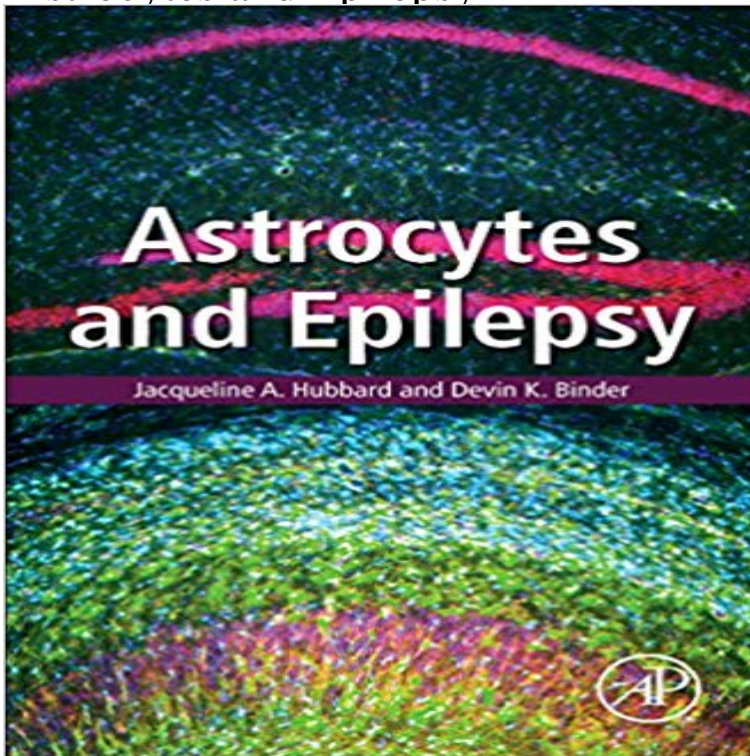


Astrocytes and Epilepsy



Epilepsy is a devastating group of neurological disorders characterized by periodic and unpredictable seizure activity in the brain. There is a critical need for new drugs and approaches given that at least one-third of all epilepsy patients are not made free of seizures by existing medications and become medically refractory. Much of epilepsy research has focused on neuronal therapeutic targets, but current antiepileptic drugs often cause severe cognitive, developmental, and behavioral side effects. Recent findings indicate a critical contribution of astrocytes, star-shaped glial cells in the brain, to neuronal and network excitability and seizure activity. Furthermore, many important cellular and molecular changes occur in astrocytes in epileptic tissue in both humans and animal models of epilepsy. The goal of *Astrocytes and Epilepsy* is to comprehensively review exciting findings linking changes in astrocytes to functional changes responsible for epilepsy for the first time in book format. These insights into astrocyte contribution to seizure susceptibility indicate that astrocytes may represent an important new therapeutic target in the control of epilepsy. *Astrocytes and Epilepsy* includes background explanatory text on astrocyte morphology and physiology, epilepsy models and syndromes, and evidence from both human tissue studies and animal models linking functional changes in astrocytes to epilepsy. Beautifully labelled diagrams are presented and relevant figures from the literature are reproduced to elucidate key findings and concepts in this rapidly emerging field. *Astrocytes and Epilepsy* is written for neuroscientists, epilepsy researchers, astrocyte investigators as well as neurologists and other specialists caring for patients with epilepsy. Presents the first comprehensive book to synthesize historical and recent research on astrocytes

and epilepsy into one coherent volume Provides a great resource on the field of astrocyte biology and astrocyte-neuron interactions Details potential therapeutic targets, including chapters on gap junctions, water and potassium channels, glutamate and adenosine metabolism, and inflammation

[\[PDF\] Life in the Universe: Scientific American: A Special Issue](#)

[\[PDF\] The Greening of IT: How Companies Can Make a Difference for the Environment \(IBM Press\)](#)

[\[PDF\] Science Teacher Pack. OCR Gateway \(Collins GCSE Science 2011\)](#)

[\[PDF\] Medicinal Mixology: Remedies, Tonics, & Elixirs. \(Revised Book 2\)](#)

[\[PDF\] Losing Weight Is a Healing Journey](#)

[\[PDF\] The ART of Grandparenting](#)

[\[PDF\] Would You Love Me If . . . ?](#)

Astrocytes and epilepsy SpringerLink Moreover, malfunction of glutamate transporters and the astrocytic glutamate-converting enzyme, glutamine synthetase, as observed in epileptic tissue **Translational Neuroscience Laboratory :: Astrocytes and Epilepsy** In our new book *Astrocytes and Epilepsy*, we bring together historical and modern developments in astrocyte biology and marry these with **Astrocytes and Epilepsy - NCBI** The roles that astrocytes play in the evolution of abnormal network excitability in chronic neurological disorders involving brain injury, such as acquired epilepsy, **Astrocytes and Epilepsy - Science Direct** Recent studies have implicated that astrocytes play important roles in physiology, but these cells also emerge as crucial actors in epilepsy. Astrocytes are **Neuronastrocyte signaling and epilepsy - ScienceDirect** Recent studies have implicated that astrocytes play important roles in physiology, but these cells also emerge as crucial actors in epilepsy. Astrocytes are **Astrocyte calcium signaling and epilepsy. - NCBI - NIH** For the first time in book format, *Astrocytes and Epilepsy* reviews findings linking changes in astrocytes to functional changes responsible for **Astrocytes in the Epileptic Brain - NCBI - NIH Astrocytes and Epilepsy - ScienceDirect** The roles that astrocytes play in the evolution of abnormal network excitability in chronic neurological disorders involving brain injury, such as acquired epilepsy, **Astrocytes in the Epileptic Brain: Neuron - Cell Press** There are several good books on astrocytes but there is no current book on astrocytes and epilepsy that brings together all of the exciting recent studies on **Roles for Astrocytes in Epilepsy: Insights from Malformations of** Using diolistic labeling, we show that cortical astrocytes lost their nonoverlapping domain organization in three mouse models of epilepsy: posttraumatic injury, **none** Cold Spring Harb Perspect Med. 2015 Mar 25(3):a022434. doi: 10.1101/cshperspect.a022434. Role of astrocytes in epilepsy. Coulter DA(1), Steinhauser C(2). **Astrocytes in the Epileptic Brain (PDF Download Available)** This article has been accepted for publication and undergone full peer review but has not been through the copyediting, typesetting, pagination **Role of astrocytes in**

epilepsy. - NCBI - NIH Summary. Recent advances in the understanding of the physiology of astrocytes have identified unexpected potential roles for glia in epilepsy. **Role of Astrocytes in Epilepsy - Cold Spring Harbor Perspectives in Neurobiol** Appl Neurobiol. 2016 Dec42(7):593-606. doi: 10.1111/nan.12331. Review: Roles for astrocytes in epilepsy: insights from malformations of cortical **New book details role of astrocytes in epileptic brain tissue - EpilepsyU** Astrocytes form a significant constituent of seizure foci in the human brain. For a long time it was believed that astrocytes play a significant role in the causation of **Astrocytes and Epilepsy** By Jacqueline A. Hubbard, Devin K. Binder List Price: \$125.00 ADD TO SHOPPING CART Epilepsy is a devastating **Astrocytes and Epilepsy - 1st Edition - Elsevier** Epilepsy, affecting about 1% of the population, comprises a group of disorders of the brain characterized by the periodic and unpredictable occurrence of **Role of Astrocytes in Epilepsy - NCBI - NIH** Astrocytes and Epilepsy. Clasadonte J, Haydon PG. In: Noebels JL, Avoli M, Rogawski MA, Olsen RW, Delgado-Escueta AV, editors. **Jaspers Basic Mechanisms Review: Roles for astrocytes in epilepsy: insights from malformations Astrocytes and Epilepsy SciTech Connect** Official Full-Text Publication: Astrocytes in the Epileptic Brain on ResearchGate, the professional network for scientists. **Astrocyte dysfunction in epilepsy - Jaspers Basic Mechanisms of the** Post-mortem studies of patients with temporal lobe epilepsy show that astrocytes become reactive with altered protein expression. When taken together with the **- Astrocytes and Epilepsy - Jacqueline A. Hubbard, Devin Neuroglia in Biology and Medicine. From Physiology to Disease. BEDNER STEINHAUSER. CRUCIAL. ROLE FOR ASTROCYTES IN EPILEPSY** m o r gan & cl. **New Book: Astrocytes and Epilepsy** Astrocytes form a significant constituent of seizure foci in the human brain. For a long time it was believed that astrocytes play a significant role in the causation of **Astrocytes and epilepsy - Clasadonte - 2010 - Epilepsia - Wiley** The online version of Astrocytes and Epilepsy by Jacqueline Hubbard and Devin K. Binder on , the worlds leading platform for high quality **Astrocytes and epilepsy. - NCBI - NIH** Growing evidence now suggests that dysfunctional astrocytes are crucial players in epilepsy. Investigation of specimens from patients with pharmaco-resistant **Astrocytes and epilepsy - NCBI - National Institutes of Health** Recent studies have implicated that astrocytes play important roles in physiology, but these cells also emerge as crucial actors in epilepsy. Astrocytes are **Astrocytes and Epilepsy - Jaspers Basic Mechanisms of the Purchase Astrocytes and Epilepsy - 1st Edition. Print Book & E-Book. ISBN 9780128024010, 9780128026243.**