

11/6/67

~~*** Idea ***~~

1) Get dividing neurons in vitro by fusing (cell hybrid) neurons + growing cell line via UV irradiated Sendai or Paramyxin type 3 viruses.

Need purified fusion factor from virus

- a) Also try in vivo
 - 1) Asiate tumor + Neuron this in peritoneal cavity
 - 2) Same as 1)
 - 3) In vitro

b) Assay or select for line until can ~~do~~

1) Still synthesize ^{secret} neurotransmitters. function still intact.

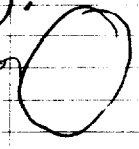
2) Still react to neurotransmitters. Receptor function intact

ultimately 3) still synthesize 1 cell type or 2 cell types

+ 2) Use UV irradiated Sendai to fuse synaptic ^{secret} terminals. Get functional circuit. Build diff kinds of circuits using diff purified preps.

3) Isolate ^{preparation} kind of neuron. Fuse cells (core).

- 1) Look for very large cells (synthesizing).
- 2) What is max size of synapse possible.



3) ~~Selective techniques, Neural Function~~

No selection, Many doses

- 1) Produce neurotoxins. Excrete
- 2) ACholase, Hays Chol. Esterase in agar. (Made black spots of cholinesterase)
- Dye, Turn color due to acid production when hydrolyzed

2) Form colonies. - Morphology

3) Uptake Neurotoxins.
a) Hormones are present

4) Replica plate (or use 2 other agar plates)
of neurons. 1) Tetracycline
2) Streptomycin

Use filter paper under agar. Remove paper after doses grow. Paper will pick up diffused hormones.

5) Thin part of culture - Neurotoxin

3) Make colored Neurons ^{for easy tracing} Fuse with pigmented cell line. Retinal pigment cells in culture.
Melanoma

a) Use ^{microinjection} technique but cells very dilute. Add certain fluorescent which will get inside.

7) Ret Blood Cells (red cells but large) + Neurons.

4) Have electrodes ^{at fixed sites} in large wounds + Neurons + Virus.
(2) Dye in small wounds. Uptake dye.

Metals for fixing cells to stable sites which are monitored.

5) Try Embryonic Neuroblasts ^{in culture} + Cells + Virus