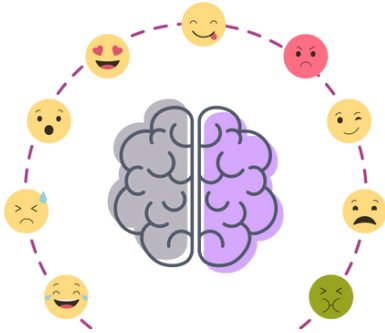


# EMOTION PROJECT NEWSLETTER



BOSTON CHILDREN'S HOSPITAL

OCTOBER 2022



## WHAT'S INSIDE :

- ▶ Project Updates
- ▶ Brain Waves Game
- ▶ Lab Tour
- ▶ Cool Discoveries
- ▶ Meet the Team

## A MESSAGE FROM DR. BOSQUET:

Dear Emotion Project Study Participants,

Happy Fall! I hope you had a wonderful summer and an exciting start to the new school year! On behalf of our team, I want to thank every one of you for all that you have contributed to our study. Although your parents signed you up when you were babies, your interest in our science is what keeps us motivated. Without you, our exciting research (described below) would not be possible!

Thank you for making our project such a special & fun journey. We are so excited to see you return to our lab!

Thank  
you!



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## PROJECT EXTENSION!

You may remember coming to our study lab when you were younger. **Now we are hoping to see you when you are 11 and 13 years old!** Activities will focus on how your brain and body respond to different situations and how this relates to your emotions and behaviors. We are also interested in how you have been coping with the COVID-19 pandemic. We can't wait to see you and your family again!



.....  
**EMOTION  
PROJECT**

..... IS .....  
**EXTENDING  
FOR 5  
MORE  
YEARS!!!**

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## NEW STUDY ACTIVITIES

Until now, half of you participated in fNIRS tasks, and half in EEG tasks. Both are ways to measure your brain activity: fNIRS measures blood flow changes, and EEG measures electrical activity in the brain.

For the new visits, we will only do EEG tasks. This means whether you wore the fNIRS cap or the EEG net in past visits, you will now be asked to wear the EEG net (**like the one in the picture!**)



## EEG

The EEG net has soft, damp sponges that touch your scalp. Each sponge contains an electrode that can record the electrical activity of thousands of your brain's neurons signaling. The EEG signals are recorded as waves.

On the next page, there are examples of what your brain waves might look like and what it tells us about you...

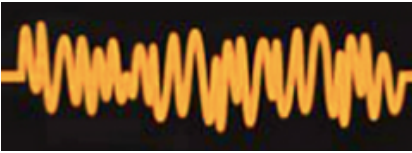
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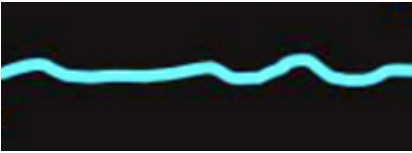
# EMOTION PROJECT CHALLENGE: MATCH THE EEG BRAIN WAVES!

*Hint: They are matched by color!*



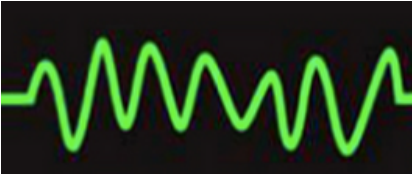
**THETA WAVES**

*Deep meditation,  
dreams, light sleep*



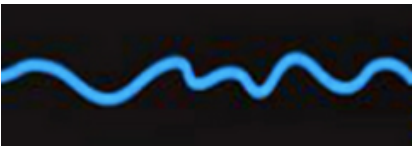
**BETA WAVES**

*Awake, alert, excited*



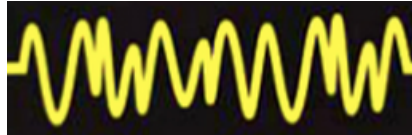
**ALPHA WAVES**

*Physically & mentally  
relaxed, awake but  
drowsy*



**GAMMA WAVES**

*Learning, problem  
solving tasks*



**DELTA WAVES**

*Deep sleep, loss of  
bodily awareness*

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## OUR NEW LAB

*Did you know that the Emotion Project lab moved into a new building!? Some of you may have already visited us at our new lab for your 7-year visit. The building is a brand new laboratory, and we are so excited for you to see our new space!*

Come visit us at our lab & do some fun activities...

**...and you can earn \$50**



Complete our surveys at home or at the visit...

**...and you can earn an extra \$50!**





## STUDY RESULTS



*The data you give us at study visits help us learn more about the development of emotions and mental health. Here are some of the cool discoveries we have found over the years:*



*By analyzing brain responses to certain kinds of faces (fearful, angry faces), we can figure out who might be more or less likely to say they have anxiety later.*



*We have new, cool methods for analyzing EEG data. We are using these methods to find brain characteristics that tell us what kinds of emotions kids might have in the future, like anxiety or attention challenges.*



*You are part of one of the first studies to demonstrate that data collected from your brain in very early childhood can predict later emotions! We also have found that it is very important to test children several times in childhood to have the most accurate predictions. This is because you change so much as you grow from a baby to a teenager!*

# MEET THE EMOTION PROJECT TEAM!

**FEATURED QUESTION:**  
If you could live in any store in the world, which store would you chose?



**Maggie Modico (she/her)**  
Project Coordinator  
Answer: Target



**Ada Kamenetskiy (she/her)**  
Research Assistant  
Answer: Party City



**Robert Law (he/him)**  
Research Assistant  
Answer: IKEA



**Michelle Enlow Bosquet (she/her)**  
Principal Investigator  
Answer: FAO Schwarz Toy Store



**Charles Nelson (he/him)**  
Co-Investigator  
Answer: Best Buy



**April Levin (she/her)**  
Co-Investigator  
Answer: Waterslide Rental Store



**Caroline Kelsey (she/her)**  
Postdoctoral Research Fellow  
Answer: Costco



**Akshar Patel (he/him)**  
Data Manager  
Answer: Board Game Cafe

**THANK YOU!**