# Student questions for the UW Brain Awareness Week Open House Neuroscientist Panel (March 9, 2021)

## **General Questions**

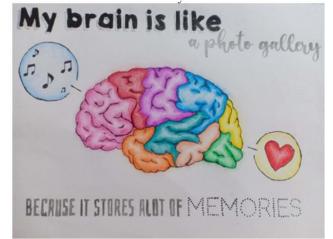
- 1. What got you interested in neuroscience?
- 2. What is the most important discovery you have made?
- 3. What do you like most about your job? What don't you like?
- 4. Everyone always talks about the best parts of being a neurosurgeon (great job, interesting, gives a thrill), but what is the downside?
- 5. What is your favorite part of the brain?
- 6. What is the most fascinating thing about the brain to you?
- 7. How much schooling does it take to become a neuroscientist?

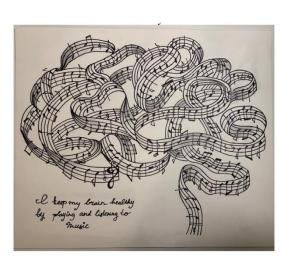
# **Dreams & Sleep**

- 1. How do dreams work?
- 2. How do our brains create dreams when we sleep?
- 3. Why do we dream when we sleep?
- 4. How do you have a dream?
- 5. Why do we have dreams?
- 6. What's going on in your brain when you're sleeping?
- 7. Why do some people have problems sleeping and other people don't?
- 8. Why can some people sleep all day and others only a couple of hours?
- 9. During sleep paralysis, why does the brain stay awake and how come it doesn't wake up your body?
- 10. Why do some people remember their dreams and why do some people not? What does this mean?
- 11. When you wake up from a dream, how do you forget them so easily? How can some people wake up from a dream, and fall back asleep and start back in their dream right where they left off?
- 12. Do dreams have real connections to our actual lives?
- 13. Do blind people see in their dreams?

## Sensory & Motor

- 1. How did J. Ridley Stroop find the Stroop effect?
- 2. Is it possible that one person's neurons react more quickly than another's? If I touch someone on the shoulder, would they feel the touch before I feel their shoulder?
- 3. How fast does your brain make your body move?
- 4. When we have an "itch" why does our brain automatically tell us to scratch it and what actually is an "itch"?
- 5. When we take ibuprofen or Tylenol for pain in any part of our body, how does the brain know to "send" the pain killer to that direct spot?
- 6. How do painkillers affect our headaches?
- 7. How does pain work? How do we feel pain?
- 8. Do migraines damage the brain?





- 9. How do we perceive pain?
- 10. Why do some people have a higher pain tolerance than others?
- 11. What is the explanation for why some people fight or run away in situations of danger?
- 12. When we are exercising, (walking for example) the brain signals for our muscles to contract but is it a different neuron telling our muscles to relax?
- 13. How does our brain calm us down after we have a panic attack?
- 14. How do we visualize things but we can't actually see them. For example right now i am thinking about my bed and all the details but I am in school right now.
- 15. Can you tell me the cause of the hermann grid illusion? i only know that some people optimisethat the primary visual cortex is involved.

### Memory

- 1. What happens when you get memory loss?
- 2. How is the hippocampus important?
- 3. How does memory work? Why can I remember a dream I had 3 years ago, but not why I went into the room?
- 4. Why do we forget stuff when we go through doorways?
- 5. Why did I just forget what I was going to say?
- 6. Does the amygdala trigger déjà vu and/or nostalgia?
- 7. What are your thoughts on deja vu?
- 8. When learning something new, does the brain actually become bigger?

## **Brain Anatomy**

- 1. Why is the brain so important?
- 2. How important is the brain?
- 3. Is your brain really the most important organ?
- 4. What's the most important part of the brain?
- 5. What is the brain made out of?
- 6. Why is the brain squigly and pink?
- 7. What color is your brain?
- 8. Why do brains look the way they do? Why do we look the way we do?
- 9. Does your brain grow bigger when you get more knowledge?
- 10. How many parts are there to the brain and what are they called?
- 11. How were the parts of the brain named, and who named them?
- 12. Can your brain get bigger by reading?
- 13. Can you access the brain through the nose and ear?
- 14. Is there a limit to the brain's capacity?
- 15. How can a person still function with only half a brain?
- 16. What happens when you lose a part of your brain?
- 17. Is there a part of your brain you don't need?
- 18. What is the strongest part of your brain?
- 19. Why do you need a brain stem?
- 20. What is the cerebrum made of?
- 21. What percentage of the brain do we use?
- 22. If the right and left hemispheres of your brain control the opposite sides of your body, what makes your jaw move since it is in the middle of your face and not on one side?
- 23. Why is a whale so big but its brain is so small?

## Neurons

- 1. Would you tell me about neurons?
- 2. How does the body/brain have and generate electricity?
- 3. What propels the brain nerve signals?



- 4. How do neurons actually communicate with each other?
- 5. Can I send messages without neurons?
- 6. What are your neurons made out of?
- 7. Why does a giraffe have a neuron that goes all the way down to its feet?

#### Development

- 1. What's going on in a toddler's brain?
- 2. Are children's brains different from adult brains?
- 3. Why isn't the frontal lobe fully connected in adolescents and why is the amygdala in charge?

#### Miscellaneous

- 1. Do you look at real brains?
- 2. Have you ever felt or held a brain?
- 3. How was the brain discovered, and who discovered it?
- 4. Is it true that every 100 years your brain gets smaller?
- 5. What will happen if the brain disappears?
- 6. What's the weirdest thing that can happen to your brain?
- 7. What if we're not us. What if our brain is just controlling us? What if we don't have free will?
- 8. What's going on in the brains of animals?
- 9. What bad things can you do to your brain?
- 10. Can your brain explode?
- 11. What is one brain surgery that you've heard of and can never forget?
- 12. What happens when we make a decision? Has the brain already processed it before we become consciously aware of it?
- Since you are a professor of neuroscience, I'm wondering if you've ever seen an actual brain surgery. Can you explain it to me?
- 14. How do you know if you're operating on the correct part of the brain during surgery?
- 15. What is the hardest part of the brain to study?
- 16. What is the most important part of the brain?
- 17. Why were so many early ideas about the brain wrong? (phrenology, etc)
- 18. How does the scrunchiness (wrinkles) of the brain make you smarter?
- 19. Why doesn't psychology have neuro at the beginning of it like the other brain sciences?
- 20. Why is a whale so big but its brain is so small?
- 21. How smart are foxes compared to other animals?
- 22. What's the smartest animal?
- 23. Can the brain ever get too big for the skull?

