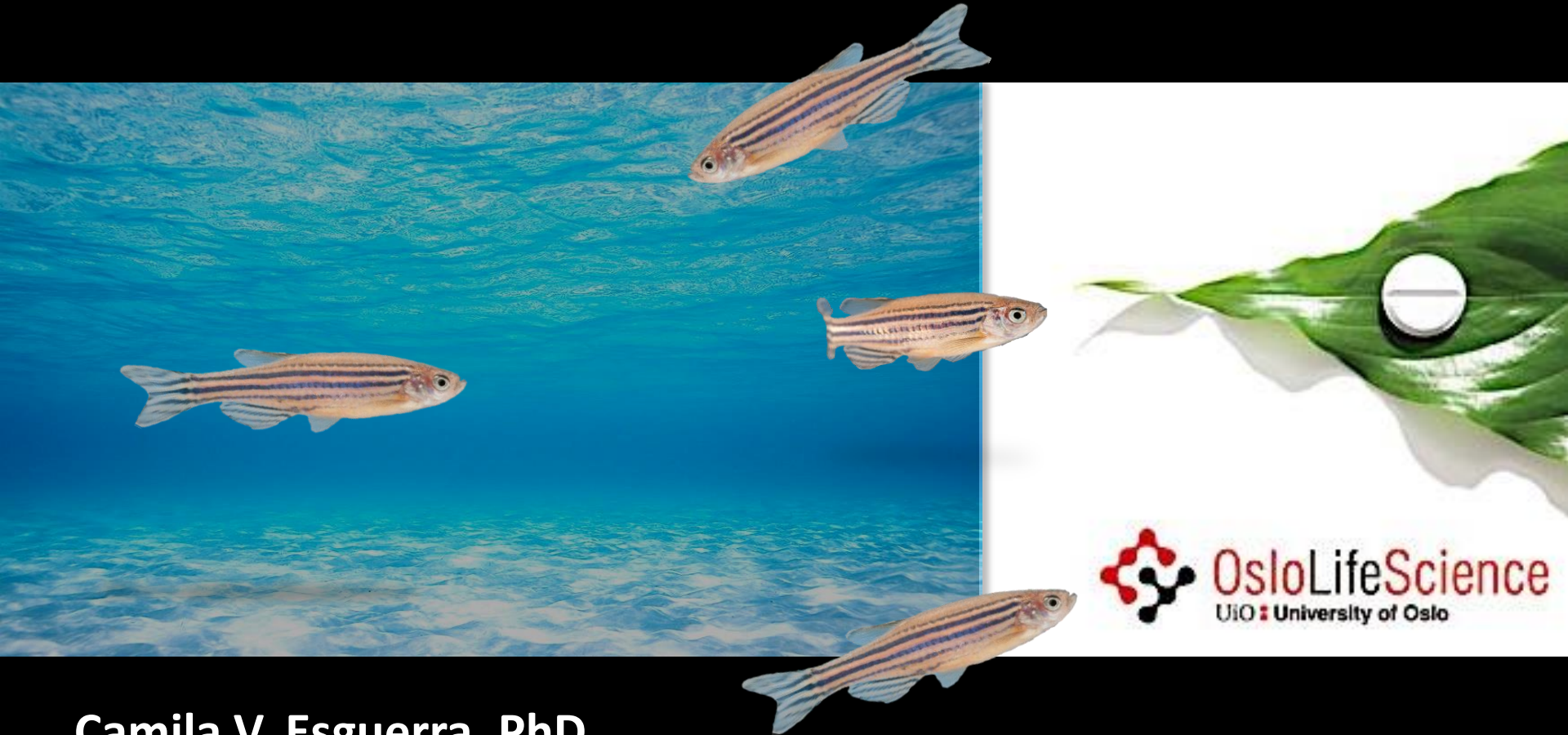
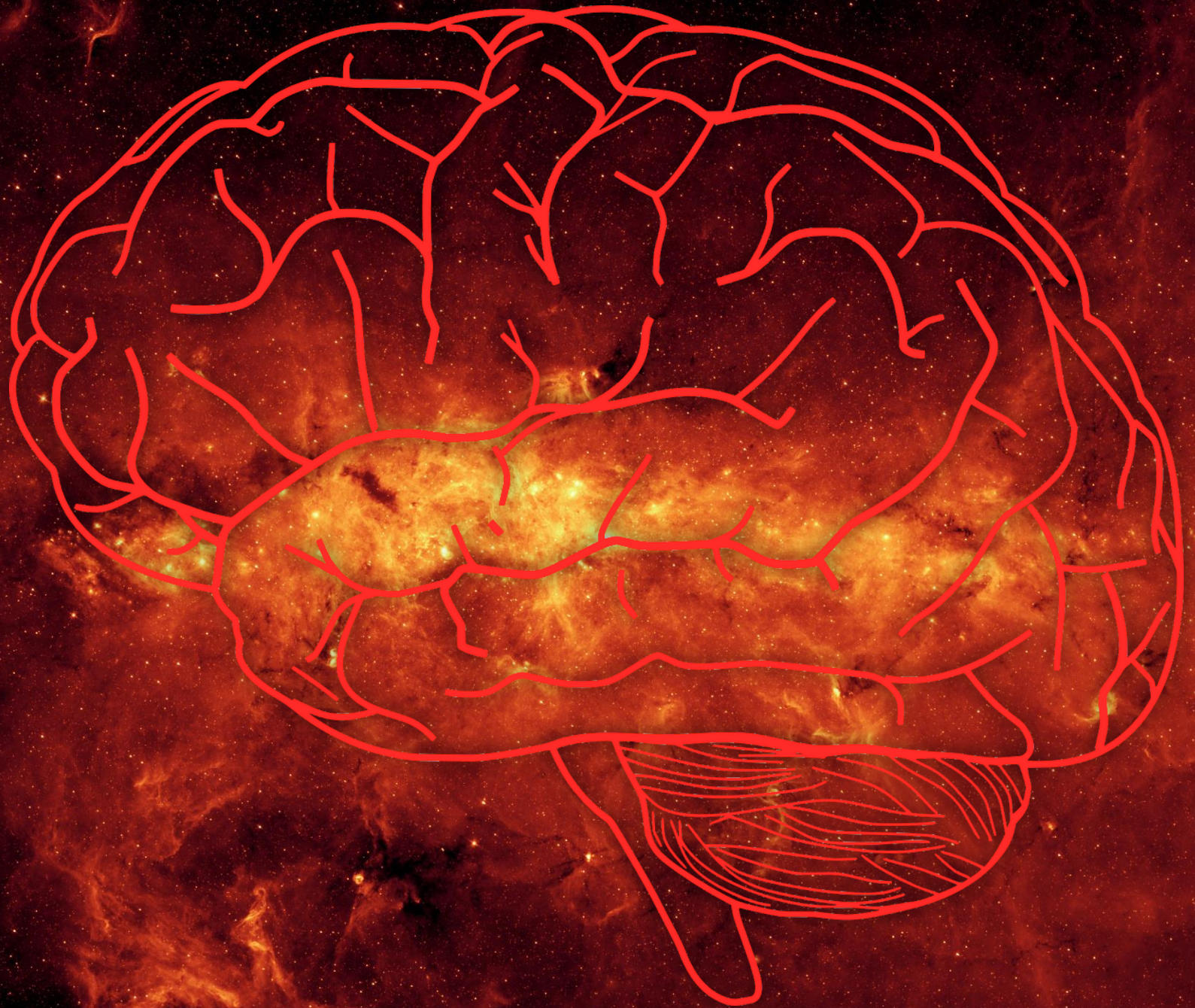
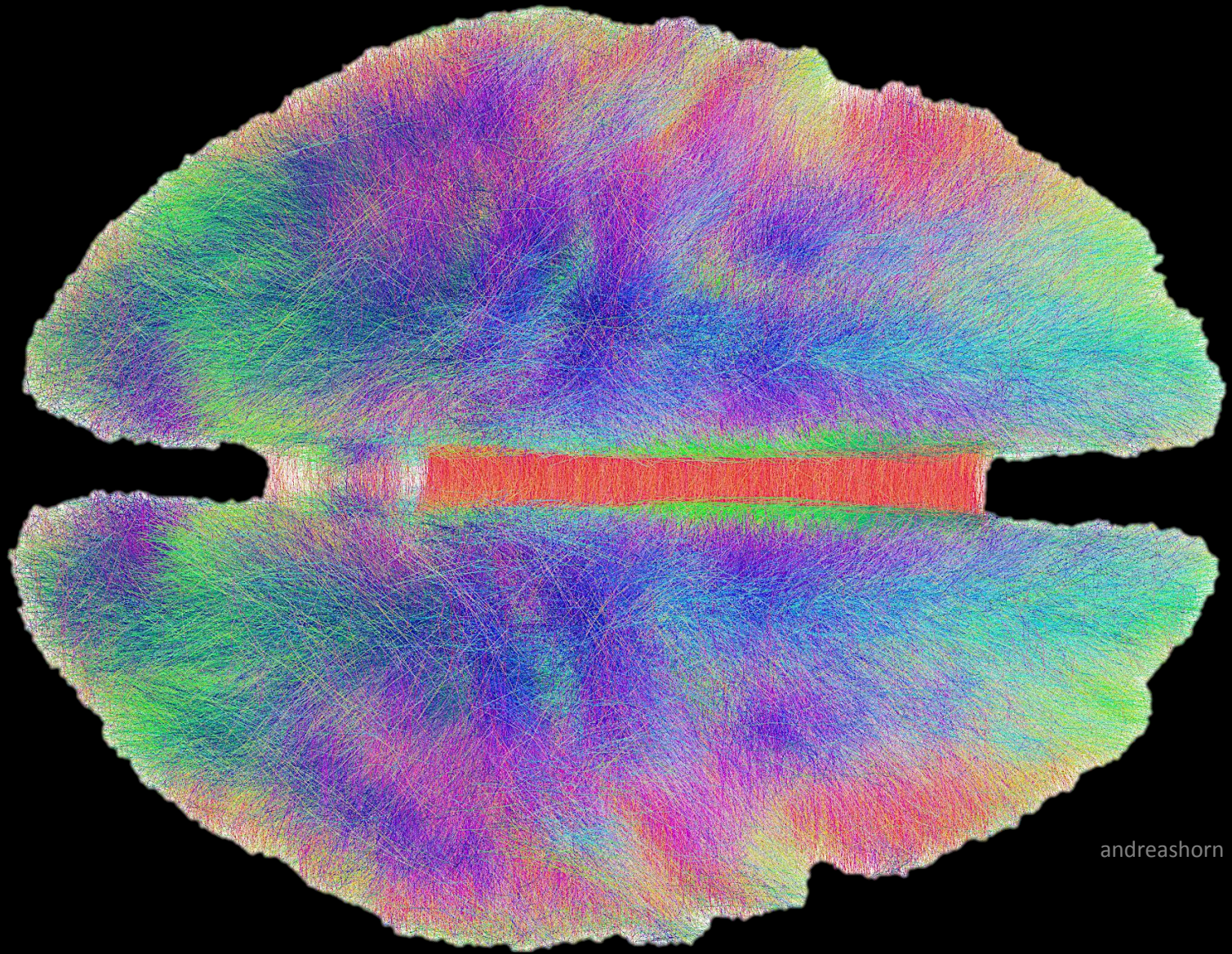


# From Models to Molecules: Using Zebrafish to Understand and Treat Epilepsy



**Camila V. Esguerra, PhD**  
**Chemical Neuroscience Group**  
**Biotechnology Centre of Oslo and School of Pharmacy**





andreashorn

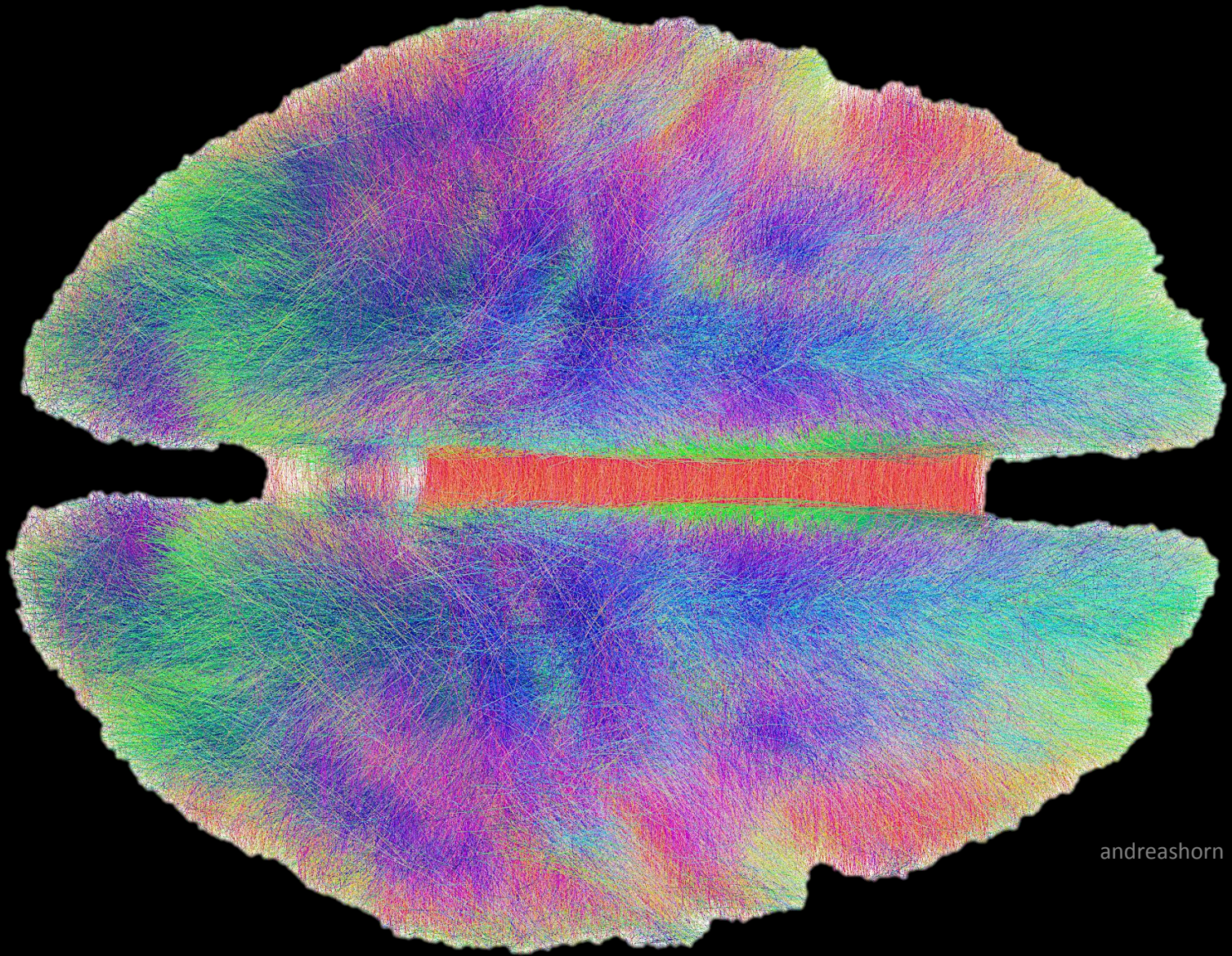
# The Human Brain Connectome

The image features a central white 'WWW' logo. The background is a vibrant blue with a sunburst pattern of rays emanating from the center. Overlaid on this are several lines of binary code (0s and 1s) in a lighter blue color, arranged in a perspective that makes them appear to recede into the distance. The overall aesthetic is digital and high-tech.

WWW

[www.elbpresse.de](http://www.elbpresse.de)

20,000,000,000



andreashorn

1,000,000,000,000,000

How does a normal  
brain become  
abnormal?

# SEIZURES



# CONVULSIONS

Tonic phase



Clonic phase





Chronic & Common

Drug Resistance

Life Impact

Multiple Causes

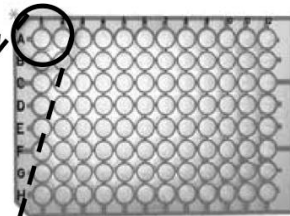
Cure



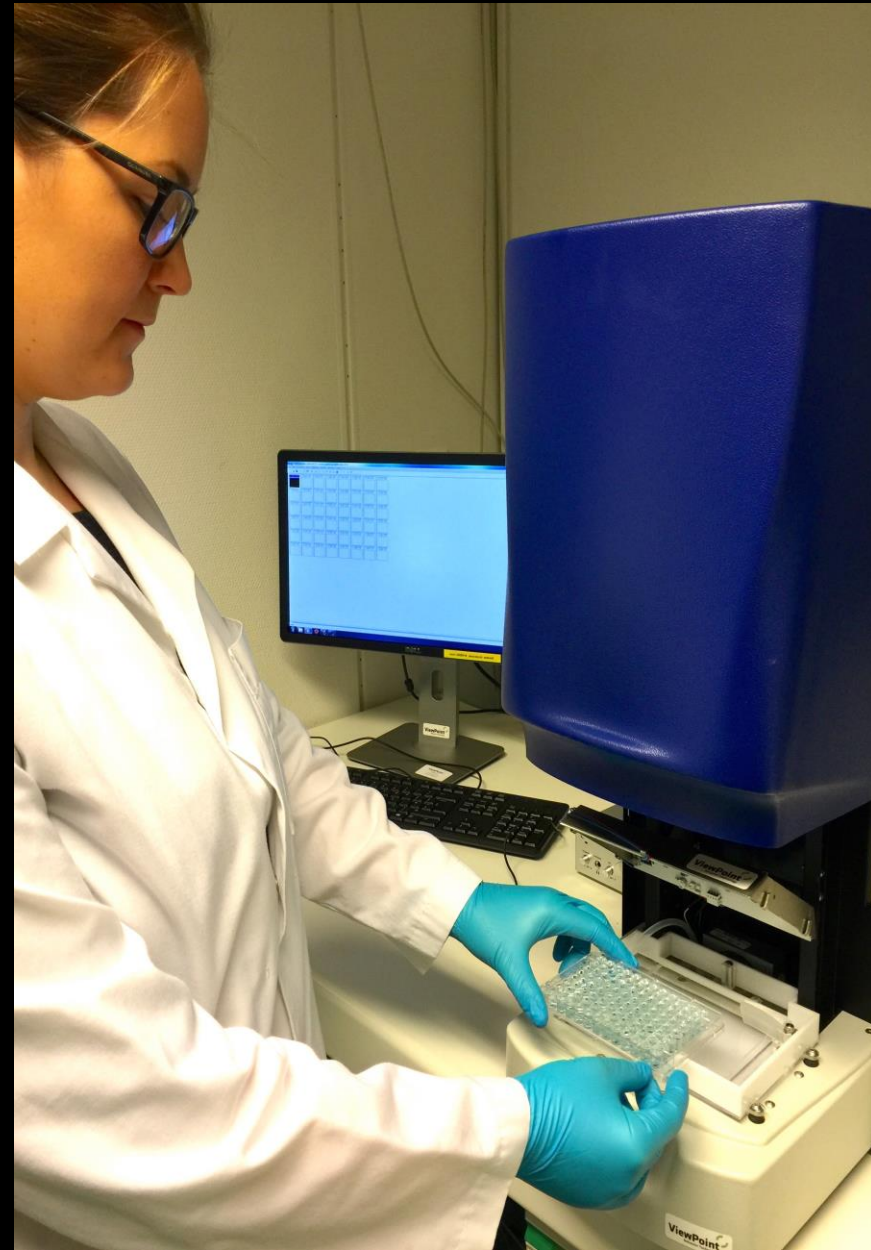




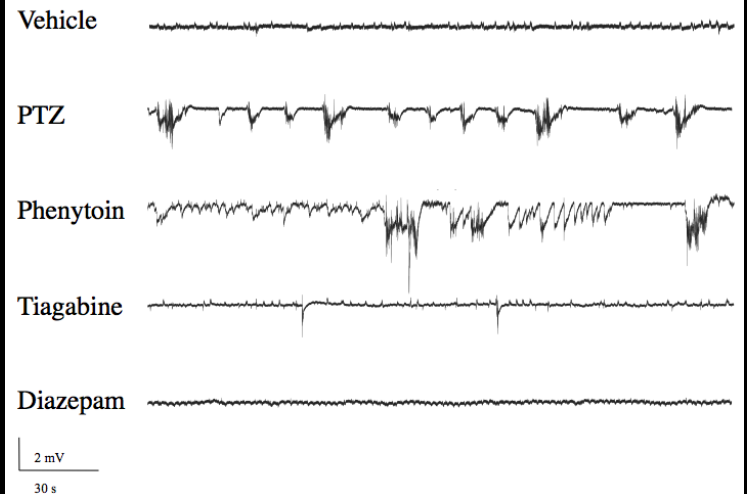
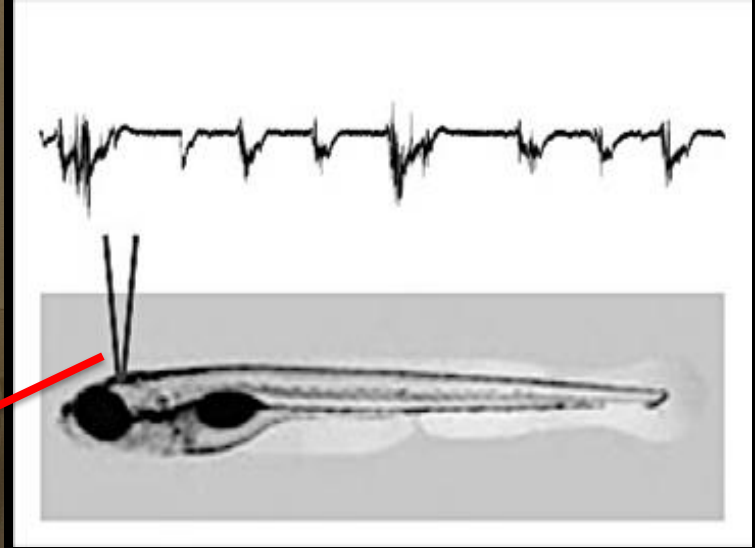
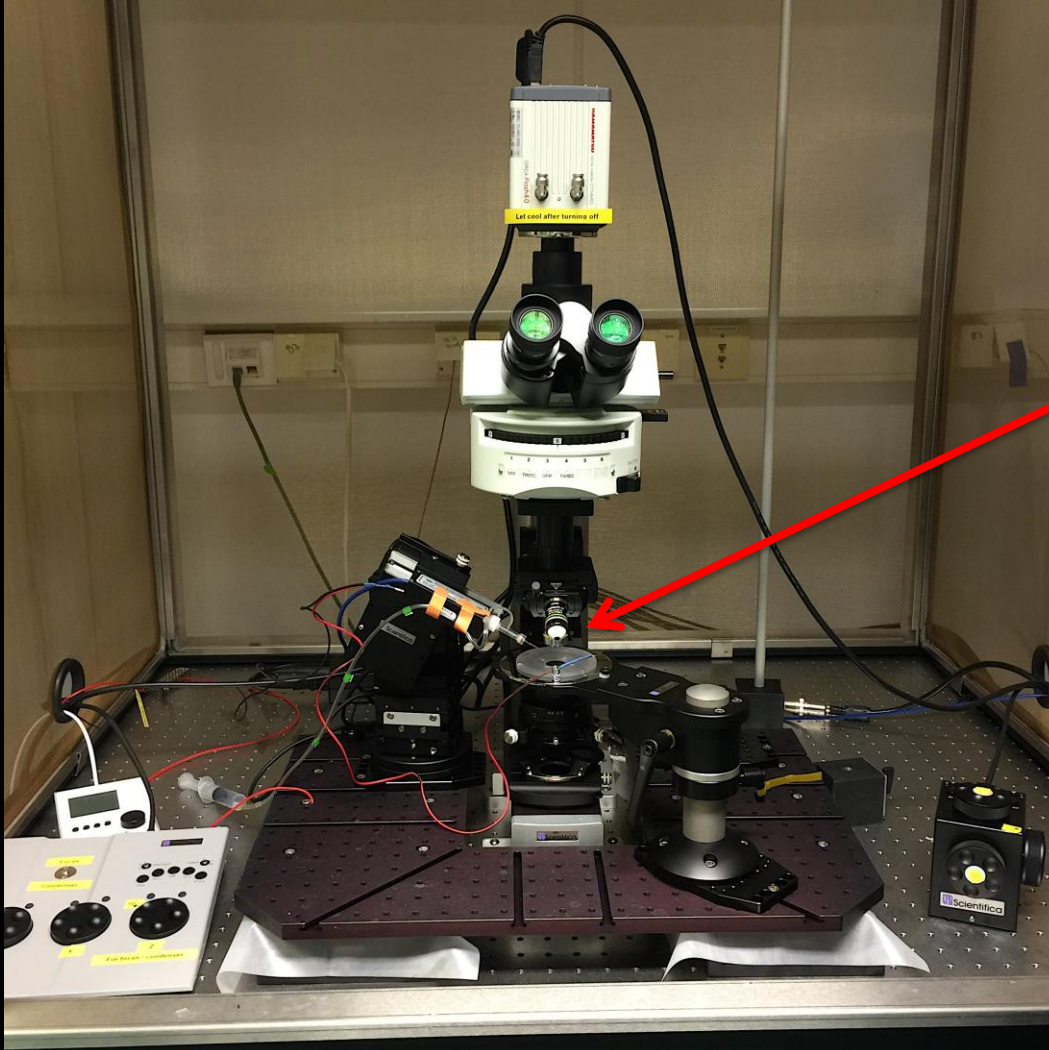
**VIDEO  
TRACKING**



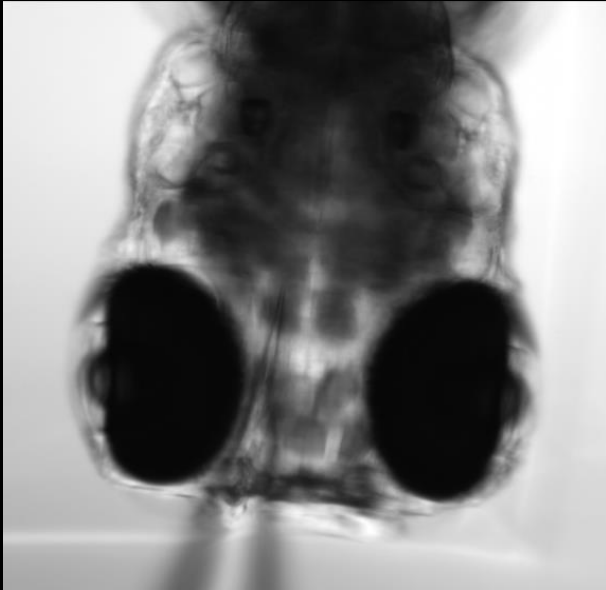
OR



# Electroencephalograph (EEG)



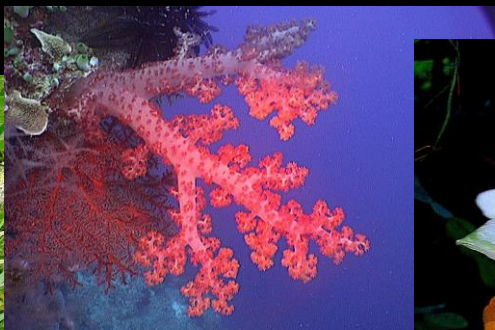
# Brain Imaging



Visualizing seizures in a 4 day-old zebrafish

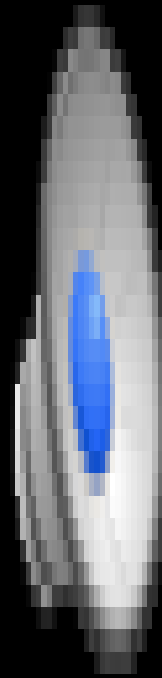
How do find new drugs?

# Medicines from Nature





Searching  
for SAFE  
drugs



new KNOWLEDGE  
therapeutic SAFETY  
seizure FREEDOM  
HOPE



Saint Simeon Stylites the elder

Tusen Takk!

