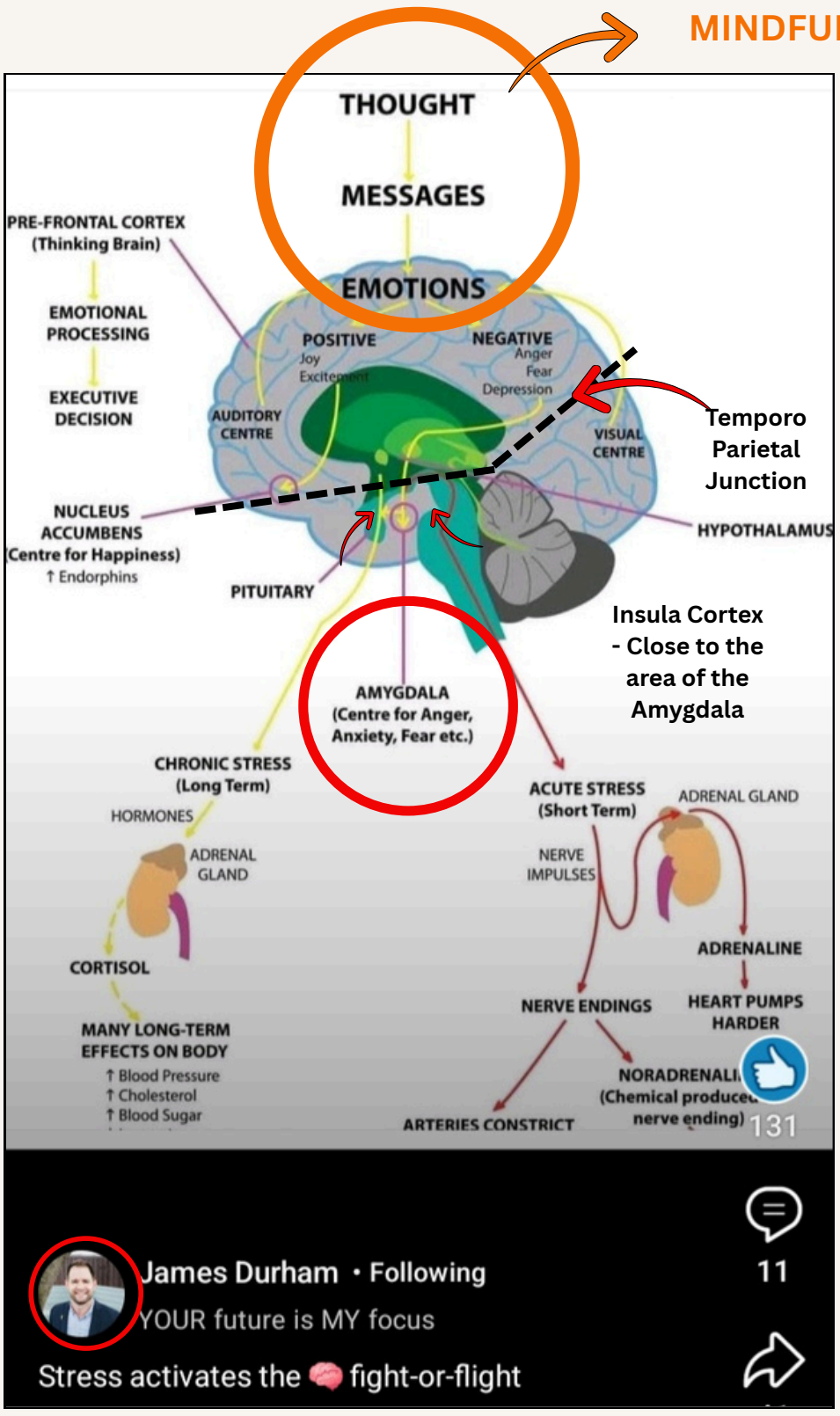
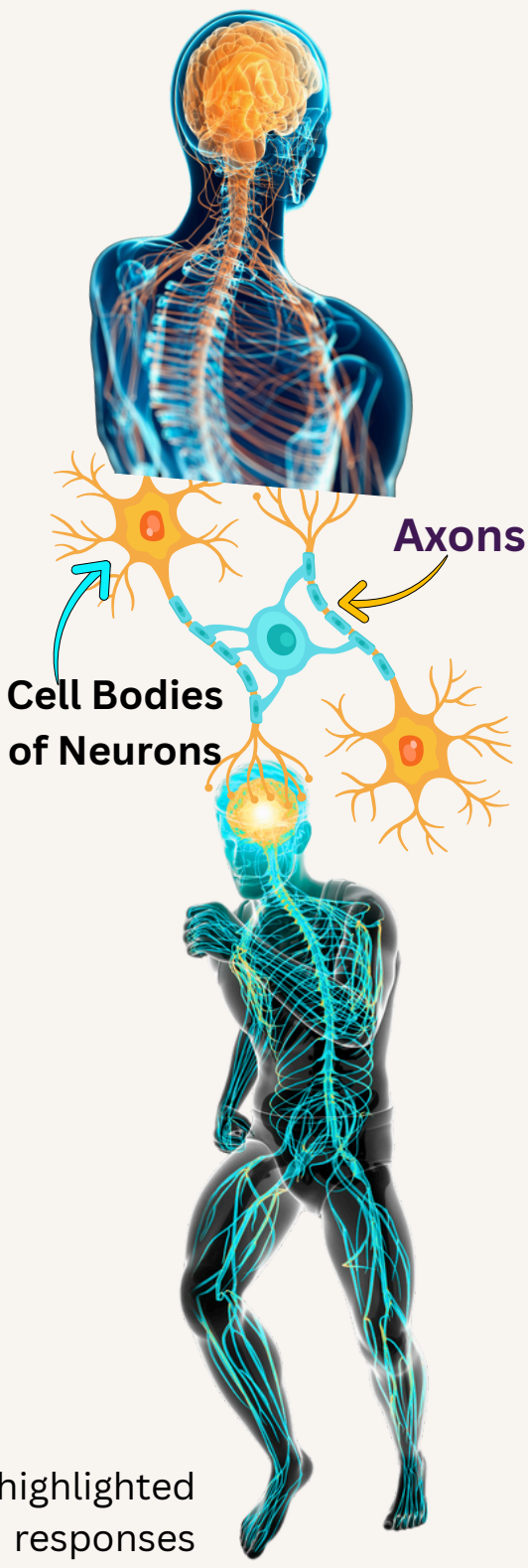
Your Nervous System & FND



Neurons, or Nerve Cells



As **James Durham** shared in his LinkedIn post, he highlighted the inner brain center responsible for flight-or-fight responses and the continuous loop of stress on all of our bodily systems.

Furthermore, he touched on the the principle of mindfulness, where thoughts impact on emotions, which in turn affect ones' actions and behaviours. Together, it creates a synergy that helps regulate our nervous system.

The **nervous system** is like your body's wiring system, and is divided into the **brain, spinal cord, and nerves**. It's made up of **billions of tiny nerve cells**, called **neurons**, that pass messages between the brain and the rest of the body. These messages control how you move, feel, think, and even keep automatic things like breathing and heartbeat going.— without you having to think about them.

With Functional Neurological Disorder (FND), the wiring **(nervous system)** itself isn't damaged, but the messages don't get through properly. It's a bit like having a glitch in the system: the signals get scrambled, delayed, or misread, similar to when robots (traffic lights) are out of sync. That's why someone with FND can have very real symptoms — like seizures, tremors, weakness, or blackouts — even though scans or tests might look normal. This disruption in signals occur deep within the brain, and are not visible to the eye. That is what makes FND so complex. **Hence, FND is now known as a Brain-Network disorder.**

While we can describe FND simply as a glitch in the brain's messaging system, brain scans now show us in more detail which areas are affected. Through "functional" MRI (fMRI) brain scans, we now know that there are disruptions to many key brain areas, including the Amygdala, Insular Cortex, and the Temporo Parietal Junction. Alterations in both White and Grey Matter Volumes have also been reported.

FND affects multiple functions including motor movement, pain processing, emotional processing, and self agency. It lies between the fields of neurology and psychiatry, and is best understood through the framework of the **Biopsychosocial Model (Biological + Psychological + Social)**.