Auditory Neuroscience Laboratory

www.brainvolts.northwestern.edu

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



Fall is in the air

The BIOtots research team has enjoyed another fun summer testing many familiar faces and, as well as some new ones! We've had a wonderful time reconnecting with our longstanding families and becoming better acquainted with our new ones. The group has been captivated by the many changes another year brings to your children's lives.

Fall is an exciting time to be at Northwestern, with students returning for classes and seeing the further completion of new campus construction projects that make the campus one of the most remarkable in the country. It's also a busy time for our lab, as we continue to work with multiple kids each week, who teach us important lessons about the developing brain.

Fall also means more than just changes in the weather and color of the leaves, it means back to preschool or school, and the beginning of after school activities, such as sports, dance, and music lessons. We understand these changes can be challenging to balance—we are always willing to be flexible scheduling appointments for your children. The research team is available daily during the week, particularly after school, and we also

have plenty of weekend testing opportunities to offer—we wish to serve you best!

If your family has come into the lab this year for testing, many thanks! If not, we look forward to seeing you and learning more about your children's development. We look forward to seeing you soon!!

-The Biotots research team



Researcher Spotlight:



Sean McWeeney, Ph.D. student

Sean McWeeny is a first year doctoral student working with the Auditory Neuroscience Lab. He is interested in how different types of music training – like singing, writing, or playing different types of instruments – can change how we hear. He's really looking forward to working with the BIOtots kids and families, and can't wait to learn all of the games.

Sean recently moved from Carrboro, NC after receiving a BS in Psychology and a BA in Music from the University of North Carolina at Chapel Hill. In his free time, he loves to play violin and piano and teach music to tots like you!

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

Looking for some fall baking inspiration?

Our BIOtots team member, Silvia, shares two of her favorite fall recipes

Pumpkin Gnocchi

INGREDIENTS (for 4 servings):

- 1 ³⁄₄ lb pumpkin
- 5 oz flour or all-purpose flour
- 1 egg
- Salt and pepper to taste
- Nutmeg to taste
- 2 oz butter
- 8 leaves of sage
- Grated Parmigiano Reggiano cheese

PREPARATION:

- 1. Preheat oven to 350°F.
- 2. Begin by preparing the pumpkin. Cut it in half, without removing the outside skin, and place in a baking dish lined with coarse salt. Cover the pumpkin with aluminum foil and cook at 350°F oven for about an hour.
- 3. Once the pumpkin is tender, remove it from the oven and let cool: then peel and pass through a potato masher.
- 4. To make the dough for the pumpkin gnocchi, place the mashed pumpkin on a flat work surface. Add the salt, pepper and nutmeg. Mix together with the egg and flour.
- 5. Check the consistency of the dough: it should be soft and light, and not stick to your fingertips.
- 6. Shape the gnocchi: Dust the work surface with a little flour and cut off a small amount of the gnocchi dough. Roll this into a log and cut into small cylindrical pieces.
- 7. Cook the gnocchi in a large pot of boiling salted water.
- 8. While the gnocchi are cooking, prepare the sauce: in a skillet, melt the butter with a couple of fresh sage leaves.
- 9. Add a tablespoon of cooking water to the butter and stir to make a sauce.
- 10. Once the gnocchi rise to the top of the pot, remove them using a slotted spoon. Carefully toss them in the melted butter. Finish with grated Parmigiano Reggiano.

Crunchy Pumpkin Monsters

INGREDIENTS:

- 7 oz. all-purpose flour
- 6 oz. pumpkin flavored corn-flakes
- 3 ½ oz. sugar
- 4 oz. butter
- 2 eggs

PREPARATION:

- 1. Preheat oven to $360^{\circ}F$
- 2. Mix sugar and melted butter in a bowl
- 3. Add 2 eggs and mix
- 4. Slowly add flour and mix until the batter is firm
- 5. Optional: add chocolate chips or raisins
- 6. Take a small amount of dough (2 inch diameter) and roll into ball, then roll ball in corn flakes
- 7. Bake 20 minutes or until golden at 360° F





Dr. Kraus briefs the U.S. Department of Education



Last month, Dr. Nina Kraus delivered a policy briefing to the U.S. Department of Education in Washington D.C. She spoke to President Obama's conviction that "the best antipoverty program is a first rate education" by presenting groundbreaking neuroscience research on the biological impact of music training and bilingualism in at-risk youth.



Dr. Kraus showed that these forms of auditory enrichment strengthen brain mechanisms important for learning and reading, providing neuroscience-based evidence to support Education Secretary John King's argument that "a child that speaks a language other than English at home has an asset that should be valued."



Announcing our third annual Halloween costume contest!

Halloween is approaching soon and that means cool costumes!! We want to see you in your costumes, so please send us your pictures. **OR wear them to the lab!!** Each BIOtot that sends in a picture or lets us take a picture of them in their cool costume will be entered in a **raffle drawing** for a lab t-shirt and a cool prize. Please send photos to us by November 7th, 2016, to be eligible. Please check back in at our holiday newsletter 2016 to see the entries and find out the raffle winner!

*Parents, by sending us your child's costume picture you are granting permission for us to use it in this newsletter and other media.





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



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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 <u>biototsresearch@gmail.com</u> or calling us at (847)-491-2457.



