



Cover image: Ostriches in the Namib desert run compulsively ahead of cars even when there is no clear beneficial goal, but occasionally they stop to evaluate the situation. How people arbitrate between habitual and goal-directed actions is considered in. *Brain.* 2024; 147(6):2230–2244. (Image courtesy of Ammar Al-Chalabi).

Contents

Editorial

- Beyond ventral and dorsal streams: thalamo-cortical connections for subcortical language integration**
D. Saur
1927

Scientific Commentaries

- The brain's arbitration system and obsessive-compulsive disorder**

T. W. Robbins
1929

- Targeting excitatory:inhibitory network imbalance in Alzheimer's disease**

D. Blum and S. Levi
1931

- The implications of amyloid- β pathology: only time will tell**

E. M. Coomans and R. Ossenkoppele
1934

Review Articles

- The basal forebrain cholinergic system as target for cell replacement therapy in Parkinson's disease**
A. Björklund and R. A. Barker
1937

- A neuroanatomical and cognitive model of impaired social behaviour in frontotemporal dementia**

M. A. Rouse, R. J. Binney, K. Patterson, J. B. Rowe and M. A. Lambon Ralph
1953

Reports

- Digenic Leigh syndrome on the background of the m.11778G>A Leber hereditary optic neuropathy variant**

B. Blickhäuser, S. L. Stenton, C. M. Neuhofer, E. Floride, V. Nesbitt, C. Fratter, J. Koch, B. Kauffmann, C. Catarino, L. D. Schlieben, R. Kopajtich, V. Carelli, A. A. Sadun, R. McFarland, F. Fang, C. La Morgia, S. Paquay, M. C. Nassogne, D. Ghezzi, C. Lamperti, S. Wortmann, J. Poulton, T. Klopstock and H. Prokisch
1967

- Lesion network of oculogyric crises maps to brain dopaminergic transcriptomic signature**

B. Al-Fatly, C. Neudorfer, D. Kaski, A. E. Lang, A. A. Kühn, M. D. Fox, A. Horn and C. Ganos
1975

Original Articles

- Broadening the clinical spectrum: molecular mechanisms and new phenotypes of ANO3-dystonia**

J. Ousingsawat, K. Talbi, H. Gómez-Martín, A. Koy, A. Fernández-Jaén, H. Tekgül, E. Serdaroglu, R. Schreiber, J. D. Ortigoza-Escobar and K. Kunzelmann
1982



- Genetic analysis and natural history of Parkinson's disease due to the LRRK2 G2019S variant**
M. J. Kmiecik, S. Micheletti, D. Coker, K. Heilbron, J. Shi, K. Stagaman, T. Filshtein Sonmez, P. Fontanillas, S. Shringarpure, M. Wetzel, H. M. Rowbotham, P. Cannon, J. F. Shelton, D. A. Hinds, J. Y. Tung, 23andMe Research Team, M. V. Holmes, S. Aslibekyan and L. Norcliffe-Kaufmann
- 1996**
Huntington's disease affects mitochondrial network dynamics predisposing to pathogenic mitochondrial DNA mutations
A. Neueder, K. Kojer, Z. Gu, Y. Wang, T. Hering, S. Tabrizi, J.-W. Taanman and M. Orth
- 2009**
Neurodevelopmental and synaptic defects in DNAJC6 parkinsonism, amenable to gene therapy
L. Abela, L. Gianfrancesco, E. Tagliatti, G. Rossignoli, K. Barwick, C. Zourray, K. M. Reid, D. Budinger, J. Ng, J. Counsell, A. Simpson, T. S. Pearson, S. Edvardson, O. Elpeleg, F. M. Brodsky, G. Lignani, S. Barral and M. A. Kurian
- 2023**
Motor network gamma oscillations in chronic home recordings predict dyskinesia in Parkinson's disease
M. Olaru, S. Cernera, A. Hahn, T. A. Wozny, J. Anso, C. de Hemptinne, S. Little, W.-J. Neumann, R. Abbasi-Asl and P. A. Starr
- 2038**
Mitigation of TDP-43 toxic phenotype by an RGNEF fragment in amyotrophic lateral sclerosis models
C. A. Dropelmann, D. Campos-Melo, V. Noches, C. McLellan, R. Szabla, T. A. Lyons, H. Amzil, B. Withers, B. Kaplanis, K. S. Sonkar, A. Simon, E. Buratti, M. Junop, J. M. Kramer and M. J. Strong
- 2053**
Imbalanced mitochondrial dynamics contributes to the pathogenesis of X-linked adrenoleukodystrophy
N. Launay, J. Lopez-Erauskin, P. Bianchi, S. Guha, J. Parameswaran, A. Coppa, L. Torreni, A. Schlüter, S. Fourcade, A. J. Paredes-Fuentes, R. Artuch, C. Casasnovas, M. Ruiz and A. Pujol
- 2069**
Neuropathy target esterase activity defines phenotypes among PNPLA6 disorders
J. Liu, Y. He, C. Lwin, M. Han, B. Guan, A. Naik, C. Bender, N. Moore, L. A. Huryn, Y. V. Sergeev, H. Qian, Y. Zeng, L. Dong, P. Liu, J. Lei, C. J. Haugen, L. Prasov, R. Shi, H. Dollfus, P. Aristodemou, Y. Laich, A. H. Németh, J. Taylor, S. Downes, M. R. Krawczynski, I. Meunier, M. Strassberg, J. Tenney, J. Gao, M. A. Shear, A. T. Moore, J. L. Duncan, B. Menendez, S. Hull, A. L. Vincent, C. E. Siskind, E. I. Traboulisi, C. Blackstone, R. A. Sisk, V. Miraldi Utz, A. R. Webster, M. Michaelides, G. Arno, M. Synofzik and R. B. Hufnagel
- 2085**
Toxic effects of mutant huntingtin in axons are mediated by its proline-rich domain
S. T. Brady, N. A. Mesnard-Hoaglin, S. Mays, M. Priego, J. Dziechciowska, S. Morris, M. Kang, M. Y. Tsai, J. L. Purks, A. Klein, A. Gaona, A. Melloni, T. Connors, B. Hyman, Y. Song and G. A. Morfini
- 2098**
Morc2a variants cause hydroxyl radical-mediated neuropathy and are rescued by restoring GHKL ATPase
H. Y. Chung, G. S. Lee, S. H. Nam, J. H. Lee, J. P. Han, S. Song, G.-D. Kim, C. Jung, D. Y. Hyeon, D. Hwang, B.-O. Choi and S. C. Yeom
- 2114**
Maf1 loss regulates spinogenesis and attenuates cognitive impairment in Alzheimer's disease
Y. Han, K. Chen, H. Yu, C. Cui, H. Li, Y. Hu, B. Zhang and G. Li
- 2128**
Characterizing brain tau and cognitive decline along the amyloid timeline in Alzheimer's disease
K. A. Cody, R. E. Langhough, M. D. Zammit, L. Clark, N. Chin, B. T. Christian, T. J. Betthauser and S. C. Johnson
- 2144**
Plasma VEGFA and PGF impact longitudinal tau and cognition in preclinical Alzheimer's disease
H.-S. Yang, W.-Y. W. Yau, B. C. Carlyle, B. A. Trombetta, C. Zhang, Z. Shirzadi, A. P. Schultz, J. J. Pruzin, C. D. Fitzpatrick, D. R. Kirn, J. S. Rabin, R. F. Buckley, T. J. Hohman, D. M. Rentz, R. E. Tanzi, K. A. Johnson, R. A. Sperling, S. E. Arnold and J. P. Chhatwal
- 2158**
Seizures exacerbate excitatory/inhibitory imbalance in Alzheimer's disease and 5XFAD mice
A. J. Barbour, S. Gourmaud, E. Lancaster, X. Li, D. A. Stewart, K. F. Hoag, D. J. Irwin, D. M. Talos and F. E. Jensen
- 2169**
Disease-linked mutations in Munc18-1 deplete synaptic Doc2
N. G. L. Guiberson, L. S. Black, J. E. Haller, A. Brukner, D. Abramov, S. Ahmad, Y. X. Xie, M. Sharma and J. Burré
- 2185**
Localization of stuttering based on causal brain lesions
C. Theys, E. Jaakkola, T. R. Melzer, L. F. De Nil, F. H. Guenther, A. L. Cohen, M. D. Fox and J. Joutsa
- 2203**
Macroscopic changes in aquaporin-4 underlie blast traumatic brain injury-related impairment in glymphatic function
M. Braun, M. Sevao, S. A. Keil, E. Gino, M. X. Wang, J. Lee, M. A. Haveliwala, E. Klein, S. Agarwal, T. Pedersen, C. H. Rhodes, D. Jansson, D. Cook, E. Peskind, D. P. Perl, J. Piantino, A. G. Schindler and J. J. Iliff
- 2214**

Neurocomputational model of compulsivity: deviating from an uncertain goal-directed system

T. Kim, S. W. Lee, S. K. Lho, S.-Y. Moon, M. Kim and J. S. Kwon

2230

Multimodal study of multilevel pulvino-temporal connections: a new piece in the puzzle of lexical retrieval networks

I. L. Maldonado, M. Descoteaux, F. Rheault, I. Zemmoura, A. Benn, D. Margulies, A. Boré, H. Duffau and E. Mandonnet

2245