WEBVTT

NOTE duration: "00:03:00.565"

NOTE Confidence: 0.9654948

00:00:05.359 --> 00:00:05.859 Neurogenomics

NOTE Confidence: 0.99421036

00:00:06.160 --> 00:00:07.440 is the study of how

NOTE Confidence: 0.99421036

00:00:07.440 --> 00:00:08.180 our genes

NOTE Confidence: 0.9862366

00:00:08.559 --> 00:00:10.500 influence the brain. So genes

NOTE Confidence: 0.9862366

00:00:10.559 --> 00:00:11.700 act like instructions

NOTE Confidence: 0.96213377

00:00:12.480 --> 00:00:14.000 that help guide how brain

NOTE Confidence: 0.96213377

00:00:14.000 --> 00:00:16.275 cells grow, connect, and communicate.

NOTE Confidence: 0.98720706

00:00:16.975 --> 00:00:18.994 And when these instructions differ

NOTE Confidence: 0.98720706

00:00:19.055 --> 00:00:20.415 from person to person, it

NOTE Confidence: 0.98720706

00:00:20.415 --> 00:00:21.795 can change how the brain

NOTE Confidence: 0.96707153

00:00:22.175 --> 00:00:23.954 develops and how people think,

NOTE Confidence: 0.96707153

00:00:24.095 --> 00:00:25.235 feel, and behave.

NOTE Confidence: 0.9274414

00:00:25.614 --> 00:00:27.474 And so understanding these differences

NOTE Confidence: 0.9916992

00:00:28.160 --> 00:00:29.300 help us understand

NOTE Confidence: 0.9983724

00:00:29.600 --> 00:00:30.980 why some individuals

NOTE Confidence: 0.99869794

00:00:31.360 --> 00:00:32.260 are more vulnerable

NOTE Confidence: 0.92749023

00:00:32.560 --> 00:00:33.140 to conditions

NOTE Confidence: 0.9675293

00:00:33.520 --> 00:00:34.420 like anxiety,

NOTE Confidence: 0.9756673

00:00:34.720 --> 00:00:36.020 ADHD, and OCD.

NOTE Confidence: 0.8300781

00:00:39.760 --> 00:00:40.820 Our lab studies

NOTE Confidence: 0.98276365

00:00:41.315 --> 00:00:43.475 how genetic factors shape early

NOTE Confidence: 0.98276365

00:00:43.475 --> 00:00:45.235 brain development and contribute to

NOTE Confidence: 0.98276365

00:00:45.235 --> 00:00:47.175 mental health conditions in children.

NOTE Confidence: 0.9739118

00:00:47.795 --> 00:00:49.895 And we use genetic data,

NOTE Confidence: 0.9739118

00:00:49.955 --> 00:00:51.015 clinical information,

NOTE Confidence: 0.996875

00:00:51.875 --> 00:00:54.455 and cellular models to understand

NOTE Confidence: 0.98107195

00:00:54.880 --> 00:00:57.140 which biological pathways are involved

NOTE Confidence: 0.98107195

00:00:57.360 --> 00:00:59.220 and how they influence behavior

NOTE Confidence: 0.98107195

00:00:59.440 --> 00:01:00.800 and risk for different mental

NOTE Confidence: 0.98107195

00:01:00.800 --> 00:01:01.620 health conditions.

NOTE Confidence: 0.97576904

00:01:05.360 --> 00:01:06.959 So our main approach is

NOTE Confidence: 0.97576904

00:01:06.959 --> 00:01:08.959 collecting and analyzing genetic data

NOTE Confidence: 0.97576904

00:01:08.959 --> 00:01:09.620 in families.

NOTE Confidence: 0.99466145

00:01:10.084 --> 00:01:11.844 So looking across hundreds of

NOTE Confidence: 0.99466145

00:01:11.844 --> 00:01:14.505 individuals to find genetic factors

NOTE Confidence: 0.99466145

00:01:14.564 --> 00:01:16.024 that are linked to anxiety,

NOTE Confidence: 0.99316406

00:01:16.325 --> 00:01:16.825 ADHD,

NOTE Confidence: 0.9462225

00:01:17.204 --> 00:01:19.444 ticks, OCD, and related conditions

NOTE Confidence: 0.9462225

00:01:19.444 --> 00:01:20.725 like hair pulling and skin

NOTE Confidence: 0.9462225

00:01:20.725 --> 00:01:21.225 picking.

NOTE Confidence: 0.97855633

00:01:21.845 --> 00:01:23.304 And we use then statistical

NOTE Confidence: 0.97855633

00:01:23.365 --> 00:01:23.865 genetics,

NOTE Confidence: 0.92245483

00:01:24.180 --> 00:01:26.120 computational modeling, and bioinformatic

NOTE Confidence: 0.9970703

00:01:26.580 --> 00:01:27.640 tools to uncover

NOTE Confidence: 0.998291

00:01:28.180 --> 00:01:29.800 patterns in this data.

NOTE Confidence: 0.99354386

00:01:30.819 --> 00:01:33.060 Yale brings together world class

NOTE Confidence: 0.99354386

00:01:33.060 --> 00:01:34.840 strengths in child psychiatry,

NOTE Confidence: 0.9782715

00:01:35.459 --> 00:01:36.920 genetics, and neuroscience

NOTE Confidence: 0.8875977

00:01:37.380 --> 00:01:38.715 all in the same place.

NOTE Confidence: 0.9956868

00:01:39.274 --> 00:01:40.795 And we're able to collaborate

NOTE Confidence: 0.9956868

00:01:40.795 --> 00:01:41.295 closely

NOTE Confidence: 0.99726564

00:01:41.755 --> 00:01:43.935 with experts across these disciplines.

NOTE Confidence: 0.99703276

00:01:44.634 --> 00:01:45.914 It's also a place where

NOTE Confidence: 0.99703276

00:01:45.914 --> 00:01:47.354 we have access to cutting

NOTE Confidence: 0.99703276

00:01:47.354 --> 00:01:48.814 edge genomic technologies

NOTE Confidence: 0.93349093

00:01:49.755 --> 00:01:51.274 and kind of a clinical

NOTE Confidence: 0.93349093

00:01:51.274 --> 00:01:53.914 community that deeply values science

NOTE Confidence: 0.93349093

00:01:53.914 --> 00:01:55.810 based compassionate care. And so

NOTE Confidence: 0.93349093

00:01:55.810 --> 00:01:57.590 this combination at Yale

NOTE Confidence: 0.99522567

00:01:57.970 --> 00:01:59.330 really makes it an ideal

NOTE Confidence: 0.99522567

00:01:59.330 --> 00:02:00.710 place for this interdisciplinary

NOTE Confidence: 0.99853516

00:02:01.170 --> 00:02:01.670 research.

NOTE Confidence: 0.96084255

00:02:05.010 --> 00:02:06.210 This work could help us

NOTE Confidence: 0.96084255

00:02:06.210 --> 00:02:08.770 understand the earliest biological changes

NOTE Confidence: 0.96084255

00:02:08.770 --> 00:02:10.635 that contribute to childhood onset

NOTE Confidence: 0.96084255

00:02:10.635 --> 00:02:11.775 mental health conditions.

NOTE Confidence: 0.9911412

00:02:12.155 --> 00:02:13.835 And that knowledge may guide

NOTE Confidence: 0.9911412

00:02:13.835 --> 00:02:14.735 earlier identification,

NOTE Confidence: 0.9765625

00:02:15.915 --> 00:02:18.395 more personalized treatments, and new

NOTE Confidence: 0.9765625

00:02:18.395 --> 00:02:19.535 prevention strategies.

NOTE Confidence: 0.988878

00:02:19.995 --> 00:02:21.275 And our goal is really

NOTE Confidence: 0.988878

00:02:21.275 --> 00:02:22.735 to move towards supports

NOTE Confidence: 0.98821616

00:02:23.660 --> 00:02:25.200 that are based on underlying

NOTE Confidence: 0.98821616

00:02:25.260 --> 00:02:27.100 biology and not really this

NOTE Confidence: 0.98821616

00:02:27.100 --> 00:02:28.880 one size fits all approach.

NOTE Confidence: 0.9970703

00:02:29.500 --> 00:02:30.400 As a practicing

NOTE Confidence: 0.94492185

00:02:31.020 --> 00:02:33.280 child psychiatrist, I see firsthand

NOTE Confidence: 0.99762833

00:02:33.740 --> 00:02:35.440 how much mental health conditions

NOTE Confidence: 0.99762833

00:02:35.660 --> 00:02:36.675 impact children

NOTE Confidence: 0.95748466

00:02:37.215 --> 00:02:39.055 and their families. And so

NOTE Confidence: 0.95748466

00:02:39.055 --> 00:02:39.875 I'm motivated

NOTE Confidence: 0.9962333

00:02:40.334 --> 00:02:41.875 by the hope that understanding

NOTE Confidence: 0.9962333

00:02:42.014 --> 00:02:42.595 the biology

NOTE Confidence: 1

00:02:42.895 --> 00:02:43.395 behind

NOTE Confidence: 0.99853516

00:02:43.855 --> 00:02:44.675 these conditions

NOTE Confidence: 0.97458816

00:02:44.975 --> 00:02:46.334 can lead to better care

NOTE Confidence: 0.97458816

00:02:46.334 --> 00:02:47.694 and better outcomes. And while

NOTE Confidence: 0.97458816

00:02:47.694 --> 00:02:48.895 I find the science super

NOTE Confidence: 0.97458816

00:02:48.895 --> 00:02:50.014 exciting and that's why I

NOTE Confidence: 0.97458816

00:02:50.014 --> 00:02:50.995 do this work,

NOTE Confidence: 0.9812709

00:02:51.350 --> 00:02:52.870 for me, it really always

NOTE Confidence: 0.9812709

00:02:52.870 --> 00:02:54.389 comes back to helping kids

NOTE Confidence: 0.9812709

00:02:54.389 --> 00:02:55.770 and their families thrive.