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In This Issue

Forskolin Is Protective in a Mouse Model of Murine Cerebral Amyloidosis

Ayissi Owona et al demonstrate beneficial behavioral and neuropathological effects of treatment with the adenylate cyclase activator forskolin in the APP/PS1 mouse model of cerebral amyloidosis. Their findings indicate that forskolin has neuroprotective effects and may be a promising drug in the treatment of patients with Alzheimer disease.

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Unexpected Associations of Grains in Old People

Argyrophilic grain disease (AGD) is a common neurodegenerative process in old age that does not discriminate on the basis of gender or race, and does not depend on cardiocirculatory risk factors. Rodriguez et al found, however, that lower socio-economic status and appetite disorders are associated with higher risk of diagnosing AGD at autopsy.

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"Headbanging" Has Long-Term Consequences

Mice with a human tau genetic background exposed to repetitive concussive-type injury over several months underwent behavioral and *in vivo* measures as well as detailed neuropathological assessments. The results support the relevance of this new mild traumatic injury model to study this phenomenon further and determine the roles of tau in this type of injury.

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What Happens When Your Vessels Get Hammered

The mechanisms underlying the pathogenesis of chronic traumatic encephalopathy (CTE) remain incompletely understood. Doherty et al report that CTE is associated with disruption of endothelial tight junctions in blood vessels that are surrounded by dense accumulation of phosphorylated tau. Based on these observations, they propose that trauma-induced disruption of the blood-brain barrier promotes CTE pathogenesis.

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A Final Common Pathway for Cerebellar Pathology in Multiple System Atrophy (MSA)

Cerebellar ataxia is the most common presentation in MSA patients with coenzyme Q10 deficiency associated with *COQ2* mutations. Barca et al find coenzyme Q10 deficits in the cerebellum of patients without *COQ2* mutations suggesting that this is a common pathway and a drugable target.

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Focal Cerebral Ischemia Results in Distant Bilateral Spinal Cord Pathology

As an extension of previous studies that showed evidence of blood-brain barrier disruption contralateral to experimental cerebral ischemia, that is, "transhemispheric diaschisis," Garbuzova-Davis et al studied the effects of experimental focal cerebral ischemia on the spinal cord in rats. They found bilateral changes in spinal cord parenchyma and microvasculature by Evans blue dye assay, electron microscopy, and immunohistochemistry at both 7 and 30 days post-ischemia. They conclude that these changes represent the effects of blood-spinal cord barrier (BSCB) disruption at remote sites and suggest that these findings should be considered in therapeutic approaches to stroke.

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Saccular Aneurysms: Defective Lipid Clearance May Raise Risk of Rupture

Rupture of saccular intracranial artery aneurysms causes intracranial hemorrhages that are associated with high mortality. Ollikainen et al studied the association of lipid accumulation, macrophage infiltration, and apolipoprotein A-I expression in human aneurysms. Their findings suggest that defective macrophage lipid clearance may contribute to the risk of rupture.

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Man's Best Friend Attacks Human Glioma

Dickinson et al report strikingly similar genetic aberrations in dog and human gliomas. They found that major signaling pathways altered in human gliomas are also the predominant pathways altered in canine gliomas, and that loss of chromosome segments syntenic to human 1p are characteristic of oligodendrogliomas in dogs. This landmark paper underscores the tremendous potential of canine spontaneous gliomas as a model for increasing our understanding of human glioma biology and as the likely most relevant animal model for preclinical therapeutic studies.

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