



Media Fact Sheet

What is *unspoken symphony*?

unspoken symphony is a web-based, image-recognition technology designed to translate artwork into a unique melody. It was created to give those in the US epilepsy community who struggle to express themselves verbally a new way to communicate and connect like never before.

Many with epilepsy have developmental delays or cognitive impairment in addition to seizures, making it challenging to verbalize or connect with others. This is particularly common in seizure conditions such as Lennox-Gastaut syndrome (LGS), Dravet syndrome and tuberous sclerosis complex (TSC).^{i,ii} Often, individuals with limited verbal ability turn to art and/or music therapy as a way to express themselves. *unspoken symphony* offers a unique way to bridge the two.

Who Was the Inspiration for *unspoken symphony*?

unspoken symphony was inspired by a girl named Riley, 15, who is living with LGS and TSC. Because of these conditions she's never been able to speak, but was able to express herself through painting. Greenwich Biosciences was inspired to develop a way for Riley, and others like her, to translate their art into an expression of sound that never existed before.

How Does it Work?

The technology behind *unspoken symphony* was created from scratch for the epilepsy community. It is a breakthrough image-recognition technology that creates a connection between visual lines and music notes; not just inspired by the art, but composed by it—line by line, note by note.

- First, users select a piece of art they'd like to turn into a melody. Any kind of art works – a drawing, painting, finger painting, or even computer-generated art.
- After taking a picture of the art with a mobile device or scanning it onto a computer, users upload the art onto unspokensymphony.com.
- The site takes the user through a series of prompts to ensure the artwork will produce the best results. Editing tools are available for cropping, adjusting brightness, etc.
- Once the user is satisfied with the image, the software first detects the edges of each shape drawn then adds a music staff over the artwork. It then identifies where the lines intersect, and plots points based on those lines.
- Within seconds, the points become music notes ready to play. Each melody is as unique as the artwork itself, creating a sound that never existed before.
- Users then listen to their artwork, with the notes animating over the art. The software also creates a piece of corresponding sheet music and an MP4 video of the animated melody for users to keep and share with loved ones and via social media. A download link for the MP4 video and sheet music are sent via email.
- Visitors can also check out the site's gallery, which features the unspoken symphonies of those living with LGS, Dravet syndrome and TSC.

Who is Supporting *unspoken symphony*?

unspoken symphony was created by [Greenwich Biosciences](#) for all those who struggle to express themselves. The company is launching the program in collaboration with a select group of patient organizations, including the [Dravet Syndrome Foundation](#), the [Epilepsy Foundation](#), the [Lennox-Gastaut Foundation](#) and the [Tuberous Sclerosis Alliance](#) and looks to add additional partners in the future.

For more information, visit unspokensymphony.com

ⁱ Greenwich Biosciences. Beyond Seizures: Comorbid Clinical Features and Multidisciplinary Management of Lennox-Gastaut Syndrome and Dravet Syndrome. Available at <https://www.greenwichbiosciences.com/sites/default/files/pdf/comorbidity-lgs-dravet-syndrome.pdf>. Accessed August 20, 2020.

ⁱⁱ Tuberous Sclerosis Alliance. TSC and Autism Spectrum Disorders. Available at: <https://www.tsalliance.org/about-tsc/signs-and-symptoms-of-tsc/brain-and-neurological-function/tsc-and-autism-spectrum-disorders/>. Accessed August 20, 2020.