

Sample Script

[fade in music]

Narrator: *In our brain...thousands of brain cells, called neurons, are talking to each other all the time...this communication is essential for everything we do...from walking, to talking, to perceiving emotions...remembering things...everything. How exactly do neurons communicate with each other?*

TAPE: 1:49 to 2:10 [fade out] (electrical to chemical)

Narrator: *In this episode, we talk to [REDACTED], Assistant Professor in the Psychiatry Department here at [REDACTED]. [REDACTED]'s lab studies the complex machinery that underlies communication in the brain...*

TAPE: 2:20 to 2:40 [fade out, fade in music] (description of synaptic transmission)

These brain chemicals or neurotransmitters that [REDACTED] is talking about come in a variety of flavors...each neurotransmitter has a specific function...and there is a complex machinery that regulates when and how these neurotransmitters are released into the synapse...

TAPE: 2:41 to 3:35 (description of vesicles, recycling of neurotransmitters).

Narrator: *OK, let's do a quick recap* [sound effect]

TAPE: 4:25 to 4:53 [fade out, fade in music]

Narrator: *So this sounds like a complicated process...with a lot steps....and therefore a lot of room for error...in fact, many brain diseases are thought to occur because of defects in normal synaptic transmission...in fact this is exactly what [REDACTED]'s lab is interested in studying...*

TAPE: 0:24 to 0:39

Narrator: *One of the illnesses that [REDACTED] is interested in studying is schizophrenia...*

TAPE: 0:53 to 1:16

Narrator: *Schizophrenia is a disease that affects about 1% of the American population.....while a lot of scientific research on the neural basis for schizophrenia indicates that it is a disease of the synapse...we still don't really know what's going on... [REDACTED] is interested in one specific neurotransmitter called glutamate...*

TAPE: 5:26 to 5:45 [fade out, fade in music] (Glutamate and glutamate transporters)

Narrator: *These molecules that load the neurotransmitters into vesicles are called transporters...and these transporters may be found on different places...rather, they can reside in different parts of the brain...particularly regions that are implicated in schizophrenia...*

TAPE: 5:46 to 6:18 (Localization of transporters on external information pathways vs. internal information pathways.)

Narrator: *The brain region that [REDACTED] is talking about is called the prefrontal cortex, and is an important site of integration of information...and it is well known that this region does not function normally in schizophrenic patients...so what exactly is going wrong? [fade out, fade in music]*

TAPE: 6:41 to 7:07 (Disruption of integration of information)

Narrator: *How can this disruption happen at the level of the synapse? What properties of this neurotransmitter release actually change?*

TAPE: 16:37 to 17:14 (what can change about vesicle release)

Narrator: *[REDACTED] does most of her research in cell culture systems...or probing cells in a dish to tinker around with molecules inside a cell...she tells us about what she's found so far...*

TAPE: 15:12 to 16:09

Narrator: *[REDACTED] is an MD, PhD, meaning she is in a unique position to treat patients with mental illness, as well as studying the basic molecular machinery that may underlie these diseases...*

TAPE: 9:16 to 11:02

[fade out, fade in music]

Narrator: *Here at [REDACTED]...we're always interested in how a scientist got to where he or she is...and what's kept them going...*

TAPE: 12:13 to 14:07

Narrator outro and music credits: *Thanks to ___ for chatting with us, and thank you for listening! The music you heard in this episode was brought to you by ___*

[fade out music]