

ICM6012: Cellular and Molecular Neuroscience

Academic year 2015-2016

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1

Nicholls JG. From neuron to brain. 5th ed. Sunderland, Mass.: Sinauer Associates 2012.

2

Nicholls JG. From neuron to brain. 4th ed. Sunderland, Mass., U.S.A.: Sinauer Associates 2001.

3

Kandel ER, Schwartz JH, Jessell TM. Principles of neural science. 4th ed. New York: McGraw-Hill, Health Professions Division 2000.

4

Kandel ER, Schwartz JH, Jessell TM. Principles of neural science. 4th ed. New York: McGraw-Hill, Health Professions Division 2000.

5

Levitan IB, Kaczmarek LK. The neuron: cell and molecular biology. 3rd ed. New York: Oxford University Press 2002.

6

Purves D, Augustine, George J, Fitzpatrick D, et al. Neuroscience. 5th ed. Sunderland,

Mass: : Sinauer Associates 2012.

7

Hille B. Ion channels of excitable membranes. 3rd ed. Sunderland, Mass: : Sinauer 2001.

8

Shepherd GM. The synaptic organization of the brain. 4th ed. New York: : Oxford University Press 1998.

9

The discovery of the neuron | Mo Costandi.
<https://neurophilosophy.wordpress.com/2006/08/29/the-discovery-of-the-neuron/>

10

Nociceptive and thermoreceptive lamina I neurons are anatomically distinct.
http://www.nature.com/neuro/journal/v1/n3/pdf/nn0798_218.pdf#page=1&zoom=auto,-73,792

11

Sabbatini, R.M.E.: Neurons and Synapses: The History.
http://www.cerebromente.org.br/n17/history/neurons1_i.htm

12

Buhl, Halasy & Somogyi (1994) Diverse sources of hippocampal unitary inhibitory postsynaptic potentials and the number of synaptic release sites. Nature 368: 823-828.
<http://www.nature.com.ezproxy.library.qmul.ac.uk/nature/journal/v368/n6474/pdf/368823a0.pdf>

13

Nicoll, RA (1994) Cajal's rational psychology. *Nature* 368: 808 (View on Buhl et al paper).
<http://www.nature.com.ezproxy.library.qmul.ac.uk/nature/journal/v368/n6474/pdf/368808a0.pdf>

14

Kandel ER, Markram H, Matthews PM, et al. Neuroscience thinks big (and collaboratively). *Nature Reviews Neuroscience* 2013; **14**:659–64. doi:10.1038/nrn3578

15

A technicolour approach to the connectome.
<http://www.nature.com.ezproxy.library.qmul.ac.uk/nrn/journal/v9/n6/pdf/nrn2391.pdf>

16

Theodore H. Bullock, Michael V. L. Bennett, Daniel Johnston, Robert Josephson, Eve Marder and R. Douglas Fields. The Neuron Doctrine, Redux. *Science* 2005; **310**:791–3. http://www.jstor.org.ezproxy.library.qmul.ac.uk/stable/3842746?pq-origsite=summary&seq=1#page_scan_tab_contents

17

Targeting glia cells: novel perspectives for the treatment of neuropsychiatric diseases.
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3637671/pdf/CN-11-171.pdf>

18

Integrated Brain Circuits: Astrocytic networks modulate neuronal activity and behavior.
<http://www.annualreviews.org.ezproxy.library.qmul.ac.uk/doi/pdf/10.1146/annurev-physiol-021909-135843>

19

Nicchitta, Christopher. Endoplasmic Reticulum, Protein Synthesis and Translocation Machinery. *The Endoplasmic Reticulum: Fundamentals and Role in Disease* Published Online First: 2007. http://hstalks.com/main/view_talk.php?t=97&r=17&c=252

20

Byrne JH, Roberts JL. From molecules to networks: an introduction to cellular and molecular neuroscience. 2nd ed. Amsterdam: : Academic Press/Elsevier 2009.
<http://catdir.loc.gov/catdir/toc/ecip0823/2008029618.html>

21

Role of Axonal Transport in Neurodegenerative Diseases -
annurev.neuro.31.061307.090711.
<http://www.annualreviews.org/doi/pdf/10.1146/annurev.neuro.31.061307.090711>

22

Nicchitta, Christopher. Endoplasmic Reticulum, Protein Synthesis and Translocation Machinery. The Endoplasmic Reticulum: Fundamentals and Role in Disease Published Online First: 2007.http://hstalks.com/main/view_talk.php?t=97&r=17&c=252

23

Synaptic Vesicle Exocytosis.
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3225952/pdf/cshperspect-SYP-a005637.pdf>

24

Axonal transport deficits and neurodegenerative diseases - *nnr3380.pdf.*
<http://www.nature.com/nrn/journal/v14/n3/pdf/nrn3380.pdf>

25

Connor JA, Stevens CF. Prediction of repetitive firing behaviour from voltage clamp data on an isolated neurone soma. *The Journal of Physiology;213*
[.http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1331721/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1331721/)

26

Baker MD, Chandra SY, Ding Y, et al. GTP-induced tetrodotoxin-resistant Na⁺ current regulates excitability in mouse and rat small diameter sensory neurones. *The Journal of Physiology* 2003;**548**:373-82. doi:10.1111/j.1469-7793.2003.00373.x

27

Nassar MA, Stirling LC, Forlani G, et al. Nociceptor-specific gene deletion reveals a major role for Nav1.7 (PN1) in acute and inflammatory pain. *Proceedings of the National Academy of Sciences* 2004; **101**:12706–11. doi:10.1073/pnas.0404915101

28

Fertleman CR, Baker MD, Parker KA, et al. SCN9A Mutations in Paroxysmal Extreme Pain Disorder: Allelic Variants Underlie Distinct Channel Defects and Phenotypes. *Neuron* 2006; **52**:767–74. doi:10.1016/j.neuron.2006.10.006

29

Catterall WA, Yu FH. Painful Channels. *Neuron* 2006; **52**:743–4. doi:10.1016/j.neuron.2006.11.017

30

Cox JJ, Reimann F, Nicholas AK, et al. An SCN9A channelopathy causes congenital inability to experience pain. *Nature* 2006; **444**:894–8. doi:10.1038/nature05413

31

O'Keefe J, Dostrovsky J. The hippocampus as a spatial map. Preliminary evidence from unit activity in the freely-moving rat. *Brain Research* 1971; **34**:171–5. doi:10.1016/0006-8993(71)90358-1

32

O'Keefe J. Place units in the hippocampus of the freely moving rat. *Experimental Neurology* 1976; **51**:78–109. doi:10.1016/0014-4886(76)90055-8

33

Marianne Fyhn, Sturla Molden, Menno P. Witter, Edvard I. Moser and May-Britt Moser. Spatial Representation in the Entorhinal Cortex. *Science* 2004; **305**

:1258-64.[http://ezproxy.library.qmul.ac.uk/login?url=http://www.jstor.org/stable/3837659?
pq-origsite=summon&seq=1#page_scan_tab_contents](http://ezproxy.library.qmul.ac.uk/login?url=http://www.jstor.org/stable/3837659?pq-origsite=summon&seq=1#page_scan_tab_contents)

34

Nakazawa K, McHugh TJ, Wilson MA, et al. NMDA receptors, place cells and hippocampal spatial memory. *Nature Reviews Neuroscience* 2004;**5**:361-72. doi:10.1038/nrn1385

35

Constitutive and induced neurogenesis in the adult mammalian brain: manipulation of endogenous precursors toward CNS repair. - PubMed - NCBI.
<http://www.ncbi.nlm.nih.gov/pubmed/15711054>

36

Klein C, Fishell G. Neural Stem Cells: Progenitors or Panacea? *Developmental Neuroscience* 2004;**26**:82-92. doi:10.1159/000082129

37

Richardson WDD, Pringle NP, Yu W-P, et al. Origins of Spinal Cord Oligodendrocytes: Possible Developmental and Evolutionary Relationships with Motor Neurons. *Developmental Neuroscience* 1997;**19**:58-68. doi:10.1159/000111186

38

Stern CD. Neural induction: old problem, new findings, yet more questions. *Development* 2005;**132**:2007-21. doi:10.1242/dev.01794