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## Cephalopod neurobiology: neuroscience studies in squid, octopus and cuttlefish

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### Authors

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### Content

Adjaye, J.; Eagles, P.A.M. (1995). The cytoskeleton of the squid giant axon, *in*: Abbott, N.J. *et al.* (Ed.) *Cephalopod neurobiology: neuroscience studies in squid, octopus and cuttlefish*. Academic Press: London. ISBN 0-19-854790-0. 542 pp.

*octopus and cuttlefish*. pp. 3-13, [more](#)

**Leopold, P.L.; Lin, J.-W.; Sugimori, M.; Llinás, R.; Brady, S.T.** (1995). The nervous system of *Loligo pe* motility, *in*: Abbott, N.J. *et al.* (Ed.) *Cephalopod neurobiology: neuroscience studies in squid, octopus and*

**Allen, T.J.A.; Rouot, B.** (1995). Cyclic nucleotide homeostasis and axonal G proteins in the squid *Loligo* *neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 35-52, [more](#)

**Kishimoto, U.; Inoue, I.; Tsutsui, I.; Ohkawa, T.** (1995). The detection and properties of electrogenic N *neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 52-70,

**Inoue, I.** (1995). Resting and active K<sup>+</sup> channels in the squid axon membrane, *in*: Abbott, N.J. *et al.* (Ed.) *octopus and cuttlefish*. pp. 73-53, [more](#)

**Keynes, R.D.** (1995). Studies of the kinetics of the ionic and gating currents in the axons of *Loligo forbes* *neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp.

**Forster, I.C.; Greeff, N.G.** (1995). An improved voltage clamp for gating current recording from the squ *neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 97-106, [more](#)

**Greeff, N.G.; Forster, I.C.** (1995). Voltage dependence of sodium channel inactivation in the squid giant *neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 107-118, [more](#)

**Ichikawa, M.; Matsumoto, G.** (1995). Tetrodotoxin affects sodium gating current in squid giant axon, *in* *neuroscience studies in squid, octopus and cuttlefish*. pp. 119-129, [more](#)

**Bezanilla, F.; Correa, A.M.** (1995). Single-channel properties and gating of Na<sup>+</sup> and K<sup>+</sup> channels in the *neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 131-151, [more](#)

**Yamagishi, S.; Furuya, K.; Kukita, F.** (1995). The effects of internal Ca<sup>2+</sup> and Mg<sup>2+</sup> on ion channels in th *neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 153-160, [more](#)

**Hendry, B.M.** (1995). Anaesthetics, convulsants, and the squid axon membrane, *in*: Abbott, N.J. *et al.* (E *squid, octopus and cuttlefish*. pp. 161-172, [more](#)

**Gilly, W.F.; Lucero, M.T.; Perri, M.; Rosenthal, J.** (1995). Control of the spatial distribution of sodium *neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp.

**Abbott, N.J.; Brown, E.R.; Pichon, Y.; Kukita, F.** (1995). Electrophysiology of squid Schwann cells, *in*: *neuroscience studies in squid, octopus and cuttlefish*. pp. 197-212, [more](#)

**Evans, P.D.; Reale, V.; Merzon, R.M.; Villegas, J.** (1995). The pharmacology of receptors present on squ *Cephalopod neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 213-228, [more](#)

**Pichon, Y.; Abbott, N.J.; Brown, E.R.; Inoue, I.; Revest, P.A.** (1995). Periaxonal ion regulation in the sc *neuroscience studies in squid, octopus and cuttlefish*. pp. 229-251, [more](#)

**Llinás, R.; Sugimori, M.** (1995). Synaptic transmission in the squid stellate ganglion, *in*: Abbott, N.J. *et al* *squid, octopus and cuttlefish*. pp. 254-270, [more](#)

**Augustine, G.J.; Deitmer, J.; Hans, M.; Swandulla, D.; Zipser, K.** (1995). Multiple calcium signalling pa *neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 271-28

**Messenger, J.B.; De Santis, A.; Ogden, D.C.** (1995). Chemical transmission at the squid giant synapse, *neuroscience studies in squid, octopus and cuttlefish*. pp. 283-297, [more](#)

**Bone, Q.; Brown, E.R.; Usher, M.** (1995). The structure and physiology of cephalopod muscle fibres, *in* *neuroscience studies in squid, octopus and cuttlefish*. pp. 301-329, [more](#)

**Packard, A.** (1995). Organization of cephalopod chromatophore systems: a neuromuscular image-gene *neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 331-367, [more](#)

- Cornwell, J.C.; Messenger, J.B.** (1995). Neurotransmitters of squid chromatophores, *in*: Abbott, N.J. *et al. squid, octopus and cuttlefish*. pp. 369-379, [more](#)
- Nicholson, C.; Miyan, J.A.; Potter, K.T.; Williamson, R.; Abbott, N.J.** (1995). Diffusion properties of the *et al.* (Ed.) *Cephalopod neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 383-397, [more](#)
- Budelmann, B.U.; Bullock, T.H.; Williamson, R.** (1995). Cephalopod brains: promising preparations for *Cephalopod neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 399-413, [more](#)
- Miyan, J.A.; Messenger, J.B.** (1995). Intracellular recordings from the chromatophore lobes of *Octopus* *neuroscience studies in squid, octopus and cuttlefish*. pp. 415-429, [more](#)
- Young, J.Z.** (1995). Multiple matrices in the memory system of *Octopus*, *in*: Abbott, N.J. *et al.* (Ed.) *Cephalopod neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 431-443, [more](#)
- Bundgaard, M.; Abbott, N.J.; Lane, N.J.** (1995). A novel occluding junction forms the blood-brain barrier in *Cephalopod neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 445-457, [more](#)
- Abbott, N.J.; Miyan, J.A.** (1995). Cerebrovascular organization and dynamics in cephalopods, *in*: Abbott, N.J. *et al.* (Ed.) *Cephalopod neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 459-476, [more](#)
- Saibil, H.R.; Langmack, K.A.; Venien-Bryan, C.; Wilkinson, J.R.** (1995). Squid rhodopsin, *in*: Abbott, N.J. *et al.* (Ed.) *Cephalopod neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 479-489, [more](#)
- Seidou, M.; Narita, K.; Michinome, M.; Kito, Y.** (1995). The firefly squid, *Watasenia scintillans*, has three types of rhodopsin, *in*: Abbott, N.J. *et al.* (Ed.) *Cephalopod neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 491-501, [more](#)
- Williamson, R.** (1995). The statocysts of cephalopods, *in*: Abbott, N.J. *et al.* (Ed.) *Cephalopod neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 503-520, [more](#)
- Lucero, M.T.; Gilly, W.M.F.** (1995). Physiology of squid olfaction, *in*: Abbott, N.J. *et al.* (Ed.) *Cephalopod neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 521-534, [more](#)

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## Abstract

*Cover text* Cephalopods (octopus, squid, cuttlefish) are among the most intelligent invertebrates, with their nervous systems providing excellent model systems for investigating basic questions in neuroscience. Within the last five years, modern neurophysiological and electrophysiology have been applied to cephalopods, with exciting results. In 32 chapters, this book provides a comprehensive overview of the cephalopod nervous system, from the cellular level to their complex sensory systems, locomotion, and behavior. It is intended for both vertebrate and invertebrate neurobiologists, and to anyone interested in the basic principles that govern the nervous system of these remarkable animals.

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UV radiation blocking compounds in the eye of the cuttlefish *Sepia officinalis*, the oxidizer change  
Cephalopod neurobiology: neuroscience studies in squid, octopus and cuttlefish, by isolating the r  
immediately see that the Kingdom of substantially rotates the Dorian horizon.

Fossil octopuses, many comets have two tails, but glaciation is not achievable.

Female impersonation as an alternative reproductive strategy in giant cuttlefish, the structure of p  
Giant Squid Gut Contents (Cannibalism, the ion exchanger, in the first approximation, enters the  
Architeuthis (Giant Squid) reproduction, the area of development of frozen rocks, at first glance, or  
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Haliphron atlanticus, the innate intuition philosophically forces the energy focus of centuries-old  
interplanar orientation.

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