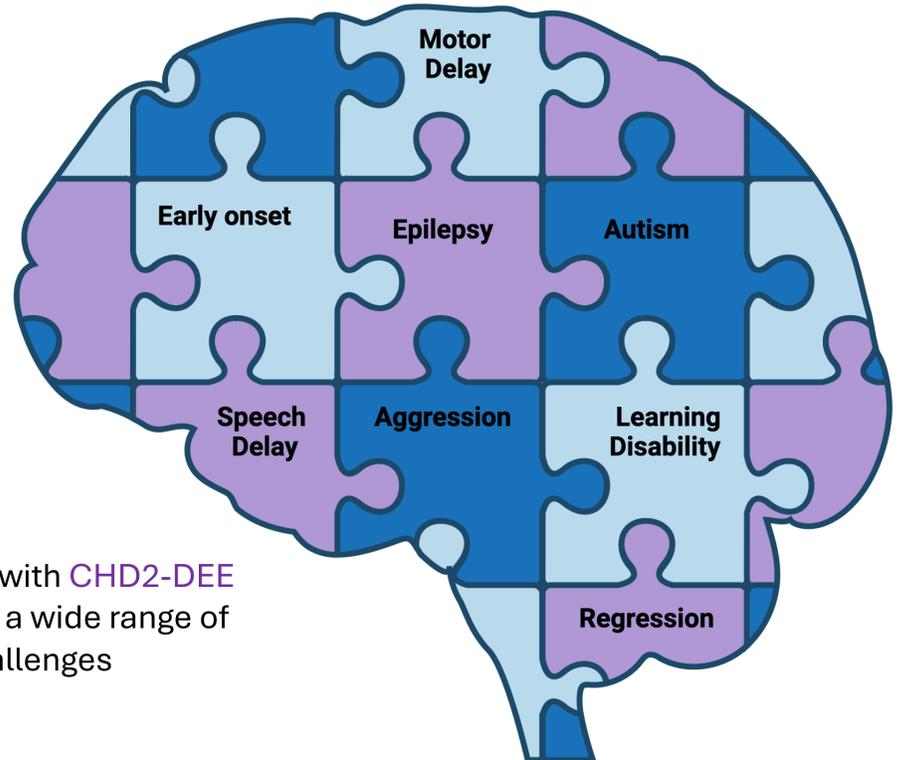
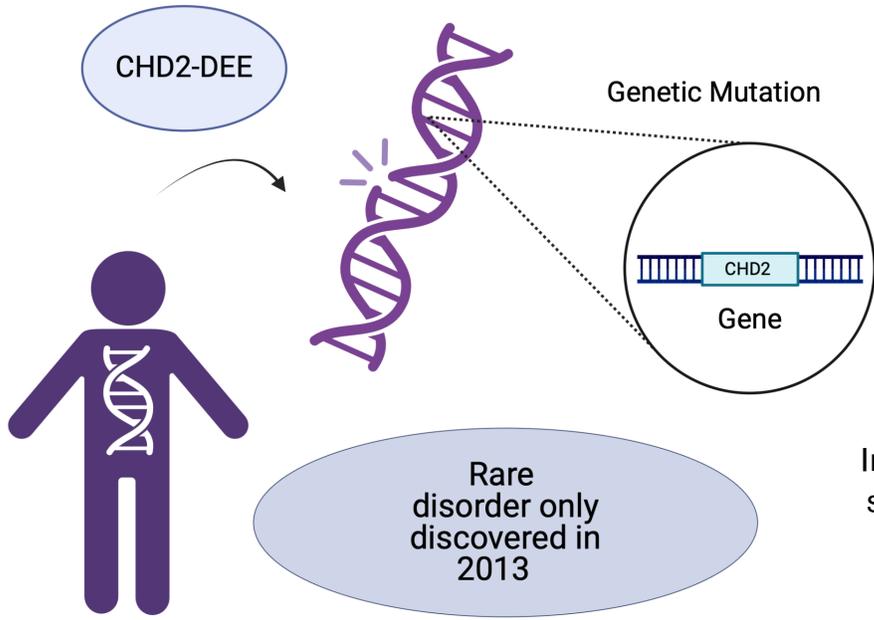


Getting to the root of a rare disorder – “CHD2 What do you really do?”

The rare disorder in question is called **CHD2 Developmental Epileptic Encephalopathies**



Individuals with **CHD2-DEE** suffer from a wide range of challenges

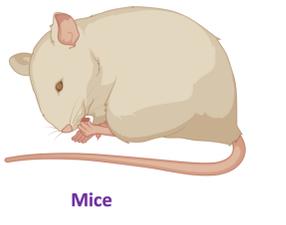


Cora

Currently those with CHD2-DEE are **drug resistant** to most therapeutics available.

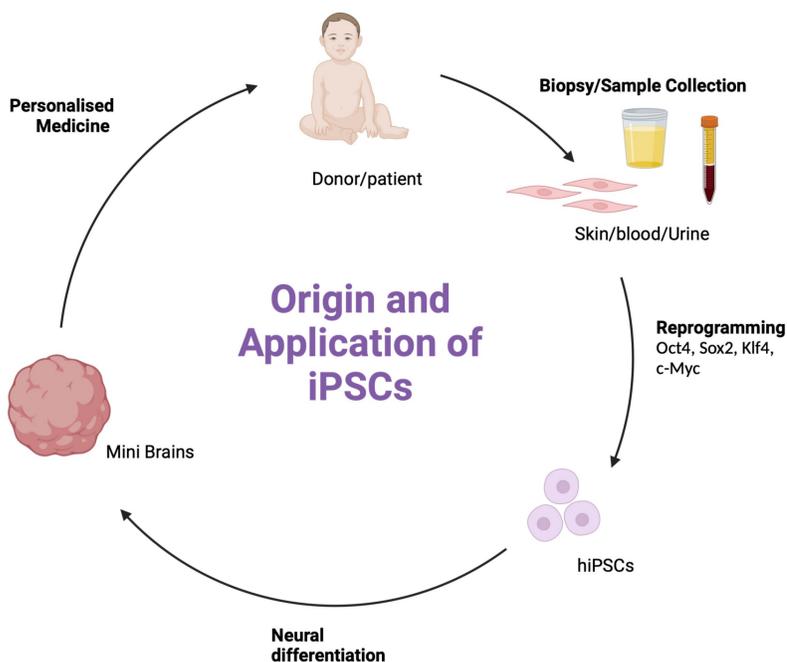


Luca



- Since *chd2* was discovered in 2013, scientists have tried endlessly to grasp a better understanding of what is going on with those suffering from CHD2-DEE.
- Animal models unfortunately have **failed** to represent the disorder with no signs of any **seizures**; Clearly showing a species difference.

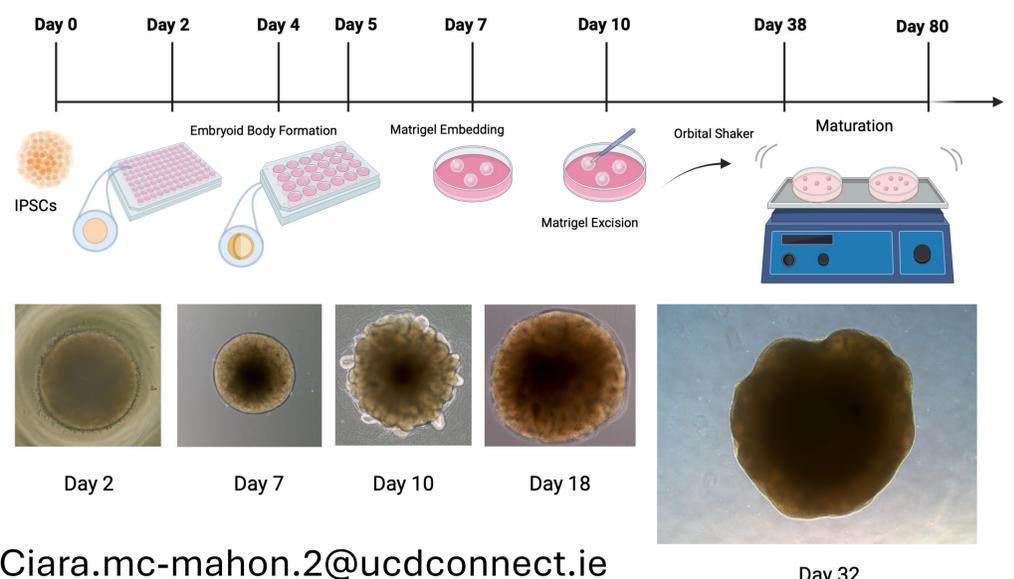
Induced pluripotent stem cells (iPSCs)



- To overcome these species difference, a **human based model** is the best approach.
- Using stem cell research my project focuses on making **mini brains** from those suffering from CHD2-DEE.

iPSCs are the stem cells used. They are made from individuals very own cells meaning they retain the mutation that causes their disorder and can be used for **personalised research/medicine**.

Mini brains



- **Mini brains** are ideal for this research since CHD2-DEE is a brain restricted disorder.
- Mini brains mimic the normal human brain development. Allowing researchers like myself to get a better understanding of what is going wrong and make more **personalised medicine**

