

Auditory Neuroscience Laboratory

www.brainvolts.northwestern.edu

Discovering early markers of language development by studying brain activity, listening, and learning



A special thank you

Year 4 of Biotots is well on its way and we cannot thank all of our families—especially those of you who have been with us for FOUR (!!) years now—enough for continuing to come back to see us!

Summer time means summer vacation, camps & holidays. Hooray for sunshine & play!!

Parents, our dedicated team of researchers understands the complexity and change in family schedules with the summer months. We are excited to work with you to schedule flexible appointments around your summer plans, and are happy to work with your wonderful nannies or babysitters, to serve your family's needs best.

As our project continues to grow we would greatly appreciate any feedback you have to make this process easier!

We're also working to restock our movie collection, so we're calling on you to tell us what the must-watch movies are. Biotots: ask your parents to send us a quick message about your favorite movie or TV show requests to watch while wearing the science buttons!



We always love hearing from you!

*-The
Biotots
research
team*

Researcher Spotlight:



Jen Krizman, Ph.D.

Jen Krizman has been a member of the Auditory Neuroscience Laboratory since 2007 and for most of that time she worked with adolescents as part of a longitudinal study similar to Biotots. Jen is interested in how language experience influences how our brains process our auditory world. In April she defended her dissertation looking at differences between bilingual and monolingual adolescents in the way their brains process sound. She is now assisting in the behind-the-scenes running of the Biotots project. She is grateful to the Biotots team for welcoming her with open arms and has had a wonderful time working with them as they show her the ropes. An absolute bright spot for Jen has been the opportunity to meet some of the terrific families participating in this study and she can't wait to meet many more!

When Jen isn't at the lab, she enjoys spending time with her fiancé Mark and their two cats. They are life-long Midwesterners – nearly lifelong Chicagoans – who have lived the past 8 years in Glencoe. She and Mark consider themselves to be “foodies” and are always up for trying new restaurants, recipes, and cuisines!

We hope you had fun playing with us!

If you have any questions about the project or would like to share photos of your child with us, please call or email: (847) 491-2457 biototsresearch@gmail.com

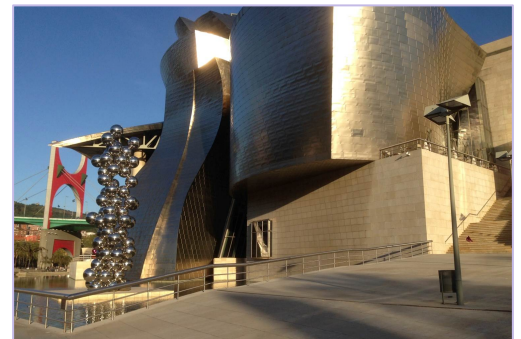


We presented new research at two recent conferences!



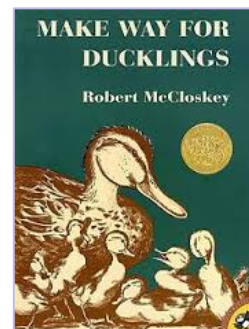
Dr. Kraus and Travis White-Schwoch traveled to **Bilbao, Spain** to present work from the BIOtots project at the International Workshop on Reading and Developmental Dyslexia. At this conference, we had the opportunity to present our work on language, learning, and development to expert scientists in the field. Additionally, one day of the conference was devoted to translating the science to the public, providing us with an opportunity to share the current state of the field with educators

and speech-language pathologists from countries around the world. This international group was excited to hear about our recent findings on the brain processes that underlie reading and listening difficulties and the work we are doing to translate these findings into clinical treatments. During this trip, Dr. Kraus and Travis had a chance to check out the sights and attractions of Bilbao, which included an incredible opportunity to get a guided tour of the Guggenheim museum!



Dr. Kraus, Travis White-Schwoch, and Jen Krizman also attended the Frequency-Following Response Workshop in **Boston, Massachusetts**. At this conference, they showed how we can use guinea pigs to study children's brains! They also showed evidence – using responses from BIOtots and high-school students – that listening is multifaceted. These findings represent important steps in the research we have been doing on how the brain processes sound and how that relates to reading and listening abilities.

While in Boston, Dr. Kraus, Travis, and Jen took a walking tour of the city and were able to visit the park that the must-read children's book "Make Way for Ducklings" by Robert McCloskey was based.



A very special lab visitor!

Churchill Memorial Fellowship Visiting Music Educator & Scientist

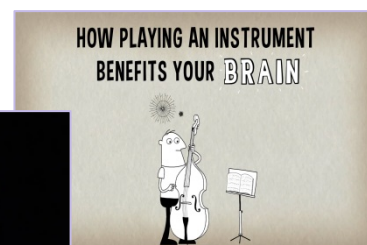


TED^xCanberra

Dr. Anita Collins is a prominent **Australian** educator, musical director & creator, music & brain researcher, and member of several large, non-profit music advocacy groups. As an **Assistant Professor of Music and Arts Education** at the **University of Canberra**, she focuses her teaching, research, advocacy, and collaborations on the importance of music education, musical training, and **understanding the positive impact music has on the brain**, especially during childhood. Anita has an earnest desire to better understand the neural foundations of music's impact on the brain, which brought her to the Auditory Neuroscience Laboratory after winning the **Barbara Matthews Churchill Fellowship** in 2015. This prestigious award enables select music educators to explore research collaborations between music education programs and neuroscience laboratories in the United States & Canada. In addition to visiting the lab this May, Anita also spent time with El Sistema music groups on the East Coast, the Harmony Project in Los Angeles, and a week with BRAMS Lab in Montreal.

Anita's Northwestern visit included interviews with the **BIOTots** team, observations of BIOTots games (Anita even let us test her brain while watching movies with science buttons on her head!), attendance to other labs, lectures & presentations, and a tour of the Beinen School of Music & Ryan Center for the Musical Arts.

Anita also developed one of the most popular TED talks ever. In her 2104 talk, Anita explains the details of how playing an instrument benefits your brain. You can find her **TED talk** and much more about her research, advocacy, & background at her website: <http://www.anitacollinsmusic.com>. Don't forget to visit her Facebook page: **BiggerBetterBrainsProject** for a short video on her experience in our lab!



Her BIOTot-aged daughter, Ellie, also loves learning about auditory neuroscience!

BIOtots siblings!

BIOtots is a family affair! We have new BIOtots who are following in their older siblings' footsteps. If your little brother or sister is turning 3 or 4, we'd love to welcome the whole family in on the fun!



To learn more about our work, visit our website:
www.brainvolts.northwestern.edu
start under "slideshows" to learn about our current projects



We want to keep in touch!

Moving? Have a new e-mail or phone number? Update your contact information with us by shooting an email to biototsresearch@gmail.com or calling us at (847)-491-2457.

