

11/21/68

Very Good Research Problems

Idea

Neurobiology

Reference: Physiol. Science, 59, 340 (1968)

1) Protein output of cells. Cerebellum

1) Tech. for measuring output of neurons

1) Rate (spikes) \pm ~~input~~ stimulus

2) " release of particulate protein

\pm stim or neurohormones or GABA (inhibitor)

~~don't~~

~~Quant: Is ~~the~~ neuron permeable to Ca^{2+} or Na^{+} dependent on rate of spikes formation?~~

~~3) Is synthesis or release of ~~protein~~ membrane by affected by various systems?~~

1) Polypeptide

2) Norepinephrine, carbamate proteins

3) Specific of diff proteins for diff neurons?

~~4) Investigating specificity of protein for diff cell types~~

PRINTED IN U.S.A. ... ADDISON-WESLEY PUBL.

5) Control should be inhibited by diff systems, so cell-cell contact should exist for protein or polysaccharide

extended a) Hyaluronic acid
molecules, chondroitin
etc.

Glycins
NGF
Phytohemagglutinin
Potassium

a) Effects of macromolecules on

DNA exp
RNA exp
Protein
Respiration

* 6) Get paper on effects of phytohemagglutinin for stem cell stage

7) Adaptability of small molecules, stem or inhib of protein?
Glycins
HA
neurones

~~8) Do agents which block neurones
any effect on peripheral neurones?
Block peripheral neurones? Drugs, HA etc~~

9) another taken into cell?

10) Effect interference on K⁺ mobility
(input sign of neuron)
neuron membrane junction

~~11) Add to protein of the membrane~~
muscle junction which
effects dependent muscle
control ~~of~~

~~12) Identical membranes of synapse~~
require. ~~At diff. will~~
diff kinds of synapses.

Control any inputs under
release

Membrane subject in synapse
as well as small release.

13) Effect of GABA on permeability
of neurons.

~~14) Do neurotransmitters affect receptors~~
~~cells at sites other than dendrites?~~
1) permeability, ~~receptors~~

ASS. A-W Date/Time 6: 10PLY

~~1) ...~~
~~2) ...~~
~~3) ...~~
 ... will have ...
 ...
 1) ...
 2) cell ...
 3) Different

1) Phy ...
 ...
 15) Use cell ...
 ...
 1) Cell ...
 2) Div ...
 ...
 ...
 ...

16) Does ...
 ...
 ...

17) Effect of ...
 ...
 ...
 ...
 ...

~~# 10)~~ Effect of lectin ~~from~~ ^{from} (horse) ~~cells~~

on reagent ^{1) Optic}
fibers ^{2) Dyeing cells}

Use Protein synthet to map reagent
boundaries
1) Labels on filament system
Degraded in cell but not released
Acfluorine, etc

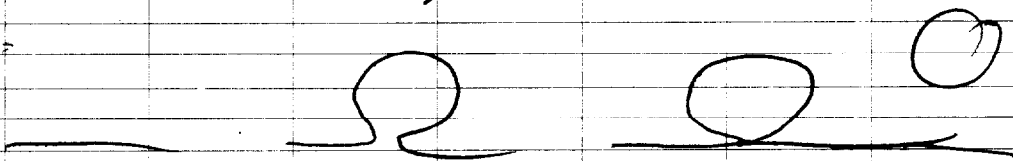
~~# 10)~~ ~~Micro~~ ~~particles~~, see Ed
Korn.
~~Use magnetic particles coated~~
~~with lectin etc.~~

10) Localization of adsorbed
molecules
or specific
regarding adsorption on the
cells? Do reagents remain
distributed on cell surface?
Asymmetry?
Destructive?

11) are agents which block
membrane activity on surface
of cell or another structure
into cell & system etc.

12) ~~It~~ small molecules into
vesicles via Pore in
membrane.

~~It~~ a) any small molecule
in vesicle membrane
takes up also?



13) ~~is~~ mainly formed stiff at a corner
then elsewhere on cell surface.

14) Pumping H₂O₂ from
periplasm. Does it allow
uptake of ~~water~~ 'spontaneously'
2) H₂O₂
3) ATP etc.

#ATP Hoop

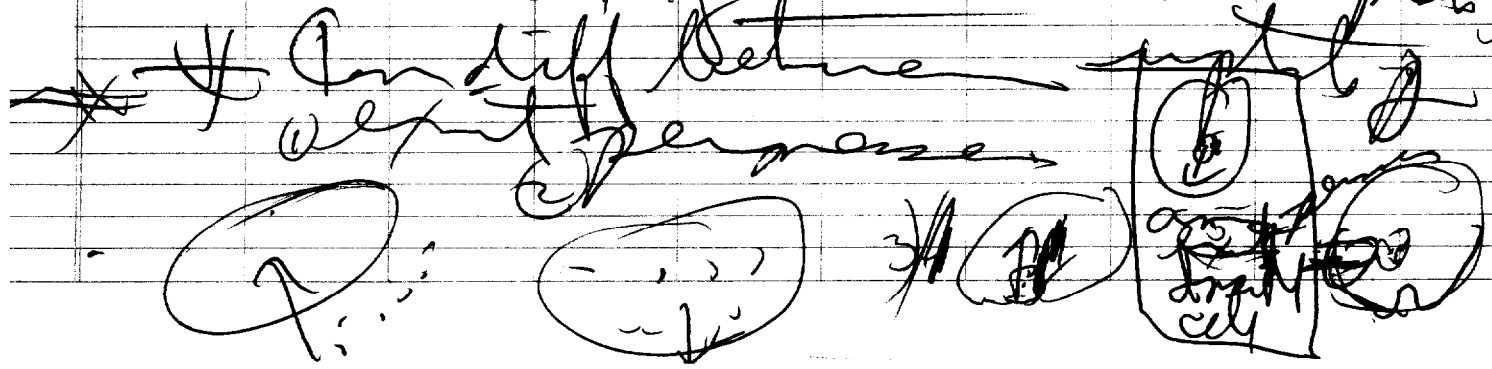
~~*) Unrepaired granules have
any effect on synthesis of
organelles at other regions
of cell? or after other cells~~

- ~~*) Repeat to 1) cells~~
- ~~2) Vesicles~~
- ~~3) Synthesomes~~

~~*) (14) will plasmids come
to cell fusion~~

17) Does U Seraphin move after
vesicles formation?

18) Are empty granules in vesicles
released by some mechanism?



Q 9) Do vesicles deliver exactly
 like cell perenns? ~~concentrated~~

- 1) all cell perenns present
- 2) blue
- 3) H₂O

Specific?

Q 10) Are perenns in vesicles
 present in all parts
 of cell surface?

1) ~~How~~ ~~do~~ ~~vesicles~~ ~~del~~ ~~iver~~ ~~any~~ ~~of~~ ~~these~~
~~vesicles~~ ~~del~~ ~~iver~~ ~~any~~ ~~of~~ ~~these~~
 vesicles in all parts
 present, any diff in
 kind?

Q 11) Maybe a vesicle or dendrite
 can produce special vesicles
 for transporting other material
 from one part to another. Or maybe
 vesicles are formed in other
 parts of cell. Maybe this is not induced

INC. READ

~~The format of paper based
 of different boards, exams
 to table, use philosophy
 or could even about
components~~

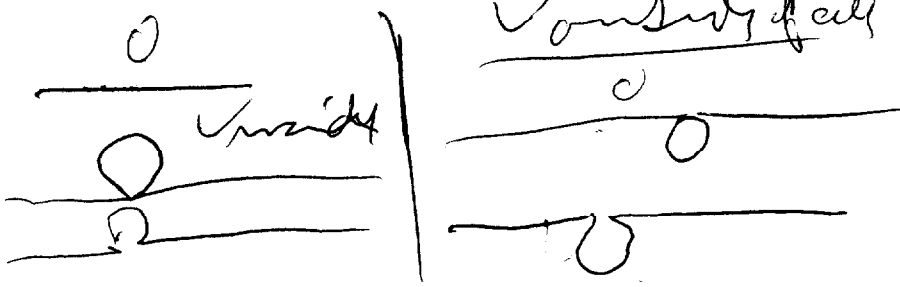
My view for muscle :

22) type is more vesicle
syn than syn

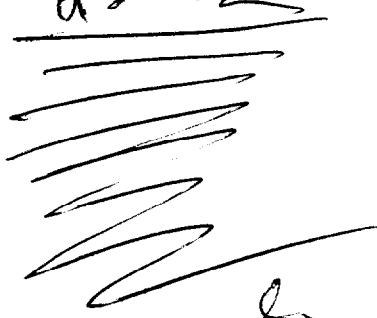
Identify just etc in vesicle
 These may be just which
are needed for 1) Vesicle from
of cell

2) from outside
cell

23) Are vesicles formed inside cell
 or they are formed outside cell
outside cell formed



~~24)~~ Idea Family specific cells.



- 1) ~~Synaptotaxin~~
- 3) Vesicles.

by forming very dense ^{or boyant} patches stained with ~~polymer~~ polymer which is taken up into axonal vesicles (or not specific cell)

~~25)~~

absent where is present both of great interest, formed from outside (or inside) myeloid, large & small vesicles with ~~membrane~~.

axonal localization

- 2) Fleumer
- 3) Diff. refraction index
- 3) Refraction
- 4) Inert balls
- 3) Balls disperse & dense ^{stain} or ~~membrane~~ Bacterial