

11/6/67

~~*** Idea ***~~

Need purified
fused from virus

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

- a) Also try in vivo
- 1) Ascites tumor + Neuron this in peritoneal cavity
 - 2) Bone marrow
 - 3) In vitro

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

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

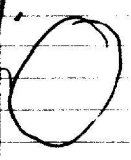
2) Still react to neurotransmitters. Receptor function intact

Ultimate 3) Still synthesize 1 cell type or 2 cell types

+ 2) Use UV irradiated Sendai to fuse synaptic terminals. Get functional circuitry. Build diff kinds of circuits using diff purified preps.

3) Isolate ^{pre-synaptic} kind of neuron. Fuse cells (core).

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



3) ~~Selective techniques~~ Neural Function

No selection, Many drugs

1) Produce neurotoxicity. Excrete

2)

1) ACholase, High Chd. Esterase in
organ. (Make black spots of choline
Acetyl). Dye, Turn color due to
acid production when hydrolyzed

2) Form colonies. - Morphology

3) Uptake Neurotoxins.
a) Hormones and neurotransmitters

4) Replica plate (orange 2 thin agar plates)
of neurons. Sensitive to antibiotics

1) Tetracycline

2) Streptomycin

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

5) Thin part of culture - Neurotoxicity

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

a) Use viral technique but cells very dilute. Add certain fluorescent antibody which will get inside.

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

4) Have electrodes at fixed sites
Have electrodes in large wounds + Neurons + Virus.
(2) Dry in small wounds. Uptake of dye.

Metal for fixing cells to stable sites which are monitored.

5) Try Embryonic Neuroblasts + Cells + Virus