

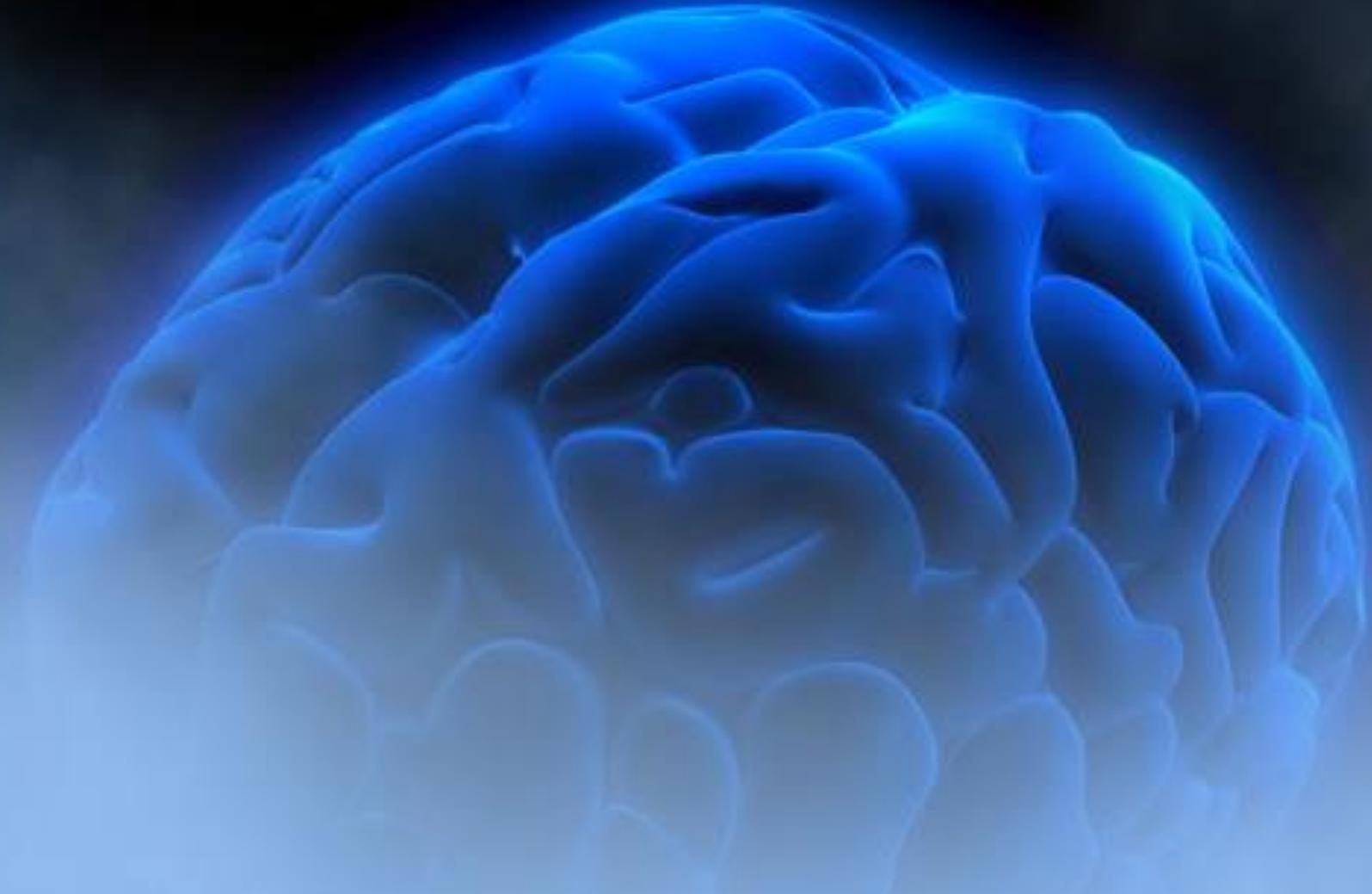
The Mindful Developer

The Science of Stress Management

@MatthewRenze

#IndyCode

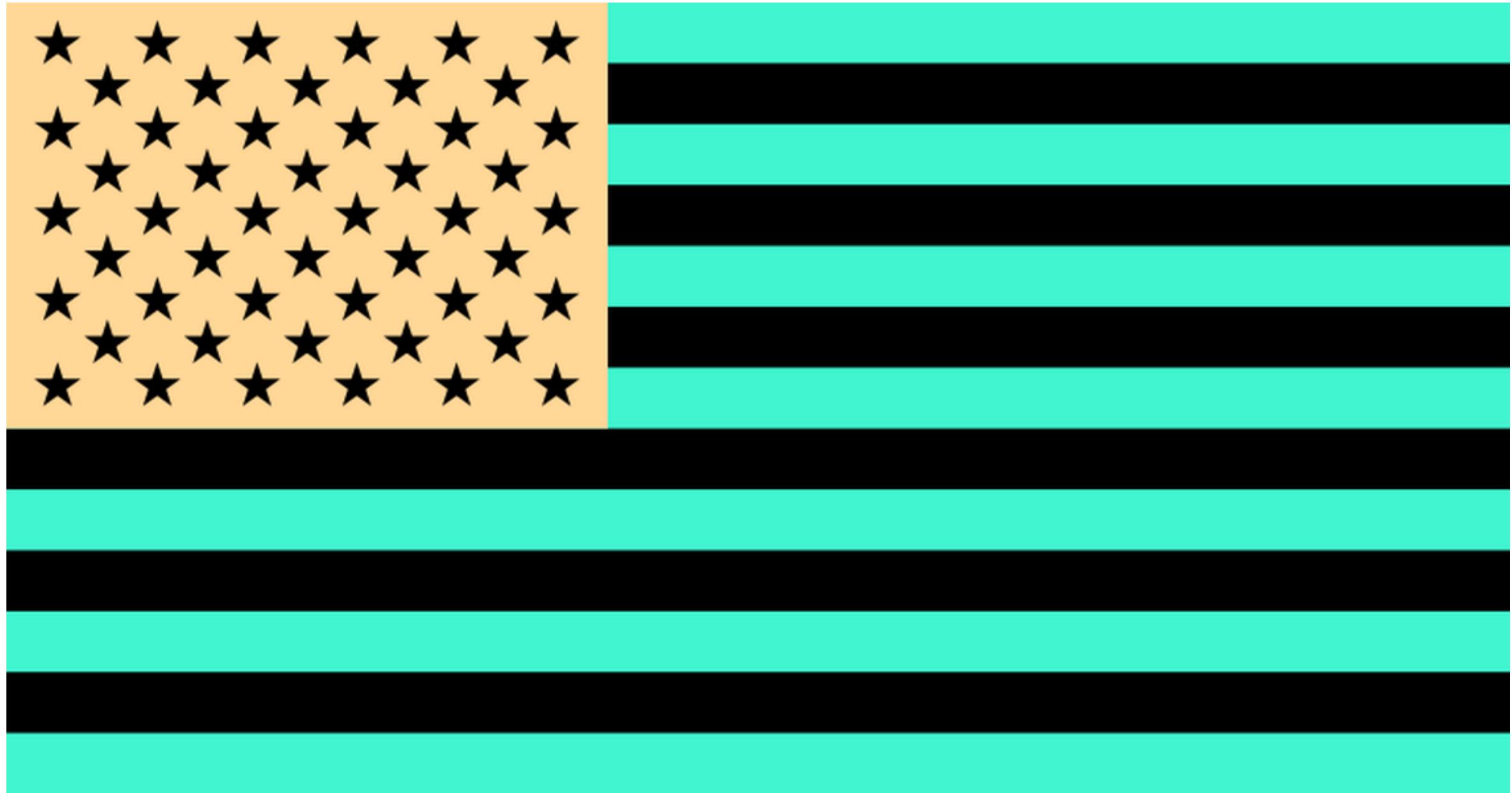
February 7, 2014











Other Symptoms

Visual

Vibration in text
Trailing images

Bright-light issues
Night-vision issues
Halos at night

Auditory

Loud-noise issues
Conversation issues
Environmental-noise issues
Ear pop/click noise

Tactile

Pulsating buzzing
Fine tremors



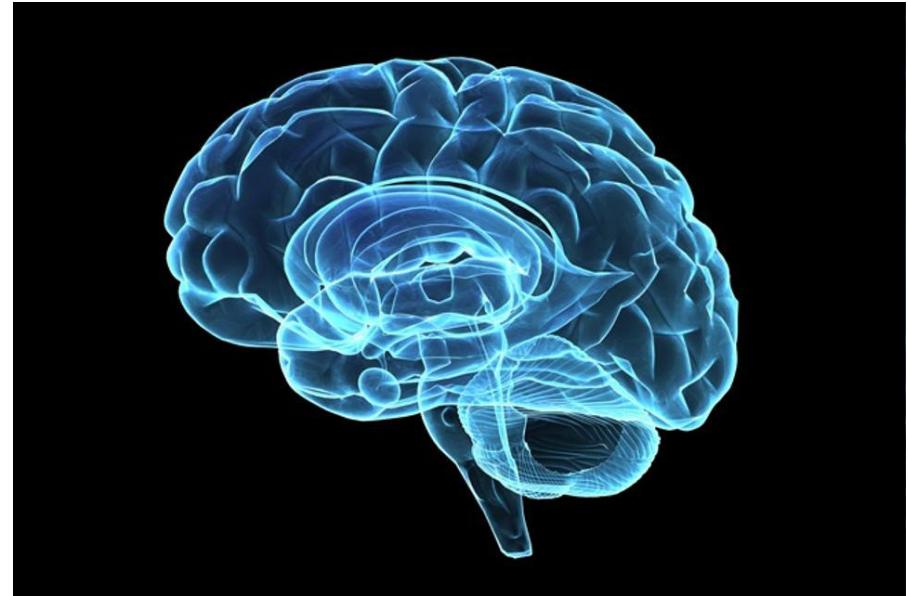
A photograph of a modern hospital building, identified as Mayo Clinic. The upper portion of the building features a curved glass facade with a grid pattern. Below this, a horizontal band of the building's exterior is covered in a series of parallel, light-colored horizontal lines. The word "MAYO" is written in large, bold, black letters across these lines. To the right of "MAYO", the word "CLINIC" is also written in large, bold, black letters, continuing the horizontal line theme.

MAYO CLINIC



Source: Rochester Convention
and Visitors Bureau







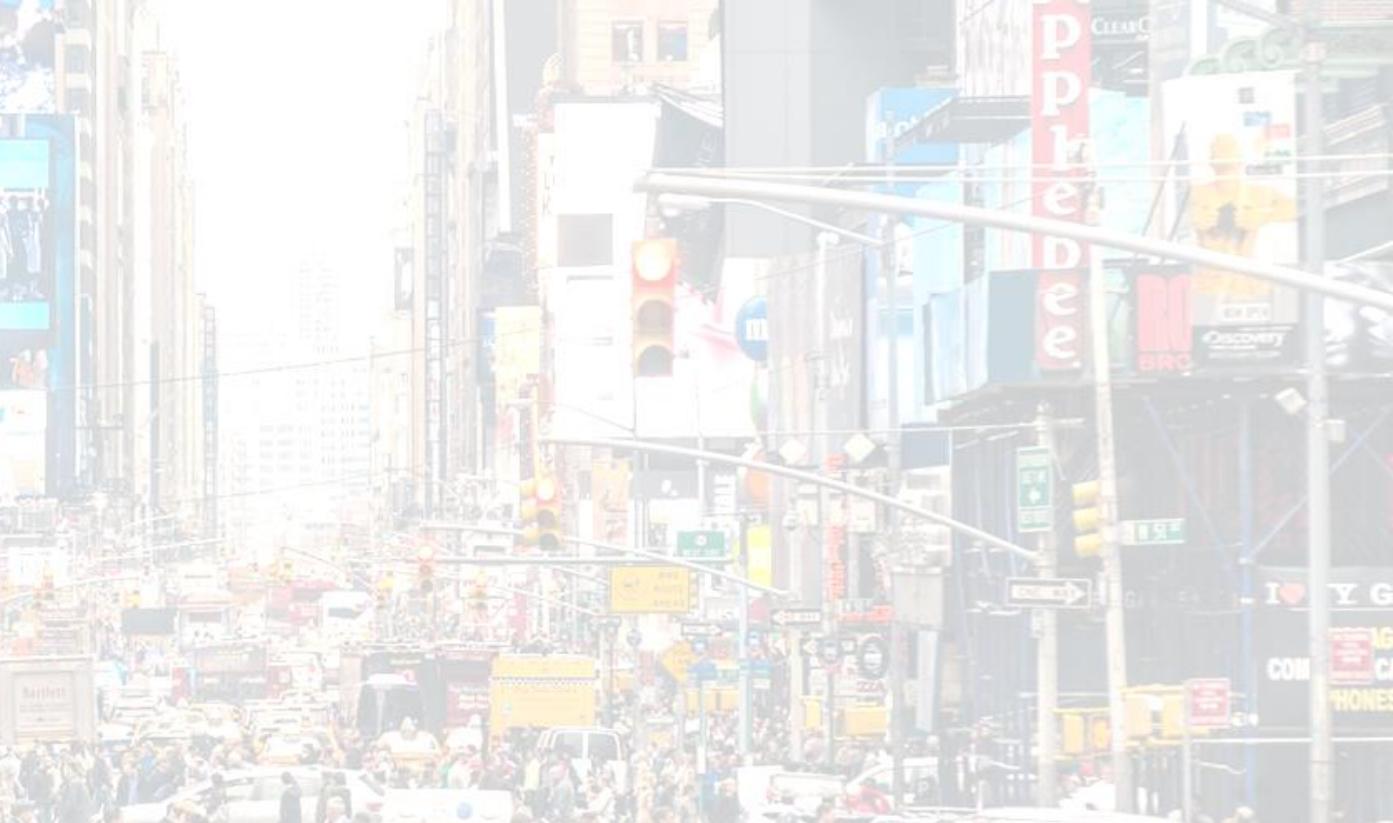


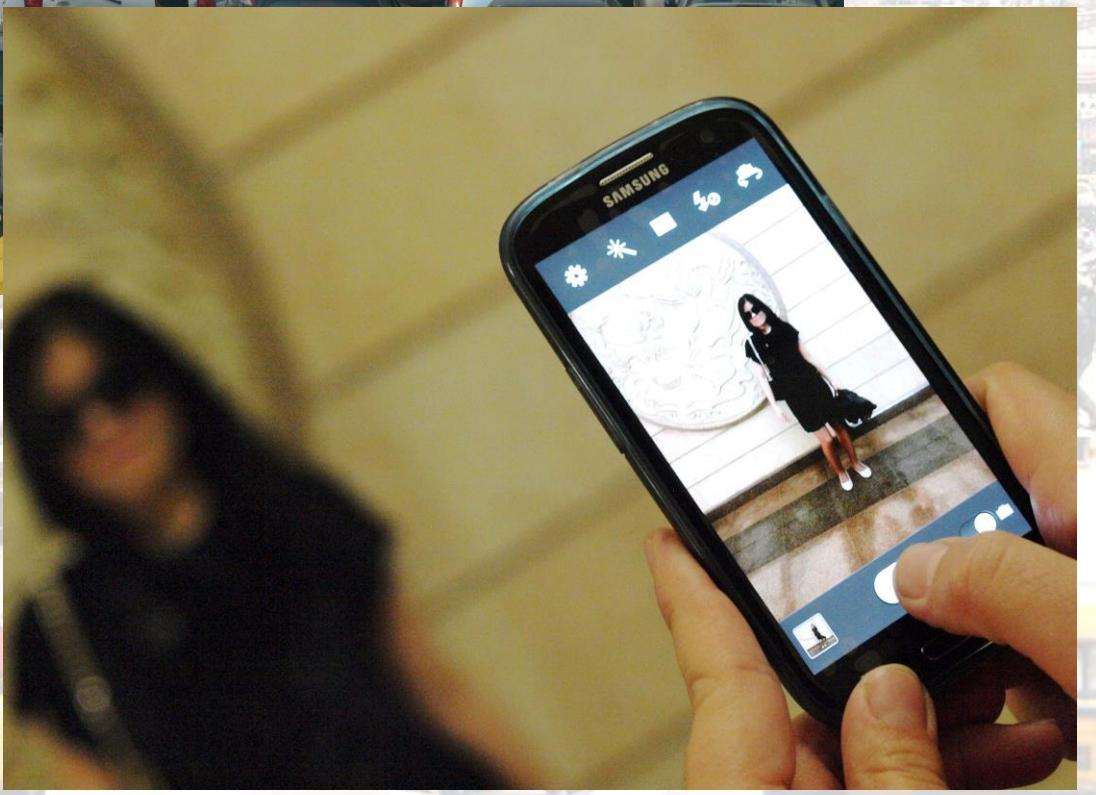
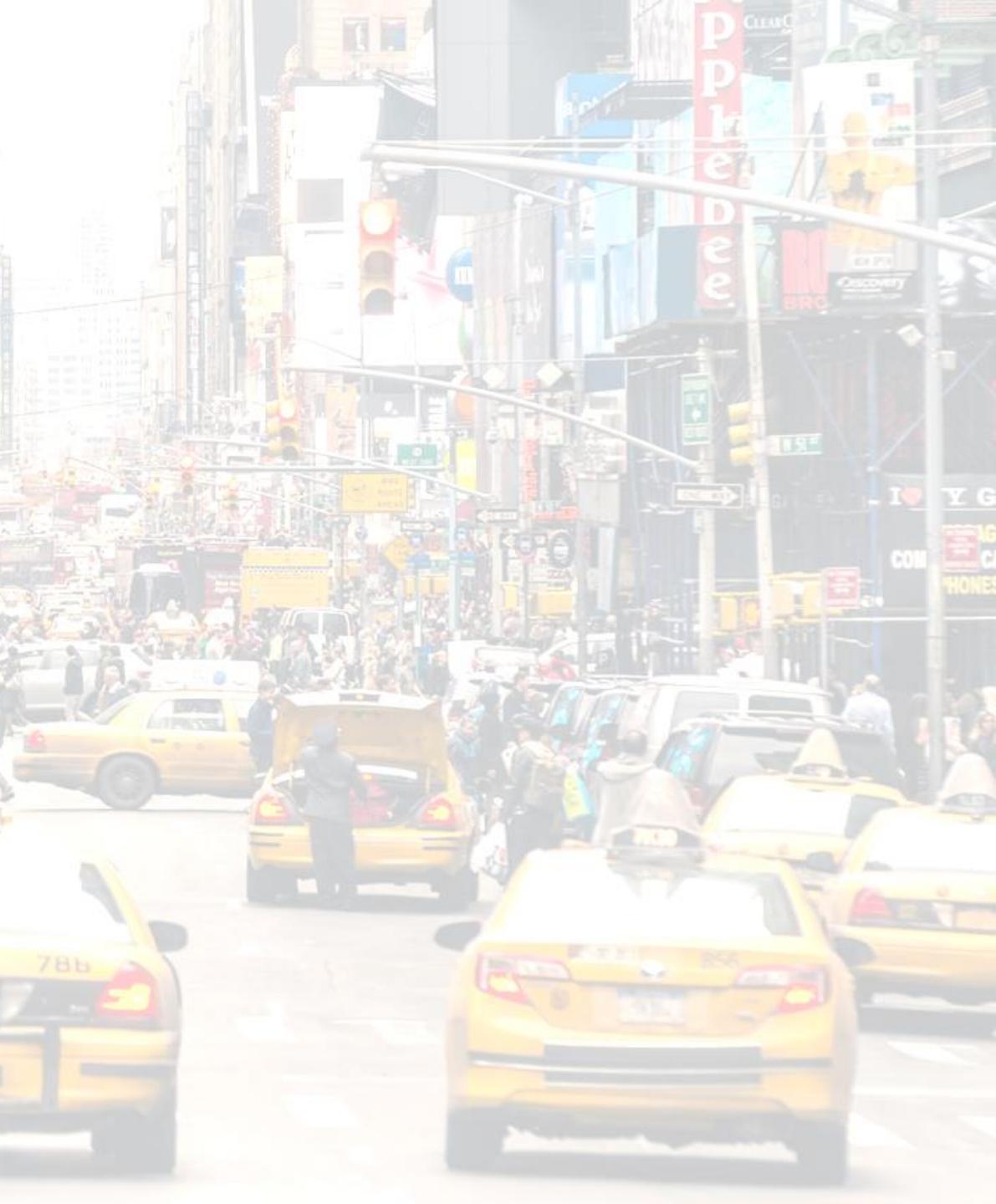


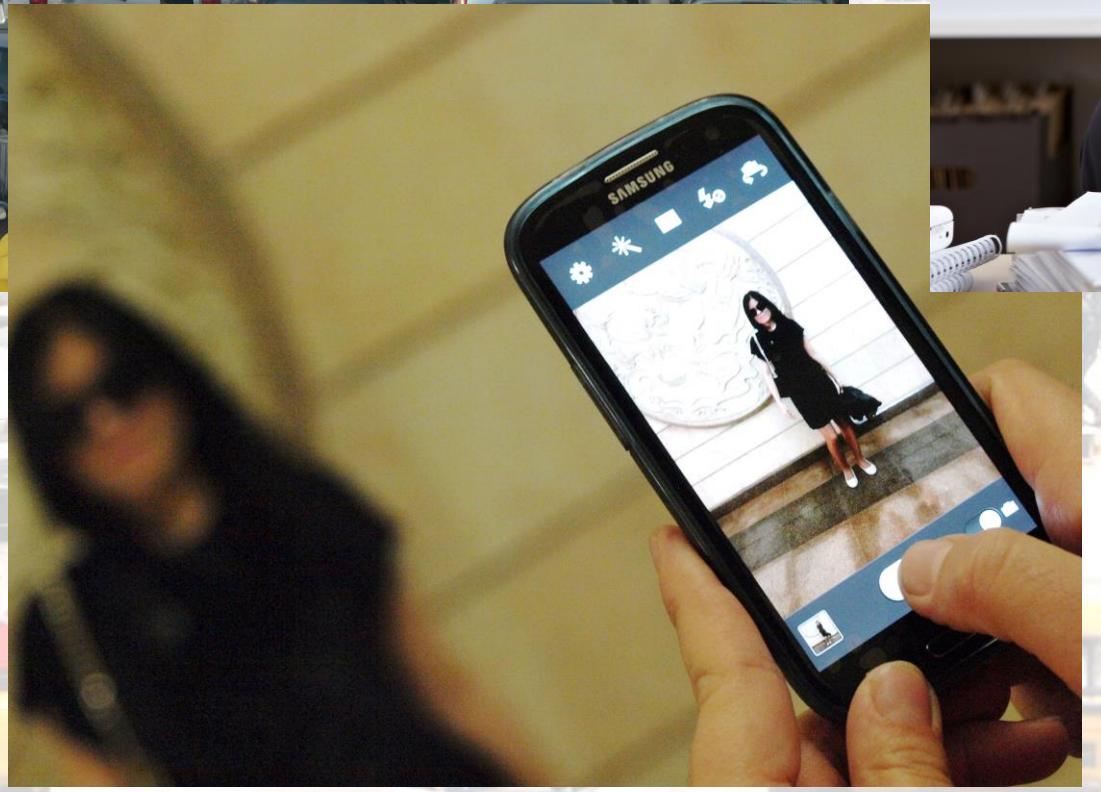
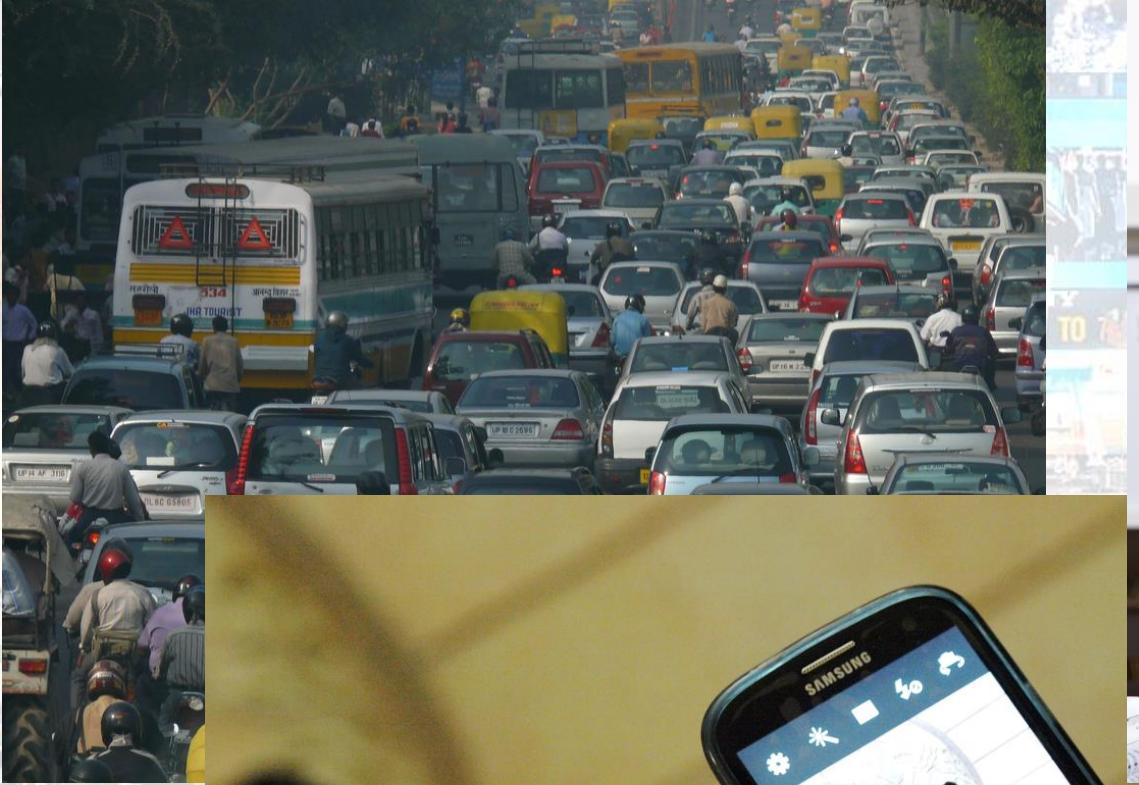


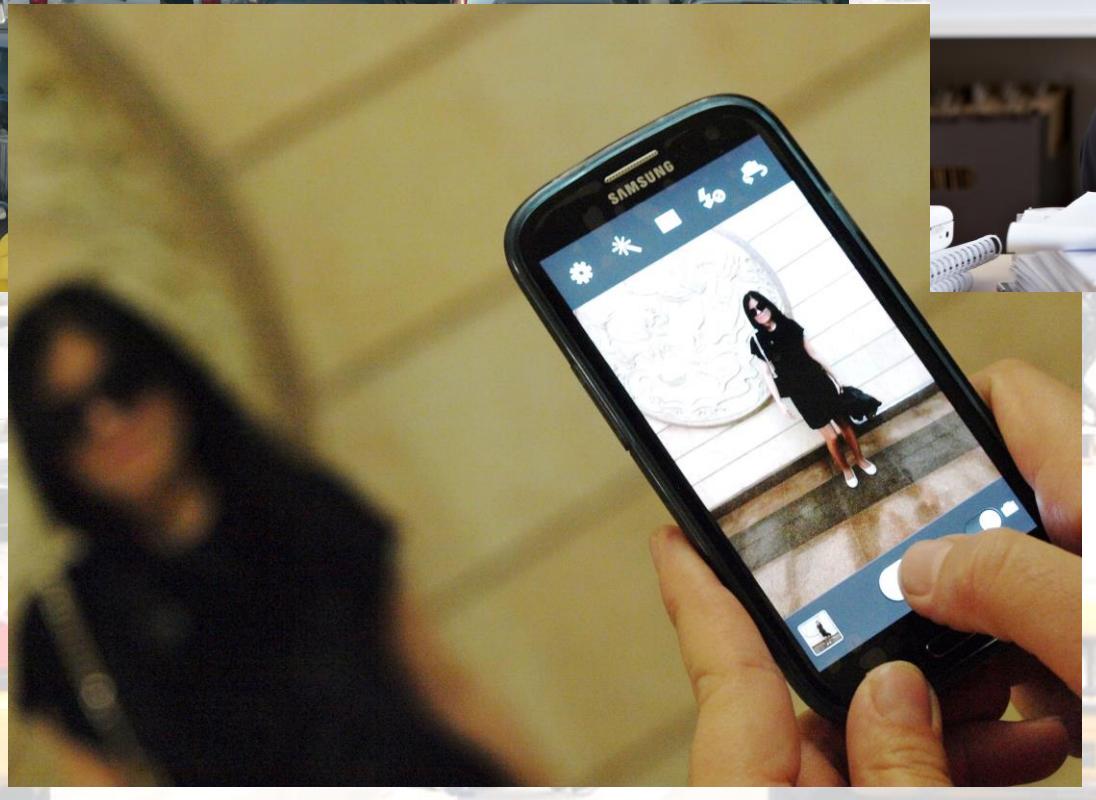














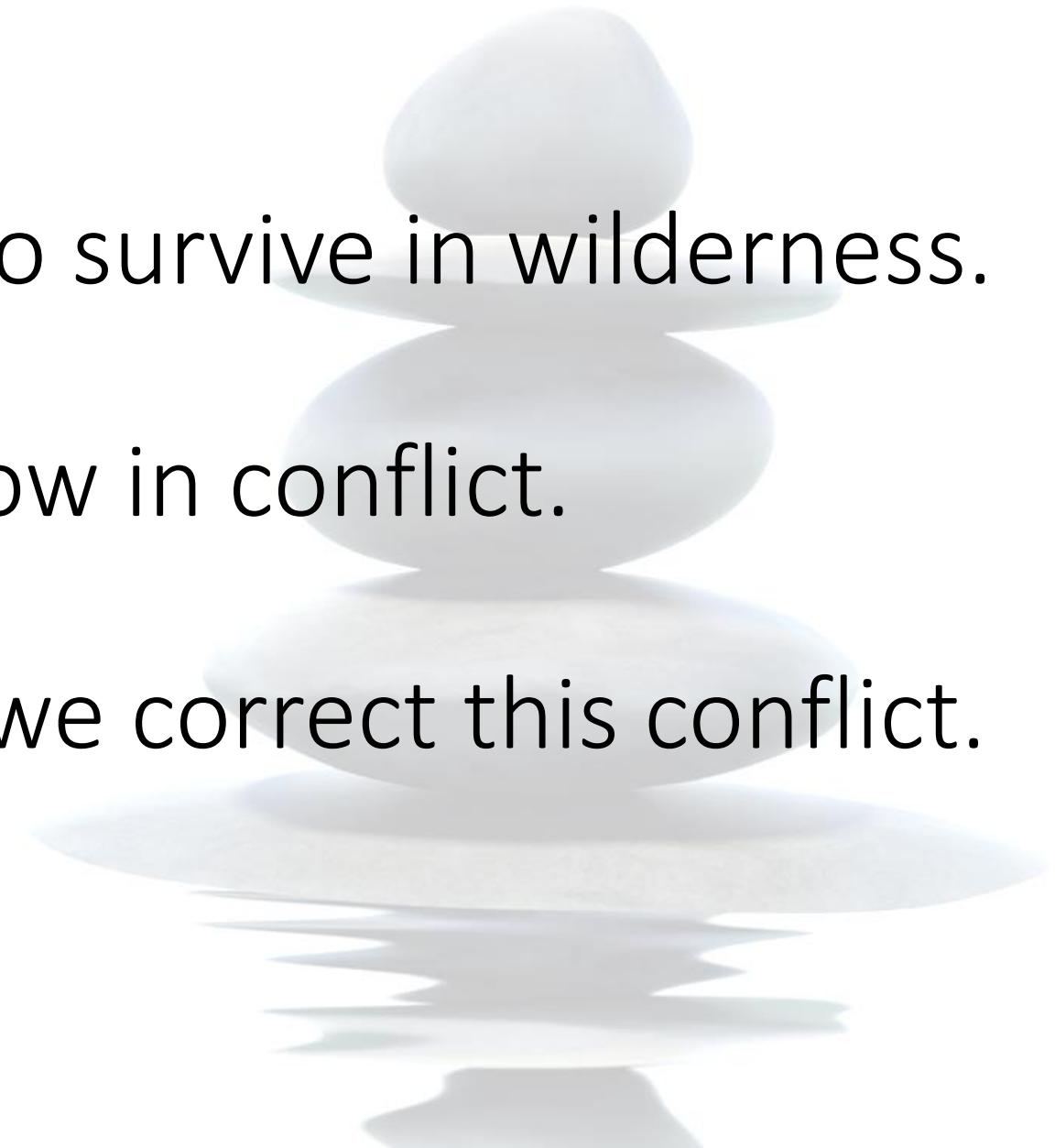
A photograph of a large, spreading tree with a thick trunk and dense green foliage, situated in a dry, open landscape. In the background, there are rolling hills or mountains under a clear sky.

Our brains evolved to survive in wilderness.



Our brains evolved to survive in wilderness.

Modern society is now in conflict.



Our brains evolved to survive in wilderness.

Modern society is now in conflict.

Mindfulness is how we correct this conflict.

Overview



Overview

Stress



Overview

Stress

Mindfulness



Overview

Stress

Mindfulness

Meditation



Overview

Stress

Mindfulness

Meditation

Neuroscience



Overview

Stress

Mindfulness

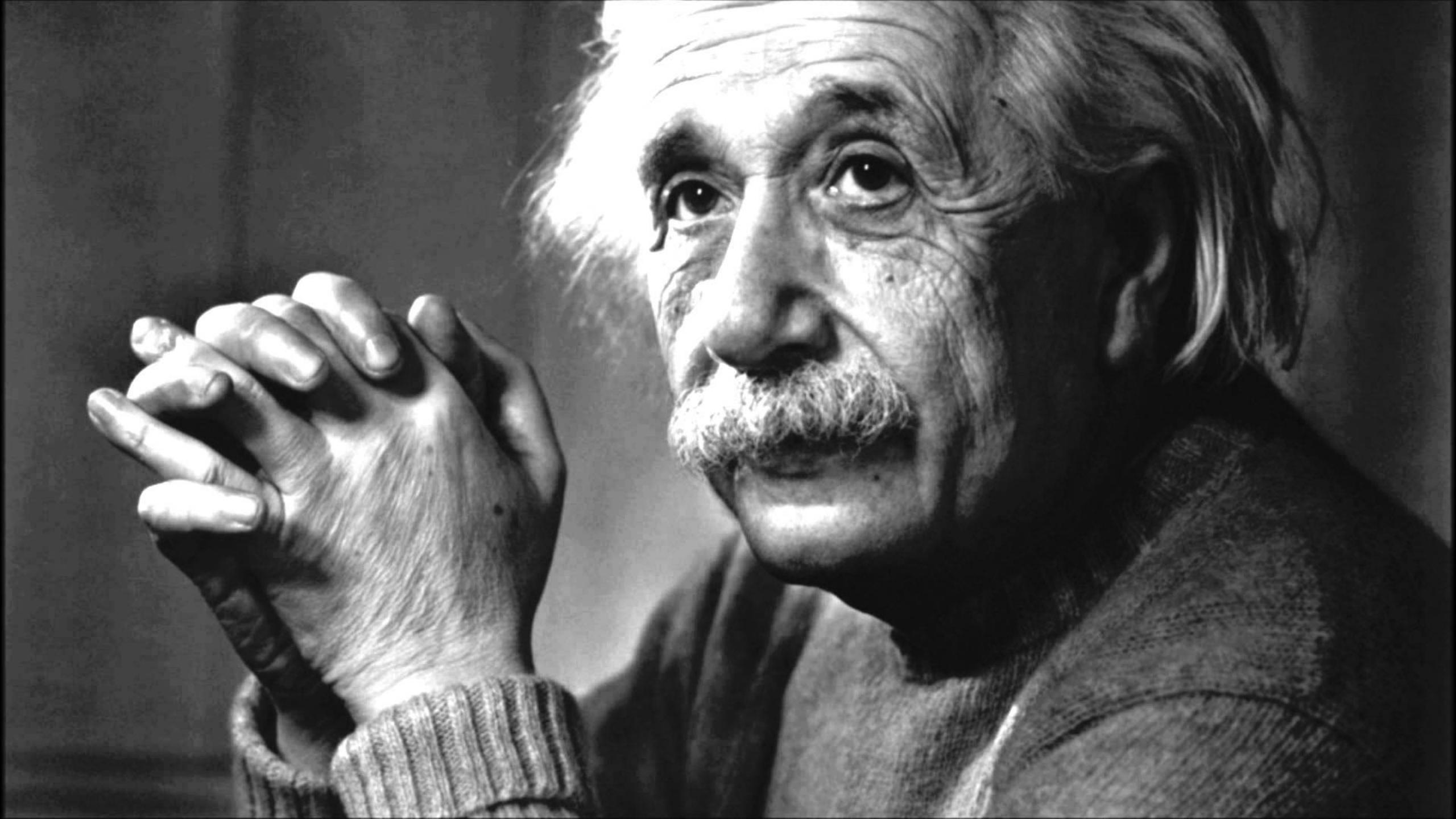
Meditation

Neuroscience

Benefits









Spiritual
As Hell

Disclaimer



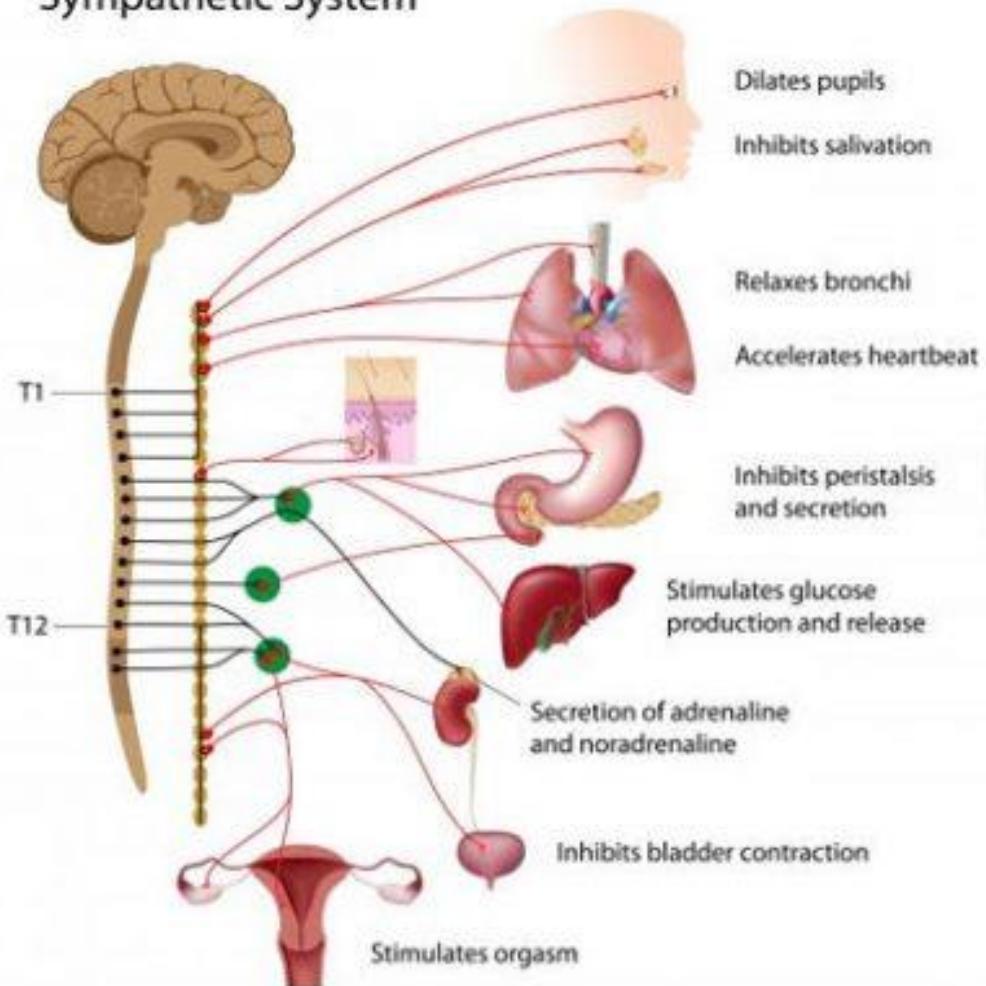
A landscape photograph featuring a large, spreading tree with a thick trunk and dense green foliage in the foreground. The background consists of rolling hills under a clear blue sky.

Stress

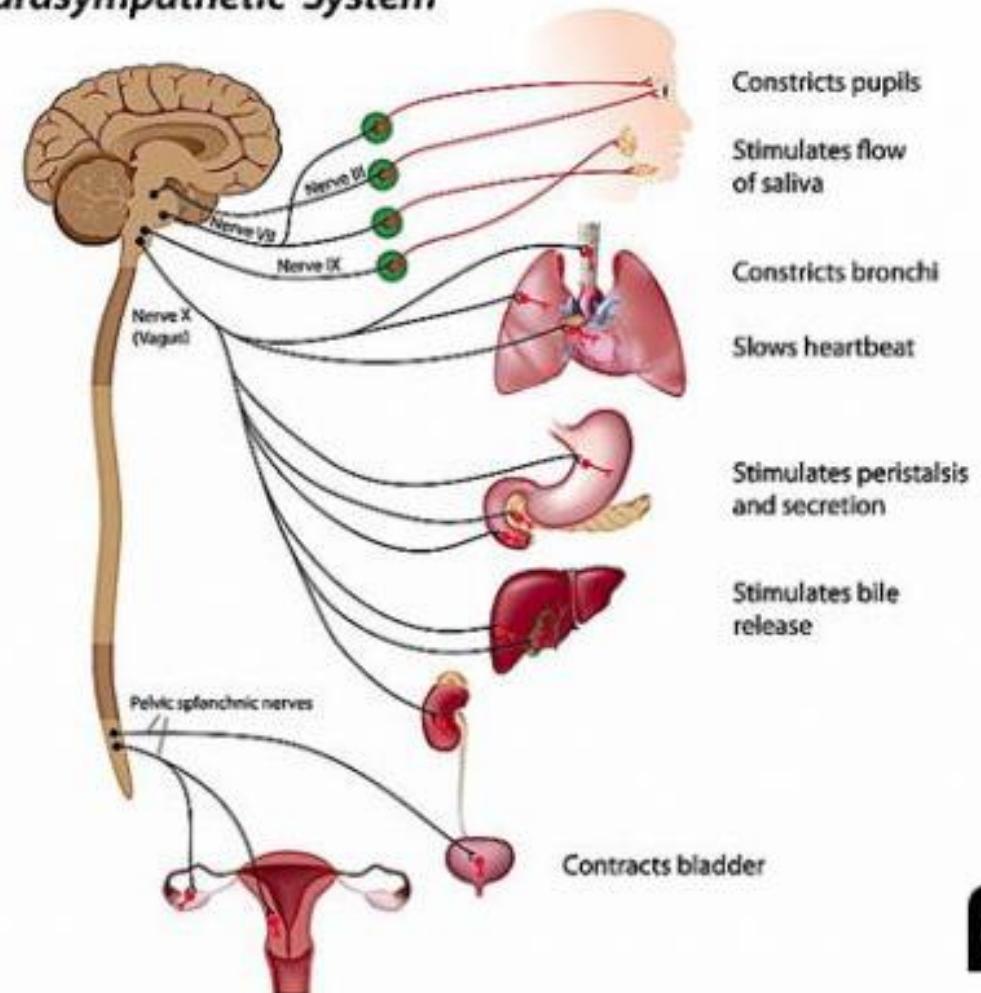




Sympathetic System



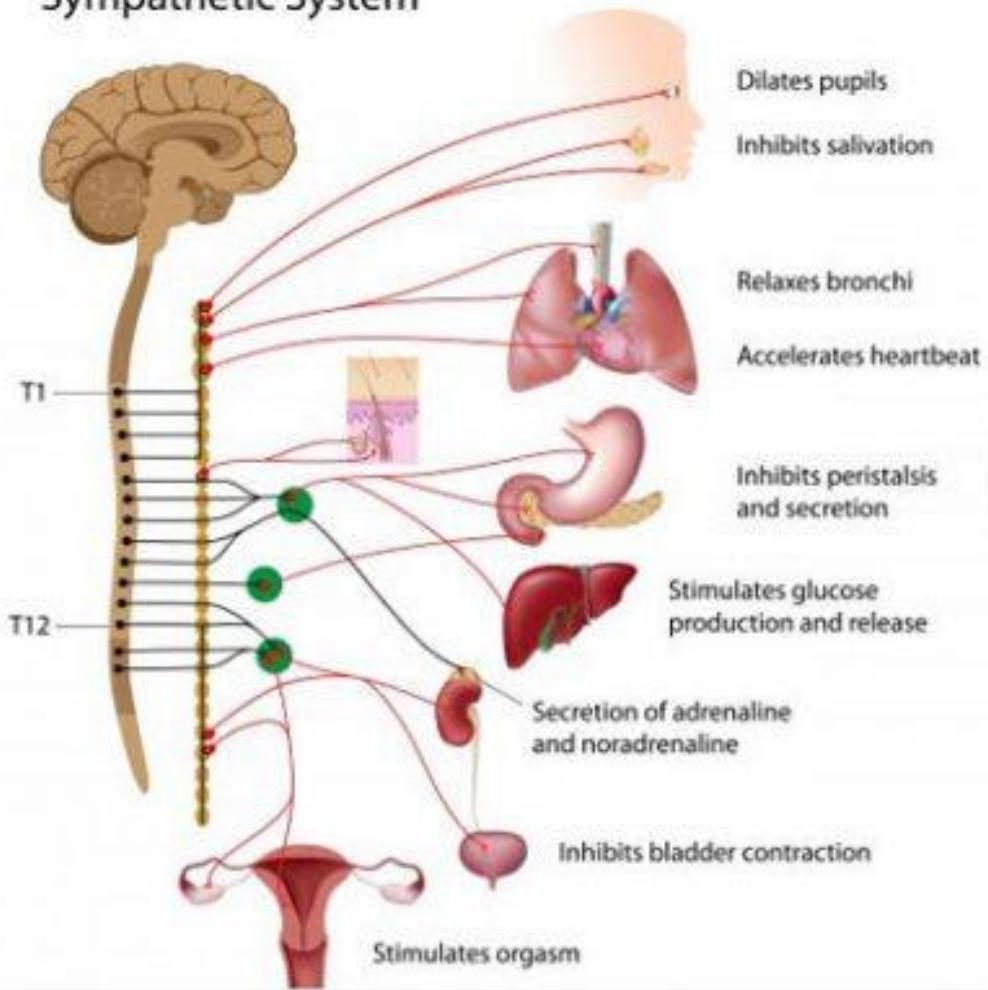
Parasympathetic System



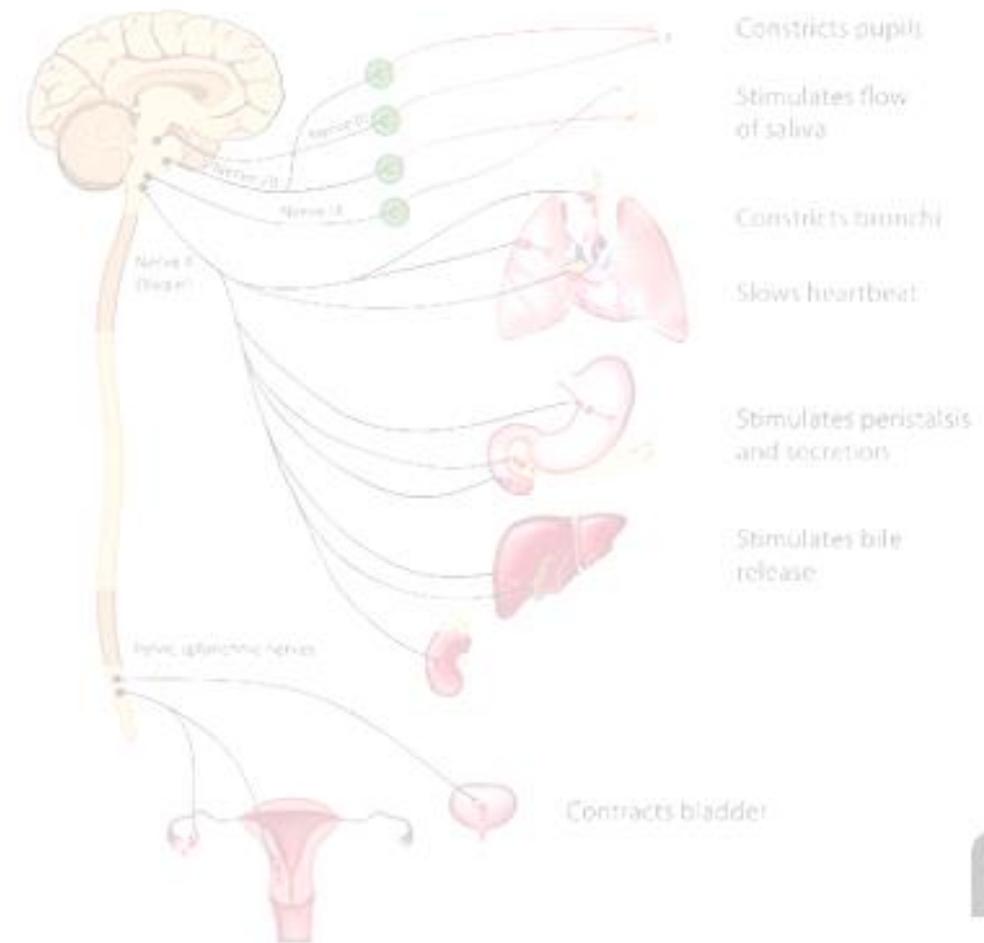
VS



Sympathetic System

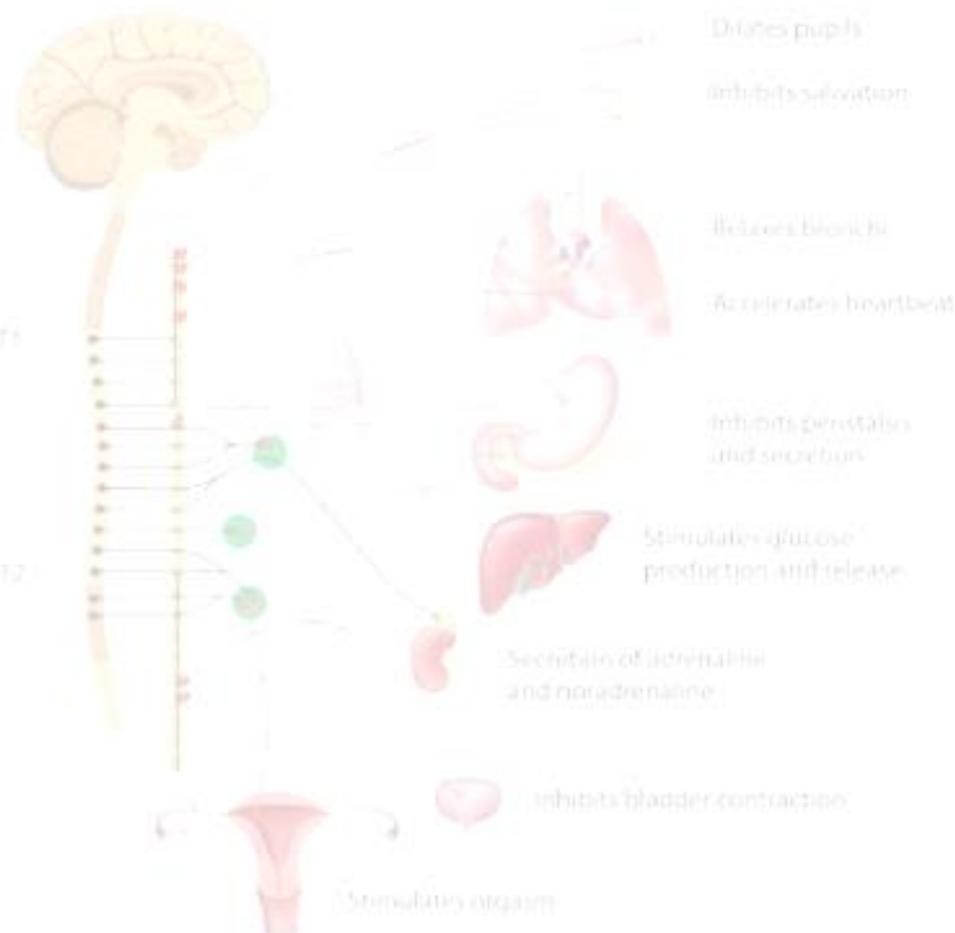


Parasympathetic System



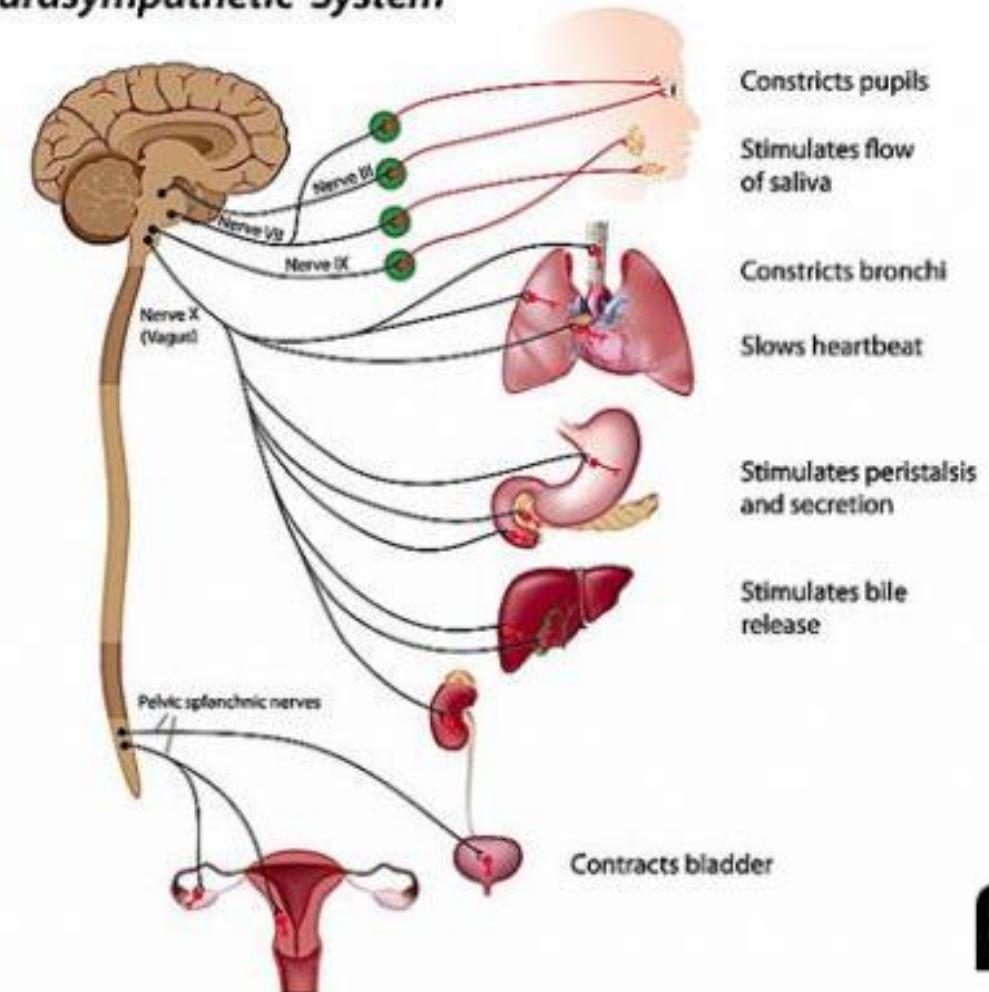
VS

Sympathetic System

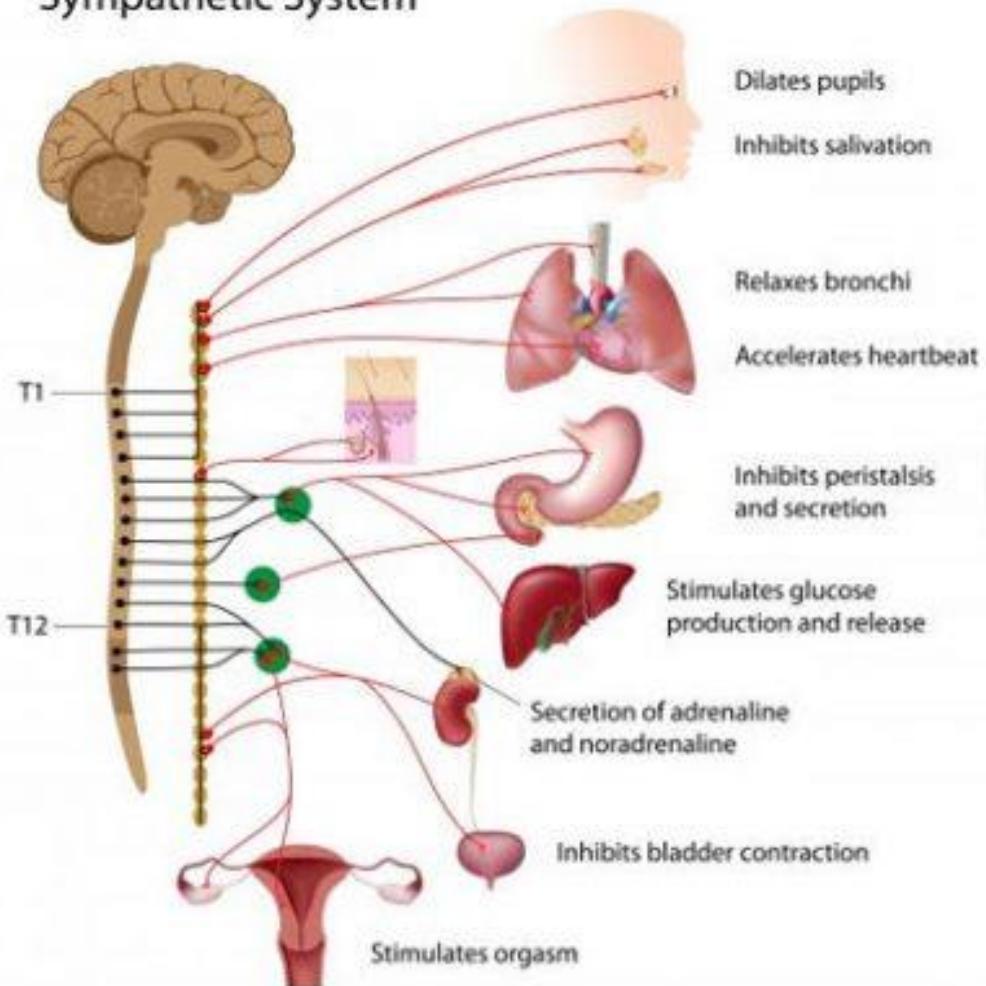


VS

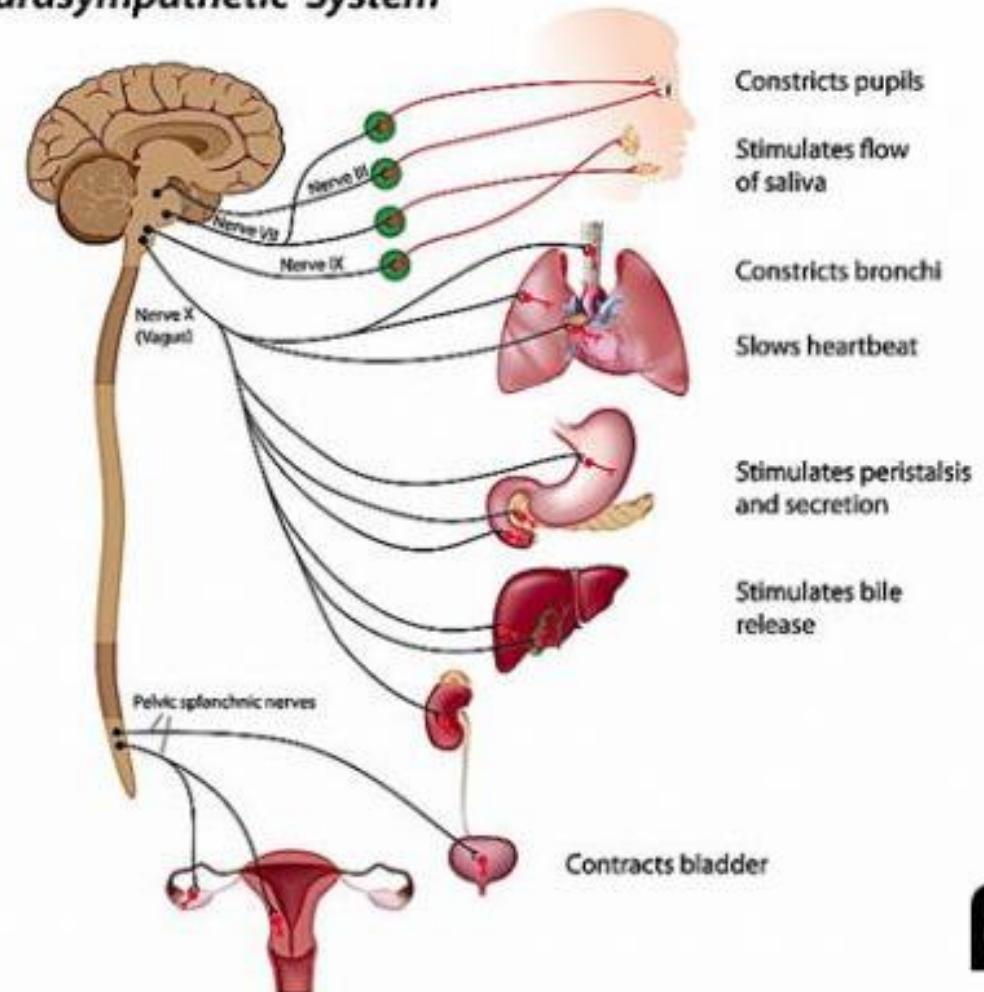
Parasympathetic System



Sympathetic System



Parasympathetic System



VS

















Negative Effects of Chronic Stress

Negative Effects of Chronic Stress

Heart disease

Metabolic syndrome

Digestion issues

Autoimmune system

Immunosuppression

Negative Effects of Chronic Stress

Heart disease

Metabolic syndrome

Digestion issues

Autoimmune system

Immunosuppression

Female reproduction

Male reproduction

Developmental disorders

Cancer complications

Mental health



Mindfulness









Presence



Presence
Awareness



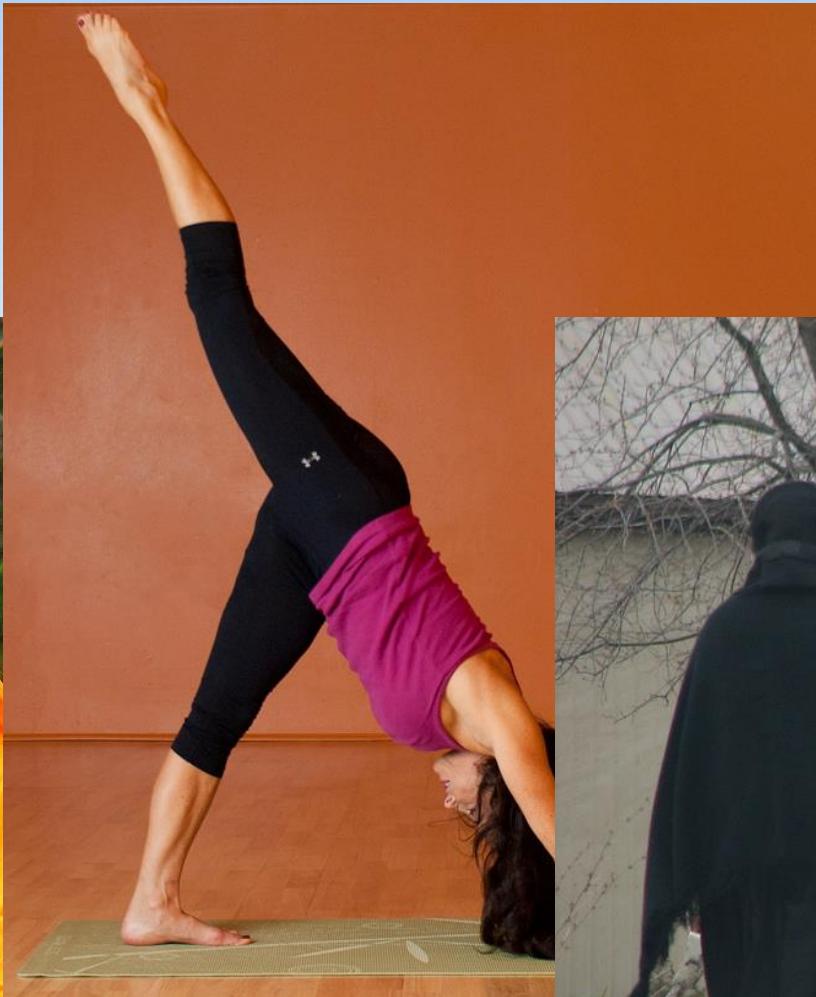
Presence
Awareness
Acceptance







Source: Wikipedia



Source: Wikipedia



Source: Wikipedia

Mind like water



Meditation



How to Meditate

1. Sit in a comfortable position



How to Meditate

1. Sit in a comfortable position
2. Position your hands



How to Meditate

1. Sit in a comfortable position
2. Position your hands
3. Close your eyes



How to Meditate

1. Sit in a comfortable position
2. Position your hands
3. Close your eyes
4. Focus on your breath



How to Meditate

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How to Meditate

1. Sit in a comfortable position
2. Position your hands
3. Close your eyes
4. Focus on your breath
5. Observe your mind wander



How to Meditate

1. Sit in a comfortable position
2. Position your hands
3. Close your eyes
4. Focus on your breath
5. Observe your mind wander
6. Return your focus to your breath



How to Meditate

1. Sit in a comfortable position
2. Position your hands
3. Close your eyes
4. Focus on your breath
5. Observe your mind wander
6. Return your focus to your breath
7. Accept your experience as it is



How to Meditate

1. Sit in a comfortable position
2. Position your hands
3. Close your eyes
4. Focus on your breath
5. Observe your mind wander
6. Return your focus to your breath
7. Accept your experience as it is



How to Meditate

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2. Position your hands
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6. Return your focus to your breath
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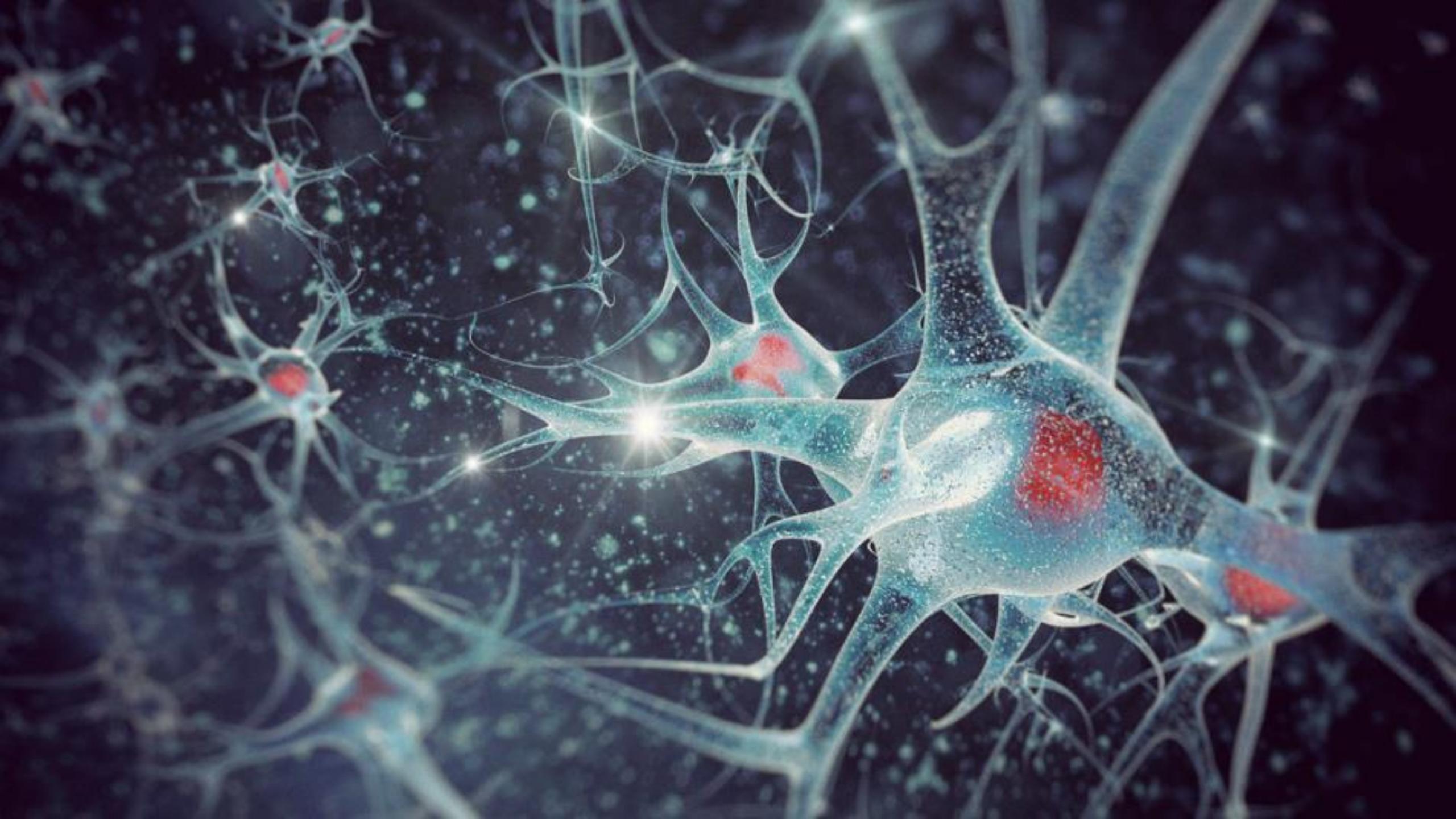
Neuroscience



Source: <http://www.edmontonjournal.com/news/brain-quiz/images/brain.jpg>



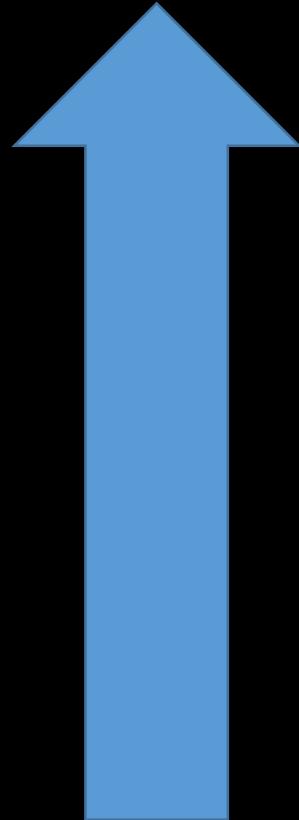
Source: <http://www.forbes.com/sites/alicegwalton/2015/02/09/7-ways-meditation-can-actually-change-the-brain>



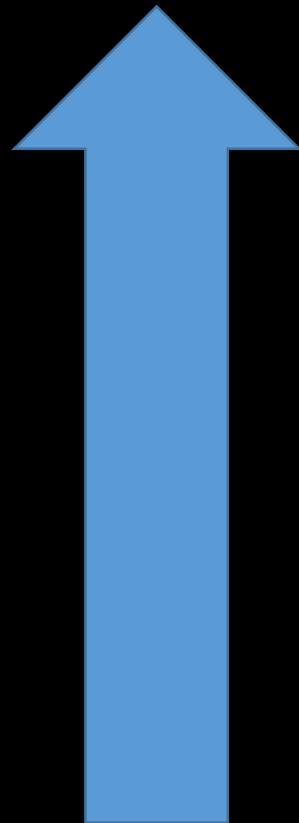




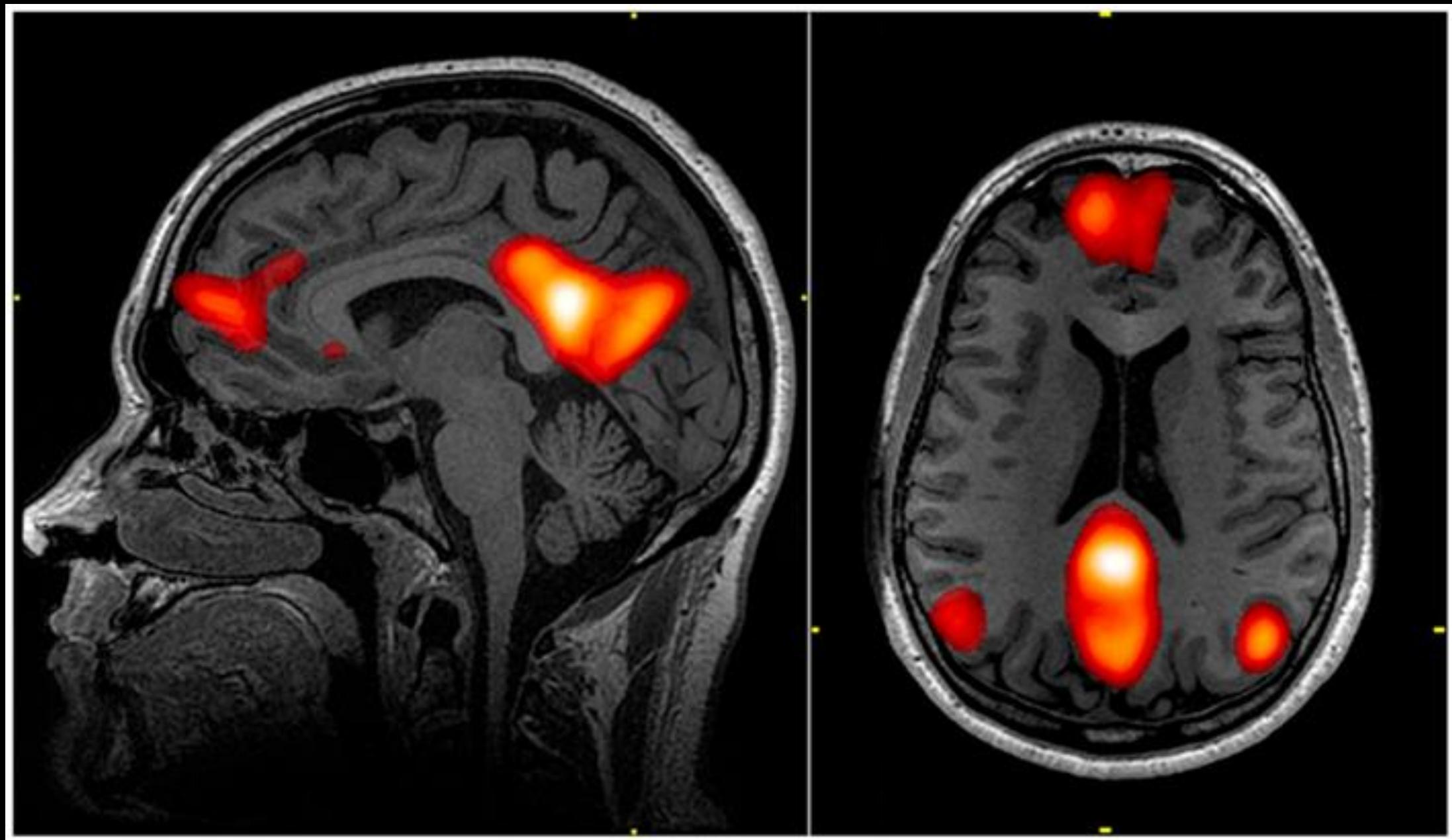
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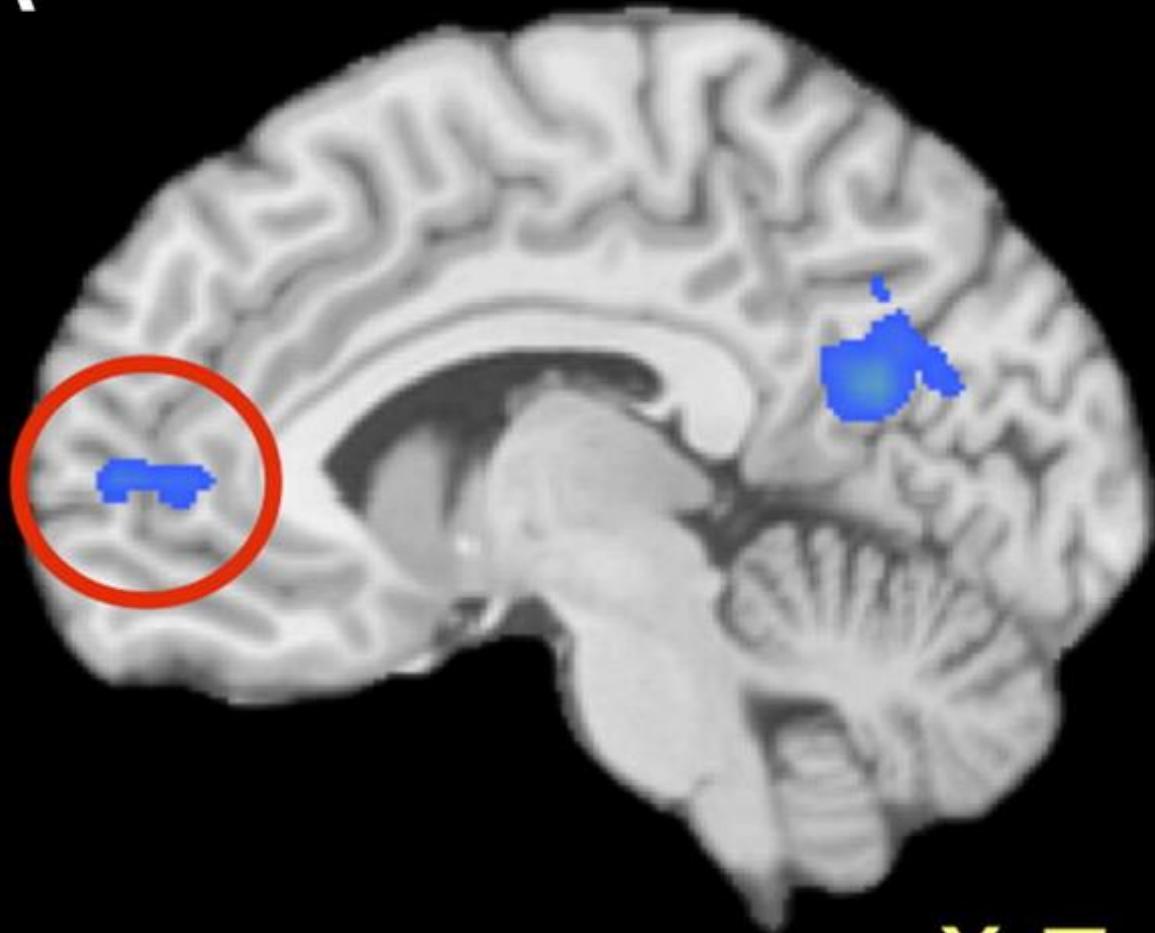


Source: <http://www.forbes.com/sites/alicegwalton/2015/02/09/7-ways-meditation-can-actually-change-the-brain>



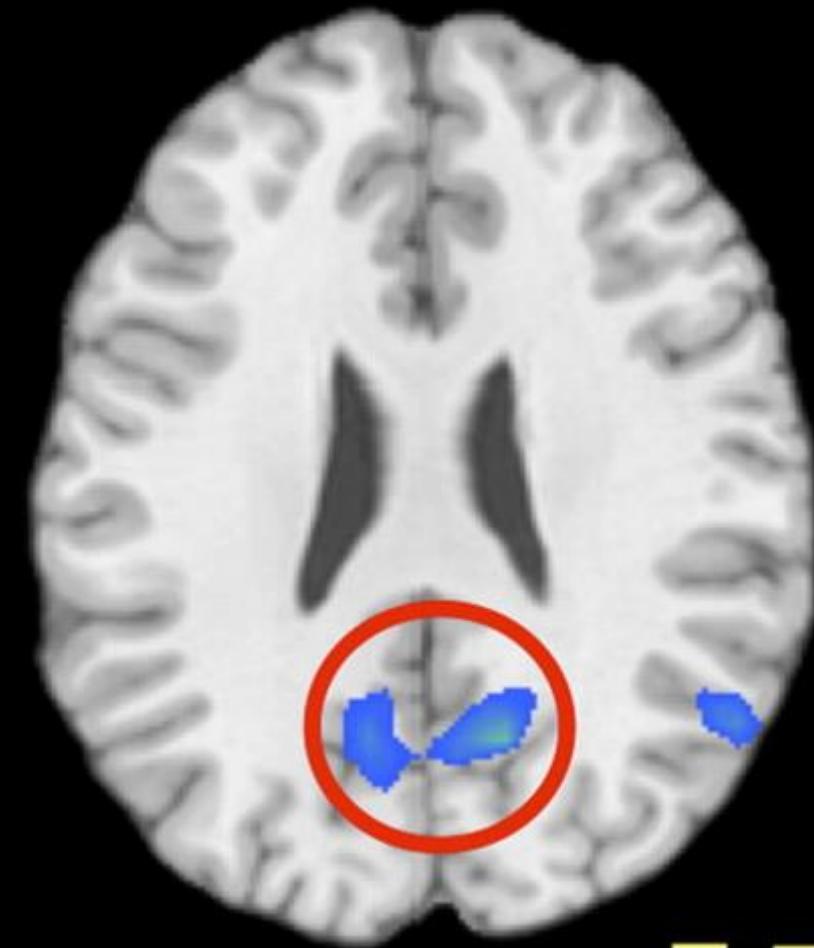
Source: Wikipedia

A



$x = -6$

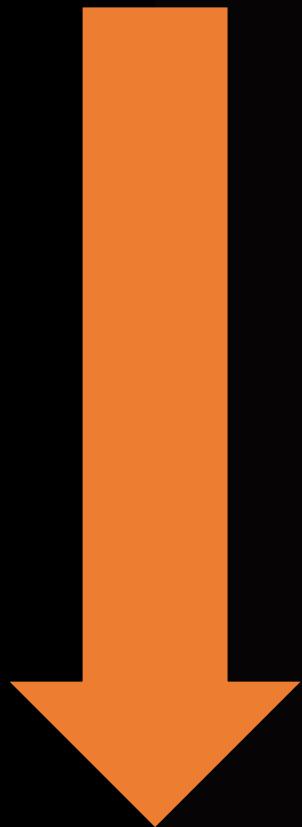
B

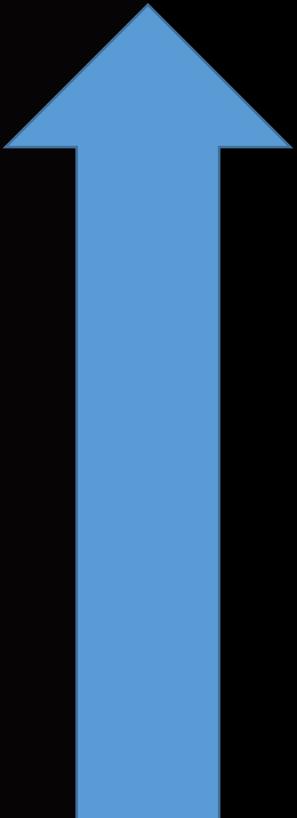
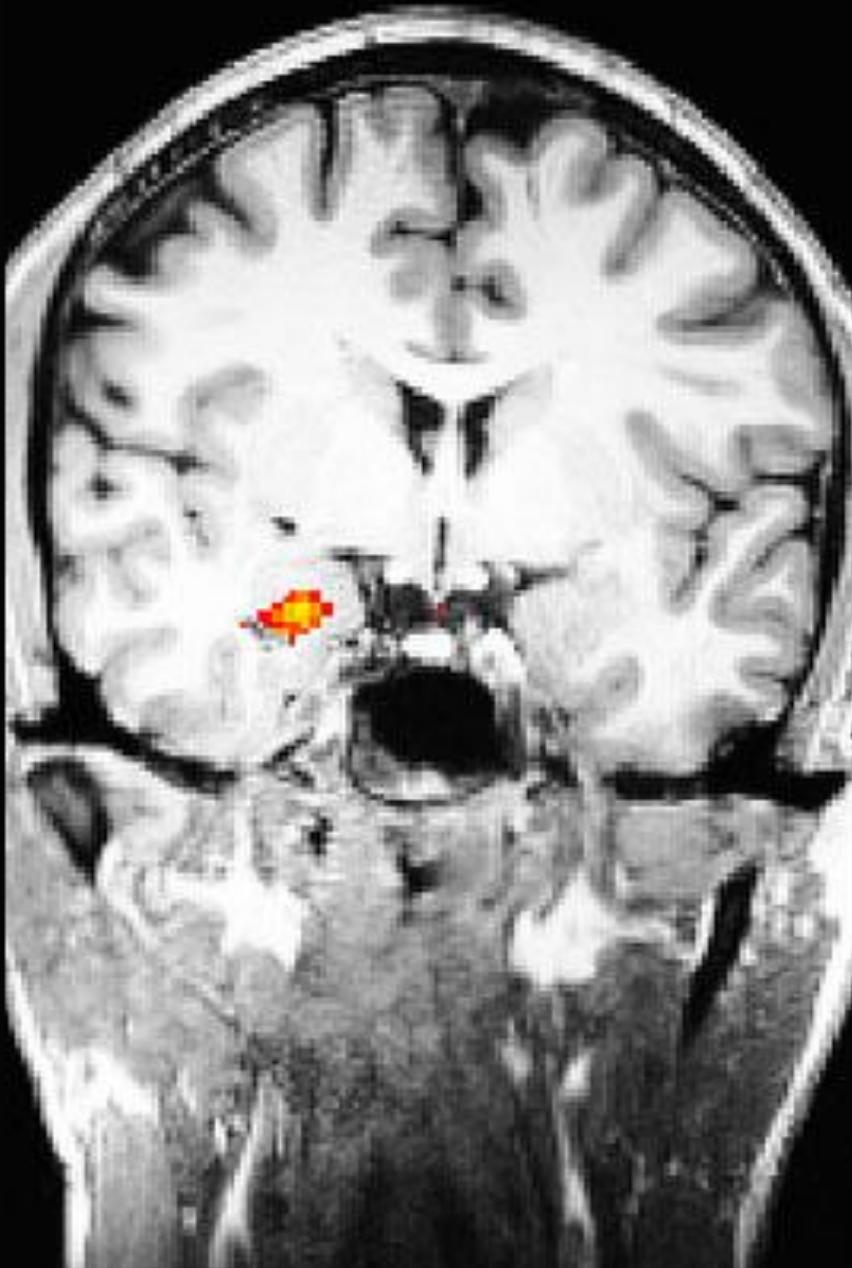


$z = 21$

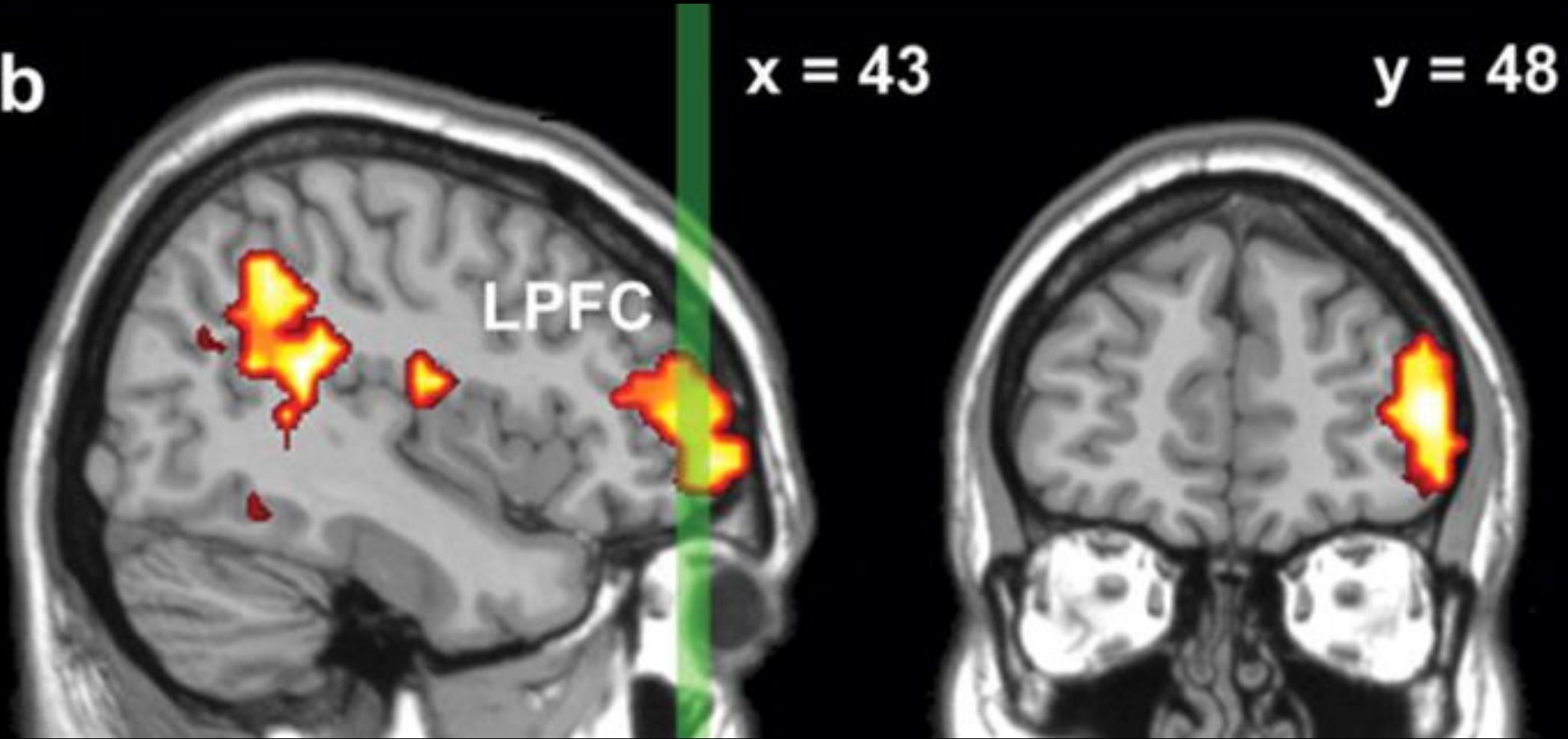


Source: <http://journal.frontiersin.org/article/10.3389/fnhum.2012.00292/full>





b



Other Changes

Cortical thickness

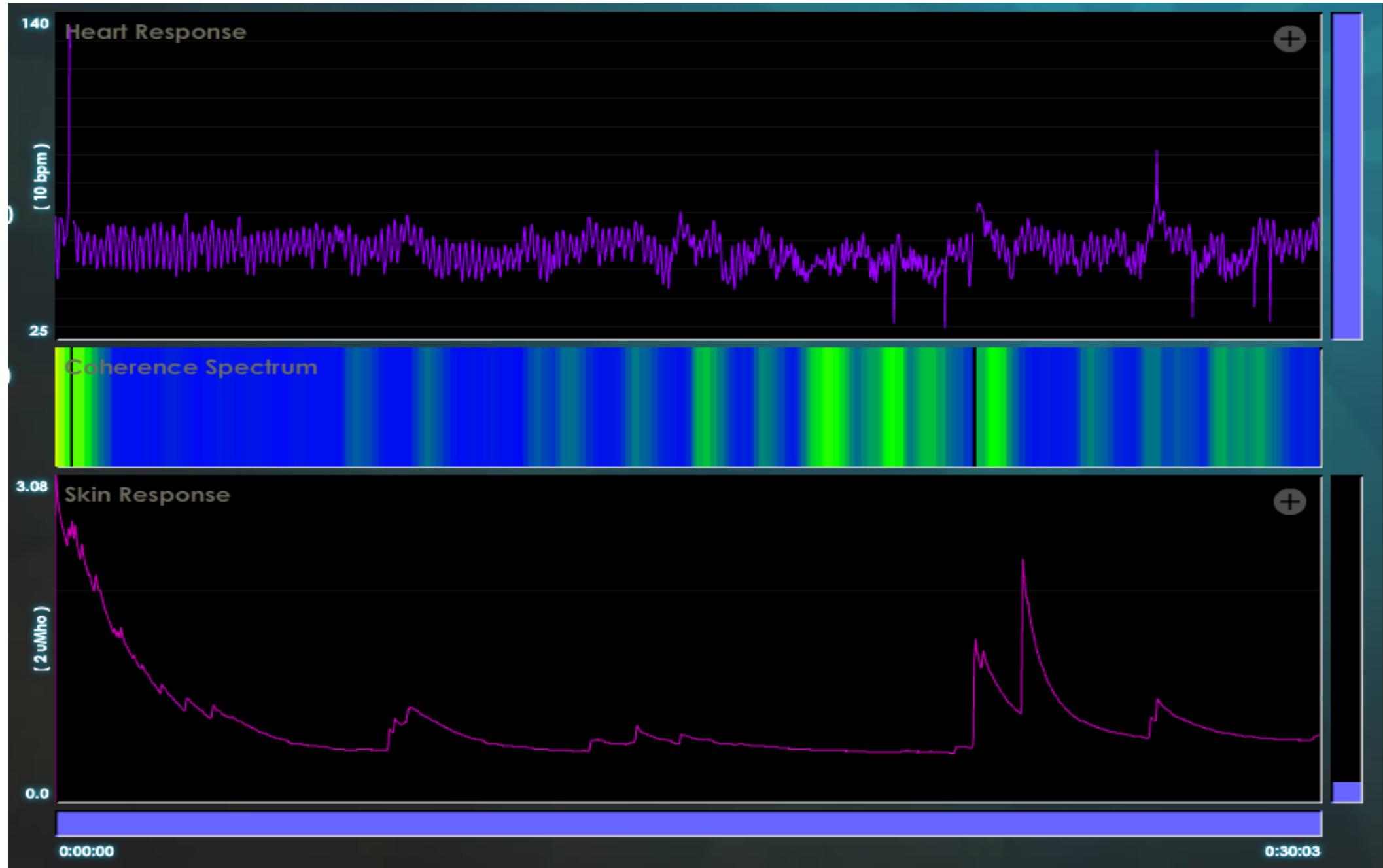
Anterior cingulate cortex

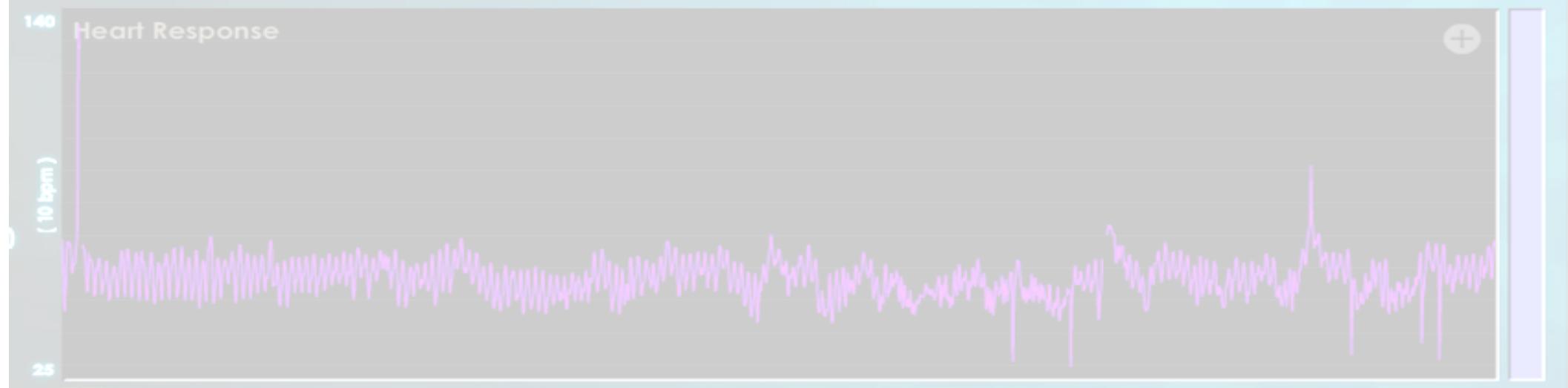
Prefrontal cortex

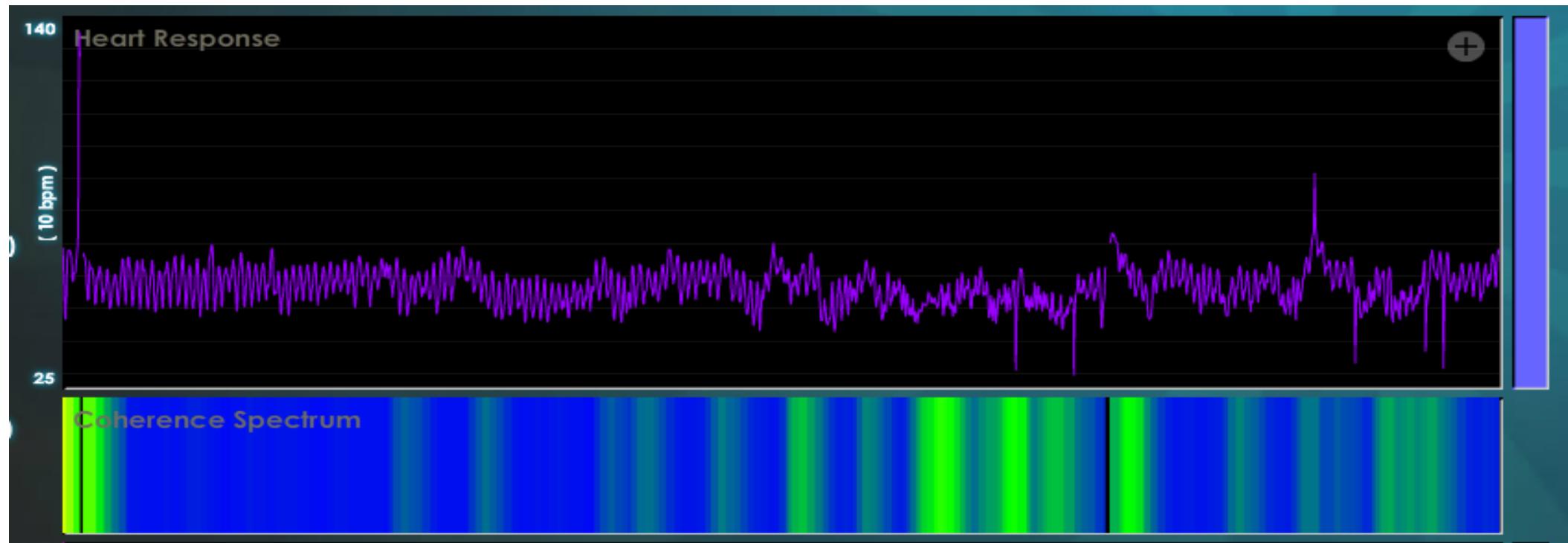
Hippocampus

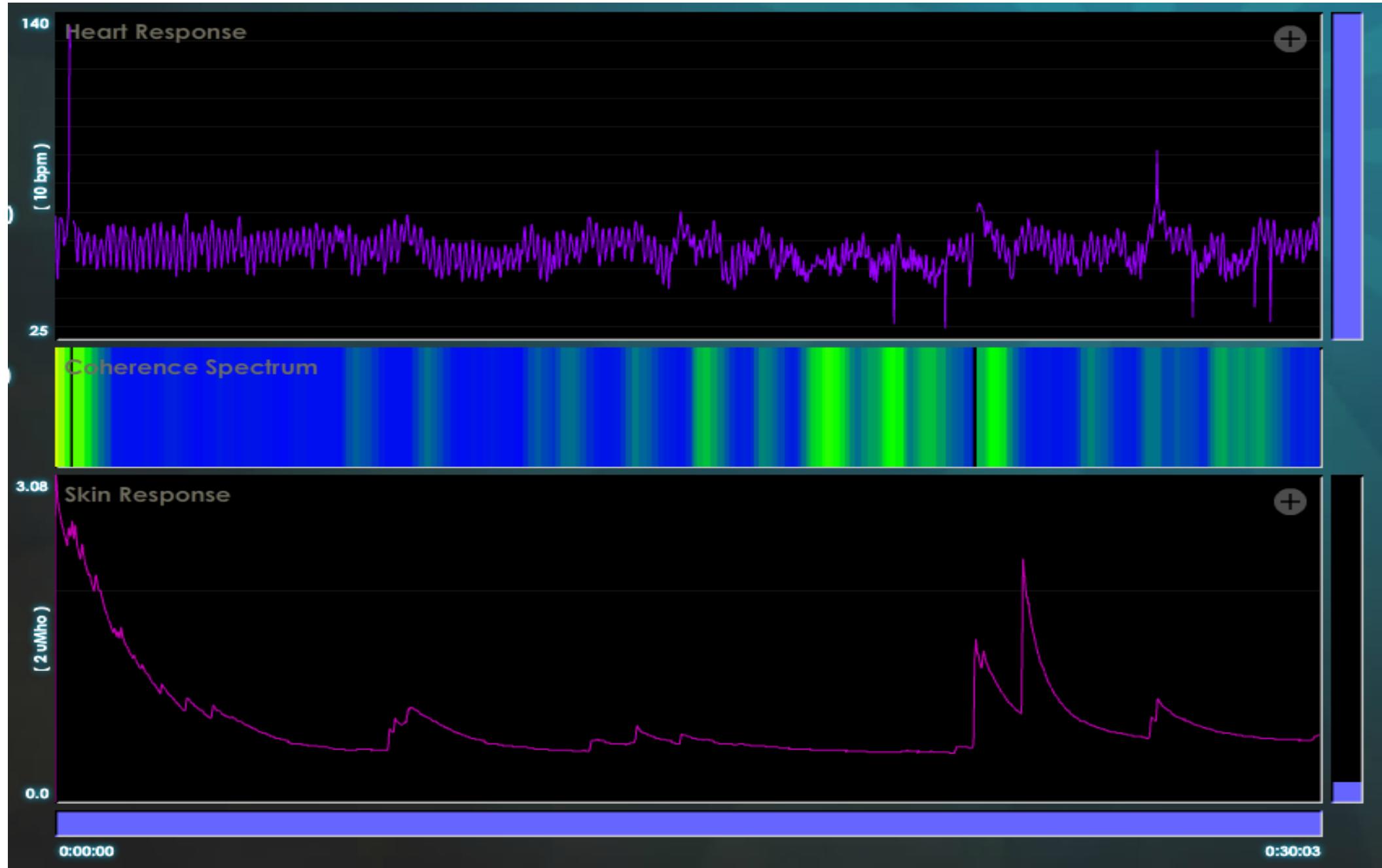
Insula



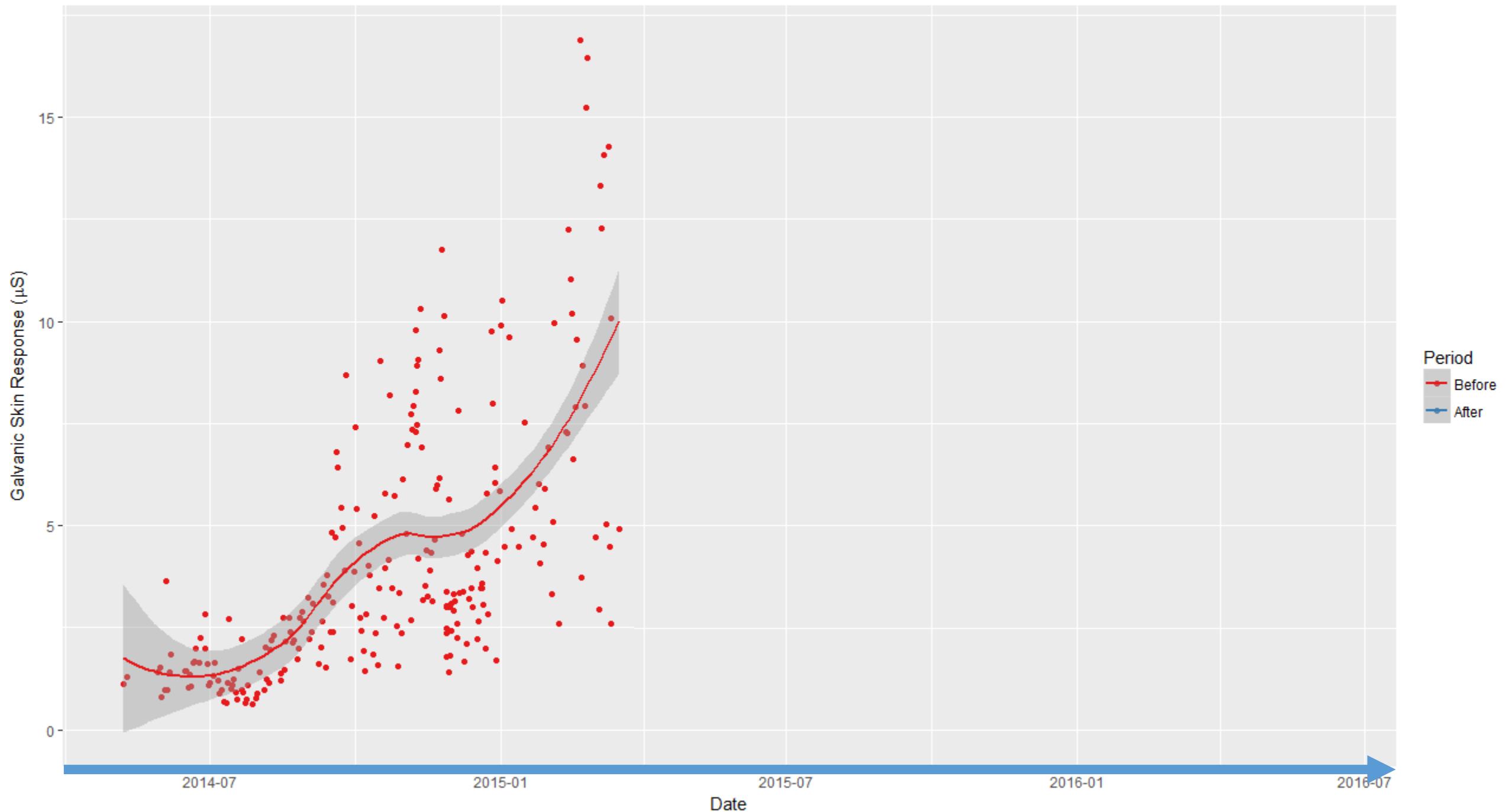




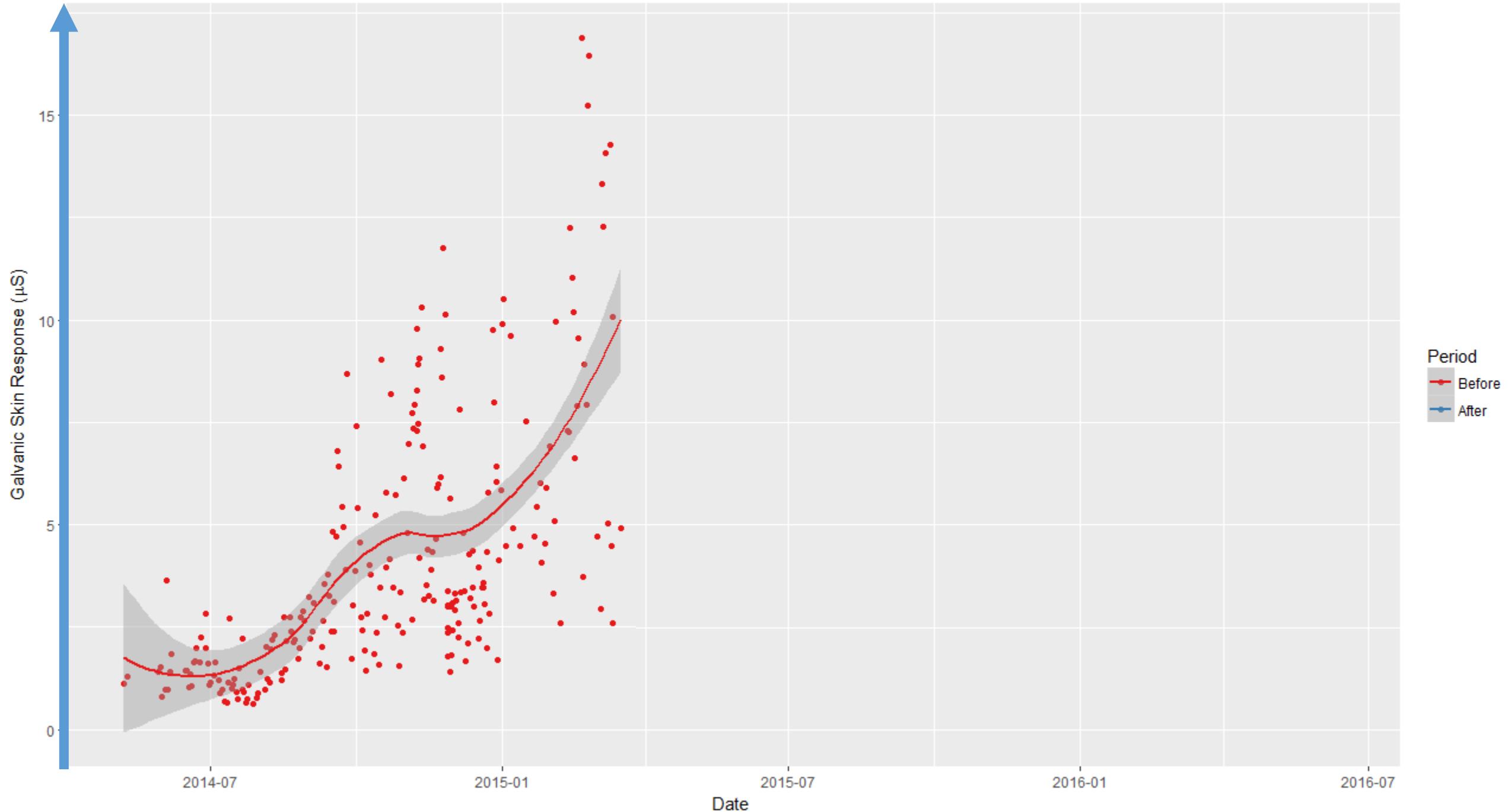




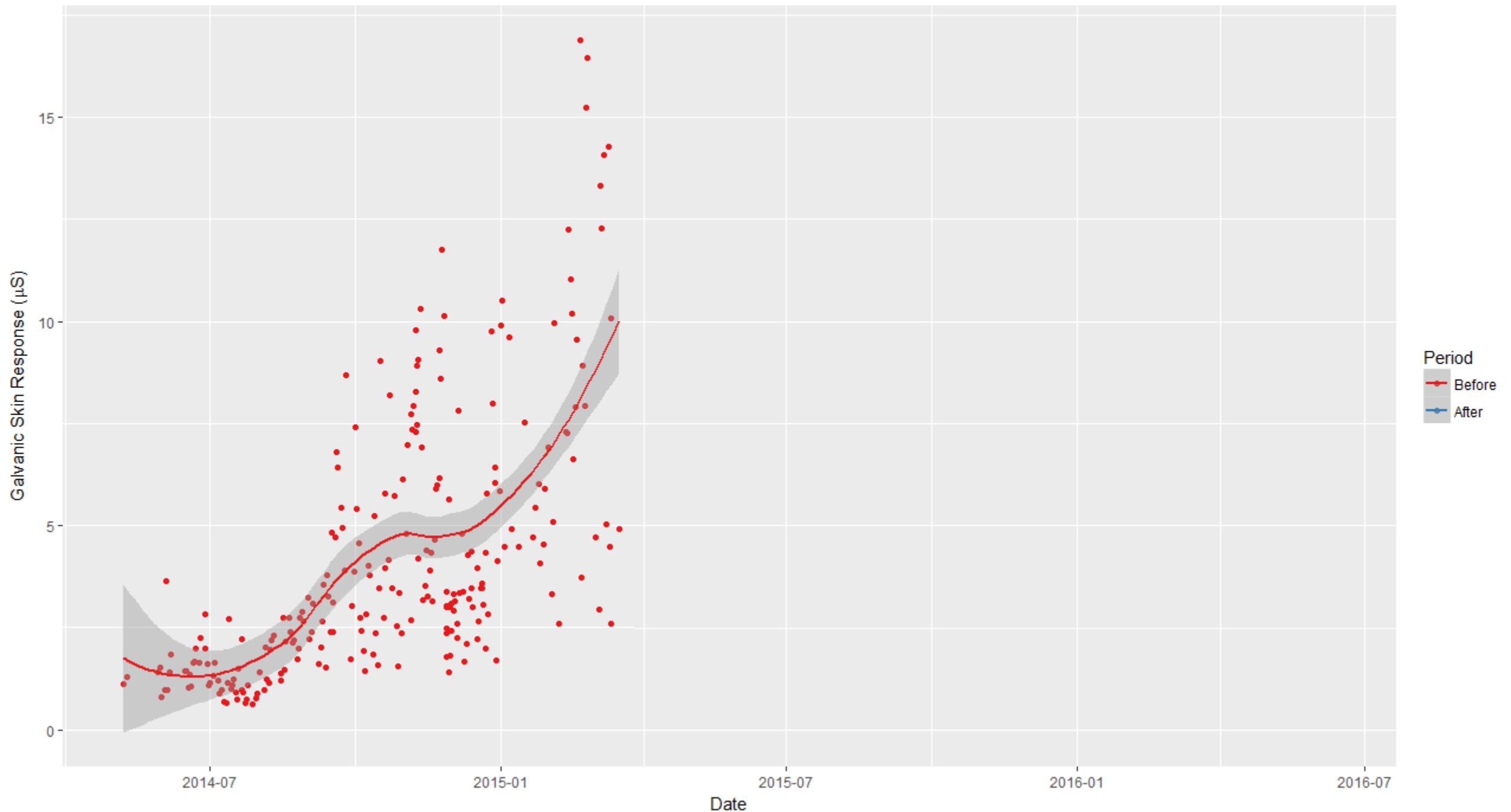
Average GSR Before and After Meditation Retreat



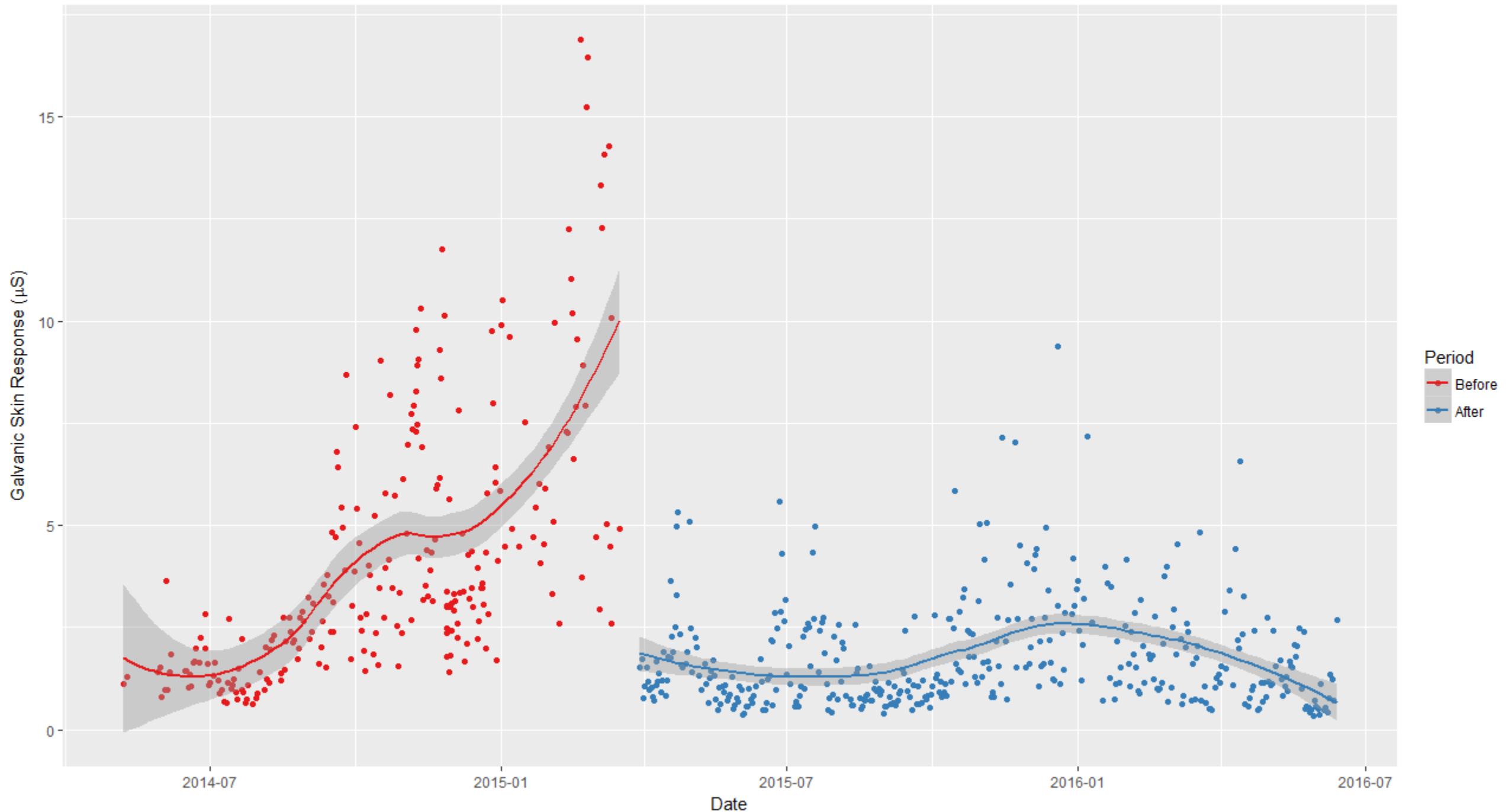
Average GSR Before and After Meditation Retreat



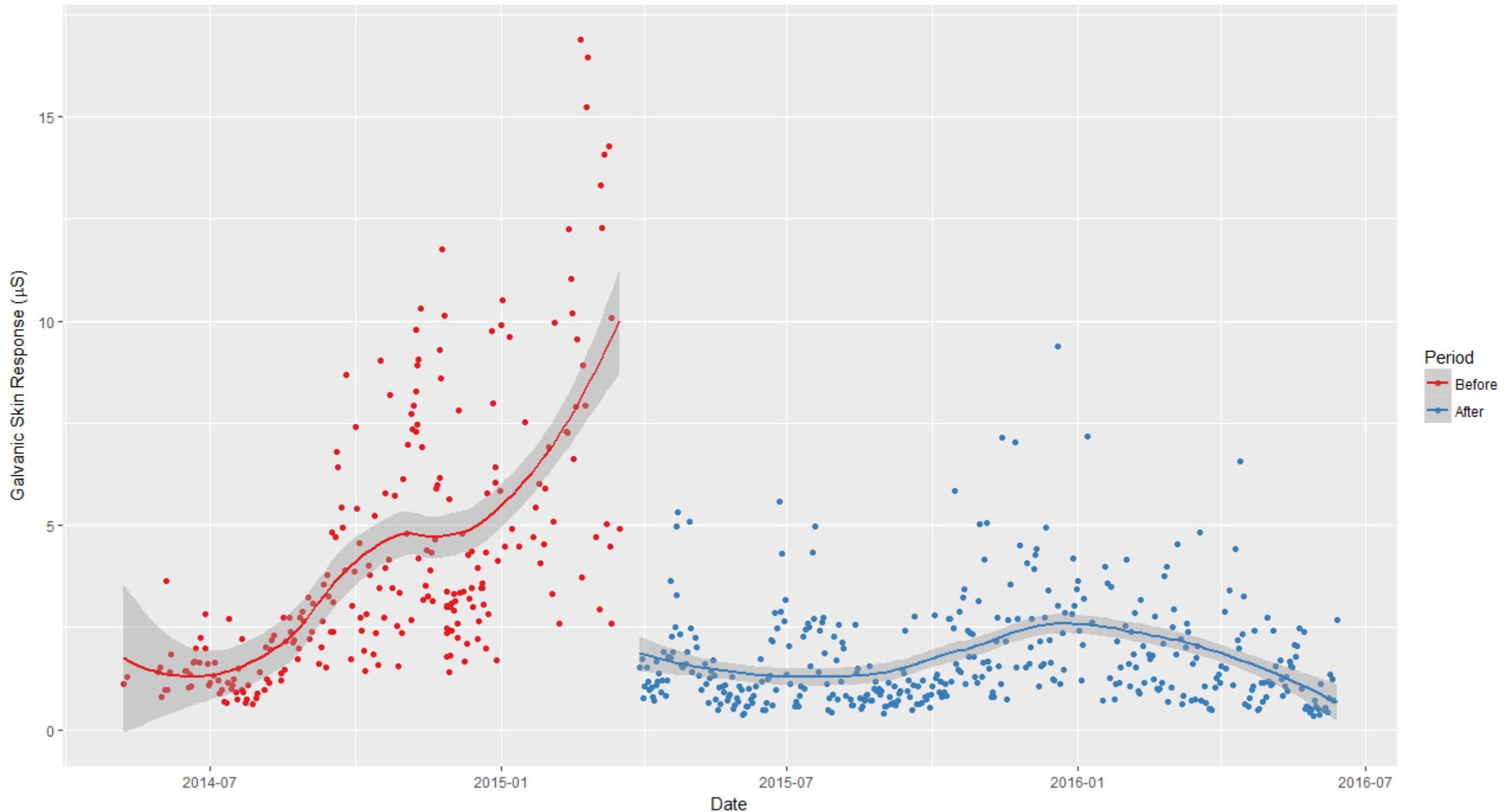
Average GSR Before and After Meditation Retreat



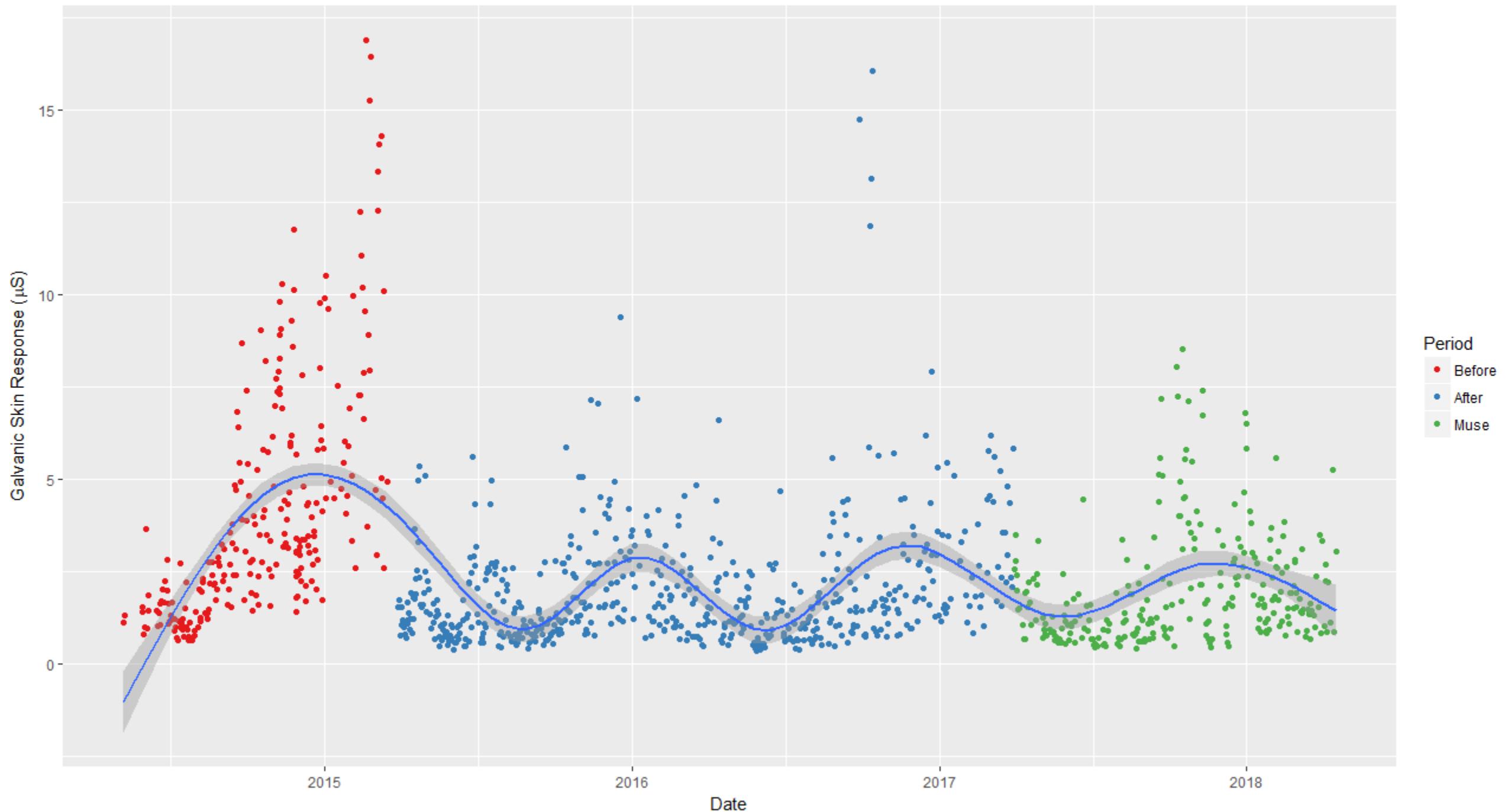
Average GSR Before and After Meditation Retreat



Average GSR Before and After Meditation Retreat



Average GSR Before and After Meditation Retreat



Benefits



Benefits



Benefits

Equanimity



Benefits

Equanimity

Concentration



Benefits

Equanimity

Concentration

Non-judgement



Benefits

Equanimity

Concentration

Non-judgement

Egolessness

Benefits

Equanimity

Concentration

Non-judgement

Egolessness

Compassion

Benefits

Equanimity

Concentration

Non-judgement

Egolessness

Compassion

Sustainability

Where to Go Next



Topic
Better Living

Subtopic
Health & Wellness

The Science of Mindfulness: A Research-Based Path to Well-Being

Professor Ronald D. Siegel

Harvard Medical School/Cambridge Health Alliance



www.thegreatcourses.com



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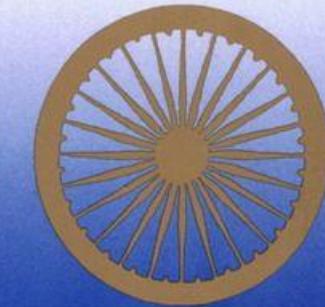


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THE ART OF LIVING

VIPASSANA MEDITATION

AS TAUGHT BY
S. N. GOENKA



William Hart

■ HarperCollinsPublishers

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Summary

Summary

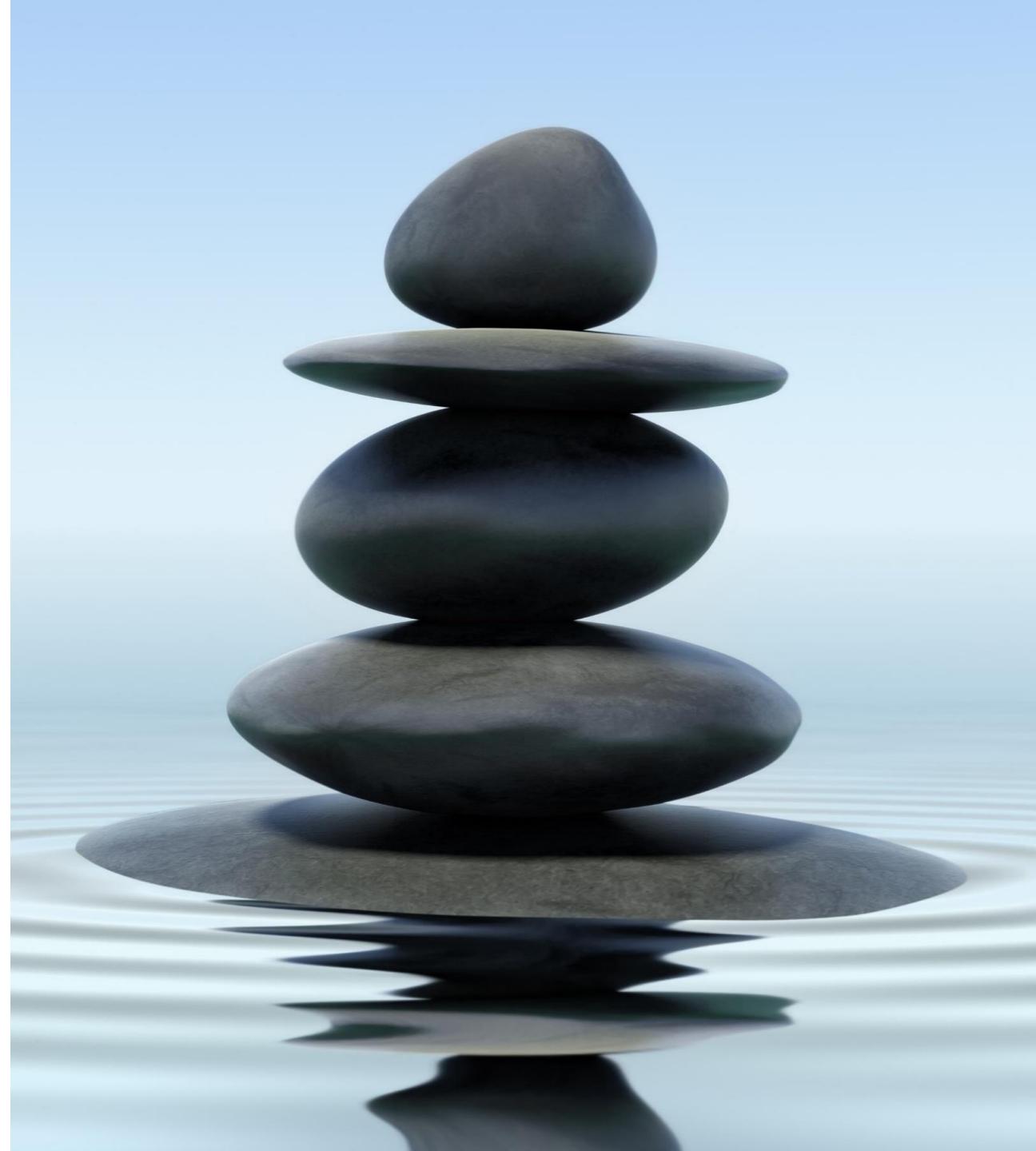
Stress



Summary

Stress

Mindfulness



Summary

Stress

Mindfulness

Meditation



Summary

Stress

Mindfulness

Meditation

Neuroscience



Summary

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Benefits



Feedback

Feedback is very important!

One thing you liked?

One thing I could improve?



It is possible to be in physical, mental or emotional pain, but to not be suffering from it.

Suffering is how we respond to pain.

Contact Info

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Thank You! :)