

### Feasibility of DREADDs in NHP

Leafy Behera

SURGE Roll no: 2142500









#### Current senario



20%



#### Current senario



20%

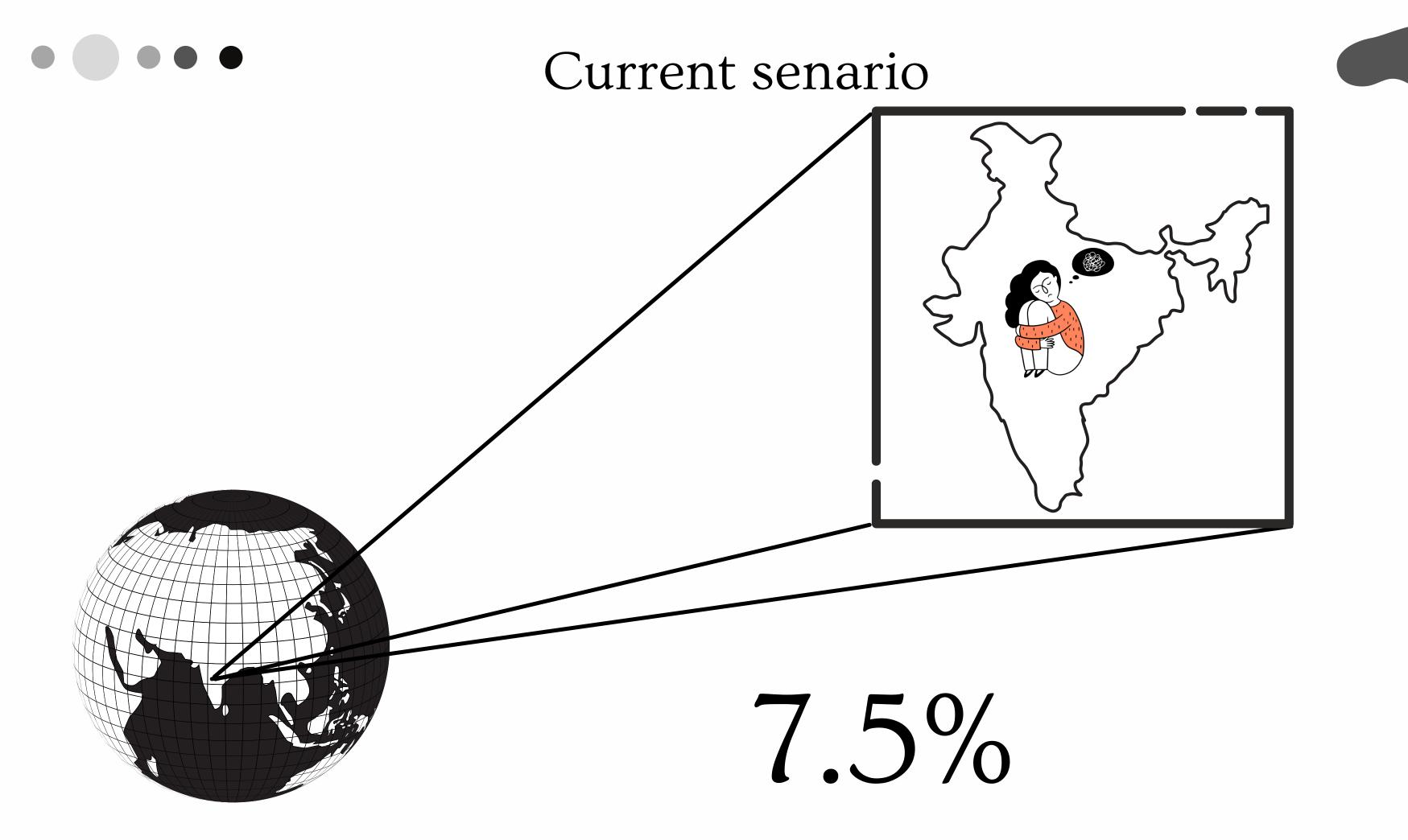


40%

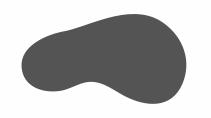
#### Current senario





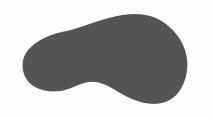


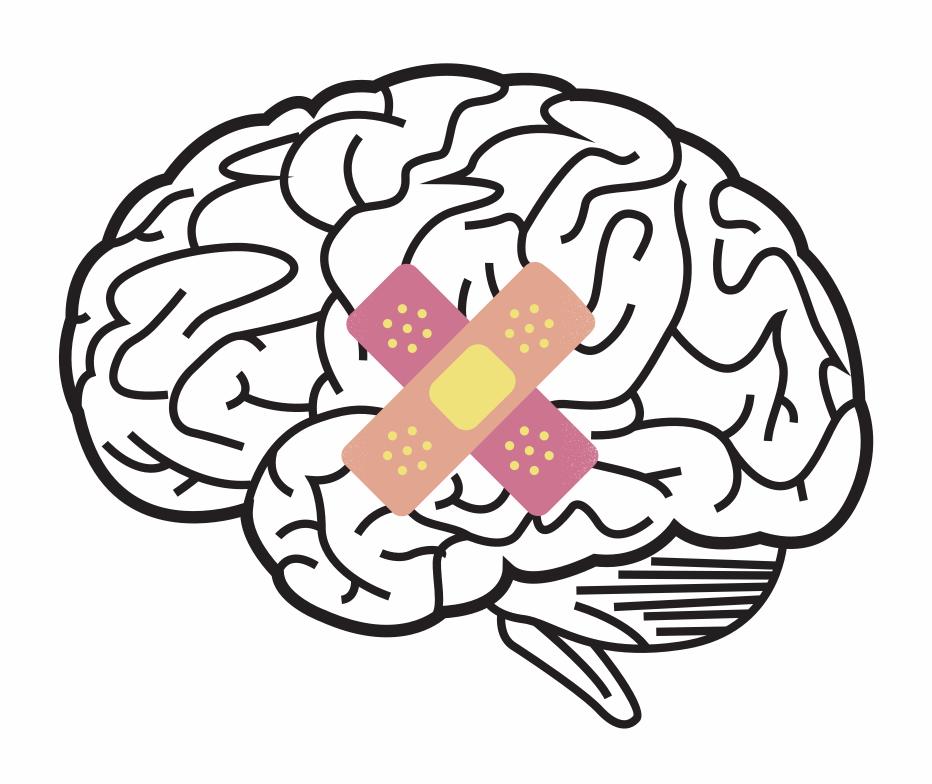




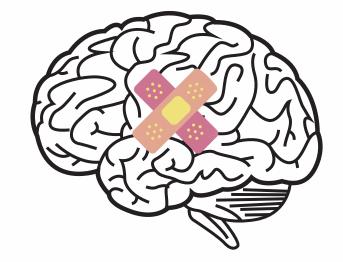


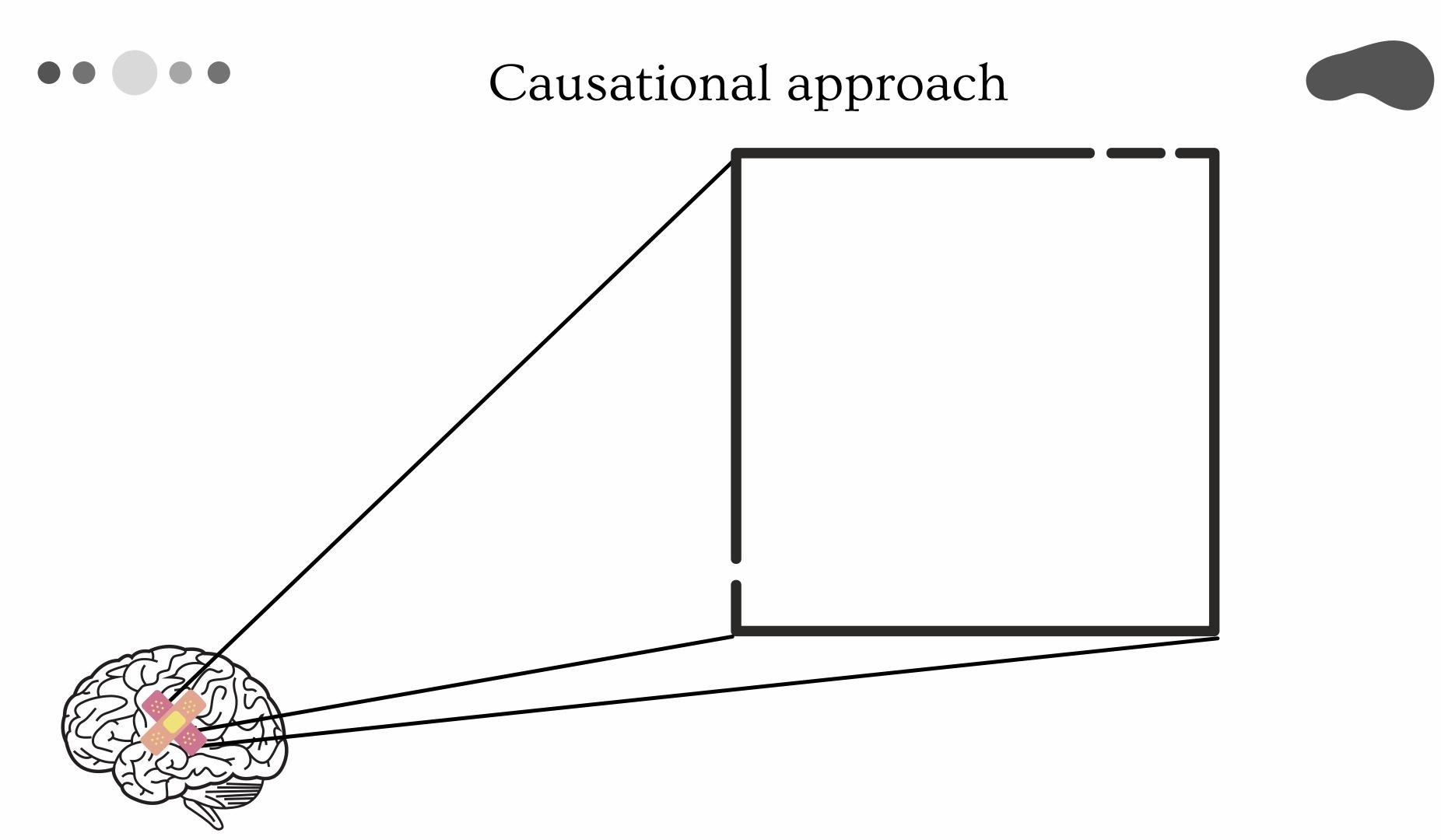


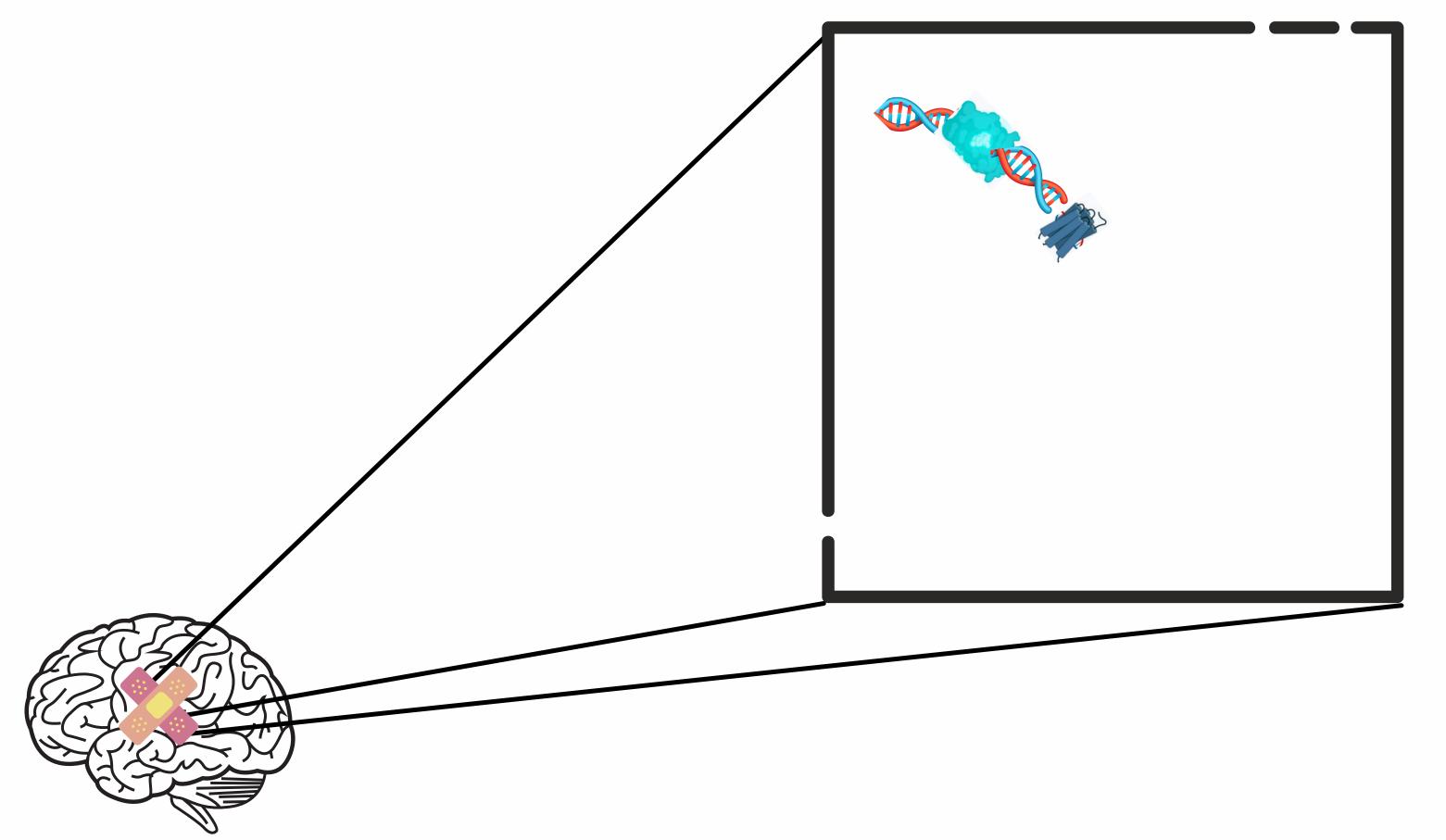


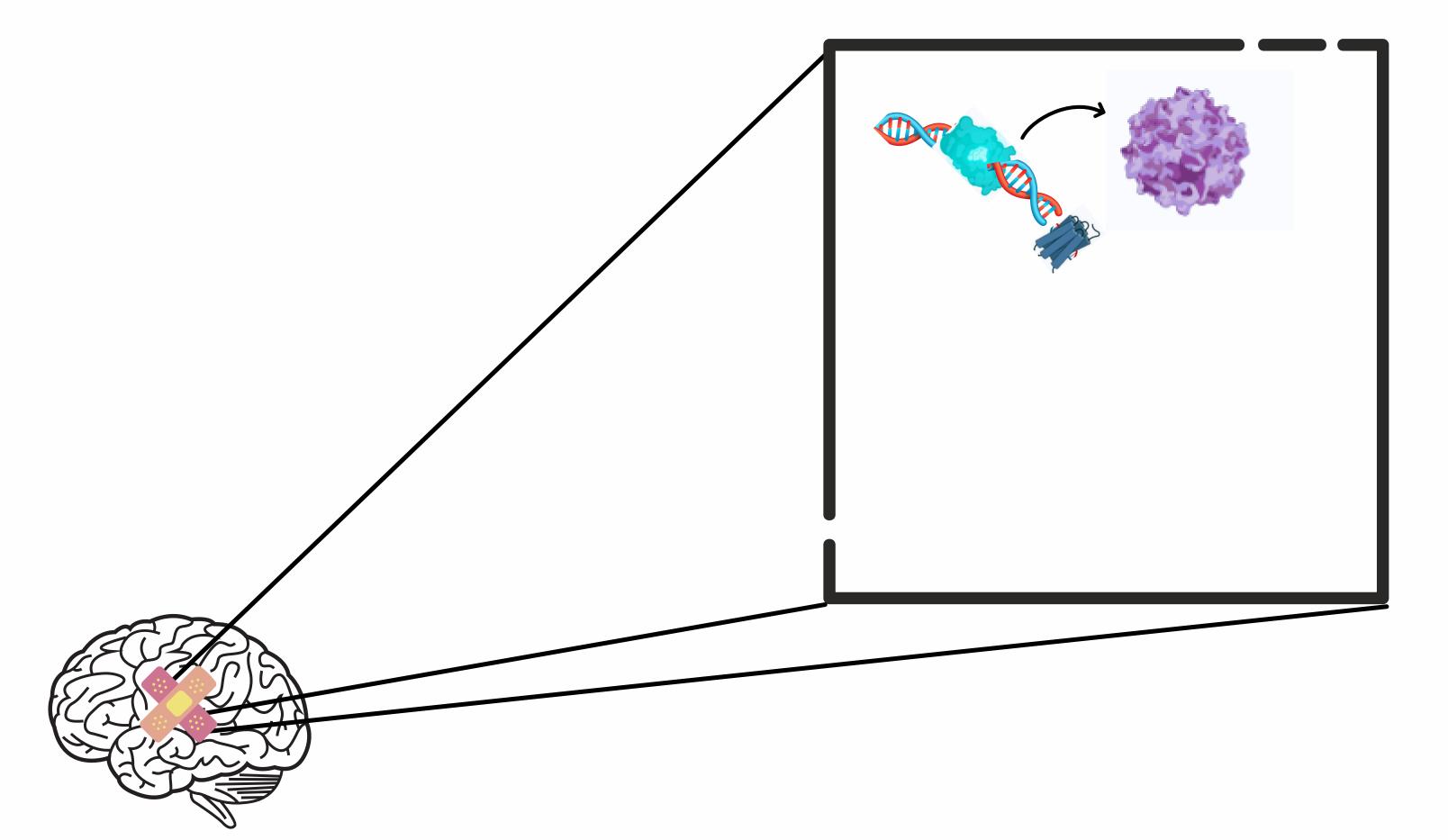


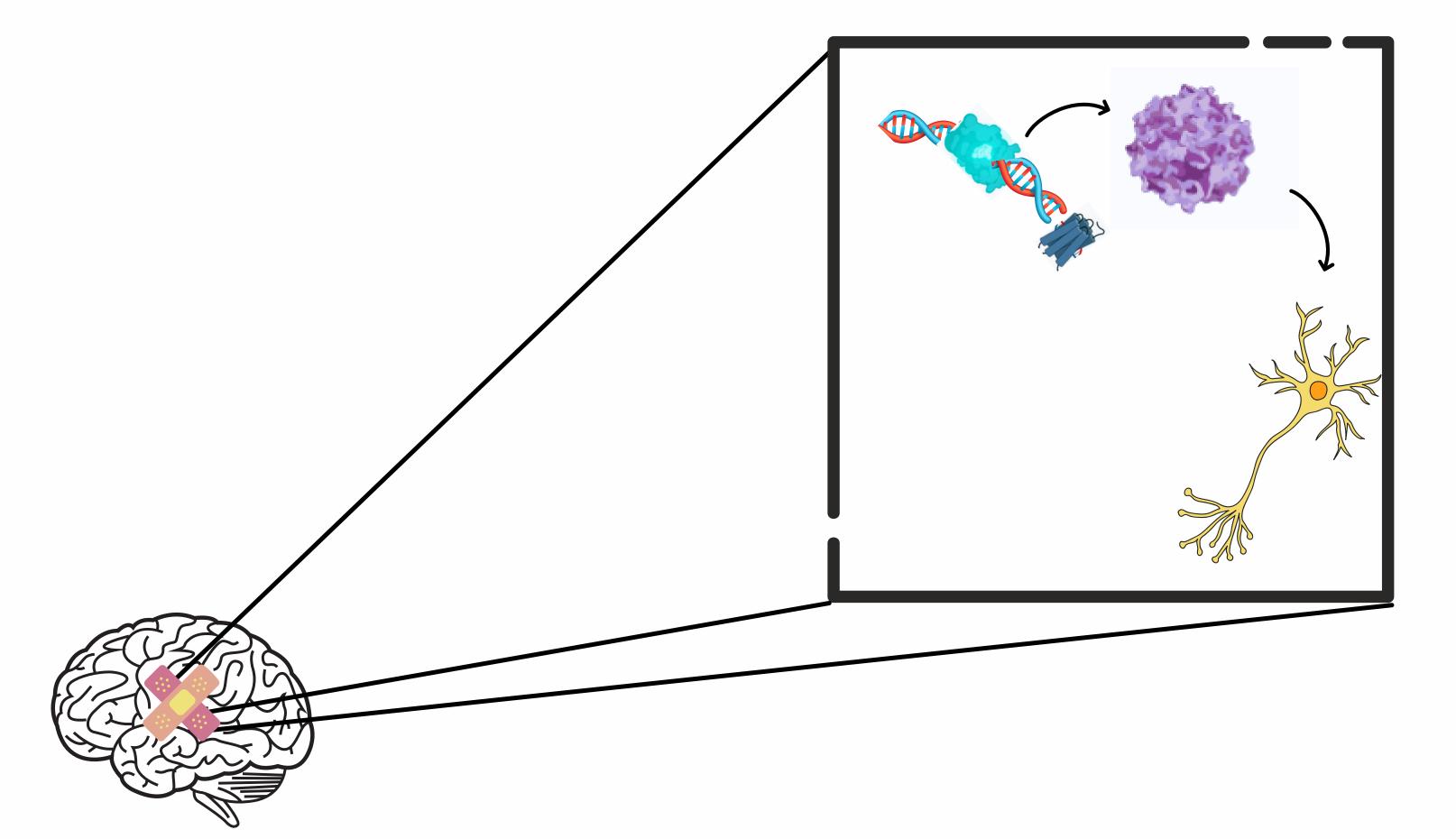


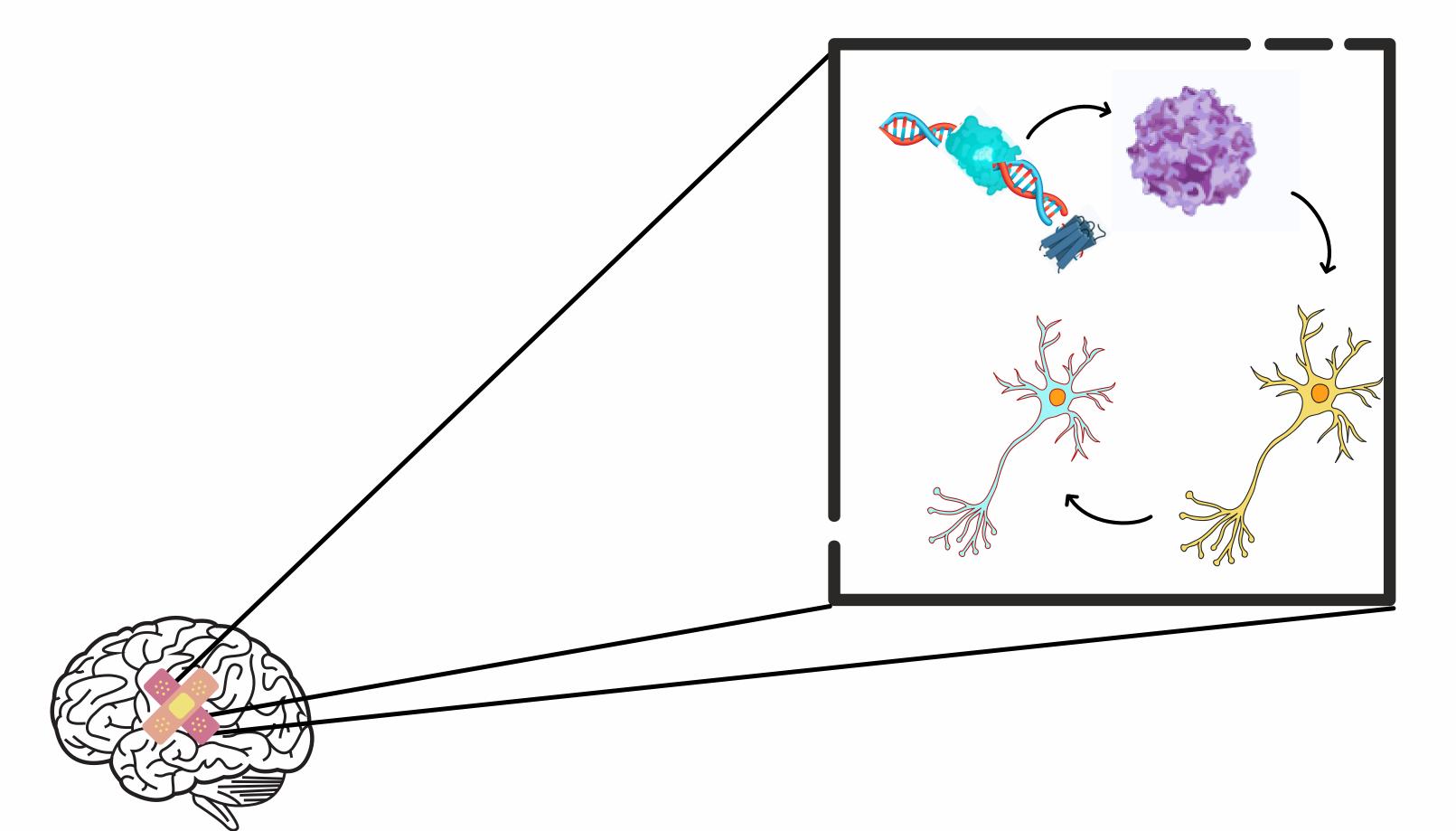










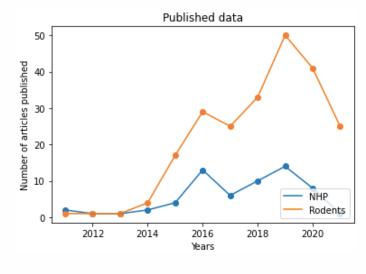


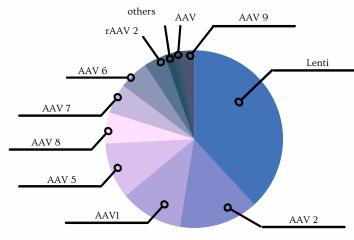


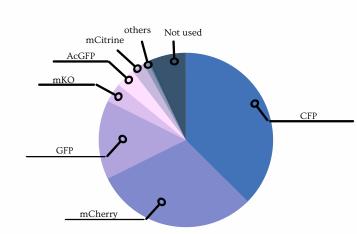


### Results



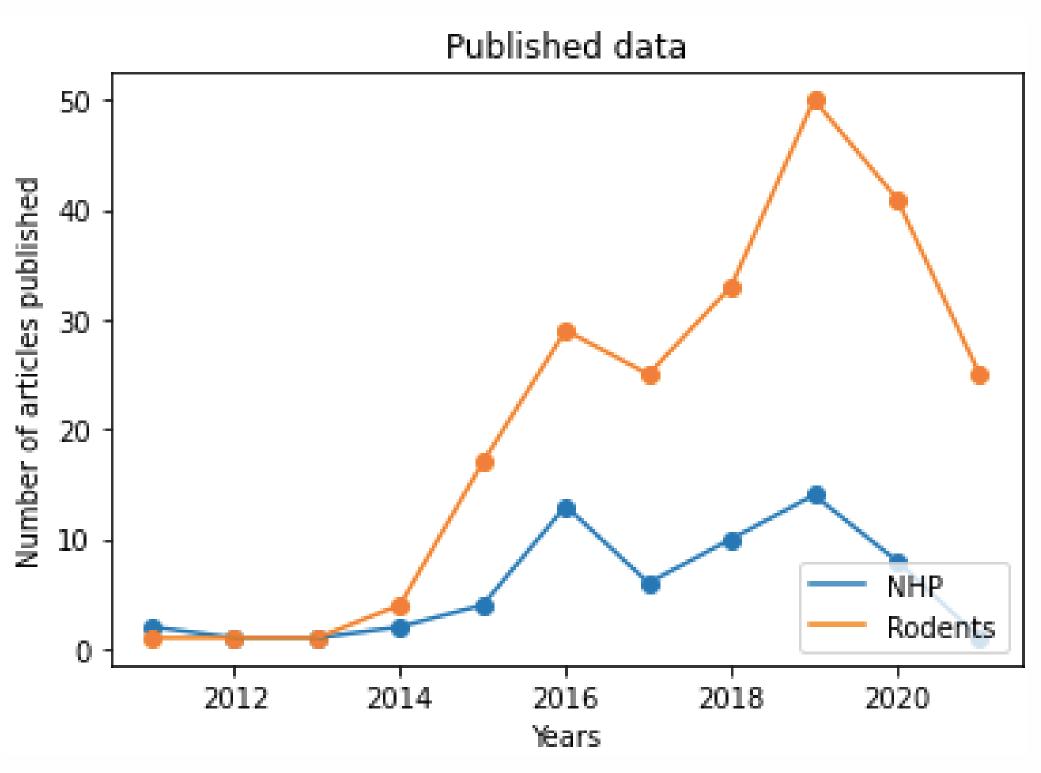


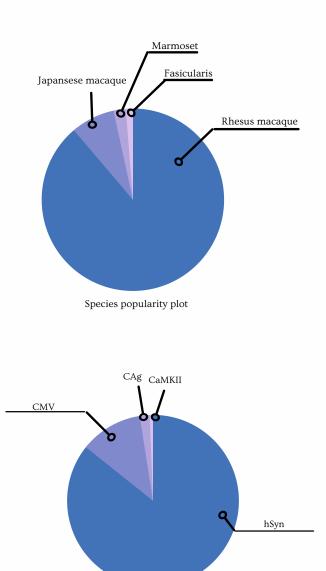


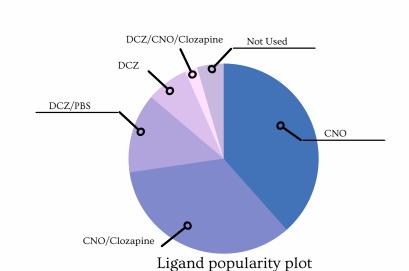


Vector popularity plot

Reporter popularity plot



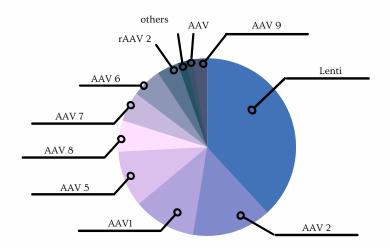




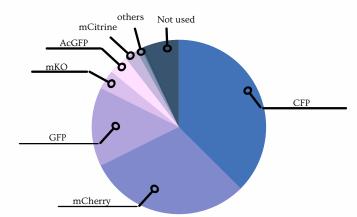
Promoter popularity plot



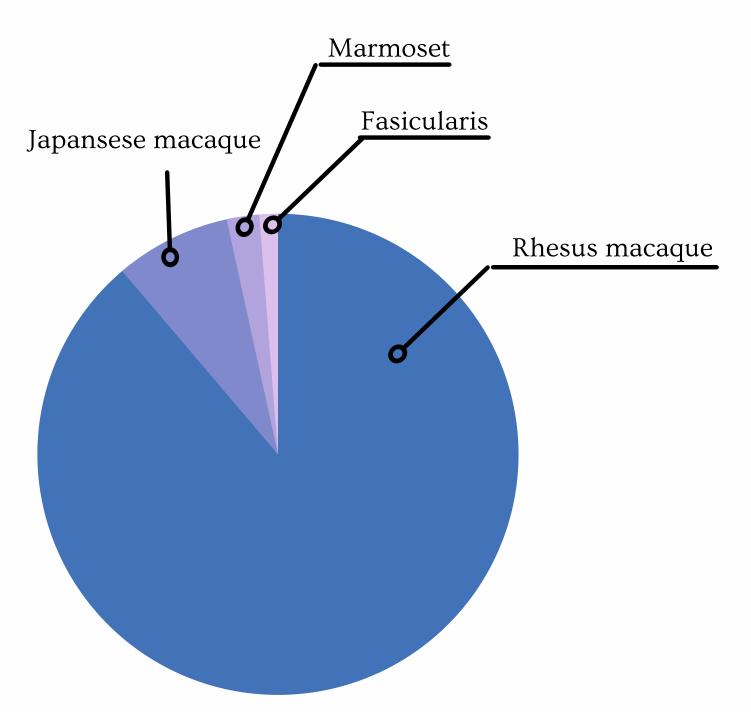
# Published data 50 99 40 10 2012 2014 2016 2018 2020



Vector popularity plot

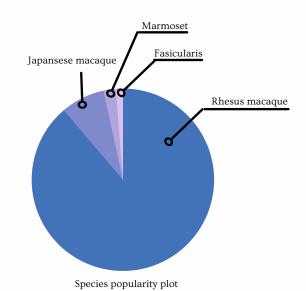


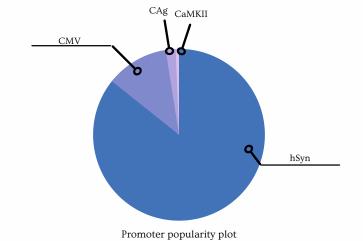
Reporter popularity plot

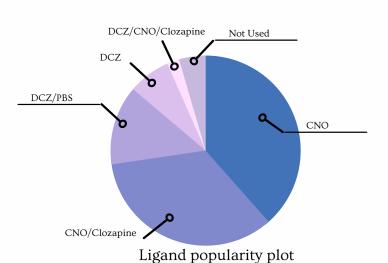


Species popularity plot





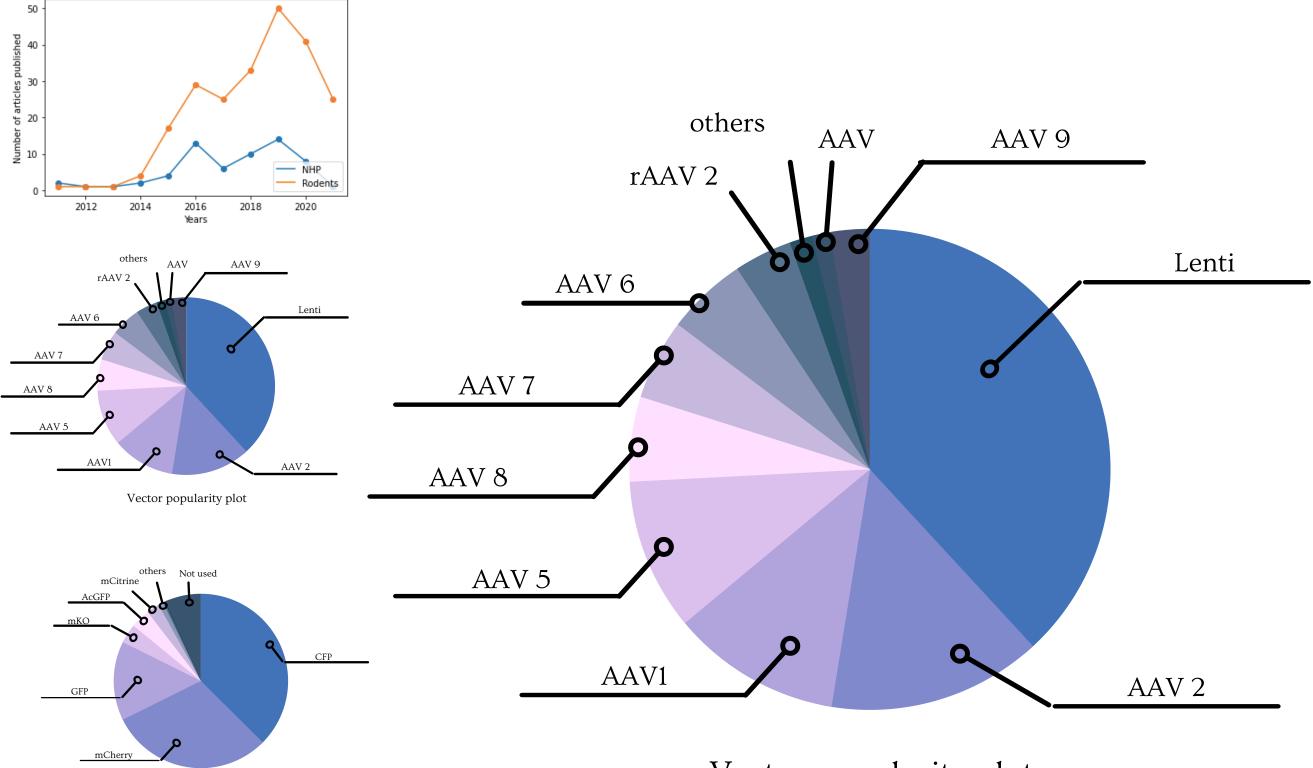




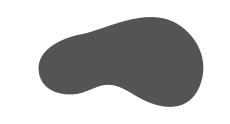


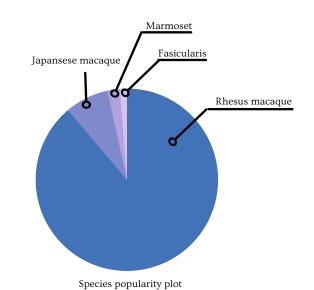
Published data

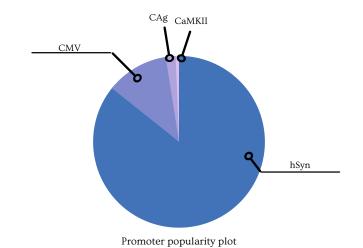
Reporter popularity plot

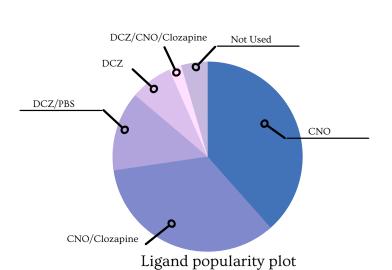






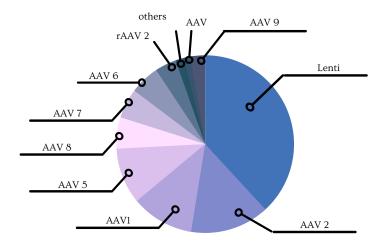




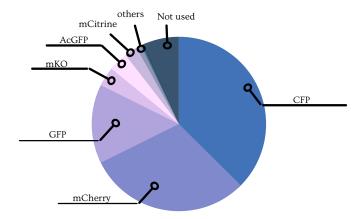




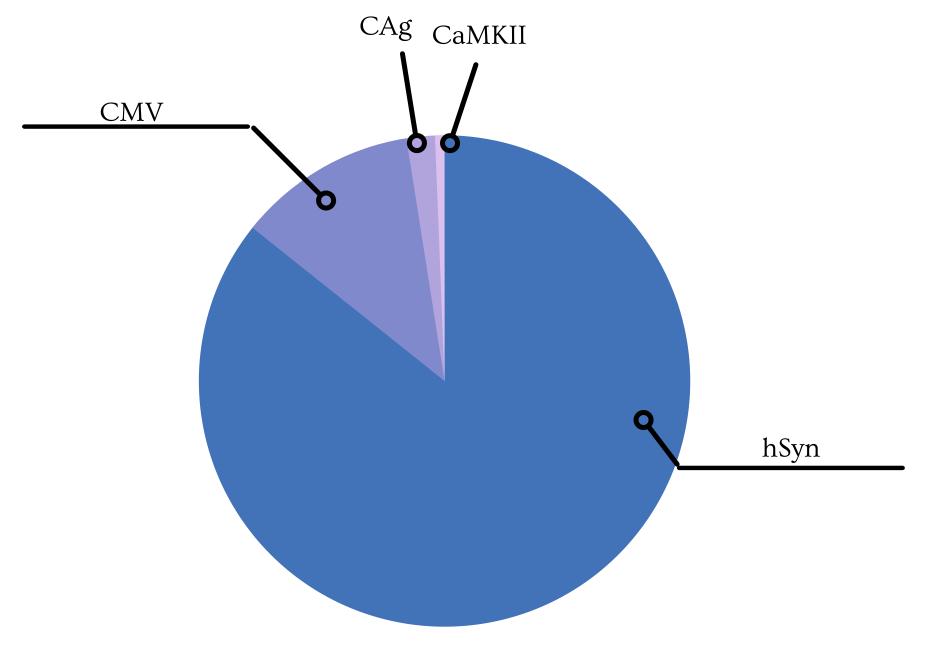
# Published data 50 9049 40 20 20 2012 2014 2016 2018 2020 Years



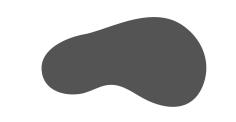
Vector popularity plot

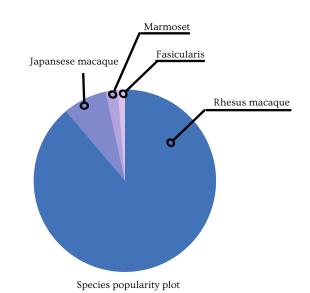


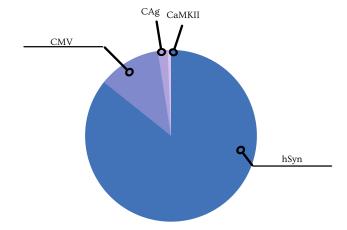
Reporter popularity plot



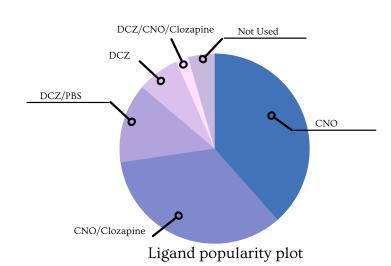
Promoter popularity plot





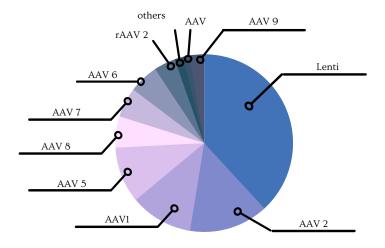


Promoter popularity plot

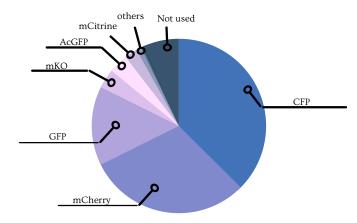




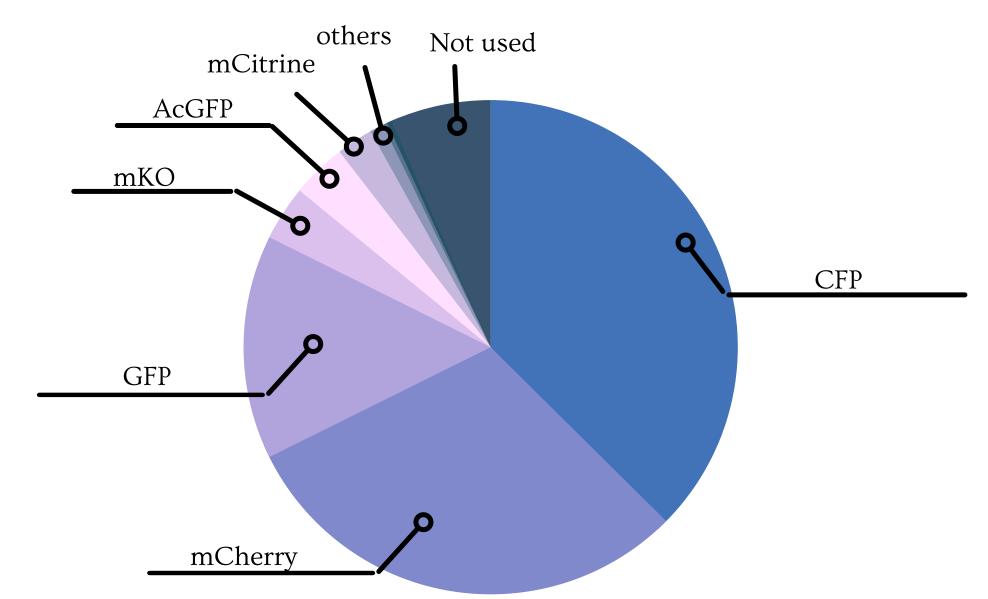
# Published data 50 904 40 20 20 2012 2014 2016 2018 2020 NHP Rodents Years



Vector popularity plot

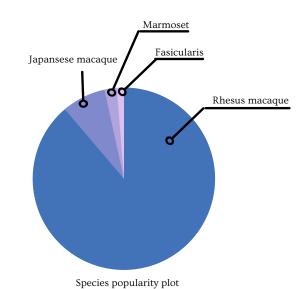


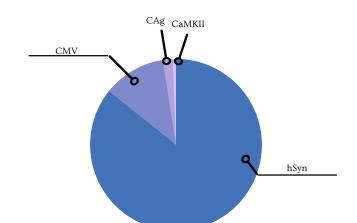
Reporter popularity plot



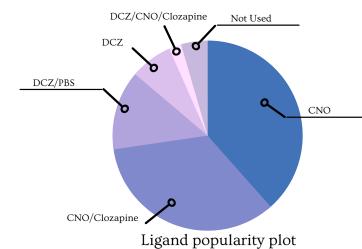
Reporter popularity plot





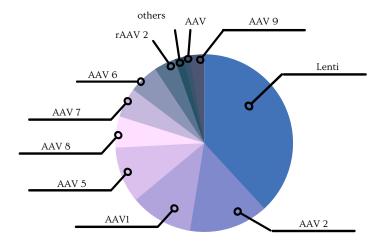


Promoter popularity plot

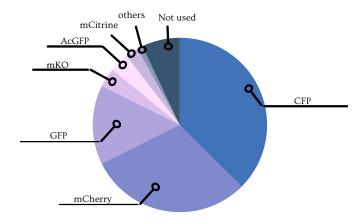




# Published data 50 9949 40 10 2012 2014 2016 2018 2020 NHP Rodents Years

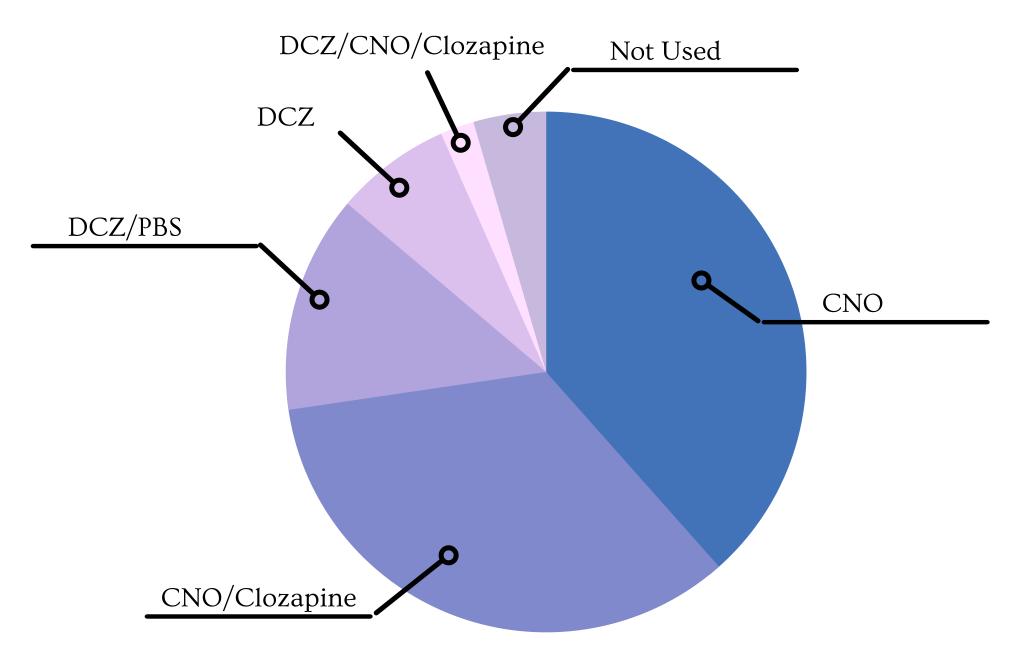


Vector popularity plot

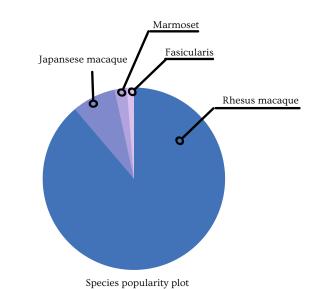


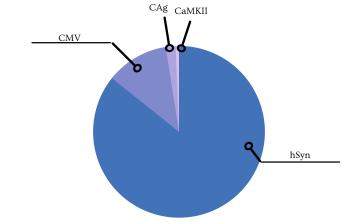
Reporter popularity plot

### Results

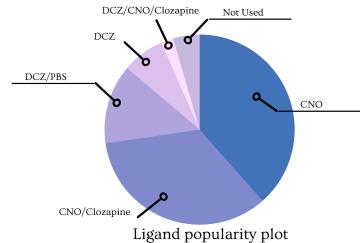


Ligand popularity plot



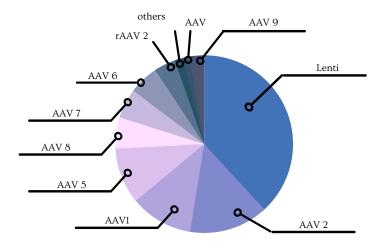


Promoter popularity plot

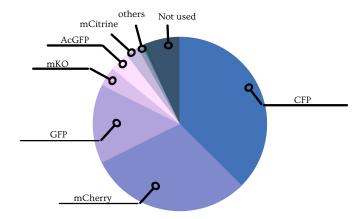




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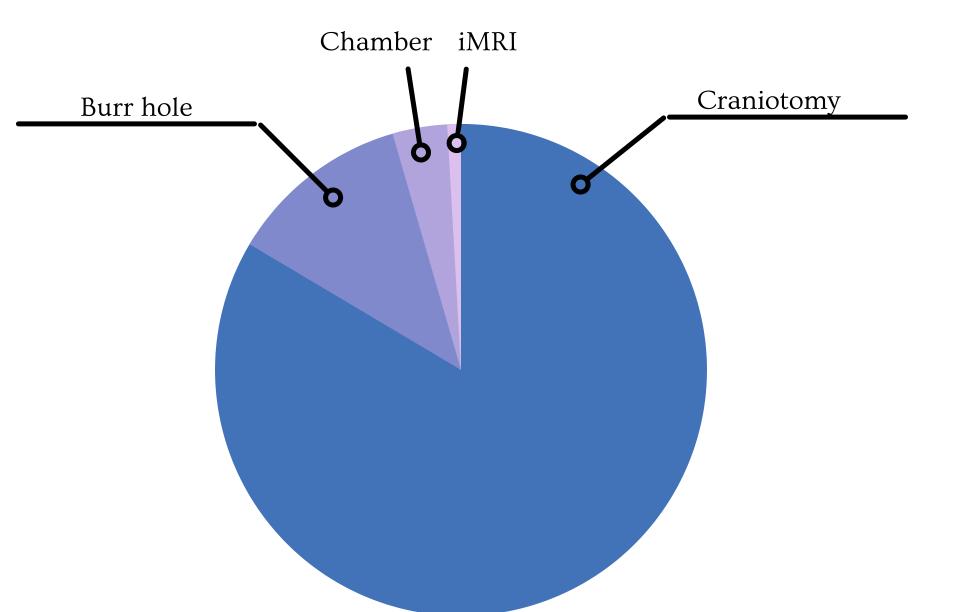


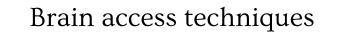
Vector popularity plot

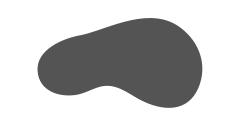


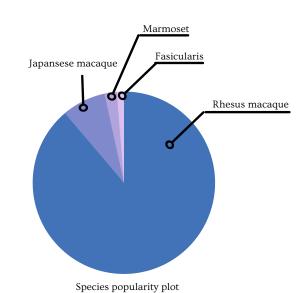
Reporter popularity plot

### Results







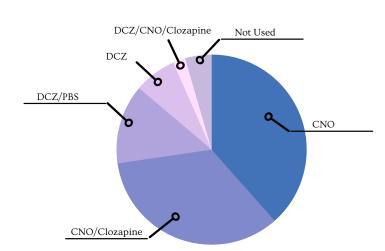


CAG CaMKII

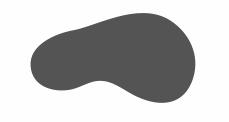
CMV

hSyn

Promoter popularity plot







Depression is a real big problem, constituting 1/6 th of the health related problems





• Current neuroscience needs a quick shift to causational studies for better scientific inferences

## Summary

- Depression is a real big problem, constituting 1/6 th of the health related problems
- Current neuroscience needs a quick shift to causational studies for better scientific inferences
- Chemogenetic manipulations is a booming technique to undersatnd the functioning of the brain in awake animals

## Summary

- Depression is a real big problem, constituting 1/6 th of the health related problems
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- Chemogenetic manipulations is a booming technique to undersatnd the functioning of the brain in awake animals
- To assist future experiments we have come up with an open resource consisting of all DREADD related experiments.

### Summary

- Depression is a real big problem, constituting 1/6 th of the health related problems
- Current neuroscience needs a quick shift to causational studies for better scientific inferences
- Chemogenetic manipulations is a booming technique to undersatnd the functioning of the brain in awake animals
- To assist future experiments we have come up with an open resource consisting of all DREADD related experiments.
- As the next step, we intend to invite labs working on DREADDs to contribute in our database and help the scientific community to improve.