



Cover image: Police cordon holding back Beatles fans outside the London Pavillion at the premiere of "Let It Be" (1970), illustrating the concept of inhibitory restraint around a seizure focus. See Shimoda et al. "Extracellular glutamate and GABA transients at the transition from interictal spiking to seizures". *Brain*. 2024; 147(3):1011-1024.

Contents

Editorial

A mountain of small things

M. Husain
739

Essay

Would you believe your own consciousness?

R. Fesce, J. Ursell and P. Taylor
740

Scientific Commentaries

A machine learning approach for gene prioritization in Parkinson's disease

A. Lanore, A. Basset and S. Lesage
743

Cortical microstructural imaging from diffusion MRI: towards sensitive biomarkers for clinical trials

E. Rodriguez-Vieitez, P. Vannini, V. Montal and C. Graff
746

Deep brain stimulation: a tale of two targets ... and closing the loop

L. Zrinzo
749

Graphs and the idiographic brain

M. S. Elmalem, P. Nachev and A. Jha
752

Review Articles

Glioma-associated mesenchymal stem cells

Q.-m. Kang, J. Wang, S.-m. Chen, S.-r. Song and S.-c. Yu
755

Neural stem cell therapies for spinal cord injury repair: an update on recent preclinical and clinical advances

S. M. Hosseini, B. Borys and S. Karimi-Abdolrezaee
766

The prefrontal cortex: from monkey to man

R. Levy
794

Amidst an amygdala renaissance in Alzheimer's disease

K. M. Stouffer, X. Grande, E. Düzel, M. Johansson, B. Creese, M. P. Witter, M. I. Miller, L. E. M. Wisse and D. Berron
816



Update

Dengue virus infection and neurological manifestations: an update

S.-L. Fong, K.-T. Wong and C.-T. Tan

830

Report

Cell-binding IgM in CSF is distinctive of multiple sclerosis and targets the iron transporter SCARA5

I. Callegari, J. Oechtering, M. Schneider, S. Perriot, A. Mathias, M. M. Voortman, A. Cagol, U. Lanner, M. Diebold, S. Holdermann, V. Kreiner, B. Becher, C. Granziera, A. Junker, R. Du Pasquier, M. Khalil, J. Kuhle, L. Kappos, N. S. R. Sanderson and T. Derfuss

839

Clinical Trial

Vortioxetine for the treatment of post-COVID-19 condition: a randomized controlled trial

R. S. McIntyre, L. Phan, A. T. H. Kwan, R. B. Mansur, J. D. Rosenblat, Z. Guo, G. H. Le, L. M. W. Lui, K. M. Teopiz, F. Ceban, Y. Lee, J. Bailey, R. Ramachandra, J. Di Vincenzo, S. Badulescu, H. Gill, P. Drzadzewski and M. Subramaniapillai

849

Original Articles

Pleiotropy with sex-specific traits reveals genetic aspects of sex differences in Parkinson's disease

K. Nordengen, C. Cappelletti, S. Bahrami, O. Frei, L. Pihlström, S. P. Henriksen, H. Geut, A. J. M. Rozemuller, W. D. J. van de Berg, O. A. Andreassen and M. Toft

858

Clinical severity in Parkinson's disease is determined by decline in cortical compensation

M. E. Johansson, I. Toni, R. P. C. Kessels, B. R. Bloem and R. C. Helmich

871

Machine learning nominates the inositol pathway and novel genes in Parkinson's disease

E. Yu, R. Larivière, R. A. Thomas, L. Liu, K. Senkevich, S. Rahayel, J.-F. Trempe, E. A. Fon and Z. Gan-Or

887

Cholinergic innervation topography in GBA-associated *de novo* Parkinson's disease patients

S. Slingerland, S. van der Zee, G. Carli, A. C. Slomp, J. M. Boertien, E. d'Angremont, N. I. Bohnen, R. L. Albin and T. van Laar

900

At home adaptive dual target deep brain stimulation in Parkinson's disease with proportional control

S. L. Schmidt, A. H. Chowdhury, K. T. Mitchell, J. J. Peters, Q. Gao, H.-J. Lee, K. Genty, S.-C. Chow, W. M. Grill, M. Pajic and D. A. Turner

911

Neuroinflammation is linked to dementia risk in Parkinson's disease

A. Kouli, L. R. B. Spindler, T. D. Fryer, Y. T. Hong, M. Malpetti, F. I. Aigbirhio, S. R. White, M. Camacho, J. T. O'Brien and C. H. Williams-Gray

923

Longitudinal associations of serum biomarkers with early cognitive, amyloid and grey matter changes

S. De Meyer, E. R. Blujdea, J. Schaeverbeke, M. Reinartz, E. S. Luckett, K. Adamczuk, K. Van Laere, P. Dupont, C. E. Teunissen, R. Vandenberghe and K. Poesen

936

Interactions between vascular burden and amyloid- β pathology on trajectories of tau accumulation

E. M. Coomans, D. van Westen, A. P. Binette, O. Strandberg, N. Spotorno, G. E. Serrano, T. G. Beach, S. Palmqvist, E. Stomrud, R. Ossenkoppele and O. Hansson

949

Diffusion MRI tracks cortical microstructural changes during the early stages of Alzheimer's disease

N. Spotorno, O. Strandberg, E. Stomrud, S. Janelidze, K. Blennow, M. Nilsson, D. van Westen and O. Hansson

961

Elevated 4R tau contributes to endolysosomal dysfunction and neurodegeneration in VCP-related frontotemporal dementia

C. Hung and R. Patani

970

Synthesizing images of tau pathology from cross-modal neuroimaging using deep learning

J. Lee, B. J. Burkett, H.-K. Min, M. L. Senjem, E. Dicks, N. Corriveau-Lecavalier, C. T. Mester, H. J. Wiste, E. S. Lundt, M. E. Murray, A. T. Nguyen, R. R. Reichard, H. Botha, J. Graff-Radford, L. R. Barnard, J. L. Gunter, C. G. Schwarz, K. Kantarci, D. S. Knopman, B. F. Boeve, V. J. Lowe, R. C. Petersen, C. R. Jack Jr and D. T. Jones

980

Grey matter heterotopia subtypes show specific morpho-electric signatures and network dynamics

J.-C. Vermoyal, D. Hardy, L. Goirand-Lopez, A. Vinck, L. Silvagnoli, A. Fortoul, F. Francis, S. Cappello, I. Bureau, A. Represa, C. Cardoso, F. Watrin, T. Marissal and J.-B. Manent

996

Extracellular glutamate and GABA transients at the transition from interictal spiking to seizures

Y. Shimoda, M. Leite, R. T. Graham, J. S. Marvin, J. Hasseman, I. Kolb, L. L. Looger, V. Magloire and D. M. Kullmann

1011

Role of pattern recognition receptors in chemotherapy-induced neuropathic pain

D. Araldi, E. V. Khomula, I. J. M. Bonet, O. Bogen, P. G. Green and J. D. Levine

1025

Sustained OMA1-mediated integrated stress response is beneficial for spastic ataxia type 5

C. A. Franchino, M. Brughera, V. Baderna, D. De Ritis, A. Rocco, S. Seneca, L. Regal, P. Podini, M. D'Antonio, C. Toro, A. Quattrini, E. Scalais and F. Maltecca

1043

Continued dysfunction of capillary pericytes promotes no-reflow after experimental stroke in vivo

J. J. Shrouder, G. M. Calandra, S. Filser, D. P. Varga, S. Besson-Girard, U. Mamrak, M. Dorok, B. Bulut-Impraim, F. B. Seker, B. Gesierich, F. Laredo, A. C. Wehn, I. Khalin, P. Bayer, A. Liesz, O. Gokce and N. Plesnila

1057

Extracellular vesicle biomarkers for complement dysfunction in schizophrenia

T. Xue, W. Liu, L. Wang, Y. Shi, Y. Hu, J. Yang, G. Li, H. Huang and D. Cui

1075

Multimodal layer modelling reveals in vivo pathology in amyotrophic lateral sclerosis

A. Northall, J. Doehler, M. Weber, I. Tellez, S. Petri, J. Prudlo, S. Vielhaber, S. Schreiber and E. Kuehn

1087

Integrating direct electrical brain stimulation with the human connectome

L. Coletta, P. Avesani, L. Zigiotta, M. Venturini, L. Annicchiarico, L. Vavassori, S. Ng, H. Duffau and S. Sarubbo

1100

Letters to the Editor

Neuromelanin? MRI of catecholaminergic neurons

T. Watanabe

e24

Reply: Neuromelanin? MRI of catecholaminergic neurons

P. Trujillo, M. A. Aumann and D. O. Claassen

e27