21:33.879 obviously not obviously but in
NOTE Confidence: 0.9436081833333333
00:21:33.879 --> 00:21:35.568 collaboration with some some nice
NOTE Confidence: 0.9436081833333333

00:21:35.568 --> 00:21:37.452 designers that have given us some
NOTE Confidence: 0.9436081833333333

00:21:37.452 --> 00:21:39.340 tables that are in sort of stone.
NOTE Confidence: 0.9436081833333333

00:21:39.340 --> 00:21:41.685 So using sort of net bringing some
NOTE Confidence: 0.9436081833333333

00:21:41.685 --> 00:21:44.065 nature materials in which are not really
NOTE Confidence: 0.9436081833333333

00:21:44.065 --> 00:21:46.395 open there in a hospital setting and
NOTE Confidence: 0.9436081833333333

00:21:46.395 --> 00:21:48.432 and some art and some plant plants
NOTE Confidence: 0.9436081833333333

00:21:48.432 --> 00:21:52.860 and some very scanty me being Danish
NOTE Confidence: 0.9436081833333333

00:21:52.860 --> 00:21:56.170 mushroom lamps and so on okay so.
NOTE Confidence: 0.9436081833333333

00:21:56.170 --> 00:21:59.854 And then the results from from this
NOTE Confidence: 0.9436081833333333

00:21:59.854 --> 00:22:01.822 trial where we compared to esoteric,
NOTE Confidence: 0.9436081833333333

00:22:01.830 --> 00:22:03.981 if you look to the right you see this
NOTE Confidence: 0.9436081833333333

00:22:03.981 --> 00:22:06.294 is sort of the main findings there and
NOTE Confidence: 0.9436081833333333

00:22:06.294 --> 00:22:08.422 and that the primary outcome measure
NOTE Confidence: 0.9436081833333333

00:22:08.422 --> 00:22:11.229 which was quits this self rated depression,
NOTE Confidence: 0.9436081833333333

00:22:11.230 --> 00:22:14.310 it didn't separate the two condition at
NOTE Confidence: 0.9436081833333333

00:22:14.310 --> 00:22:17.258 this primary time points of six weeks.

NOTE Confidence: 0.9436081833333333
00:22:17.260 --> 00:22:19.072 But actually all the other measures
NOTE Confidence: 0.9436081833333333
00:22:19.072 --> 00:22:19.978 that we had,
NOTE Confidence: 0.9436081833333333
00:22:19.980 --> 00:22:22.176 including three other measures of depression,
NOTE Confidence: 0.9436081833333333
00:22:22.180 --> 00:22:24.380 the two clinician rates at
NOTE Confidence: 0.9436081833333333
00:22:24.380 --> 00:22:25.700 1 Hamilton mattress.
NOTE Confidence: 0.9436081833333333
00:22:25.700 --> 00:22:28.934 They did separate and so did BDI
NOTE Confidence: 0.9436081833333333
00:22:28.940 --> 00:22:31.300 and also avoidance and Adonia,
NOTE Confidence: 0.9436081833333333
00:22:31.300 --> 00:22:32.900 working social function flourishing
NOTE Confidence: 0.9436081833333333
00:22:32.900 --> 00:22:34.900 and Spielberg anxiety, wellbeing,
NOTE Confidence: 0.9436081833333333
00:22:34.900 --> 00:22:37.300 suicidality favored this,
NOTE Confidence: 0.9436081833333333
00:22:37.300 --> 00:22:42.650 the psilocybin condition in this data set.
NOTE Confidence: 0.9436081833333333
00:22:42.650 --> 00:22:44.514 And you have the,
NOTE Confidence: 0.9436081833333333
00:22:44.514 --> 00:22:46.885 the well-being on the bottom left and
NOTE Confidence: 0.9436081833333333
00:22:46.885 --> 00:22:49.329 and you can also see a quick onset.
NOTE Confidence: 0.9436081833333333
00:22:49.330 --> 00:22:50.926 Also when we look at response
NOTE Confidence: 0.9436081833333333

00:22:50.926 --> 00:22:51.724 and remission rates,
NOTE Confidence: 0.9436081833333333

00:22:51.730 --> 00:22:55.930 they were quite a lot stronger for the
NOTE Confidence: 0.9436081833333333

00:22:55.930 --> 00:22:59.010 psilocybin condition as well in this trial,
NOTE Confidence: 0.9436081833333333

00:22:59.010 --> 00:23:01.010 looking at some of the cycle,
NOTE Confidence: 0.933065457142857

00:23:01.010 --> 00:23:02.088 sorry. What do you make of the
NOTE Confidence: 0.9419308333333333

00:23:02.090 --> 00:23:04.154 fact that you got such a rapid response
NOTE Confidence: 0.9419308333333333

00:23:04.154 --> 00:23:06.230 in your Lexapro group like the kinetics
NOTE Confidence: 0.9419308333333333

00:23:06.230 --> 00:23:08.050 of the two curves don't look different.
NOTE Confidence: 0.825778194

00:23:08.410 --> 00:23:12.350 No, I I think it's it's.
NOTE Confidence: 0.825778194

00:23:12.350 --> 00:23:14.940 Because so why you have such a
NOTE Confidence: 0.825778194

00:23:14.940 --> 00:23:17.045 quick response to esoteric that's
NOTE Confidence: 0.825778194

00:23:17.045 --> 00:23:20.230 because I think that's because of the
NOTE Confidence: 0.825778194

00:23:20.230 --> 00:23:22.534 psychological support in both arms so
NOTE Confidence: 0.825778194

00:23:22.534 --> 00:23:25.213 and and the first session will with
NOTE Confidence: 0.825778194

00:23:25.213 --> 00:23:27.705 a 1 milligram with all the music,
NOTE Confidence: 0.825778194

00:23:27.710 --> 00:23:29.789 the therapies, the guiding and all that.

NOTE Confidence: 0.825778194

00:23:29.790 --> 00:23:31.680 So so that obviously was also

NOTE Confidence: 0.825778194

00:23:31.680 --> 00:23:34.150 present in the in the esoteric arm.

NOTE Confidence: 0.825778194

00:23:34.150 --> 00:23:36.145 So I think that's the reason because

NOTE Confidence: 0.825778194

00:23:36.145 --> 00:23:38.156 you're right if it has just been an.

NOTE Confidence: 0.825778194

00:23:38.160 --> 00:23:40.960 You know just SSRI with nothing else.

NOTE Confidence: 0.825778194

00:23:40.960 --> 00:23:43.400 Then it probably would have been a a

NOTE Confidence: 0.825778194

00:23:43.400 --> 00:23:45.430 slower slope that might not have even

NOTE Confidence: 0.825778194

00:23:45.430 --> 00:23:47.439 gone that far because I think the

NOTE Confidence: 0.825778194

00:23:47.440 --> 00:23:49.750 psychological support of all those

NOTE Confidence: 0.825778194

00:23:49.750 --> 00:23:52.424 many hours accumulated over the time

NOTE Confidence: 0.825778194

00:23:52.424 --> 00:23:55.296 of the study has has also mixed into

NOTE Confidence: 0.825778194

00:23:55.296 --> 00:23:58.400 the response to in the SSL from.

NOTE Confidence: 0.825778194

00:23:58.400 --> 00:24:02.117 Yeah, and when it comes to why quits

NOTE Confidence: 0.825778194

00:24:02.117 --> 00:24:04.058 is actually acting a bit differently

NOTE Confidence: 0.825778194

00:24:04.058 --> 00:24:05.066 from the others.

NOTE Confidence: 0.825778194

00:24:05.070 --> 00:24:09.806 We have a great postdoc researcher,
NOTE Confidence: 0.825778194

00:24:09.806 --> 00:24:12.763 Brandon Weiss, who has recently.
NOTE Confidence: 0.825778194

00:24:12.763 --> 00:24:14.869 I don't think it's out yet,
NOTE Confidence: 0.825778194

00:24:14.870 --> 00:24:16.750 but it has been accepted.
NOTE Confidence: 0.825778194

00:24:16.750 --> 00:24:20.204 A nice paper where he actually really
NOTE Confidence: 0.825778194

00:24:20.204 --> 00:24:22.789 dissects the quits versus the others and.
NOTE Confidence: 0.825778194

00:24:22.790 --> 00:24:24.900 Discusses differences in these meshes
NOTE Confidence: 0.825778194

00:24:24.900 --> 00:24:28.184 and and and and analyzes it and also
NOTE Confidence: 0.825778194

00:24:28.184 --> 00:24:30.386 constructs a factor from all the
NOTE Confidence: 0.825778194

00:24:30.386 --> 00:24:33.038 different 4 measures at at sort of
NOTE Confidence: 0.825778194

00:24:33.038 --> 00:24:35.150 single depression factor from them
NOTE Confidence: 0.825778194

00:24:35.150 --> 00:24:38.350 and that also clearly separates.
NOTE Confidence: 0.825778194

00:24:38.350 --> 00:24:40.310 I don't have it here on these slides
NOTE Confidence: 0.825778194

00:24:40.310 --> 00:24:41.950 but that's coming out very soon.
NOTE Confidence: 0.825778194

00:24:41.950 --> 00:24:44.785 It's not to try to sort of speak quits
NOTE Confidence: 0.825778194

00:24:44.785 --> 00:24:47.760 down is trying to understand why that

NOTE Confidence: 0.825778194

00:24:47.760 --> 00:24:49.726 actually might be the case that we

NOTE Confidence: 0.825778194

00:24:49.726 --> 00:24:51.818 saw that difference in this in the meshes.

NOTE Confidence: 0.825778194

00:24:51.820 --> 00:24:54.095 So in terms of rumination

NOTE Confidence: 0.825778194

00:24:54.095 --> 00:24:55.460 and thought suppression,

NOTE Confidence: 0.825778194

00:24:55.460 --> 00:25:01.716 they too sort of kind of defense mechanisms.

NOTE Confidence: 0.825778194

00:25:01.716 --> 00:25:04.660 Rumination sort of a maladaptive one.

NOTE Confidence: 0.825778194

00:25:04.660 --> 00:25:06.064 Thought suppression I think can both

NOTE Confidence: 0.825778194

00:25:06.064 --> 00:25:08.059 be sort of a good and a bad thing.

NOTE Confidence: 0.825778194

00:25:08.060 --> 00:25:10.895 But nevertheless we saw a decrease in

NOTE Confidence: 0.825778194

00:25:10.895 --> 00:25:13.057 measures of that following psilocybin

NOTE Confidence: 0.825778194

00:25:13.057 --> 00:25:16.537 and we didn't see that following as a

NOTE Confidence: 0.825778194

00:25:16.614 --> 00:25:20.020 telegram experiential avoidance we also saw.

NOTE Confidence: 0.9469625333333333

00:25:23.700 --> 00:25:26.500 Reductions in in the psilocybin

NOTE Confidence: 0.9469625333333333

00:25:26.500 --> 00:25:32.150 arm and we could see that those

NOTE Confidence: 0.9469625333333333

00:25:32.150 --> 00:25:34.654 effects of experiential avoidance

NOTE Confidence: 0.9469625333333333

00:25:34.660 --> 00:25:36.756 via increases in connectedness
NOTE Confidence: 0.9469625333333333

00:25:36.756 --> 00:25:38.852 was associated with improvement
NOTE Confidence: 0.9469625333333333

00:25:38.852 --> 00:25:41.579 in in the in different outcomes,
NOTE Confidence: 0.9469625333333333

00:25:41.579 --> 00:25:43.015 well-being depression and so
NOTE Confidence: 0.9469625333333333

00:25:43.015 --> 00:25:45.599 on in in this in this study.
NOTE Confidence: 0.9469625333333333

00:25:45.600 --> 00:25:48.714 And also other things that again
NOTE Confidence: 0.9469625333333333

00:25:48.714 --> 00:25:52.064 maybe show some degree of and this is
NOTE Confidence: 0.9469625333333333

00:25:52.064 --> 00:25:54.032 again little bit sort of simplified.
NOTE Confidence: 0.9469625333333333

00:25:54.040 --> 00:25:55.976 But if you think about the what a
NOTE Confidence: 0.9469625333333333

00:25:55.976 --> 00:25:57.880 lot of patients described with some
NOTE Confidence: 0.9469625333333333

00:25:57.880 --> 00:26:00.461 degree of blunting and in a way putting
NOTE Confidence: 0.9469625333333333

00:26:00.461 --> 00:26:02.740 the lid on in terms of of of their
NOTE Confidence: 0.9469625333333333

00:26:02.740 --> 00:26:04.440 symptoms and and their presentations,
NOTE Confidence: 0.9469625333333333

00:26:04.440 --> 00:26:07.350 their ability to sort of.
NOTE Confidence: 0.9469625333333333

00:26:07.350 --> 00:26:10.570 Emotionality and so on then it seems
NOTE Confidence: 0.9469625333333333

00:26:10.570 --> 00:26:13.622 like the the psychedelics psychological,

NOTE Confidence: 0.9469625333333333
00:26:13.622 --> 00:26:14.270 psychologically,
NOTE Confidence: 0.9469625333333333
00:26:14.270 --> 00:26:14.790 mechanistically,
NOTE Confidence: 0.9469625333333333
00:26:14.790 --> 00:26:18.430 if anything possibly does be the opposite.
NOTE Confidence: 0.9469625333333333
00:26:18.430 --> 00:26:20.579 Sort of taking that lid off and
NOTE Confidence: 0.9469625333333333
00:26:20.579 --> 00:26:22.335 and another example of that is
NOTE Confidence: 0.9469625333333333
00:26:22.335 --> 00:26:24.141 you can see here ability to cry,
NOTE Confidence: 0.9469625333333333
00:26:24.150 --> 00:26:26.172 ability to feel compassion and in
NOTE Confidence: 0.9469625333333333
00:26:26.172 --> 00:26:28.353 particular I guess the ability to
NOTE Confidence: 0.9469625333333333
00:26:28.353 --> 00:26:30.166 feel intensive motion increases
NOTE Confidence: 0.9469625333333333
00:26:30.166 --> 00:26:33.233 in the psilocybin condition much
NOTE Confidence: 0.9469625333333333
00:26:33.233 --> 00:26:36.334 more than than for as a teleprom.
NOTE Confidence: 0.9469625333333333
00:26:36.340 --> 00:26:40.780 And so suggesting a bit of the same thing.
NOTE Confidence: 0.9469625333333333
00:26:40.780 --> 00:26:42.892 So I'm focusing a bit on depression in
NOTE Confidence: 0.9469625333333333
00:26:42.892 --> 00:26:45.298 this talk, but as you probably all know,
NOTE Confidence: 0.9469625333333333
00:26:45.300 --> 00:26:47.736 there's a lot of different trials
NOTE Confidence: 0.9469625333333333

00:26:47.740 --> 00:26:50.200 being done and already some pilots.
NOTE Confidence: 0.9469625333333333

00:26:50.200 --> 00:26:52.096 Gone for all the conditions and
NOTE Confidence: 0.9469625333333333

00:26:52.096 --> 00:26:53.772 indications OCD we are currently
NOTE Confidence: 0.9469625333333333

00:26:53.772 --> 00:26:55.878 doing more OCD work at Imperial.
NOTE Confidence: 0.9469625333333333

00:26:55.880 --> 00:26:57.818 There's a wonderful work over on
NOTE Confidence: 0.9469625333333333

00:26:57.818 --> 00:27:00.371 your side of the pond with end of
NOTE Confidence: 0.9469625333333333

00:27:00.371 --> 00:27:02.650 life distress at NYU and and James
NOTE Confidence: 0.9469625333333333

00:27:02.650 --> 00:27:05.456 Hopkins anxiety studies showing
NOTE Confidence: 0.9469625333333333

00:27:05.456 --> 00:27:09.416 reductions their addiction namely so
NOTE Confidence: 0.9469625333333333

00:27:09.416 --> 00:27:12.502 far alcohol and nicotine dependence
NOTE Confidence: 0.9469625333333333

00:27:12.502 --> 00:27:15.157 positive outcomes and so on.
NOTE Confidence: 0.9469625333333333

00:27:15.160 --> 00:27:17.680 But the depression one there are more
NOTE Confidence: 0.9469625333333333

00:27:17.680 --> 00:27:20.230 and more studies coming including the.
NOTE Confidence: 0.9469625333333333

00:27:20.230 --> 00:27:21.606 Relatively recent COMPASS trial
NOTE Confidence: 0.9469625333333333

00:27:21.606 --> 00:27:23.670 that I understand you guys have
NOTE Confidence: 0.9469625333333333

00:27:23.727 --> 00:27:26.310 already heard about in detail and

NOTE Confidence: 0.9469625333333333
00:27:26.310 --> 00:27:28.070 discussed the previous meetings
NOTE Confidence: 0.9469625333333333
00:27:28.070 --> 00:27:30.356 that also showed a good and.
NOTE Confidence: 0.9469625333333333
00:27:30.360 --> 00:27:33.440 Sustained effect at at at at three
NOTE Confidence: 0.9469625333333333
00:27:33.440 --> 00:27:36.000 months with the 25 milligram.
NOTE Confidence: 0.9469625333333333
00:27:36.000 --> 00:27:38.320 Also when we sort of look across studies,
NOTE Confidence: 0.9469625333333333
00:27:38.320 --> 00:27:41.160 this is actually it can be updated soon.
NOTE Confidence: 0.9469625333333333
00:27:41.160 --> 00:27:43.194 So there will be even more
NOTE Confidence: 0.9469625333333333
00:27:43.194 --> 00:27:45.000 studies represented on the slide.
NOTE Confidence: 0.9469625333333333
00:27:45.000 --> 00:27:49.272 But overall it's not just our initial trial,
NOTE Confidence: 0.9469625333333333
00:27:49.272 --> 00:27:50.856 both COMPASS and a range of
NOTE Confidence: 0.9469625333333333
00:27:50.856 --> 00:27:52.497 other trials that have measured.
NOTE Confidence: 0.9469625333333333
00:27:52.500 --> 00:27:55.700 Depression severity see see long
NOTE Confidence: 0.9469625333333333
00:27:55.700 --> 00:27:59.572 lasting effect for months in average
NOTE Confidence: 0.9469625333333333
00:27:59.572 --> 00:28:03.880 in these trials and when we look at
NOTE Confidence: 0.9469625333333333
00:28:03.880 --> 00:28:07.820 effect sizes within condition so pre to
NOTE Confidence: 0.9469625333333333

00:28:07.820 --> 00:28:11.038 post and look at coins D effect sizes.
NOTE Confidence: 0.9469625333333333

00:28:11.040 --> 00:28:13.315 They are in in the range listed
NOTE Confidence: 0.9469625333333333

00:28:13.315 --> 00:28:15.944 there 1.1 to 2.9 and when we
NOTE Confidence: 0.9469625333333333

00:28:15.944 --> 00:28:17.480 look at between condition,
NOTE Confidence: 0.9469625333333333

00:28:17.480 --> 00:28:19.160 when there is some kind of control condition,
NOTE Confidence: 0.9469625333333333

00:28:19.160 --> 00:28:23.822 they are in the range of 0.4 to 1.49 and
NOTE Confidence: 0.9469625333333333

00:28:23.822 --> 00:28:26.238 all these effect sizes are sort of larger.
NOTE Confidence: 0.9469625333333333

00:28:26.240 --> 00:28:31.408 So then what is conventionally seen with
NOTE Confidence: 0.9469625333333333

00:28:31.408 --> 00:28:34.128 antidepressant pharmacotherapy and
NOTE Confidence: 0.9469625333333333

00:28:34.128 --> 00:28:36.980 talking therapies which is of course part
NOTE Confidence: 0.9469625333333333

00:28:36.980 --> 00:28:40.140 of the reason why it's it's a bit of a.
NOTE Confidence: 0.9469625333333333

00:28:40.140 --> 00:28:42.960 A popular topic and is being
NOTE Confidence: 0.9469625333333333

00:28:42.960 --> 00:28:43.900 explored massively.
NOTE Confidence: 0.9469625333333333

00:28:43.900 --> 00:28:45.886 So more recently we were involved
NOTE Confidence: 0.9469625333333333

00:28:45.886 --> 00:28:47.963 at Imperial with a company called
NOTE Confidence: 0.9469625333333333

00:28:47.963 --> 00:28:50.633 small Pharma that is sort of that's

NOTE Confidence: 0.9469625333333333

00:28:50.633 --> 00:28:53.698 london-based that use intravenous DMT.

NOTE Confidence: 0.92443256

00:28:53.700 --> 00:28:56.675 So their own compound is below 26

NOTE Confidence: 0.92443256

00:28:56.675 --> 00:29:00.005 which is a DMT molecule that they

NOTE Confidence: 0.92443256

00:29:00.005 --> 00:29:02.780 used in patient with depression.

NOTE Confidence: 0.92443256

00:29:02.780 --> 00:29:04.520 So in that trial.

NOTE Confidence: 0.92443256

00:29:04.520 --> 00:29:07.130 There were 34 patients randomized to

NOTE Confidence: 0.92443256

00:29:07.213 --> 00:29:10.034 either to two one of two conditions

NOTE Confidence: 0.92443256

00:29:10.034 --> 00:29:12.942 so either they got a DMT and infusion

NOTE Confidence: 0.92443256

00:29:12.942 --> 00:29:16.510 over 10 minutes in total so a short

NOTE Confidence: 0.92443256

00:29:16.608 --> 00:29:19.473 20 minutes experience and because

NOTE Confidence: 0.92443256

00:29:19.473 --> 00:29:23.596 DMT is is short and particularly

NOTE Confidence: 0.92443256

00:29:23.596 --> 00:29:26.452 when done intravenously and but

NOTE Confidence: 0.92443256

00:29:26.452 --> 00:29:29.698 also if it's smoked and then.

NOTE Confidence: 0.92443256

00:29:29.700 --> 00:29:31.870 And the other half of the patients

NOTE Confidence: 0.92443256

00:29:31.870 --> 00:29:33.724 they were allocated to placebo and

NOTE Confidence: 0.92443256

00:29:33.724 --> 00:29:35.733 then they will follow for two weeks
NOTE Confidence: 0.92443256

00:29:35.797 --> 00:29:37.957 and then the two weeks the blind was
NOTE Confidence: 0.92443256

00:29:37.957 --> 00:29:41.100 broken and then the people who got
NOTE Confidence: 0.92443256

00:29:41.100 --> 00:29:43.557 placebo then got a DNT experience and
NOTE Confidence: 0.92443256

00:29:43.557 --> 00:29:46.337 the other got a second DNT experience.
NOTE Confidence: 0.92443256

00:29:46.340 --> 00:29:49.194 And there's also in this trial sustained
NOTE Confidence: 0.92443256

00:29:49.194 --> 00:29:52.932 antidepressant effect at at 12 weeks at
NOTE Confidence: 0.92443256

00:29:52.932 --> 00:29:56.686 even there is a treatment response after.
NOTE Confidence: 0.92443256

00:29:56.686 --> 00:30:01.270 Six months of of 40% in in the data
NOTE Confidence: 0.92443256

00:30:01.270 --> 00:30:05.790 that we we we are currently working on
NOTE Confidence: 0.92443256

00:30:05.790 --> 00:30:08.786 in this study and also other measures
NOTE Confidence: 0.92443256

00:30:08.786 --> 00:30:11.405 of depression including B&R&PDI but
also
NOTE Confidence: 0.92443256

00:30:11.405 --> 00:30:13.630 anxiety measures and wellbeing measures.
NOTE Confidence: 0.92443256

00:30:13.630 --> 00:30:16.501 All I would say kind of mimic what has
NOTE Confidence: 0.92443256

00:30:16.501 --> 00:30:19.090 been seen with oral psilocybin and
NOTE Confidence: 0.92443256

00:30:19.090 --> 00:30:22.087 remember oral psilocybin is a 4-5 hour
NOTE Confidence: 0.92443256

00:30:22.087 --> 00:30:24.999 session and here it was just 20 minutes.
NOTE Confidence: 0.92443256

00:30:25.000 --> 00:30:28.808 IV DMT experiences and at Yale there
NOTE Confidence: 0.92443256

00:30:28.808 --> 00:30:32.712 has been also a pilot study also
NOTE Confidence: 0.92443256

00:30:32.712 --> 00:30:36.439 showing antidepressant response with
NOTE Confidence: 0.92443256

00:30:36.440 --> 00:30:40.352 with DMT and a little bit about some
NOTE Confidence: 0.92443256

00:30:40.352 --> 00:30:43.132 of the work done by us and others in
NOTE Confidence: 0.92443256

00:30:43.132 --> 00:30:45.451 the space of trying to understand
NOTE Confidence: 0.92443256

00:30:45.451 --> 00:30:47.519 mechanisms using brain imaging.
NOTE Confidence: 0.92443256

00:30:47.520 --> 00:30:50.296 We have this sort of up in the
NOTE Confidence: 0.92443256

00:30:50.296 --> 00:30:53.919 top right corner we have the.
NOTE Confidence: 0.92443256

00:30:53.920 --> 00:30:56.240 The MRI functional network and
NOTE Confidence: 0.92443256

00:30:56.240 --> 00:30:58.560 connectivity that the different colors
NOTE Confidence: 0.92443256

00:30:58.560 --> 00:31:01.164 are along the periphery represented by
NOTE Confidence: 0.92443256

00:31:01.164 --> 00:31:05.362 functional networks with MRI and on the
NOTE Confidence: 0.92443256

00:31:05.362 --> 00:31:10.039 placebo these networks are sort of developed,

NOTE Confidence: 0.92443256
00:31:10.040 --> 00:31:11.576 are segregated,
NOTE Confidence: 0.92443256
00:31:11.576 --> 00:31:12.344 separated,
NOTE Confidence: 0.92443256
00:31:12.344 --> 00:31:15.338 so mainly connected within regions,
NOTE Confidence: 0.92443256
00:31:15.338 --> 00:31:17.768 mainly connected within the networks
NOTE Confidence: 0.92443256
00:31:17.768 --> 00:31:20.365 and then under psilocybin and
NOTE Confidence: 0.92443256
00:31:20.365 --> 00:31:22.437 also other classic psychedelics.
NOTE Confidence: 0.92443256
00:31:22.440 --> 00:31:24.240 Then that is broken down,
NOTE Confidence: 0.92443256
00:31:24.240 --> 00:31:24.840 so there is
NOTE Confidence: 0.954090775
00:31:27.720 --> 00:31:30.520 less separation of these function
NOTE Confidence: 0.954090775
00:31:30.520 --> 00:31:33.100 networks and also breaking down of
NOTE Confidence: 0.954090775
00:31:33.100 --> 00:31:34.862 some of the connectivity within
NOTE Confidence: 0.954090775
00:31:34.862 --> 00:31:37.879 the networks and that has been now
NOTE Confidence: 0.954090775
00:31:37.879 --> 00:31:40.464 quite consistently found with these
NOTE Confidence: 0.954090775
00:31:40.464 --> 00:31:43.208 compounds and also we can see higher
NOTE Confidence: 0.954090775
00:31:43.208 --> 00:31:45.568 signal diversity in ET brain signal
NOTE Confidence: 0.954090775

00:31:45.568 --> 00:31:48.040 and for that matter MRI signal.
NOTE Confidence: 0.933544666666667

00:31:50.050 --> 00:31:54.406 We also that's not us but
NOTE Confidence: 0.933544666666667

00:31:54.410 --> 00:31:56.626 people doing preclinical work.
NOTE Confidence: 0.933544666666667

00:31:56.626 --> 00:32:00.045 Olson's lab and and several other
NOTE Confidence: 0.933544666666667

00:32:00.045 --> 00:32:02.970 labs focusing on brain plasticity
NOTE Confidence: 0.933544666666667

00:32:02.970 --> 00:32:05.643 neuroplasticity can see that happening
NOTE Confidence: 0.933544666666667

00:32:05.643 --> 00:32:09.408 in tissue after psychedelics including
NOTE Confidence: 0.933544666666667

00:32:09.408 --> 00:32:14.194 also ketamine and and and MTMA in the
NOTE Confidence: 0.933544666666667

00:32:14.194 --> 00:32:16.968 tissue and I also know at Yale have.
NOTE Confidence: 0.933544666666667

00:32:16.970 --> 00:32:19.610 Looked at ketamine so far with
NOTE Confidence: 0.933544666666667

00:32:19.610 --> 00:32:23.016 a tracer called UCPJ which is a
NOTE Confidence: 0.933544666666667

00:32:23.016 --> 00:32:25.088 synaptic basically 2A receptor.
NOTE Confidence: 0.933544666666667

00:32:25.090 --> 00:32:32.025 So marker that is that can be used
NOTE Confidence: 0.933544666666667

00:32:32.025 --> 00:32:35.210 as a measure of synaptic density,
NOTE Confidence: 0.933544666666667

00:32:35.210 --> 00:32:36.740 at least interpreted in that
NOTE Confidence: 0.933544666666667

00:32:36.740 --> 00:32:38.988 way and we also doing work with

NOTE Confidence: 0.933544666666667
00:32:38.988 --> 00:32:40.608 that with ketamine and TMT.
NOTE Confidence: 0.933544666666667
00:32:40.610 --> 00:32:45.040 Currently we also have other in vivo human.
NOTE Confidence: 0.933544666666667
00:32:45.040 --> 00:32:46.594 Paradigms with e.g.,
NOTE Confidence: 0.933544666666667
00:32:46.594 --> 00:32:49.184 visual long term potentiation in
NOTE Confidence: 0.933544666666667
00:32:49.184 --> 00:32:51.668 particular that we are sort of having
NOTE Confidence: 0.933544666666667
00:32:51.668 --> 00:32:54.520 in a lot of our studies these days.
NOTE Confidence: 0.933544666666667
00:32:54.520 --> 00:32:56.185 Psychologically increasing connectedness
NOTE Confidence: 0.933544666666667
00:32:56.185 --> 00:32:59.515 is one of the current themes,
NOTE Confidence: 0.933544666666667
00:32:59.520 --> 00:33:00.514 not currently,
NOTE Confidence: 0.933544666666667
00:33:00.514 --> 00:33:03.496 but consistent themes in narratives from
NOTE Confidence: 0.933544666666667
00:33:03.496 --> 00:33:05.539 patients undergoing psychedelics and
NOTE Confidence: 0.933544666666667
00:33:05.539 --> 00:33:08.104 psychedelic therapy and also avoidance
NOTE Confidence: 0.933544666666667
00:33:08.104 --> 00:33:11.150 turning into acceptance as I showed before.
NOTE Confidence: 0.933544666666667
00:33:11.150 --> 00:33:13.690 Trade openness increasing in
NOTE Confidence: 0.933544666666667
00:33:13.690 --> 00:33:16.230 some studies with psychedelics,
NOTE Confidence: 0.933544666666667

00:33:16.230 --> 00:33:18.828 cognitive flexibility and
NOTE Confidence: 0.933544666666667

00:33:18.828 --> 00:33:21.426 psychological insight increases.
NOTE Confidence: 0.933544666666667

00:33:21.430 --> 00:33:23.230 Negative cognitive biases
NOTE Confidence: 0.933544666666667

00:33:23.230 --> 00:33:24.430 decreases rumination,
NOTE Confidence: 0.933544666666667

00:33:24.430 --> 00:33:24.894 thought,
NOTE Confidence: 0.933544666666667

00:33:24.894 --> 00:33:27.678 the president experience and as I
NOTE Confidence: 0.933544666666667

00:33:27.678 --> 00:33:30.006 mentioned for decreasing in terms
NOTE Confidence: 0.933544666666667

00:33:30.006 --> 00:33:35.530 of of sort of a model of of that is.
NOTE Confidence: 0.933544666666667

00:33:35.530 --> 00:33:38.320 Considered of of how these compounds
NOTE Confidence: 0.933544666666667

00:33:38.320 --> 00:33:41.543 work is sort of in the framework
NOTE Confidence: 0.933544666666667

00:33:41.543 --> 00:33:45.690 of prediction error and top down
NOTE Confidence: 0.933544666666667

00:33:45.690 --> 00:33:48.870 regulation that that Robin Carhartt has
NOTE Confidence: 0.933544666666667

00:33:48.870 --> 00:33:53.008 and others as well have been describing.
NOTE Confidence: 0.933544666666667

00:33:53.010 --> 00:33:57.290 Robin named this his specific model,
NOTE Confidence: 0.933544666666667

00:33:57.290 --> 00:34:01.520 the Rebus model and the idea.
NOTE Confidence: 0.933544666666667

00:34:01.520 --> 00:34:04.624 I guess is that instead of having this

NOTE Confidence: 0.933544666666667
00:34:04.624 --> 00:34:06.930 sort of top down in interpretation
NOTE Confidence: 0.933544666666667
00:34:06.930 --> 00:34:09.625 and framing of how we see and
NOTE Confidence: 0.933544666666667
00:34:09.625 --> 00:34:11.680 experience the world and ourselves,
NOTE Confidence: 0.933544666666667
00:34:11.680 --> 00:34:13.875 then under the psychedelics there's
NOTE Confidence: 0.933544666666667
00:34:13.875 --> 00:34:17.020 more at bottom up and possibly a
NOTE Confidence: 0.933544666666667
00:34:17.020 --> 00:34:19.612 reshaping of these priors of these
NOTE Confidence: 0.933544666666667
00:34:19.612 --> 00:34:22.320 models and there's some some evidence.
NOTE Confidence: 0.929606403846153
00:34:24.620 --> 00:34:27.735 Of some of this bottom up effects
NOTE Confidence: 0.929606403846153
00:34:27.735 --> 00:34:29.787 following psychedelics and then if
NOTE Confidence: 0.929606403846153
00:34:29.787 --> 00:34:32.339 we look at the top right again that
NOTE Confidence: 0.929606403846153
00:34:32.416 --> 00:34:34.936 I started describing on this slide
NOTE Confidence: 0.929606403846153
00:34:34.940 --> 00:34:40.100 the the functional network model,
NOTE Confidence: 0.929606403846153
00:34:40.100 --> 00:34:41.936 then that is in the acute
NOTE Confidence: 0.929606403846153
00:34:41.936 --> 00:34:42.854 state with psychedelics.
NOTE Confidence: 0.929606403846153
00:34:42.860 --> 00:34:44.708 So we and also others are looking
NOTE Confidence: 0.929606403846153

00:34:44.708 --> 00:34:46.869 into sort of instead of in the
NOTE Confidence: 0.929606403846153

00:34:46.869 --> 00:34:48.177 acute psychedelic state because
NOTE Confidence: 0.929606403846153

00:34:48.177 --> 00:34:50.034 that is now quite consistently
NOTE Confidence: 0.929606403846153

00:34:50.034 --> 00:34:51.934 showing some of these effects.
NOTE Confidence: 0.929606403846153

00:34:51.940 --> 00:34:53.116 What about?
NOTE Confidence: 0.929606403846153

00:34:53.116 --> 00:34:57.760 Pre to post, so as you saw on the
NOTE Confidence: 0.929606403846153

00:34:57.760 --> 00:34:59.839 some of the first slides and now
NOTE Confidence: 0.929606403846153

00:34:59.839 --> 00:35:01.160 two separate depression trials,
NOTE Confidence: 0.929606403846153

00:35:01.160 --> 00:35:05.453 we had MRI and what we see there,
NOTE Confidence: 0.929606403846153

00:35:05.453 --> 00:35:08.712 OK, before I mentioned that in our
NOTE Confidence: 0.929606403846153

00:35:08.712 --> 00:35:11.145 Healthy Psychedelic Naive trial
NOTE Confidence: 0.929606403846153

00:35:11.145 --> 00:35:13.560 that data are on their way out.
NOTE Confidence: 0.929606403846153

00:35:13.560 --> 00:35:14.960 So it's not published yet.
NOTE Confidence: 0.929606403846153

00:35:14.960 --> 00:35:16.800 In Psychedelic Need Healthy,
NOTE Confidence: 0.929606403846153

00:35:16.800 --> 00:35:21.120 we saw a measure of modularity.
NOTE Confidence: 0.929606403846153

00:35:21.120 --> 00:35:23.072 Being associated with well-being.

NOTE Confidence: 0.929606403846153

00:35:23.072 --> 00:35:25.919 So the more that modularity is being reduced,

NOTE Confidence: 0.929606403846153

00:35:25.920 --> 00:35:27.440 the more will be increases.

NOTE Confidence: 0.929606403846153

00:35:27.440 --> 00:35:30.160 And modularity is sort of a bit an

NOTE Confidence: 0.929606403846153

00:35:30.160 --> 00:35:32.480 inverse measure of global connectivity.

NOTE Confidence: 0.929606403846153

00:35:32.480 --> 00:35:35.168 So modularity being reduced is sort

NOTE Confidence: 0.929606403846153

00:35:35.168 --> 00:35:37.610 of increased in global connectivity

NOTE Confidence: 0.929606403846153

00:35:37.610 --> 00:35:40.439 with the global measure of that.

NOTE Confidence: 0.929606403846153

00:35:40.439 --> 00:35:42.490 And when we then looked at our

NOTE Confidence: 0.929606403846153

00:35:42.560 --> 00:35:44.560 two separate depression samples,

NOTE Confidence: 0.929606403846153

00:35:44.560 --> 00:35:49.744 we could see that modularity went down in.

NOTE Confidence: 0.929606403846153

00:35:49.750 --> 00:35:53.103 The the the patients from before the

NOTE Confidence: 0.929606403846153

00:35:53.103 --> 00:35:55.406 psilocybin intervention to after in

NOTE Confidence: 0.929606403846153

00:35:55.406 --> 00:35:57.776 two separate samples and that the

NOTE Confidence: 0.929606403846153

00:35:57.776 --> 00:36:00.713 degree to which the modularity was

NOTE Confidence: 0.929606403846153

00:36:00.713 --> 00:36:04.334 decreased also here was associated

NOTE Confidence: 0.929606403846153

00:36:04.334 --> 00:36:06.134 with psychological effects,
NOTE Confidence: 0.929606403846153

00:36:06.134 --> 00:36:10.030 in this case improvements in in depression.
NOTE Confidence: 0.929606403846153

00:36:10.030 --> 00:36:13.961 And we didn't see such relationships in
NOTE Confidence: 0.929606403846153

00:36:13.961 --> 00:36:17.089 the esoteric condition in the in that trial.
NOTE Confidence: 0.929606403846153

00:36:17.090 --> 00:36:20.002 So we didn't see changes modularity or in
NOTE Confidence: 0.929606403846153

00:36:20.002 --> 00:36:22.590 the relationship with depression measures.
NOTE Confidence: 0.929606403846153

00:36:22.590 --> 00:36:26.562 We also did emotional faces in the
NOTE Confidence: 0.929606403846153

00:36:26.562 --> 00:36:30.970 trial and could see that whereas we
NOTE Confidence: 0.929606403846153

00:36:30.970 --> 00:36:33.958 see reduction in amygdala response
NOTE Confidence: 0.929606403846153

00:36:33.958 --> 00:36:37.725 to fearful faces and a sort of
NOTE Confidence: 0.929606403846153

00:36:37.725 --> 00:36:40.295 global overall reduction in in.
NOTE Confidence: 0.929606403846153

00:36:40.300 --> 00:36:42.904 Brain responsivity to emotional
NOTE Confidence: 0.929606403846153

00:36:42.904 --> 00:36:47.277 faces that is not seen in in
NOTE Confidence: 0.929606403846153

00:36:47.277 --> 00:36:50.436 the psilocybin face condition.
NOTE Confidence: 0.929606403846153

00:36:50.436 --> 00:36:53.700 So again a little bit the same thing
NOTE Confidence: 0.929606403846153

00:36:53.778 --> 00:36:58.085 about this lid on lid off that at

NOTE Confidence: 0.929606403846153
00:36:58.085 --> 00:37:00.780 least there's no lid on coming from.
NOTE Confidence: 0.929606403846153
00:37:00.780 --> 00:37:03.020 The psilocybin in this comparison as well,
NOTE Confidence: 0.929606403846153
00:37:03.020 --> 00:37:04.966 so pointing in the same direction and
NOTE Confidence: 0.929606403846153
00:37:04.966 --> 00:37:07.484 then I just want to talk a little bit
NOTE Confidence: 0.929606403846153
00:37:07.484 --> 00:37:10.259 of a couple of minutes about micro dosing.
NOTE Confidence: 0.929606403846153
00:37:10.260 --> 00:37:13.330 Let me see the time.
NOTE Confidence: 0.929606403846153
00:37:13.330 --> 00:37:15.568 So in terms of micro dosing,
NOTE Confidence: 0.929606403846153
00:37:15.570 --> 00:37:17.982 it's a bit of a troubled child that that
NOTE Confidence: 0.929606403846153
00:37:17.982 --> 00:37:19.969 people tend to disagree quite a lot.
NOTE Confidence: 0.929606403846153
00:37:19.970 --> 00:37:21.566 What is the evidence for micro dosing?
NOTE Confidence: 0.929606403846153
00:37:21.570 --> 00:37:23.730 Is it having any proper effects,
NOTE Confidence: 0.929606403846153
00:37:23.730 --> 00:37:27.335 Is it promising or not for effects,
NOTE Confidence: 0.929606403846153
00:37:27.335 --> 00:37:30.730 affective disorders, mood, anxiety and so on?
NOTE Confidence: 0.929606403846153
00:37:30.730 --> 00:37:32.122 Or is it not?
NOTE Confidence: 0.929606403846153
00:37:32.122 --> 00:37:34.210 People really disagree I would say
NOTE Confidence: 0.929606403846153

00:37:34.291 --> 00:37:36.455 and I think that one of the reasons

NOTE Confidence: 0.929606403846153

00:37:36.455 --> 00:37:38.591 is it depends on what chunks of

NOTE Confidence: 0.929606403846153

00:37:38.591 --> 00:37:40.351 evidence people are referring to

NOTE Confidence: 0.929606403846153

00:37:40.351 --> 00:37:42.627 and thinking of and and looking at.

NOTE Confidence: 0.929606403846153

00:37:42.630 --> 00:37:46.790 So therefore what we did was to try

NOTE Confidence: 0.929606403846153

00:37:46.790 --> 00:37:50.068 to look at all the data evidence for

NOTE Confidence: 0.929606403846153

00:37:50.068 --> 00:37:52.403 micro dosing and sort of arrange

NOTE Confidence: 0.929606403846153

00:37:52.403 --> 00:37:55.085 it based on where it sort of sits

NOTE Confidence: 0.929606403846153

00:37:55.085 --> 00:37:57.151 in the hierarchy of evidence from

NOTE Confidence: 0.929606403846153

00:37:57.151 --> 00:37:59.086 anecdotes up to proper control

NOTE Confidence: 0.929606403846153

00:37:59.086 --> 00:38:00.634 with a placebo condition

NOTE Confidence: 0.9400407376

00:38:00.704 --> 00:38:02.189 and blinding and so on.

NOTE Confidence: 0.9400407376

00:38:02.190 --> 00:38:04.566 And and to basically separate all

NOTE Confidence: 0.9400407376

00:38:04.566 --> 00:38:06.753 the different micro dosing evidence

NOTE Confidence: 0.9400407376

00:38:06.753 --> 00:38:08.869 into four different categories,

NOTE Confidence: 0.9400407376

00:38:08.870 --> 00:38:11.970 so into effective as one.

NOTE Confidence: 0.9400407376

00:38:11.970 --> 00:38:16.922 And then cognitive and other psychological

NOTE Confidence: 0.9400407376

00:38:16.922 --> 00:38:20.522 and and somatic symptoms and try to

NOTE Confidence: 0.9400407376

00:38:20.522 --> 00:38:22.730 look at all the different trials.

NOTE Confidence: 0.9400407376

00:38:22.730 --> 00:38:23.930 So when we do that,

NOTE Confidence: 0.9400407376

00:38:23.930 --> 00:38:25.856 you can see that if we are in the

NOTE Confidence: 0.9400407376

00:38:25.856 --> 00:38:27.614 bottom of the hierarchy which we are

NOTE Confidence: 0.9400407376

00:38:27.614 --> 00:38:29.730 here and when it says Christmas tree,

NOTE Confidence: 0.9400407376

00:38:29.730 --> 00:38:30.966 it will appear in a second.

NOTE Confidence: 0.9400407376

00:38:30.970 --> 00:38:32.722 Why we have so far called

NOTE Confidence: 0.9400407376

00:38:32.722 --> 00:38:34.290 it a Christmas tree plot.

NOTE Confidence: 0.9400407376

00:38:34.290 --> 00:38:36.768 It's basically a pyramid of of evidence.

NOTE Confidence: 0.9400407376

00:38:36.770 --> 00:38:37.981 So you see here up in the

NOTE Confidence: 0.9400407376

00:38:37.981 --> 00:38:39.050 top you have randomized,

NOTE Confidence: 0.9400407376

00:38:39.050 --> 00:38:40.405 you would have meta analysis

NOTE Confidence: 0.9400407376

00:38:40.405 --> 00:38:41.489 sitting up in that.

NOTE Confidence: 0.9400407376

00:38:41.490 --> 00:38:42.770 At top of the pyramid,
NOTE Confidence: 0.9400407376

00:38:42.770 --> 00:38:45.327 but there are no meter analysis yet and
NOTE Confidence: 0.9400407376

00:38:45.327 --> 00:38:47.546 then you go down perspective and then
NOTE Confidence: 0.9400407376

00:38:47.546 --> 00:38:49.770 case control retrospective qualitative.
NOTE Confidence: 0.9400407376

00:38:49.770 --> 00:38:52.266 So if you look at the evidence and
NOTE Confidence: 0.9400407376

00:38:52.266 --> 00:38:54.994 if you stay in maybe the left side
NOTE Confidence: 0.9400407376

00:38:54.994 --> 00:38:57.402 of the Christmas tree here you can
NOTE Confidence: 0.9400407376

00:38:57.402 --> 00:38:59.809 see that the effective symptoms,
NOTE Confidence: 0.9400407376

00:38:59.810 --> 00:39:02.365 so the green in the pies or
NOTE Confidence: 0.9400407376

00:39:02.365 --> 00:39:03.879 the Christmas decoration bowl
NOTE Confidence: 0.9400407376

00:39:03.879 --> 00:39:05.925 or whatever we can call them,
NOTE Confidence: 0.9400407376

00:39:05.930 --> 00:39:09.087 they are made in a way that
NOTE Confidence: 0.9400407376

00:39:09.090 --> 00:39:11.490 everything that is proper green so.
NOTE Confidence: 0.9400407376

00:39:11.490 --> 00:39:14.400 Bold green or dark green that
NOTE Confidence: 0.9400407376

00:39:14.400 --> 00:39:16.168 is sort of reported
NOTE Confidence: 0.935206

00:39:18.450 --> 00:39:21.444 support in the positive beneficial direction

NOTE Confidence: 0.935206

00:39:21.444 --> 00:39:24.591 with these symptoms for micro dosing

NOTE Confidence: 0.935206

00:39:24.591 --> 00:39:26.650 condition and you can see when you go up,

NOTE Confidence: 0.935206

00:39:26.650 --> 00:39:29.146 when you actually have control conditions

NOTE Confidence: 0.935206

00:39:29.146 --> 00:39:31.609 on then the bold green overall

NOTE Confidence: 0.935206

00:39:31.609 --> 00:39:34.481 disappears quite a lot from the the plot

NOTE Confidence: 0.935206

00:39:34.481 --> 00:39:37.058 and that means that there might be.

NOTE Confidence: 0.935206

00:39:37.060 --> 00:39:38.940 Something in that green direction,

NOTE Confidence: 0.935206

00:39:38.940 --> 00:39:40.872 There's also things in the red direction

NOTE Confidence: 0.935206

00:39:40.872 --> 00:39:43.367 and the green doesn't become bold because

NOTE Confidence: 0.935206

00:39:43.367 --> 00:39:44.979 it's not statistically significant.

NOTE Confidence: 0.935206

00:39:44.980 --> 00:39:47.992 So if you look at that part, you might

NOTE Confidence: 0.935206

00:39:47.992 --> 00:39:51.380 conclude that microtosing is is very,

NOTE Confidence: 0.935206

00:39:51.380 --> 00:39:53.140 very promising and interesting

NOTE Confidence: 0.935206

00:39:53.140 --> 00:39:55.265 and showing evidence for effects.

NOTE Confidence: 0.935206

00:39:55.265 --> 00:39:57.340 But if you move up,

NOTE Confidence: 0.935206

00:39:57.340 --> 00:40:00.540 the more control that the studies become,
NOTE Confidence: 0.935206

00:40:00.540 --> 00:40:04.512 the the more it sort of dies out and.
NOTE Confidence: 0.935206

00:40:04.512 --> 00:40:07.676 And the same for for the other
NOTE Confidence: 0.935206

00:40:07.676 --> 00:40:08.580 categories overall.
NOTE Confidence: 0.935206

00:40:08.580 --> 00:40:10.476 So it doesn't mean that I'm trying
NOTE Confidence: 0.935206

00:40:10.476 --> 00:40:12.212 to say the micro does not work.
NOTE Confidence: 0.935206

00:40:12.220 --> 00:40:14.187 I'm just saying that it's about being
NOTE Confidence: 0.935206

00:40:14.187 --> 00:40:16.080 a little bit cautious and critical
NOTE Confidence: 0.935206

00:40:16.080 --> 00:40:18.397 towards the data and think about what
NOTE Confidence: 0.935206

00:40:18.460 --> 00:40:20.280 kind of data we are talking about
NOTE Confidence: 0.935206

00:40:20.280 --> 00:40:23.288 and what kind of level of rigidity
NOTE Confidence: 0.935206

00:40:23.288 --> 00:40:26.466 and stringency we want to put to the
NOTE Confidence: 0.935206

00:40:26.466 --> 00:40:29.000 kind of evidence we conclude on and.
NOTE Confidence: 0.935206

00:40:29.000 --> 00:40:30.568 And it's still early days and it
NOTE Confidence: 0.935206

00:40:30.568 --> 00:40:32.128 could be that Michael doesn't work
NOTE Confidence: 0.935206

00:40:32.128 --> 00:40:34.074 but so far it's not super convincing

NOTE Confidence: 0.935206

00:40:34.124 --> 00:40:35.768 beyond the effects of placebo apart

NOTE Confidence: 0.935206

00:40:35.768 --> 00:40:37.960 from very few outcomes.

NOTE Confidence: 0.859886357142857

00:40:40.040 --> 00:40:43.197 So and and what does that mean?

NOTE Confidence: 0.859886357142857

00:40:43.200 --> 00:40:44.685 So obviously we need to

NOTE Confidence: 0.859886357142857

00:40:44.685 --> 00:40:47.680 sort of be you know have.

NOTE Confidence: 0.948304319999999

00:40:50.150 --> 00:40:51.986 To basically you know exploit the

NOTE Confidence: 0.948304319999999

00:40:51.986 --> 00:40:53.895 privilege of micro dosing where we

NOTE Confidence: 0.948304319999999

00:40:53.895 --> 00:40:55.767 actually have an ability to placebo

NOTE Confidence: 0.948304319999999

00:40:55.767 --> 00:40:57.525 control because these low doses are

NOTE Confidence: 0.948304319999999

00:40:57.525 --> 00:40:59.810 much easier to please control is just

NOTE Confidence: 0.948304319999999

00:40:59.810 --> 00:41:03.770 quite unpractical and expensive to do

NOTE Confidence: 0.948304319999999

00:41:03.770 --> 00:41:05.966 repeated dosing over a long time with

NOTE Confidence: 0.948304319999999

00:41:05.966 --> 00:41:07.497 scheduled drugs that are difficult to

NOTE Confidence: 0.948304319999999

00:41:07.497 --> 00:41:09.510 give people to take at home and so on.

NOTE Confidence: 0.948304319999999

00:41:09.510 --> 00:41:11.854 And and that's why we at some point

NOTE Confidence: 0.948304319999999

00:41:11.854 --> 00:41:14.252 did this sort of self blinded
NOTE Confidence: 0.9483043199999999

00:41:14.252 --> 00:41:15.988 citizen science approach where.
NOTE Confidence: 0.9483043199999999

00:41:15.990 --> 00:41:20.066 We allow people to follow a manual
NOTE Confidence: 0.9483043199999999

00:41:20.070 --> 00:41:23.255 written manual so a video they could
NOTE Confidence: 0.9483043199999999

00:41:23.255 --> 00:41:26.014 follow where they could sort of
NOTE Confidence: 0.9483043199999999

00:41:26.014 --> 00:41:28.402 blind themselves by by using their
NOTE Confidence: 0.9483043199999999

00:41:28.402 --> 00:41:30.358 own drug on their own initiative
NOTE Confidence: 0.9483043199999999

00:41:30.358 --> 00:41:32.229 for their plant micro dosing.
NOTE Confidence: 0.9483043199999999

00:41:32.230 --> 00:41:34.252 But then the following the manual
NOTE Confidence: 0.9483043199999999

00:41:34.252 --> 00:41:37.682 would allow them to replace their.
NOTE Confidence: 0.9483043199999999

00:41:37.682 --> 00:41:40.450 Micro doses with placebo at least for some
NOTE Confidence: 0.9483043199999999

00:41:40.516 --> 00:41:43.124 of the people if they followed this manual.
NOTE Confidence: 0.9483043199999999

00:41:43.130 --> 00:41:45.153 So people would then randomly end up
NOTE Confidence: 0.9483043199999999

00:41:45.153 --> 00:41:47.540 in one of three groups here either
NOTE Confidence: 0.9483043199999999

00:41:47.540 --> 00:41:50.094 placebo every week for four weeks or
NOTE Confidence: 0.9483043199999999

00:41:50.094 --> 00:41:52.201 micro dosing every week four weeks Or

NOTE Confidence: 0.9483043199999999
00:41:52.201 --> 00:41:54.120 a mixed group where they micro dose
NOTE Confidence: 0.9483043199999999
00:41:54.120 --> 00:41:55.930 one week then placebo for one week.
NOTE Confidence: 0.9483043199999999
00:41:55.930 --> 00:41:56.824 Micro dose volume.
NOTE Confidence: 0.9483043199999999
00:41:56.824 --> 00:41:59.243 And then we could see what they were
NOTE Confidence: 0.9483043199999999
00:41:59.243 --> 00:42:01.655 doing by a QR code in the envelopes that
NOTE Confidence: 0.9483043199999999
00:42:01.722 --> 00:42:04.228 they constructed with the with the dosing.
NOTE Confidence: 0.9483043199999999
00:42:04.230 --> 00:42:06.342 For one micro envelope for each
NOTE Confidence: 0.9483043199999999
00:42:06.342 --> 00:42:08.688 week and we could then through the
NOTE Confidence: 0.9483043199999999
00:42:08.688 --> 00:42:11.000 QR code that they could scan on lab
NOTE Confidence: 0.9483043199999999
00:42:11.070 --> 00:42:13.615 see what they were doing and and and
NOTE Confidence: 0.9483043199999999
00:42:13.615 --> 00:42:16.100 the reason why I'm saying this is
NOTE Confidence: 0.9483043199999999
00:42:16.186 --> 00:42:18.671 that this study in a way explains
NOTE Confidence: 0.9483043199999999
00:42:18.671 --> 00:42:21.310 some of the issues and the reason
NOTE Confidence: 0.9483043199999999
00:42:21.310 --> 00:42:23.534 why I think people disagree a bit
NOTE Confidence: 0.9483043199999999
00:42:23.534 --> 00:42:25.190 about the evidence for micro dosing.
NOTE Confidence: 0.9483043199999999

00:42:25.190 --> 00:42:26.958 Because when we look at our data it
NOTE Confidence: 0.9483043199999999

00:42:26.958 --> 00:42:28.972 in a way confirms all those parts
NOTE Confidence: 0.9483043199999999

00:42:28.972 --> 00:42:31.086 of the lower part of the Christmas
NOTE Confidence: 0.9483043199999999

00:42:31.086 --> 00:42:33.400 tree or the hierarchy of evidence.
NOTE Confidence: 0.9483043199999999

00:42:33.400 --> 00:42:36.928 Because it does show here as an
NOTE Confidence: 0.9483043199999999

00:42:36.928 --> 00:42:38.840 example mindfulness that that
NOTE Confidence: 0.9402535355555556

00:42:42.080 --> 00:42:44.194 my computer is not charging and I
NOTE Confidence: 0.9402535355555556

00:42:44.194 --> 00:42:46.840 don't know why it is plugged in.
NOTE Confidence: 0.9402535355555556

00:42:46.840 --> 00:42:50.360 Just hopefully this works.
NOTE Confidence: 0.9402535355555556

00:42:50.360 --> 00:42:52.040 I don't know. We can't charge.
NOTE Confidence: 0.9402535355555556

00:42:52.040 --> 00:42:54.360 Uh oh, I hope I'm not going to fall out.
NOTE Confidence: 0.9402535355555556

00:42:54.360 --> 00:42:55.228 It is plugged in.
NOTE Confidence: 0.9402535355555556

00:42:55.228 --> 00:42:57.040 I don't know why it's not charging.
NOTE Confidence: 0.9402535355555556

00:42:57.040 --> 00:42:59.315 Anyway, I might disappear if it dies.
NOTE Confidence: 0.9402535355555556

00:42:59.320 --> 00:43:01.720 I'm sorry about that.
NOTE Confidence: 0.9402535355555556

00:43:01.720 --> 00:43:04.890 So we can see that mindfulness is

NOTE Confidence: 0.940253535555556
00:43:04.890 --> 00:43:08.760 increasing in in in this study.
NOTE Confidence: 0.940253535555556
00:43:08.760 --> 00:43:10.174 The issue is that when we look
NOTE Confidence: 0.940253535555556
00:43:10.174 --> 00:43:11.280 at the placebo condition,
NOTE Confidence: 0.940253535555556
00:43:11.280 --> 00:43:12.213 it also increases.
NOTE Confidence: 0.940253535555556
00:43:12.213 --> 00:43:15.683 So in a way if we ignore that we had a
NOTE Confidence: 0.940253535555556
00:43:15.683 --> 00:43:18.160 placebo or if we didn't have receive,
NOTE Confidence: 0.940253535555556
00:43:18.160 --> 00:43:20.530 we confirmed the anecdotes and actually
NOTE Confidence: 0.940253535555556
00:43:20.530 --> 00:43:23.319 quite a solid response for most measures.
NOTE Confidence: 0.940253535555556
00:43:23.320 --> 00:43:25.000 It's also then worth to remember
NOTE Confidence: 0.940253535555556
00:43:25.000 --> 00:43:27.115 that you have all the recipe from
NOTE Confidence: 0.940253535555556
00:43:27.115 --> 00:43:28.993 placebo because it's a very high
NOTE Confidence: 0.940253535555556
00:43:28.993 --> 00:43:30.823 popular phenomenon with a lot of
NOTE Confidence: 0.940253535555556
00:43:30.823 --> 00:43:32.850 attention to and you belong to a
NOTE Confidence: 0.940253535555556
00:43:32.850 --> 00:43:34.560 specific group when you do this,
NOTE Confidence: 0.940253535555556
00:43:34.560 --> 00:43:37.335 in particular a few years ago and so on.
NOTE Confidence: 0.940253535555556

00:43:37.335 --> 00:43:39.330 So we also see improvements in the
NOTE Confidence: 0.940253535555556

00:43:39.400 --> 00:43:41.020 placebo condition and not only
NOTE Confidence: 0.940253535555556

00:43:41.020 --> 00:43:42.316 do we see that,
NOTE Confidence: 0.940253535555556

00:43:42.320 --> 00:43:44.049 but if you look here it's a
NOTE Confidence: 0.940253535555556

00:43:44.049 --> 00:43:45.520 bit difficult to navigate in,
NOTE Confidence: 0.940253535555556

00:43:45.520 --> 00:43:48.280 but look at the one to the top left here,
NOTE Confidence: 0.940253535555556

00:43:48.280 --> 00:43:49.996 take the first one that is.
NOTE Confidence: 0.93144801625

00:43:52.180 --> 00:43:55.700 The higher you are on the Y axis,
NOTE Confidence: 0.93144801625

00:43:55.700 --> 00:43:58.673 the more of a positive outcome.
NOTE Confidence: 0.93144801625

00:43:58.673 --> 00:44:01.138 So if you take placebo,
NOTE Confidence: 0.93144801625

00:44:01.140 --> 00:44:02.820 guess it's placebo, you're on this level.
NOTE Confidence: 0.93144801625

00:44:02.820 --> 00:44:05.361 If you actually take micro dose but
NOTE Confidence: 0.93144801625

00:44:05.361 --> 00:44:07.419 you wrongly guess it's placebo,
NOTE Confidence: 0.93144801625

00:44:07.420 --> 00:44:09.620 then you don't improve much.
NOTE Confidence: 0.93144801625

00:44:09.620 --> 00:44:12.096 But if you take placebo and that's
NOTE Confidence: 0.93144801625

00:44:12.096 --> 00:44:13.644 actually what you take what you

NOTE Confidence: 0.93144801625

00:44:13.644 --> 00:44:14.979 thought you took micro dose.

NOTE Confidence: 0.93144801625

00:44:14.980 --> 00:44:15.274 Wrongly.

NOTE Confidence: 0.93144801625

00:44:15.274 --> 00:44:17.626 Then you really see a response to the

NOTE Confidence: 0.93144801625

00:44:17.626 --> 00:44:20.039 same level as you do from taking micro

NOTE Confidence: 0.93144801625

00:44:20.039 --> 00:44:22.019 dose and guessing that's micro dose.

NOTE Confidence: 0.93144801625

00:44:22.020 --> 00:44:23.646 So that shows you here that

NOTE Confidence: 0.93144801625

00:44:23.646 --> 00:44:25.820 for a lot of these outcomes,

NOTE Confidence: 0.93144801625

00:44:25.820 --> 00:44:28.475 for most of them not so much for the

NOTE Confidence: 0.93144801625

00:44:28.475 --> 00:44:30.703 more objective task measures here,

NOTE Confidence: 0.93144801625

00:44:30.703 --> 00:44:32.708 acute cognitive performance and then

NOTE Confidence: 0.93144801625

00:44:32.708 --> 00:44:34.980 you don't really see that effect.

NOTE Confidence: 0.93144801625

00:44:34.980 --> 00:44:36.276 Because probably because it's

NOTE Confidence: 0.93144801625

00:44:36.276 --> 00:44:37.896 a much more objective measure,

NOTE Confidence: 0.93144801625

00:44:37.900 --> 00:44:42.375 but these self rated measures if the

NOTE Confidence: 0.93144801625

00:44:42.375 --> 00:44:43.950 expectation placebo effect plays a

NOTE Confidence: 0.93144801625

00:44:43.950 --> 00:44:46.558 big role and we can see that there's
NOTE Confidence: 0.93144801625

00:44:46.558 --> 00:44:48.484 10 times bit more predictive value
NOTE Confidence: 0.93144801625

00:44:48.547 --> 00:44:50.509 of think guessing that you took
NOTE Confidence: 0.93144801625

00:44:50.509 --> 00:44:52.804 micro dose than actually taking a
NOTE Confidence: 0.93144801625

00:44:52.804 --> 00:44:55.756 micro dose And that explains the
NOTE Confidence: 0.93144801625

00:44:55.756 --> 00:44:58.512 discrepancy probably and the reason to
NOTE Confidence: 0.93144801625

00:44:58.512 --> 00:45:01.416 be cautious when evaluating evidence for.
NOTE Confidence: 0.93144801625

00:45:01.420 --> 00:45:03.202 Micro dosing and then just this
NOTE Confidence: 0.93144801625

00:45:03.202 --> 00:45:05.518 one just a little bit of over
NOTE Confidence: 0.93144801625

00:45:05.518 --> 00:45:06.938 approximate what we're doing.
NOTE Confidence: 0.93144801625

00:45:06.940 --> 00:45:08.104 We're doing some gambling
NOTE Confidence: 0.93144801625

00:45:08.104 --> 00:45:08.977 work without psychedelics.
NOTE Confidence: 0.93144801625

00:45:08.980 --> 00:45:11.320 We're doing the plasticity work as
NOTE Confidence: 0.93144801625

00:45:11.320 --> 00:45:14.044 I mentioned both with ketamine also
NOTE Confidence: 0.93144801625

00:45:14.044 --> 00:45:17.620 with DMT and then we're doing some
NOTE Confidence: 0.94427896

00:45:20.140 --> 00:45:21.772 OCD work, fibromyalgia work

NOTE Confidence: 0.94427896

00:45:21.772 --> 00:45:24.220 and erection of also work and.

NOTE Confidence: 0.94427896

00:45:24.220 --> 00:45:25.996 This small farmer trial now is

NOTE Confidence: 0.94427896

00:45:25.996 --> 00:45:28.173 entering Phase 2B where we have less

NOTE Confidence: 0.94427896

00:45:28.173 --> 00:45:29.733 involvement but we're sitting with

NOTE Confidence: 0.94427896

00:45:29.733 --> 00:45:31.896 the Phase 2A data you saw some of it,

NOTE Confidence: 0.94427896

00:45:31.900 --> 00:45:33.976 it will be published hopefully not

NOTE Confidence: 0.94427896

00:45:33.976 --> 00:45:36.655 in the near to to distant future and

NOTE Confidence: 0.94427896

00:45:36.655 --> 00:45:38.644 doing different work with DMT and

NOTE Confidence: 0.94427896

00:45:38.644 --> 00:45:40.384 setting up and starting five meal

NOTE Confidence: 0.94427896

00:45:40.384 --> 00:45:42.752 DMT and so on and hopefully setting

NOTE Confidence: 0.94427896

00:45:42.752 --> 00:45:44.894 up an opiate trial with psilocybin

NOTE Confidence: 0.94427896

00:45:44.900 --> 00:45:47.246 and also looking at noninvasive brain

NOTE Confidence: 0.94427896

00:45:47.246 --> 00:45:49.620 stimulation combined with with psychedelics.

NOTE Confidence: 0.94427896

00:45:49.620 --> 00:45:51.419 We are we are planning and setting

NOTE Confidence: 0.94427896

00:45:51.419 --> 00:45:53.158 up some pilot work there so.

NOTE Confidence: 0.94427896

00:45:53.158 --> 00:45:56.182 I will stop here and and thank you
NOTE Confidence: 0.94427896

00:45:56.182 --> 00:45:58.813 for your attention and thank obviously
NOTE Confidence: 0.94427896

00:45:58.813 --> 00:46:00.920 all the colleagues involved and so on
NOTE Confidence: 0.94427896

00:46:00.978 --> 00:46:02.826 and the people have supported work.
NOTE Confidence: 0.94427896

00:46:02.830 --> 00:46:05.390 Thank you very much and I'll stop sharing.
NOTE Confidence: 0.93906956882353

00:46:08.710 --> 00:46:10.422 Thank you David for that great overview of
NOTE Confidence: 0.93906956882353

00:46:10.422 --> 00:46:12.345 what I know has been many years of work.
NOTE Confidence: 0.93906956882353

00:46:12.350 --> 00:46:14.150 I'm particularly struck by the self
NOTE Confidence: 0.93906956882353

00:46:14.150 --> 00:46:15.990 blinding micro dose study that's very,
NOTE Confidence: 0.93906956882353

00:46:15.990 --> 00:46:18.190 very clever. Thank you and
NOTE Confidence: 0.935221795

00:46:18.590 --> 00:46:22.650 I'm glad to say it because then I.
NOTE Confidence: 0.935221795

00:46:22.650 --> 00:46:24.722 I don't have to brag about how smart
NOTE Confidence: 0.935221795

00:46:24.722 --> 00:46:27.285 that is and also but I I sometimes brag
NOTE Confidence: 0.935221795

00:46:27.285 --> 00:46:29.610 about it because it was balances balance.
NOTE Confidence: 0.935221795

00:46:29.610 --> 00:46:32.150 She gets his idea so I can do it without
NOTE Confidence: 0.935221795

00:46:32.213 --> 00:46:35.026 being too much of A of a of a ****.

NOTE Confidence: 0.935221795

00:46:35.026 --> 00:46:37.900 Saying that because I also think it's a

NOTE Confidence: 0.935221795

00:46:37.900 --> 00:46:41.050 very smart and novel idea to to to do that.

NOTE Confidence: 0.935221795

00:46:41.050 --> 00:46:43.478 Now I didn't go into crazy details and

NOTE Confidence: 0.935221795

00:46:43.478 --> 00:46:45.970 it required quite a lot of wonderful

NOTE Confidence: 0.935221795

00:46:46.044 --> 00:46:48.134 smart bio statistician to help

NOTE Confidence: 0.935221795

00:46:48.134 --> 00:46:51.580 interpret the data because in that.

NOTE Confidence: 0.935221795

00:46:51.580 --> 00:46:53.974 A bit wack wacko design we did,

NOTE Confidence: 0.935221795

00:46:53.980 --> 00:46:57.084 we both obviously we had acute data you

NOTE Confidence: 0.935221795

00:46:57.084 --> 00:47:00.372 know from day-to-day we had placebo

NOTE Confidence: 0.935221795

00:47:00.372 --> 00:47:03.325 mixed in to even the micro dosing

NOTE Confidence: 0.935221795

00:47:03.325 --> 00:47:05.801 addition to make it better blinded and

NOTE Confidence: 0.935221795

00:47:05.801 --> 00:47:08.090 we also we had a cumulative effect

NOTE Confidence: 0.935221795

00:47:08.156 --> 00:47:09.968 we had within and between group

NOTE Confidence: 0.935221795

00:47:09.968 --> 00:47:11.740 and all that same science.

NOTE Confidence: 0.935221795

00:47:11.740 --> 00:47:15.959 So it was required quite a lot of of good

NOTE Confidence: 0.935221795

00:47:15.959 --> 00:47:19.030 statistical help to to make sure we got it.
NOTE Confidence: 0.935221795

00:47:19.030 --> 00:47:19.360 Right.
NOTE Confidence: 0.935221795

00:47:19.360 --> 00:47:21.670 As well as we could when we,
NOTE Confidence: 0.935221795

00:47:21.670 --> 00:47:23.945 when we worked on the dates afterwards,
NOTE Confidence: 0.944490748947369

00:47:24.670 --> 00:47:26.504 that was a sort of general population
NOTE Confidence: 0.944490748947369

00:47:26.504 --> 00:47:28.611 of those who are micro dosing or
NOTE Confidence: 0.944490748947369

00:47:28.611 --> 00:47:30.186 interested in micro dosing sample,
NOTE Confidence: 0.944490748947369

00:47:30.190 --> 00:47:32.066 not a depressed sample. Is that right?
NOTE Confidence: 0.940924419333334

00:47:32.390 --> 00:47:33.470 Exactly. So yeah,
NOTE Confidence: 0.940924419333334

00:47:33.470 --> 00:47:35.990 so that means that it was overall
NOTE Confidence: 0.940924419333334

00:47:36.070 --> 00:47:37.910 a group of healthy people.
NOTE Confidence: 0.940924419333334

00:47:37.910 --> 00:47:40.730 But what we did was we then
NOTE Confidence: 0.940924419333334

00:47:40.730 --> 00:47:43.430 zoomed in in sort of retrospect,
NOTE Confidence: 0.940924419333334

00:47:43.430 --> 00:47:47.530 so post hoc on the people who were sort of.
NOTE Confidence: 0.940924419333334

00:47:47.530 --> 00:47:49.625 Lowest on well-being highest on
NOTE Confidence: 0.940924419333334

00:47:49.625 --> 00:47:52.141 neuroticism and and had some scores

NOTE Confidence: 0.940924419333334

00:47:52.141 --> 00:47:54.584 on depressive measure to sort of sue

NOTE Confidence: 0.940924419333334

00:47:54.584 --> 00:47:57.450 in and just look at that subgroup of

NOTE Confidence: 0.940924419333334

00:47:57.450 --> 00:47:59.576 the trial because of all they were.

NOTE Confidence: 0.940924419333334

00:47:59.576 --> 00:48:01.270 Yeah and when we did that the

NOTE Confidence: 0.940924419333334

00:48:01.332 --> 00:48:02.810 patents were the same but

NOTE Confidence: 0.943128857142857

00:48:04.250 --> 00:48:06.498 and one thing that this work does is

NOTE Confidence: 0.943128857142857

00:48:06.498 --> 00:48:08.329 really focuses on the placebo effect

NOTE Confidence: 0.943128857142857

00:48:08.329 --> 00:48:10.480 because as physicians if we could find

NOTE Confidence: 0.943128857142857

00:48:10.480 --> 00:48:12.792 a way to harness the placebo effect that

NOTE Confidence: 0.943128857142857

00:48:12.792 --> 00:48:15.466 would be beautiful if that's one of.

NOTE Confidence: 0.943128857142857

00:48:15.470 --> 00:48:17.950 If that's one of the outcomes of the

NOTE Confidence: 0.943128857142857

00:48:17.950 --> 00:48:19.324 obviously people have been working on

NOTE Confidence: 0.943128857142857

00:48:19.324 --> 00:48:20.538 trying to understand the mechanisms

NOTE Confidence: 0.943128857142857

00:48:20.538 --> 00:48:22.050 of the placebo effect since before

NOTE Confidence: 0.943128857142857

00:48:22.050 --> 00:48:23.402 the recent psychedelic work. But.

NOTE Confidence: 0.943128857142857

00:48:23.402 --> 00:48:26.750 And that was one of the outcomes of this,
NOTE Confidence: 0.943128857142857

00:48:26.750 --> 00:48:28.885 this line of work that would be
NOTE Confidence: 0.943128857142857

00:48:28.885 --> 00:48:31.266 brilliant even if it in the long run
NOTE Confidence: 0.943128857142857

00:48:31.266 --> 00:48:33.310 didn't entail any 5HT2A agonist.
NOTE Confidence: 0.94226628

00:48:34.590 --> 00:48:37.110 Yeah, no, absolutely. And not.
NOTE Confidence: 0.879501933333333

00:48:37.110 --> 00:48:38.190 I did ask in the seminar,
NOTE Confidence: 0.879501933333333

00:48:38.190 --> 00:48:39.756 as in the other day I asked what if
NOTE Confidence: 0.879501933333333

00:48:39.756 --> 00:48:41.452 the what if the outcome from all this
NOTE Confidence: 0.879501933333333

00:48:41.452 --> 00:48:43.286 work is that the best way to get our
NOTE Confidence: 0.879501933333333

00:48:43.286 --> 00:48:44.510 patients better is to lie to them.
NOTE Confidence: 0.9452853

00:48:46.820 --> 00:48:47.620 That would be awkward.
NOTE Confidence: 0.937075684210526

00:48:48.340 --> 00:48:50.434 It would be very awkward wouldn't
NOTE Confidence: 0.937075684210526

00:48:50.434 --> 00:48:53.479 it And and and I I don't know what
NOTE Confidence: 0.937075684210526

00:48:53.479 --> 00:48:55.475 you guys feel about micro dosing but
NOTE Confidence: 0.937075684210526

00:48:55.475 --> 00:48:57.839 I think it's it's a bit of a weird
NOTE Confidence: 0.937075684210526

00:48:57.839 --> 00:49:00.073 and awkward one because I mean the

NOTE Confidence: 0.937075684210526

00:49:00.073 --> 00:49:02.179 effects are really quite good right?

NOTE Confidence: 0.937075684210526

00:49:02.180 --> 00:49:04.724 But if we and some others are showing

NOTE Confidence: 0.937075684210526

00:49:04.724 --> 00:49:07.520 up here that's true but but if placebo

NOTE Confidence: 0.937075684210526

00:49:07.520 --> 00:49:09.900 control is kind of the same and.

NOTE Confidence: 0.937075684210526

00:49:09.900 --> 00:49:11.874 And and that the people really plays

NOTE Confidence: 0.937075684210526

00:49:11.874 --> 00:49:14.292 a big role and then we often are met

NOTE Confidence: 0.937075684210526

00:49:14.292 --> 00:49:16.855 by but who cares and it's a good point

NOTE Confidence: 0.937075684210526

00:49:16.855 --> 00:49:19.675 but I would say in order to to keep

NOTE Confidence: 0.937075684210526

00:49:19.675 --> 00:49:21.682 it out of alternative medicine space

NOTE Confidence: 0.937075684210526

00:49:21.682 --> 00:49:23.842 and convince regulators be able to

NOTE Confidence: 0.937075684210526

00:49:23.842 --> 00:49:25.896 prescribe it and and have investors

NOTE Confidence: 0.937075684210526

00:49:25.896 --> 00:49:28.255 going into it and scale it up and

NOTE Confidence: 0.937075684210526

00:49:28.255 --> 00:49:29.900 getting it out as a real treatment,

NOTE Confidence: 0.937075684210526

00:49:29.900 --> 00:49:31.988 then obviously it matters quite a

NOTE Confidence: 0.937075684210526

00:49:31.988 --> 00:49:34.237 lot And also the more work done to

NOTE Confidence: 0.937075684210526

00:49:34.237 --> 00:49:36.347 show that it's placebo if it keeps
NOTE Confidence: 0.937075684210526

00:49:36.347 --> 00:49:37.887 on looking like that then.
NOTE Confidence: 0.937075684210526

00:49:37.890 --> 00:49:40.090 Then the placebo effect might also go down,
NOTE Confidence: 0.937075684210526

00:49:40.090 --> 00:49:41.654 right. So yeah, yeah,
NOTE Confidence: 0.937075684210526

00:49:41.654 --> 00:49:45.250 it's a bit of an in terms of this
NOTE Confidence: 0.937075684210526

00:49:45.250 --> 00:49:47.565 thing about the blinding because of all
NOTE Confidence: 0.937075684210526

00:49:47.565 --> 00:49:49.729 that stat work that was done on this trial.
NOTE Confidence: 0.937075684210526

00:49:49.730 --> 00:49:52.600 And then the data also by Ballast
NOTE Confidence: 0.937075684210526

00:49:52.600 --> 00:49:55.314 himself is coming out with quite an
NOTE Confidence: 0.937075684210526

00:49:55.314 --> 00:49:57.418 interesting paper of actually suggesting
NOTE Confidence: 0.937075684210526

00:49:57.418 --> 00:50:00.370 to more thoroughly and more consequently
NOTE Confidence: 0.937075684210526

00:50:00.370 --> 00:50:03.130 collecting information in normal trials,
NOTE Confidence: 0.937075684210526

00:50:03.130 --> 00:50:03.610 let's say.
NOTE Confidence: 0.937075684210526

00:50:03.610 --> 00:50:05.050 And this is the right trial
NOTE Confidence: 0.937075684210526

00:50:05.050 --> 00:50:06.510 about blinding integrity.
NOTE Confidence: 0.937075684210526

00:50:06.510 --> 00:50:08.340 And he's he's

NOTE Confidence: 0.927987983

00:50:10.980 --> 00:50:13.668 suggesting A mathematical statistical

NOTE Confidence: 0.927987983

00:50:13.668 --> 00:50:17.700 method to actually correct for the

NOTE Confidence: 0.927987983

00:50:17.700 --> 00:50:20.555 lack of blinding integrity down

NOTE Confidence: 0.927987983

00:50:20.555 --> 00:50:23.300 to randomness which the level of

NOTE Confidence: 0.927987983

00:50:23.300 --> 00:50:24.900 of completely random guessing.

NOTE Confidence: 0.927987983

00:50:24.900 --> 00:50:28.548 So in a way perfect blinding and and

NOTE Confidence: 0.927987983

00:50:28.548 --> 00:50:30.660 we found out when we looked into all

NOTE Confidence: 0.927987983

00:50:30.728 --> 00:50:32.744 that over the last couple of years

NOTE Confidence: 0.927987983

00:50:32.744 --> 00:50:34.817 that when you look into the SSRI.

NOTE Confidence: 0.927987983

00:50:34.820 --> 00:50:36.630 Literature and even going into

NOTE Confidence: 0.927987983

00:50:36.630 --> 00:50:38.440 archives or studies and trying

NOTE Confidence: 0.927987983

00:50:38.500 --> 00:50:40.336 to find out whether they exist,

NOTE Confidence: 0.927987983

00:50:40.340 --> 00:50:42.209 how much it that data is collected

NOTE Confidence: 0.927987983

00:50:42.209 --> 00:50:44.179 of how well people are blinded.

NOTE Confidence: 0.927987983

00:50:44.180 --> 00:50:45.460 It's 10% of something.

NOTE Confidence: 0.927987983

00:50:45.460 --> 00:50:47.500 It's very, very few studies that
NOTE Confidence: 0.927987983

00:50:47.500 --> 00:50:49.300 report anything on it and obviously
NOTE Confidence: 0.927987983

00:50:49.300 --> 00:50:50.500 they are not fully blinded either.
NOTE Confidence: 0.927987983

00:50:50.500 --> 00:50:51.940 That's not a big surprise,
NOTE Confidence: 0.927987983

00:50:51.940 --> 00:50:55.118 but but it I think there's some
NOTE Confidence: 0.927987983

00:50:55.118 --> 00:50:57.143 not necessarily learning but at
NOTE Confidence: 0.927987983

00:50:57.143 --> 00:50:58.948 least a bit maybe refocused.
NOTE Confidence: 0.927987983

00:50:58.948 --> 00:51:00.340 On that aspect,
NOTE Confidence: 0.927987983

00:51:00.340 --> 00:51:02.386 because if we are very stringent
NOTE Confidence: 0.927987983

00:51:02.386 --> 00:51:04.103 of applying that thinking and
NOTE Confidence: 0.927987983

00:51:04.103 --> 00:51:05.819 analysis to this kind of data,
NOTE Confidence: 0.927987983

00:51:05.820 --> 00:51:07.528 you should in a way also do
NOTE Confidence: 0.927987983

00:51:07.528 --> 00:51:10.272 it to SSRI and yeah,
NOTE Confidence: 0.927987983

00:51:10.272 --> 00:51:12.977 and in a way that RCT model that has
NOTE Confidence: 0.927987983

00:51:12.977 --> 00:51:15.420 been gold standards in the early 60s,
NOTE Confidence: 0.927987983

00:51:15.420 --> 00:51:16.620 it hasn't really changed, right.

NOTE Confidence: 0.927987983
00:51:16.620 --> 00:51:17.744 It's the same model.
NOTE Confidence: 0.927987983
00:51:17.744 --> 00:51:19.980 Maybe that thing is a bit lacking.
NOTE Confidence: 0.927987983
00:51:19.980 --> 00:51:21.919 It's not that there's any perfect perfect
NOTE Confidence: 0.927987983
00:51:21.919 --> 00:51:23.660 solution for how to deal with that,
NOTE Confidence: 0.927987983
00:51:23.660 --> 00:51:24.062 but.
NOTE Confidence: 0.927987983
00:51:24.062 --> 00:51:25.268 At least ballast,
NOTE Confidence: 0.927987983
00:51:25.268 --> 00:51:27.278 we are together with ballast,
NOTE Confidence: 0.927987983
00:51:27.280 --> 00:51:29.870 we are sort of suggesting a possible
NOTE Confidence: 0.927987983
00:51:29.870 --> 00:51:31.725 starting point for a statistical
NOTE Confidence: 0.927987983
00:51:31.725 --> 00:51:34.080 way of of correcting data from it.
NOTE Confidence: 0.927987983
00:51:34.080 --> 00:51:35.148 That's obviously really conservative,
NOTE Confidence: 0.927987983
00:51:35.148 --> 00:51:37.159 A cautious way of looking at the data.
NOTE Confidence: 0.927987983
00:51:37.160 --> 00:51:39.892 But it's an interesting suggestion, I think.
NOTE Confidence: 0.927987983
00:51:39.892 --> 00:51:41.036 Sorry, there's a question.
NOTE Confidence: 0.927987983
00:51:41.600 --> 00:51:41.920 Yeah.
NOTE Confidence: 0.927987983

00:51:41.920 --> 00:51:42.240 Anita.
NOTE Confidence: 0.89662165625

00:51:43.640 --> 00:51:47.904 Yeah. Hi. Thank you for a great time.
NOTE Confidence: 0.89662165625

00:51:47.910 --> 00:51:49.758 So I have a question about
NOTE Confidence: 0.89662165625

00:51:49.758 --> 00:51:50.990 the micro dosing study.
NOTE Confidence: 0.89662165625

00:51:50.990 --> 00:51:54.311 When did you ask them if they could guess
NOTE Confidence: 0.89662165625

00:51:54.311 --> 00:51:57.782 what arm they were like if they get they
NOTE Confidence: 0.89662165625

00:51:57.782 --> 00:52:00.550 got placebo or the study medication.
NOTE Confidence: 0.89662165625

00:52:00.550 --> 00:52:02.550 And the reason I'm asking is that if
NOTE Confidence: 0.89662165625

00:52:02.550 --> 00:52:04.750 you ask that at the end of the study
NOTE Confidence: 0.89662165625

00:52:04.750 --> 00:52:07.366 then those who didn't feel better might
NOTE Confidence: 0.89662165625

00:52:07.366 --> 00:52:10.490 think that okay it was placebo. Yeah,
NOTE Confidence: 0.880189586470588

00:52:10.490 --> 00:52:13.037 it's and and and that in a way is
NOTE Confidence: 0.880189586470588

00:52:13.037 --> 00:52:15.525 exactly the the the hammer on the nail.
NOTE Confidence: 0.880189586470588

00:52:15.530 --> 00:52:17.492 If that's a expression in English
NOTE Confidence: 0.880189586470588

00:52:17.492 --> 00:52:19.410 that that is exactly an issue.
NOTE Confidence: 0.880189586470588

00:52:19.410 --> 00:52:21.629 And that because you're right if you

NOTE Confidence: 0.880189586470588

00:52:21.629 --> 00:52:24.017 are asking and we asked, by the way,

NOTE Confidence: 0.880189586470588

00:52:24.017 --> 00:52:26.266 we asked on every day they took a

NOTE Confidence: 0.880189586470588

00:52:26.266 --> 00:52:28.084 dose of something we asked them,

NOTE Confidence: 0.880189586470588

00:52:28.090 --> 00:52:29.134 but we asked them obviously in

NOTE Confidence: 0.880189586470588

00:52:29.134 --> 00:52:30.426 the end of the day what they

NOTE Confidence: 0.880189586470588

00:52:30.426 --> 00:52:31.721 thought they had been on that day.

NOTE Confidence: 0.880189586470588

00:52:31.730 --> 00:52:34.538 So if they had an effect that was

NOTE Confidence: 0.880189586470588

00:52:34.538 --> 00:52:37.163 a real effect on whatever they

NOTE Confidence: 0.880189586470588

00:52:37.163 --> 00:52:40.260 would like to have an effect on.

NOTE Confidence: 0.880189586470588

00:52:40.260 --> 00:52:41.964 If that was the reason why

NOTE Confidence: 0.880189586470588

00:52:41.964 --> 00:52:42.816 they guessed correctly,

NOTE Confidence: 0.880189586470588

00:52:42.820 --> 00:52:46.740 then you have a catch 22 issue.

NOTE Confidence: 0.880189586470588

00:52:46.740 --> 00:52:48.700 But The thing is we then asked

NOTE Confidence: 0.880189586470588

00:52:48.700 --> 00:52:50.835 them what was the basis for what

NOTE Confidence: 0.880189586470588

00:52:50.835 --> 00:52:52.671 why they guessed and that was

NOTE Confidence: 0.880189586470588

00:52:52.738 --> 00:52:54.778 sort of more physical sensations
NOTE Confidence: 0.880189586470588

00:52:54.780 --> 00:52:57.050 that that was the dominant.
NOTE Confidence: 0.880189586470588

00:52:57.050 --> 00:52:58.590 A reason of them being
NOTE Confidence: 0.880189586470588

00:52:58.590 --> 00:53:00.130 able to break the blind.
NOTE Confidence: 0.880189586470588

00:53:00.130 --> 00:53:02.170 We could also look at the data because
NOTE Confidence: 0.880189586470588

00:53:02.170 --> 00:53:04.128 it was a naturalistic study where
NOTE Confidence: 0.880189586470588

00:53:04.128 --> 00:53:06.204 people were using their own doses,
NOTE Confidence: 0.880189586470588

00:53:06.210 --> 00:53:08.170 then they obviously used a range of
NOTE Confidence: 0.880189586470588

00:53:08.170 --> 00:53:10.510 doses in the micro dosing range and
NOTE Confidence: 0.880189586470588

00:53:10.510 --> 00:53:13.170 then we could then plot all these
NOTE Confidence: 0.880189586470588

00:53:13.170 --> 00:53:15.569 self reported doses and figure out.
NOTE Confidence: 0.880189586470588

00:53:15.570 --> 00:53:16.242 When were P,
NOTE Confidence: 0.880189586470588

00:53:16.242 --> 00:53:17.810 when was the threshold as a group
NOTE Confidence: 0.880189586470588

00:53:17.860 --> 00:53:19.125 of where they started breaking
NOTE Confidence: 0.880189586470588

00:53:19.125 --> 00:53:20.670 the blind so we could actually
NOTE Confidence: 0.880189586470588

00:53:20.670 --> 00:53:22.486 use the data for a lot of things.

NOTE Confidence: 0.880189586470588

00:53:22.490 --> 00:53:25.834 And that was then around I think 13

NOTE Confidence: 0.880189586470588

00:53:25.834 --> 00:53:28.362 equivalent of 13 micro MLSD level and

NOTE Confidence: 0.880189586470588

00:53:28.362 --> 00:53:30.510 the equivalent in psilocybin which is

NOTE Confidence: 0.880189586470588

00:53:30.577 --> 00:53:33.043 exactly the same as they find in in lab,

NOTE Confidence: 0.880189586470588

00:53:33.050 --> 00:53:34.290 in in in lab studies.

NOTE Confidence: 0.880189586470588

00:53:34.290 --> 00:53:36.108 Which is kind of neat that it seems to

NOTE Confidence: 0.880189586470588

00:53:36.108 --> 00:53:38.191 be an average around there that you can

NOTE Confidence: 0.880189586470588

00:53:38.191 --> 00:53:39.968 that's where you start detecting it.

NOTE Confidence: 0.880189586470588

00:53:39.970 --> 00:53:43.957 But a lot of it is the physical sensations.

NOTE Confidence: 0.880189586470588

00:53:43.960 --> 00:53:46.876 And and and there didn't seem to

NOTE Confidence: 0.880189586470588

00:53:46.876 --> 00:53:49.042 be that much due to the actual

NOTE Confidence: 0.880189586470588

00:53:49.042 --> 00:53:50.998 mental health beneficial effects,

NOTE Confidence: 0.880189586470588

00:53:51.000 --> 00:53:52.864 but it's a really good point and that's

NOTE Confidence: 0.880189586470588

00:53:52.864 --> 00:53:54.240 very difficult to get fully around.

NOTE Confidence: 0.9402536

00:53:54.840 --> 00:53:56.040 Yeah. Cool. Thank you.

NOTE Confidence: 0.9402536

00:53:59.400 --> 00:54:03.200 That's. Yeah. Hi. Hi.
NOTE Confidence: 0.9402536

00:54:03.200 --> 00:54:06.356 Also to follow up on the,
NOTE Confidence: 0.9402536

00:54:06.360 --> 00:54:08.478 on the micro dosing, so first,
NOTE Confidence: 0.9402536

00:54:08.480 --> 00:54:10.616 did you say it was at
NOTE Confidence: 0.9402536

00:54:10.616 --> 00:54:13.200 around 30 or 13 micrograms?
NOTE Confidence: 0.924156083333333

00:54:13.760 --> 00:54:16.690 13 micrograms of LSD or
NOTE Confidence: 0.924156083333333

00:54:16.690 --> 00:54:17.920 equivalent. Yeah, yeah.
NOTE Confidence: 0.928400148

00:54:18.240 --> 00:54:21.084 OK. OK. But the question I had was do
NOTE Confidence: 0.928400148

00:54:21.084 --> 00:54:23.929 you think that there are other measures
NOTE Confidence: 0.928400148

00:54:23.929 --> 00:54:27.012 that are not sort of typically measured
NOTE Confidence: 0.928400148

00:54:27.012 --> 00:54:30.197 by micro dosing studies that can have
NOTE Confidence: 0.928400148

00:54:30.200 --> 00:54:34.771 a more sort of objective effect beyond
NOTE Confidence: 0.928400148

00:54:34.771 --> 00:54:37.874 the expectations because in, in.
NOTE Confidence: 0.928400148

00:54:37.874 --> 00:54:40.266 Current studies it's heavily
NOTE Confidence: 0.928400148

00:54:40.266 --> 00:54:43.282 focused on mental health outcomes,
NOTE Confidence: 0.928400148

00:54:43.282 --> 00:54:45.992 so wellbeing and effective outcomes

NOTE Confidence: 0.928400148

00:54:45.992 --> 00:54:50.359 and also creativity and sometimes on

NOTE Confidence: 0.928400148

00:54:50.359 --> 00:54:53.985 cognitive performance but a lot less

NOTE Confidence: 0.928400148

00:54:53.985 --> 00:54:56.050 of the time and also other things

NOTE Confidence: 0.928400148

00:54:56.123 --> 00:54:58.338 are not taken into consideration.

NOTE Confidence: 0.928400148

00:54:58.340 --> 00:55:00.380 So essentially I guess what I'm

NOTE Confidence: 0.928400148

00:55:00.380 --> 00:55:03.189 asking is do you think that it has

NOTE Confidence: 0.928400148

00:55:03.189 --> 00:55:05.434 placebo effects across the board

NOTE Confidence: 0.928400148

00:55:05.434 --> 00:55:08.558 or there are some things that it?

NOTE Confidence: 0.928400148

00:55:08.560 --> 00:55:10.230 Objectively affects and other things

NOTE Confidence: 0.928400148

00:55:10.230 --> 00:55:12.600 that are driven driven by expectation.

NOTE Confidence: 0.941092216666667

00:55:12.600 --> 00:55:14.082 Yeah it's a really good question

NOTE Confidence: 0.941092216666667

00:55:14.082 --> 00:55:15.679 and I would hope the latter.

NOTE Confidence: 0.941092216666667

00:55:15.680 --> 00:55:18.128 I would I would hope that there are

NOTE Confidence: 0.941092216666667

00:55:18.128 --> 00:55:20.179 real effects but and and because

NOTE Confidence: 0.941092216666667

00:55:20.179 --> 00:55:21.899 obviously it would be fantastic

NOTE Confidence: 0.941092216666667

00:55:21.899 --> 00:55:24.584 if it can be used for something in
NOTE Confidence: 0.941092216666667

00:55:24.584 --> 00:55:26.570 with proper effects beyond placebo
NOTE Confidence: 0.941092216666667

00:55:26.570 --> 00:55:29.600 for any kind of health benefits.
NOTE Confidence: 0.941092216666667

00:55:29.600 --> 00:55:31.220 There are ADHD studies.
NOTE Confidence: 0.941092216666667

00:55:31.220 --> 00:55:34.122 We can't say anything from our data
NOTE Confidence: 0.941092216666667

00:55:34.122 --> 00:55:37.258 whether it could be that LSD micro dosing.
NOTE Confidence: 0.941092216666667

00:55:37.260 --> 00:55:39.620 NSD has some dopamine actions,
NOTE Confidence: 0.941092216666667

00:55:39.620 --> 00:55:41.780 could it be that in the right dose that
NOTE Confidence: 0.941092216666667

00:55:41.780 --> 00:55:44.095 could be actual beneficial effects for that.
NOTE Confidence: 0.941092216666667

00:55:44.100 --> 00:55:47.364 There's a lot to explore and a lot
NOTE Confidence: 0.941092216666667

00:55:47.364 --> 00:55:49.938 being explored and I think jury is out,
NOTE Confidence: 0.941092216666667

00:55:49.940 --> 00:55:52.116 it's not and even with this we can't
NOTE Confidence: 0.941092216666667

00:55:52.116 --> 00:55:54.424 rule out because they haven't yet been
NOTE Confidence: 0.941092216666667

00:55:54.424 --> 00:55:56.524 at the pressure study will repeated
NOTE Confidence: 0.941092216666667

00:55:56.524 --> 00:55:58.897 micro dosing with the in the blinded
NOTE Confidence: 0.941092216666667

00:55:58.897 --> 00:56:01.010 that's not out yet that is being

NOTE Confidence: 0.941092216666667
00:56:01.010 --> 00:56:02.794 conducted a couple of places but
NOTE Confidence: 0.941092216666667
00:56:02.794 --> 00:56:04.838 and we are now doing another micro
NOTE Confidence: 0.941092216666667
00:56:04.838 --> 00:56:06.566 dosing trial as well in our lab.
NOTE Confidence: 0.941092216666667
00:56:06.570 --> 00:56:08.274 Still self blinded with their own
NOTE Confidence: 0.941092216666667
00:56:08.274 --> 00:56:10.633 dose but where we are zooming in and
NOTE Confidence: 0.941092216666667
00:56:10.633 --> 00:56:12.541 and including people who are treating
NOTE Confidence: 0.941092216666667
00:56:12.541 --> 00:56:16.149 mood mood mood symptoms so so to to
NOTE Confidence: 0.941092216666667
00:56:16.149 --> 00:56:18.222 try to understand more whether there
NOTE Confidence: 0.941092216666667
00:56:18.222 --> 00:56:20.796 could be some effects if we we try
NOTE Confidence: 0.941092216666667
00:56:20.796 --> 00:56:22.595 to sort of enrich this sample for
NOTE Confidence: 0.941092216666667
00:56:22.595 --> 00:56:25.130 for people like that so so I think
NOTE Confidence: 0.941092216666667
00:56:25.130 --> 00:56:27.378 jury's out it could be it would be
NOTE Confidence: 0.941092216666667
00:56:27.378 --> 00:56:29.170 stupid for me to say I think it's
NOTE Confidence: 0.941092216666667
00:56:29.170 --> 00:56:32.386 definitely will keep on bleeding just.
NOTE Confidence: 0.941092216666667
00:56:32.390 --> 00:56:34.640 As not better than placebo for
NOTE Confidence: 0.941092216666667

00:56:34.640 --> 00:56:35.390 for everything.
NOTE Confidence: 0.941092216666667

00:56:35.390 --> 00:56:37.070 I don't know and I hope it could.
NOTE Confidence: 0.941092216666667

00:56:37.070 --> 00:56:39.795 There's some data in humans
NOTE Confidence: 0.941092216666667

00:56:39.795 --> 00:56:41.430 about increases BDNF.
NOTE Confidence: 0.941092216666667

00:56:41.430 --> 00:56:42.910 What if it increases plasticity?
NOTE Confidence: 0.941092216666667

00:56:42.910 --> 00:56:44.947 What if it was combined with something?
NOTE Confidence: 0.941092216666667

00:56:44.950 --> 00:56:47.766 If they if it does sort of lift
NOTE Confidence: 0.941092216666667

00:56:47.766 --> 00:56:49.704 the level of of of plasticity.
NOTE Confidence: 0.941092216666667

00:56:49.704 --> 00:56:52.560 Could it be that if you combine it
NOTE Confidence: 0.941092216666667

00:56:52.635 --> 00:56:55.386 with talking therapy or you know maybe
NOTE Confidence: 0.941092216666667

00:56:55.386 --> 00:56:57.602 it's other kind of healthy practice
NOTE Confidence: 0.941092216666667

00:56:57.602 --> 00:57:00.444 that you will get an additive effect.
NOTE Confidence: 0.941092216666667

00:57:00.450 --> 00:57:02.417 Or an extra effect of of those
NOTE Confidence: 0.941092216666667

00:57:02.417 --> 00:57:03.705 practices because of that
NOTE Confidence: 0.941092216666667

00:57:03.705 --> 00:57:05.249 plasticity effect maybe maybe.
NOTE Confidence: 0.931867433333333

00:57:05.890 --> 00:57:08.566 And also to to follow up,

NOTE Confidence: 0.931867433333333

00:57:08.570 --> 00:57:11.685 have you explore maybe if you know

NOTE Confidence: 0.931867433333333

00:57:11.685 --> 00:57:16.554 the studies that have explored the as

NOTE Confidence: 0.931867433333333

00:57:16.554 --> 00:57:18.890 a potential mechanism the increasing

NOTE Confidence: 0.931867433333333

00:57:18.890 --> 00:57:22.841 of internal locus of control so

NOTE Confidence: 0.931867433333333

00:57:22.841 --> 00:57:26.596 you you take psychedelics or.

NOTE Confidence: 0.931867433333333

00:57:26.600 --> 00:57:30.758 Micro dosing or placebo and have those

NOTE Confidence: 0.931867433333333

00:57:30.760 --> 00:57:32.839 effects and they are driven by expectation,

NOTE Confidence: 0.931867433333333

00:57:32.840 --> 00:57:35.705 but they're also driven potentially

NOTE Confidence: 0.931867433333333

00:57:35.705 --> 00:57:38.730 by more internal locus of control

NOTE Confidence: 0.931867433333333

00:57:38.730 --> 00:57:41.920 versus more external locus of control.

NOTE Confidence: 0.931867433333333

00:57:41.920 --> 00:57:44.149 So yeah. I

NOTE Confidence: 0.94427896

00:57:44.150 --> 00:57:46.070 I mean it's not something we

NOTE Confidence: 0.94427896

00:57:46.070 --> 00:57:47.350 have specifically looked at.

NOTE Confidence: 0.94427896

00:57:47.350 --> 00:57:49.306 I don't know if it's potentially

NOTE Confidence: 0.94427896

00:57:49.310 --> 00:57:51.778 somewhat integrated into some of

NOTE Confidence: 0.94427896

00:57:51.778 --> 00:57:53.972 the Robin studies. I'm not sure.
NOTE Confidence: 0.94427896

00:57:53.972 --> 00:57:55.610 Is it something you or you know
NOTE Confidence: 0.94427896

00:57:55.665 --> 00:57:57.070 that others are looking at?
NOTE Confidence: 0.943608066666667

00:57:58.190 --> 00:58:02.362 No, I'm I'm just curious because in in
NOTE Confidence: 0.943608066666667

00:58:02.362 --> 00:58:05.694 the placebo science there's an idea
NOTE Confidence: 0.943608066666667

00:58:05.694 --> 00:58:08.886 that placebos work because they may
NOTE Confidence: 0.943608066666667

00:58:08.886 --> 00:58:13.830 increase the self sense of agency so.
NOTE Confidence: 0.943608066666667

00:58:13.830 --> 00:58:16.780 Essentially there is open label
NOTE Confidence: 0.943608066666667

00:58:16.780 --> 00:58:19.730 placebos where you have nondeceptive
NOTE Confidence: 0.943608066666667

00:58:19.824 --> 00:58:22.826 placebo administration and off there
NOTE Confidence: 0.943608066666667

00:58:22.826 --> 00:58:25.202 was a qualitative study that suggested
NOTE Confidence: 0.943608066666667

00:58:25.202 --> 00:58:27.965 that it was effective through that
NOTE Confidence: 0.943608066666667

00:58:27.965 --> 00:58:30.590 increase of attention towards oneself,
NOTE Confidence: 0.943608066666667

00:58:30.590 --> 00:58:33.362 increase of selfefficacy and and agency
NOTE Confidence: 0.943608066666667

00:58:33.362 --> 00:58:37.486 over one's actions and so kind of
NOTE Confidence: 0.943608066666667

00:58:37.486 --> 00:58:40.906 transporting that onto psychedelics maybe.

NOTE Confidence: 0.943608066666667

00:58:40.910 --> 00:58:43.796 Micro dosing also works through that

NOTE Confidence: 0.943608066666667

00:58:43.796 --> 00:58:46.641 increase of self efficacy and more

NOTE Confidence: 0.943608066666667

00:58:46.641 --> 00:58:49.155 internal locus of control rather than

NOTE Confidence: 0.943608066666667

00:58:49.155 --> 00:58:52.310 sort of externalizing it to to something

NOTE Confidence: 0.874739655555556

00:58:52.710 --> 00:58:55.347 that's a good point. I know it's the same.

NOTE Confidence: 0.874739655555556

00:58:55.350 --> 00:58:57.730 Brandon is not here because whether he

NOTE Confidence: 0.874739655555556

00:58:57.730 --> 00:59:00.699 has put that into our volume two of our

NOTE Confidence: 0.874739655555556

00:59:00.699 --> 00:59:03.045 micro dosing work is a bit interesting

NOTE Confidence: 0.874739655555556

00:59:03.045 --> 00:59:05.425 and if he hasn't maybe we should.

NOTE Confidence: 0.874739655555556

00:59:05.430 --> 00:59:08.178 So yeah, so it might be.

NOTE Confidence: 0.874739655555556

00:59:08.180 --> 00:59:09.950 Maybe he should reach out to

NOTE Confidence: 0.874739655555556

00:59:09.950 --> 00:59:11.995 you and I'll look into that and

NOTE Confidence: 0.874739655555556

00:59:11.995 --> 00:59:13.159 think about incorporating last

NOTE Confidence: 0.874739655555556

00:59:13.159 --> 00:59:14.660 minute into our next study. Yeah,

NOTE Confidence: 0.93857625

00:59:15.220 --> 00:59:16.956 definitely. I have a couple of papers

NOTE Confidence: 0.93857625

00:59:16.956 --> 00:59:18.820 I could I could write send them.
NOTE Confidence: 0.941930716666667

00:59:19.180 --> 00:59:21.540 Amazing. Thank you. Thanks a lot. Thank you.
NOTE Confidence: 0.935221795

00:59:24.620 --> 00:59:26.618 One last question if I may.
NOTE Confidence: 0.935221795

00:59:26.620 --> 00:59:28.390 When you were talking to presenting
NOTE Confidence: 0.935221795

00:59:28.390 --> 00:59:30.180 the original open label 2016 paper,
NOTE Confidence: 0.935221795

00:59:30.180 --> 00:59:31.825 you emphasized the correlation which
NOTE Confidence: 0.935221795

00:59:31.825 --> 00:59:34.364 we've of course seen before about oceanic
NOTE Confidence: 0.935221795

00:59:34.364 --> 00:59:36.459 boundlessness during dosing and subsequent.
NOTE Confidence: 0.935221795

00:59:36.460 --> 00:59:38.395 Antidepressant response which which seen
NOTE Confidence: 0.935221795

00:59:38.395 --> 00:59:41.411 in a couple other studies and spurred a
NOTE Confidence: 0.935221795

00:59:41.411 --> 00:59:43.451 lot of theorizing about the psychological
NOTE Confidence: 0.935221795

00:59:43.451 --> 00:59:46.137 or psychospiritual effects of these drugs.
NOTE Confidence: 0.935221795

00:59:46.140 --> 00:59:47.631 My read of the literature is that
NOTE Confidence: 0.935221795

00:59:47.631 --> 00:59:49.220 that hasn't been uniformly replicated.
NOTE Confidence: 0.935221795

00:59:49.220 --> 00:59:51.362 I know it wasn't in the Hopkins
NOTE Confidence: 0.935221795

00:59:51.362 --> 00:59:51.974 blinded study.

NOTE Confidence: 0.935221795

00:59:51.980 --> 00:59:53.300 They didn't see that correlation

NOTE Confidence: 0.935221795

00:59:53.300 --> 00:59:54.620 in the follow up study,

NOTE Confidence: 0.935221795

00:59:54.620 --> 00:59:55.556 My follow up analysis,

NOTE Confidence: 0.935221795

00:59:55.556 --> 00:59:58.514 it may have been in the New York in the NYU

NOTE Confidence: 0.935221795

00:59:58.514 --> 01:00:00.014 alcoholism study that that correlation.

NOTE Confidence: 0.935221795

01:00:00.020 --> 01:00:02.540 So it seems to be a mixed bag.

NOTE Confidence: 0.935221795

01:00:02.540 --> 01:00:02.780 Did

NOTE Confidence: 0.9301902

01:00:02.780 --> 01:00:03.540 you look in the.

NOTE Confidence: 0.912606055

01:00:04.950 --> 01:00:07.300 Lexapro controlled study in the

NOTE Confidence: 0.912606055

01:00:07.300 --> 01:00:08.710 Essetaloprem comparison study,

NOTE Confidence: 0.912606055

01:00:08.710 --> 01:00:10.992 if there was a correlation in the

NOTE Confidence: 0.912606055

01:00:10.992 --> 01:00:12.943 psilocybin group with the experience

NOTE Confidence: 0.912606055

01:00:12.943 --> 01:00:15.228 of oceanic boundlessness during dosing,

NOTE Confidence: 0.93622824

01:00:16.670 --> 01:00:19.510 yeah, so we looked. It's

NOTE Confidence: 0.9452853

01:00:19.510 --> 01:00:20.570 been a really interesting

NOTE Confidence: 0.9452853

01:00:20.570 --> 01:00:21.630 thing to see evolve.
NOTE Confidence: 0.9452853

01:00:21.630 --> 01:00:23.315 Some people are latched on
NOTE Confidence: 0.9452853

01:00:23.315 --> 01:00:25.000 to that finding as being.
NOTE Confidence: 0.9452853

01:00:25.000 --> 01:00:26.632 Profound importance but the data are
NOTE Confidence: 0.9452853

01:00:26.632 --> 01:00:28.324 getting muddier so that that's but
NOTE Confidence: 0.9452853

01:00:28.324 --> 01:00:29.714 I'm sorry corrupted your answer.
NOTE Confidence: 0.936109847058824

01:00:30.000 --> 01:00:32.328 It's not in all studies but actually I
NOTE Confidence: 0.936109847058824

01:00:32.328 --> 01:00:34.679 would say it's in a lot of the studies
NOTE Confidence: 0.936109847058824

01:00:34.680 --> 01:00:37.515 also some of the Johns Hopkins work
NOTE Confidence: 0.936109847058824

01:00:37.515 --> 01:00:40.840 as as seeing seeing the relationship.
NOTE Confidence: 0.936109847058824

01:00:40.840 --> 01:00:43.080 So a lot of trials are seeing such a related.
NOTE Confidence: 0.936109847058824

01:00:43.080 --> 01:00:47.640 We also do see it in the psilocybin.
NOTE Confidence: 0.936109847058824

01:00:47.640 --> 01:00:49.328 With the SL prime arm in this design
NOTE Confidence: 0.936109847058824

01:00:49.328 --> 01:00:51.517 and I would do see a relationship there,
NOTE Confidence: 0.936109847058824

01:00:51.520 --> 01:00:54.243 we are looking at Meqs and mystical
NOTE Confidence: 0.936109847058824

01:00:54.243 --> 01:00:55.964 experience questionnaire scores and

NOTE Confidence: 0.936109847058824

01:00:55.964 --> 01:00:57.916 also emotional breakthrough inventory.

NOTE Confidence: 0.936109847058824

01:00:57.920 --> 01:01:02.304 So a A a newer construct that actually

NOTE Confidence: 0.936109847058824

01:01:02.304 --> 01:01:05.275 we also I think suggested for compass

NOTE Confidence: 0.936109847058824

01:01:05.275 --> 01:01:07.768 to use in the compass trial and they're

NOTE Confidence: 0.936109847058824

01:01:07.768 --> 01:01:10.120 also seeing it in the compass data with

NOTE Confidence: 0.936109847058824

01:01:10.120 --> 01:01:11.993 the emotional breakthrough which was

NOTE Confidence: 0.936109847058824

01:01:11.993 --> 01:01:14.858 developed by Leo Roseman from our lab who.

NOTE Confidence: 0.936109847058824

01:01:14.858 --> 01:01:16.592 Who was the one doing that

NOTE Confidence: 0.936109847058824

01:01:16.592 --> 01:01:18.319 finding that relationship with,

NOTE Confidence: 0.936109847058824

01:01:18.320 --> 01:01:20.030 with the oceanic boundaries And

NOTE Confidence: 0.936109847058824

01:01:20.030 --> 01:01:22.479 interestingly in that in that first trial,

NOTE Confidence: 0.936109847058824

01:01:22.480 --> 01:01:24.552 small trial of 20 he he also

NOTE Confidence: 0.936109847058824

01:01:24.552 --> 01:01:26.719 looked at the other constructs.

NOTE Confidence: 0.936109847058824

01:01:26.720 --> 01:01:29.000 So small perceptual changes, visual,

NOTE Confidence: 0.936109847058824

01:01:29.000 --> 01:01:30.477 blah, blah, and didn't really see it.

NOTE Confidence: 0.936109847058824

01:01:30.480 --> 01:01:30.960 But yeah,
NOTE Confidence: 0.948768784615385

01:01:31.080 --> 01:01:32.774 right. Which argues that it's not just
NOTE Confidence: 0.948768784615385

01:01:32.774 --> 01:01:34.358 a surrogate marker for effective dose.
NOTE Confidence: 0.94629164

01:01:34.400 --> 01:01:37.960 Yeah. Yeah, yeah, yeah, exactly. Exactly.
NOTE Confidence: 0.9201268

01:01:39.200 --> 01:01:42.419 OK over at time and I know it's
NOTE Confidence: 0.9201268

01:01:42.419 --> 01:01:43.800 getting a bit late there. Yeah.
NOTE Confidence: 0.9352219

01:01:46.070 --> 01:01:46.750 Thank you so much.
NOTE Confidence: 0.934764472727273

01:01:46.830 --> 01:01:48.300 You can see I'm sitting in dark
NOTE Confidence: 0.934764472727273

01:01:48.300 --> 01:01:50.150 because I had to plug out to get the
NOTE Confidence: 0.934764472727273

01:01:50.150 --> 01:01:52.110 the charter to work in another block.
NOTE Confidence: 0.934764472727273

01:01:52.110 --> 01:01:54.006 So I was like multitasking a bit so
NOTE Confidence: 0.934764472727273

01:01:54.006 --> 01:01:55.590 I apologize for that. So I'm sorry.
NOTE Confidence: 0.939414983333333

01:01:55.590 --> 01:01:57.326 Thank you so much for spending this
NOTE Confidence: 0.939414983333333

01:01:57.326 --> 01:01:59.040 time with us and we'll I know people
NOTE Confidence: 0.939414983333333

01:01:59.040 --> 01:02:00.312 I know there are a number of people
NOTE Confidence: 0.939414983333333

01:02:00.312 --> 01:02:01.586 who wanted to be here and couldn't

NOTE Confidence: 0.939414983333333

01:02:01.586 --> 01:02:02.675 but we'll we'll put the recording

NOTE Confidence: 0.939414983333333

01:02:02.675 --> 01:02:04.026 up and and and send that out.

NOTE Confidence: 0.939414983333333

01:02:04.026 --> 01:02:05.922 So your audience will be several

NOTE Confidence: 0.939414983333333

01:02:05.922 --> 01:02:07.844 fold what you see here and it's

NOTE Confidence: 0.939414983333333

01:02:07.844 --> 01:02:09.293 been it's been really great to see

NOTE Confidence: 0.939414983333333

01:02:09.293 --> 01:02:10.550 this work reviewed. Thank you.

NOTE Confidence: 0.936228346

01:02:11.040 --> 01:02:11.800 It has been a pleasure.

NOTE Confidence: 0.936228346

01:02:11.800 --> 01:02:12.880 Thanks a lot for having me.

NOTE Confidence: 0.936228346

01:02:12.880 --> 01:02:15.144 Have a good weekend and thank you,

NOTE Confidence: 0.936228346

01:02:15.144 --> 01:02:15.960 David. Take care.

NOTE Confidence: 0.936228346

01:02:15.960 --> 01:02:18.000 Thank you. Bye, bye, bye.