

Extracting the dynamics of perceptual switching from 'noisy' behaviour: An application of hidden Markov modelling to pecking data from pigeons

Otterpohl, J. R., Haynes, J. D., Emmert-Streib, F., Vetter, G. & Pawelzik, K., 2000, In : *Journal of Physiology: Paris*. 94, 5-6, p. 555-567 13 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Erratum: Extracting the dynamics of perceptual switching from 'noisy' behaviour: An application of hidden Markov modelling to pecking data from pigeons (*Journal of Physiology Paris (2000) 94:5-6 (555-567) PII: S0928425700010950*)

Otterpohl, J. R., Haynes, J. D., Emmert-Streib, F., Vetter, G. & Pawelzik, K., 2001, In : *Journal of Physiology: Paris*. 95, 1-6, p. 497 1 p.

Research output: Contribution to journal › Article › Scientific › peer-review

A constrained HMM-based approach to the estimation of perceptual switching dynamics in pigeons

Otterpohl, J. R., Emmert-Streib, F. & Pawelzik, K., Jun 2001, In : *Neurocomputing*. 38-40, p. 1495-1501 7 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Influence of the neural network topology on the learning dynamics

Emmert-Streib, F., May 2006, In : *Neurocomputing*. 69, 10-12, p. 1179-1182 4 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Neural networks, cell cultures and some older work on data analysis.

Acimovic, J., 15 Jun 2009.

Research output: Other conference contribution › Paper, poster or abstract › Scientific

Computational tools for assessing the properties of 2D neural cell cultures

Acimovic, J., Teppola, H., Selinummi, J. J. & Linne, M-L., 13 Jul 2009, *Eighteenth Annual Computational Neuroscience Meeting: CNS*2009*. Johnson, D. (ed.). Berlin: BioMed Central, Vol. 10 (Suppl 1). p. P170 1 p. P170

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Computational modeling of growth in cortical cultures using the NETMORPH simulation tool

Acimovic, J., Mäki-Marttunen, T. & Linne, M-L., 2010, *Neuroscience 2010, 40th Annual Meeting, San Diego, USA, 13-17 November 2010*. p. 2 p

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Computational study of structural changes in neuronal networks during growth: a model of dissociated neocortical cultures

Acimovic, J., Mäki-Marttunen, T. & Linne, M-L., 2011, *Twentieth Annual Computational Neuroscience Meeting: CNS*2011*. Fellous, J-M. & Prinz, A. (eds.). Stockholm: BioMed Central, Vol. 12 (Suppl 1). p. P203 1 p. P203. (Annual Computational Neuroscience Meeting CNS; vol. 12).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Neuromuscular pathology in mice lacking alpha-synuclein

Pelkonen, A. & Yavich, L., 10 Jan 2011, In : *Neuroscience Letters*. 487, 3, p. 350-353 4 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Fault tolerant machine learning for nanoscale cognitive radio

Pajarinen, J., Peltonen, J. & Uusitalo, M. A., Feb 2011, In : *Neurocomputing*. 74, 5, p. 753-764 12 p.

Research output: Contribution to journal › Article › Scientific › peer-review

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Malmivaara, K., Ohman, J., Kivisaari, R., Hernesniemi, J. & Siironen, J., Mar 2011, In : *European Journal of Neurology*. 18, 3, p. 402-409 8 p.

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Effects of structure on spontaneous activity in simulated neuronal networks

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Disease-associated inflammatory biomarker profiles in blood in different subtypes of multiple sclerosis: Prospective clinical and MRI follow-up study

Hagman, S., Raunio, M., Rossi, M., Dastidar, P. & Elovaara, I., May 2011, In : JOURNAL OF NEUROIMMUNOLOGY. 234, 1-2, p. 141-147 7 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Mesopic background lights enhance dark-adapted cone ERG flash responses in the intact mouse retina: A possible role for gap junctional decoupling

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Research output: Contribution to journal › Article › Scientific › peer-review

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

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Sharma, V., Dixit, D., Ghosh, S. & Sen, E., Oct 2011, In : NEUROCHEMISTRY INTERNATIONAL. 59, 5, p. 567-571 5 p.

Research output: Contribution to journal › Article › Scientific › peer-review

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Špakov, O., 2012, *Proceedings - ETRA 2012: Eye Tracking Research and Applications Symposium*. p. 281-284 4 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Simple gaze gestures and the closure of the eyes as an interaction technique

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

The effect of different text presentation formats on eye movement metrics in reading

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The validity of using non-representative users in gaze communication research

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Cortical spreading depression in alpha-synuclein knockout mice

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Research output: Contribution to journal > Article > Scientific > peer-review

Inhibition of Casein kinase-2 induces p53-dependent cell cycle arrest and sensitizes glioblastoma cells to tumor necrosis factor (TNF α)-induced apoptosis through SIRT1 inhibition

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Research output: Contribution to journal > Article > Scientific > peer-review

Significance of graph theoretic measures in predicting neuronal network activity

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Neuroprotective effect of RO-20-1724-a phosphodiesterase4 inhibitor against intracerebroventricular streptozotocin induced cognitive deficit and oxidative stress in rats

Sharma, V., Bala, A., Deshmukh, R., Bedi, K. L. & Sharma, P. L., Apr 2012, In : PHARMACOLOGY BIOCHEMISTRY AND BEHAVIOR. 101, 2, p. 239-245 7 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Melatonin pathway genes are associated with progressive subtypes and disability status in multiple sclerosis among Finnish patients

Natarajan, R., Einarsdottir, E., Riutta, A., Hagman, S., Raunio, M., Mononen, N., Lehtimäki, T. & Elovaara, I., 15 Sep 2012, In : JOURNAL OF NEUROIMMUNOLOGY. 250, 1-2, p. 106-110 5 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Extensive white matter changes predict stroke recurrence up to 5 years after a first-ever ischemic stroke

Melkas, S., Sibolt, G., Oksala, N. K. J., Putaala, J., Pohjasvaara, T., Kaste, M., Karhunen, P. J. & Erkinjuntti, T., Oct 2012, In : CEREBROVASCULAR DISEASES. 34, 3, p. 191-198 8 p.

Research output: Contribution to journal > Article > Scientific > peer-review

In silico study on structure and dynamics in bursting neuronal networks

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Mortality by clinical characteristics in a tertiary care cohort of adult patients with chronic epilepsy

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Research output: Contribution to journal > Article > Scientific > peer-review

Disconnection between periodic leg movements and cortical arousals in spinal cord injury

Salminen, A. V., Manconi, M., Rimpilä, V., Luoto, T. M., Koskinen, E., Ferri, R., Öhman, J. & Polo, O., 2013, In : JOURNAL OF CLINICAL SLEEP MEDICINE. 9, 11, p. 1207-1209 3 p.

Research output: Contribution to journal > Article > Scientific > peer-review

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Research output: Contribution to journal > Article > Scientific > peer-review

Fluorescent probes as a tool for cell population tracking in spontaneously active neural networks derived from human pluripotent stem cells

Mäkinen, M., Joki, T., Ylä-Outinen, L., Skottman, H., Narkilahti, S. & Äänismaa, R., Apr 2013, In : Journal of Neuroscience Methods. 215, 1, p. 88-96 9 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Mismatch negativity abnormality in traumatic brain injury without macroscopic lesions on conventional MRI

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Research output: Contribution to journal > Article > Scientific > peer-review

On the effect of network structure and synaptic mechanisms on sustained bursting activity

Mäki-Marttunen, T. M., Acimovic, J., Ruohonen, K. P. & Linne, M-L., 8 Jul 2013, *Twenty Second Annual Computational Neuroscience Meeting: CNS*2013*. Cymbalyuk, G. & Prinz, A. (eds.). Paris, France: BioMed Central, Vol. Volume 14 Suppl 1. p. P247 1 p.
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

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Research output: Contribution to journal > Article > Scientific > peer-review

Effects of exogenous alpha-synuclein on stimulated dopamine overflow in dorsal striatum

Pelkonen, A., Kallunki, P. & Yavich, L., 25 Oct 2013, In : *Neuroscience Letters*. 554, p. 141-145 5 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Post-stroke depression and depression-executive dysfunction syndrome are associated with recurrence of ischaemic stroke

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Research output: Contribution to journal > Article > Scientific > peer-review

Learning sparse representations for view-independent human action recognition based on fuzzy distances

Iosifidis, A., Tefas, A. & Pitas, I., 9 Dec 2013, In : *Neurocomputing*. 121, p. 344-353 10 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Comparison of stapedotomy minus prosthesis, circumferential stapes mobilization, and small fenestra stapedotomy for stapes fixation

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Haptic feedback to gaze events

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Look and lean: Accurate head-assisted eye pointing

Špakov, O., Isokoski, P. & Majaranta, P., 2014, *Proceedings of the Symposium on Eye Tracking Research and Applications, ETRA 2014*. Association for Computing Machinery, p. 35-42 8 p.
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Origins and functional consequences of somatic mitochondrial DNA mutations in human cancer

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

TraQuMe: A tool for measuring the gaze tracking quality

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Immediate effects of deep brain stimulation of anterior thalamic nuclei on executive functions and emotion-attention interaction in humans

Hartikainen, K. M., Sun, L., Polvivaara, M., Brause, M., Lehtimäki, K., Haapasalo, J., Möttönen, T., Väyrynen, K., Ogawa, K. H., Öhman, J. & Peltola, J., 28 May 2014, In : *JOURNAL OF CLINICAL AND EXPERIMENTAL NEUROPSYCHOLOGY*. 36, 5, p. 540-550 11 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Autoimmunity-related immunological serum markers and survival in a tertiary care cohort of adult patients with epilepsy

Nevalainen, O., Auvinen, A., Ansakorpi, H., Raitanen, J. & Isojärvi, J., 1 Nov 2014, In : *EPILEPSY RESEARCH*. 108, 9, p. 1675-1679 5 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Regularized extreme learning machine for multi-view semi-supervised action recognition

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Research output: Contribution to journal > Article > Scientific > peer-review

Defining the anterior nucleus of the thalamus (ANT) as a deep brain stimulation target in refractory epilepsy: Delineation using 3 T MRI and intraoperative microelectrode recording

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Research output: Contribution to journal > Article > Scientific > peer-review

Effects of cytokine activation and oxidative stress on the function of the human embryonic stem cell-derived retinal pigment epithelial cells

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Research output: Contribution to journal > Article > Scientific > peer-review

Extreme learning machine based supervised subspace learning

Iosifidis, A., 2015, In : *Neurocomputing*. 167, p. 158-164 7 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Patient-specific induced pluripotent stem cell-derived RPE cells: Understanding the pathogenesis of retinopathy in long-chain 3-hydroxyacyl-CoA dehydrogenase deficiency

Polinati, P. P., Ilmarinen, T., Trokovic, R., Hytylainen, T., Otonkoski, T., Suomalainen, A., Skottman, H. & Tyniina, T., 2015, In : *Investigative Ophthalmology and Visual Science*. 56, 5, p. 3371-3382 12 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Analysis of apoptosis-related genes in patients with clinically isolated syndrome and their association with conversion to multiple sclerosis

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Research output: Contribution to journal > Article > Scientific > peer-review

Podocyte apoptosis is prevented by blocking the Toll-like receptor pathway

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Standardized evaluation of algorithms for computer-aided diagnosis of dementia based on structural MRI: The CADDementia challenge

Bron, E. E., Smits, M., van der Flier, W. M., Vrenken, H., Barkhof, F., Scheltens, P., Papma, J. M., Steketee, R. M. E., Méndez Orellana, C., Meijboom, R., Pinto, M., Meireles, J. R., Garrett, C., Bastos-Leite, A. J., Abdulkadir, A., Ronneberger, O., Amoroso, N., Bellotti, R., Cárdenas-Peña, D., Álvarez-Meza, A. M., Dolph, C. V., Iftekharuddin, K. M., Eskildsen, S. F., Coupé, P., Fonov, V. S., Franke, K., Gaser, C., Ledig, C., Guerrero, R., Tong, T., Gray, K. R., Moradi, E., Tohka, J., Routier, A., Durrleman, S., Sarica, A., Di Fatta, G., Sensi, F., Chincarini, A., Smith, G. M., Stoyanov, Z. V., Sørensen, L., Nielsen, M., Tangaro, S., Inglese, P., Wachinger, C., Reuter, M., van Swieten, J. C., Niessen, W. J. & Klein, S., 1 May 2015, In : *NeuroImage*. 111, p. 562-579 18 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Experiments of the sonification of the sleep electroencephalogram

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Research output: Contribution to journal › Article › Scientific › peer-review

The effects of neuron morphology on graph theoretic measures of network connectivity: The analysis of a two-level statistical model

Acimovic, J., Mäki-Marttunen, T. & Linne, M-L., 10 Jun 2015, In : *Frontiers in Neuroanatomy*. 9, June, 76.

Research output: Contribution to journal › Article › Scientific › peer-review

Association between soluble L-selectin and anti-JCV antibodies in natalizumab-treated relapsing-remitting MS patients

Basnyat, P., Hagman, S., Kolasa, M., Koivisto, K., Verkkoniemi-Ahola, A., Airas, L. & Elovaara, I., 1 Jul 2015, In : *Multiple Sclerosis and Related Disorders*. 4, 4, p. 334-338 5 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Evaluation of the different sleep-disordered breathing patterns of the compressed tracheal sound

Tenhunen, M., Huupponen, E., Hasan, J., Heino, O. & Himanen, S. L., 1 Aug 2015, In : *Clinical Neurophysiology*. 126, 8, p. 1557-1563 7 p.

Research output: Contribution to journal › Article › Scientific › peer-review

X-ray microtomographic confirmation of the reliability of CBCT in identifying the scalar location of cochlear implant electrode after round window insertion

Zou, J., Hannula, M., Lehto, K., Feng, H., Lähelmä, J., Aula, A. S., Hyttinen, J. & Pyykkö, I., 1 Aug 2015, In : *Hearing Research*. 326, p. 59-65 7 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Distance-based human action recognition using optimized class representations

Iosifidis, A., Tefas, A. & Pitas, I., 5 Aug 2015, In : *Neurocomputing*. 161, p. 47-55 9 p.

Research output: Contribution to journal › Article › Scientific › peer-review

DropELM: Fast neural network regularization with Dropout and DropConnect

Iosifidis, A., Tefas, A. & Pitas, I., 25 Aug 2015, In : *Neurocomputing*. 162, p. 57-66 10 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Building new computational models to support health behavior change and maintenance: new opportunities in behavioral research

Spruijt-Metz, D., Hekler, E., Saranummi, N., Intille, S., Korhonen, I., Nilsen, W., Rivera, D. E., Spring, B., Michie, S., Asch, D. A., Sanna, A., Salcedo, V. T., Kukakfa, R. & Pavel, M., 17 Sep 2015, In : *Translational Behavioral Medicine*. 5, 3, p. 335-346 12 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Elevated levels of soluble CD26 and CD30 in multiple sclerosis

Basnyat, P., Natarajan, R., Vistbakka, J., Lehtikangas, M., Airas, L., Matinlauri, I., Elovaara, I. & Hagman, S., 1 Nov 2015, In : *Clinical and Experimental Neuroimmunology*. 6, 4, p. 419-425 7 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Human anterior thalamic nuclei are involved in emotion-attention interaction

Sun, L., Peräkylä, J., Polvivaara, M., Öhman, J., Peltola, J., Lehtimäki, K., Huhtala, H. & Hartikainen, K. M., 1 Nov 2015, In : *NEUROPSYCHOLOGIA*. 78, p. 88-94 7 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Assessment of respiratory effort during sleep with noninvasive techniques

Tenhunen, M., Hasan, J. & Himanen, S. L., 1 Dec 2015, In : *Sleep Medicine Reviews*. 24, p. 103-104 2 p.

Research output: Contribution to journal › Article › Scientific

Eustachian tube mucosal inflammation scale validation based on digital video images

Kivekäs, I., Pöyhönen, L., Aarnisalo, A., Rautiainen, M. & Poe, D., 1 Dec 2015, In : *OTOLOGY AND NEUROLOGY*. 36, 10, p. 1748-1752 5 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Severe cerebral white matter lesions in ischemic stroke patients are associated with less time spent at home and early institutionalization

Sibolt, G., Curtze, S., Melkas, S., Pohjasvaara, T., Kaste, M., Karhunen, P. J., Oksala, N. K. J. & Erkinjuntti, T., 1 Dec 2015, In : *INTERNATIONAL JOURNAL OF STROKE*. 10, 8, p. 1192-1196 5 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Whole-cell morphological properties of neurons constrain the nonrandom features of network connectivity

Acimovic, J., Mäki-Marttunen, T. M. & Linne, M-L., 4 Dec 2015, *24th Annual Computational Neuroscience Meeting: CNS*2015*. Cymbalyuk, G. & Burkitt, A. (eds.). Prague: BioMed Central, Vol. 16 (Suppl 1). p. P:O7 1 p. O7

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Comparison of Feature Selection Techniques in Machine Learning for Anatomical Brain MRI in Dementia

Tohka, J., Moradi, E., Huttunen, H., Alzheimer's Disease Neuroimaging Initiative & Alzheimer's Disease Neuroimaging Initiative 2, 2016, In : *Neuroinformatics*. 14, 3, p. 279-296 18 p.

Research output: Contribution to journal › Article › Scientific › peer-review

How Many Is Enough? Effect of Sample Size in Inter-Subject Correlation Analysis of fMRI

Pajula, J. & Tohka, J., 2016, In : *Computational Intelligence and Neuroscience*. 2016, 2094601.

Research output: Contribution to journal › Article › Scientific › peer-review

Morphological Differentiation Towards Neuronal Phenotype of SH-SY5Y Neuroblastoma Cells by Estradiol, Retinoic Acid and Cholesterol

Teppola, H., Sarkanen, J. R., Jalonen, T. O. & Linne, M-L., 2016, In : *Neurochemical Research*. 41, 4, p. 731-747

Research output: Contribution to journal › Article › Scientific › peer-review

One-Class Classification based on Extreme Learning and Geometric Class Information

Iosifidis, A., Mygdalis, V., Tefas, A. & Pitas, I., 2016, In : *Neural Processing Letters*. p. 1-16 16 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Effect of rhodopsin phosphorylation on dark adaptation in mouse rods

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Advanced boundary electrode modeling for tES and parallel tES/EEG

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Research output: Contribution to journal › Article › Scientific › peer-review

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Calcium Assists Dopamine Release by Preventing Aggregation on the Inner Leaflet of Presynaptic Vesicles

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Research output: Contribution to journal › Article › Scientific › peer-review

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Research output: Contribution to journal › Article › Scientific › peer-review

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Research output: Contribution to journal › Review Article › Scientific › peer-review

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Reduced level of docosahexaenoic acid shifts GPCR neuroreceptors to less ordered membrane regions

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Membrane-Dependent Binding and Entry Mechanism of Dopamine into Its Receptor

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A Computational Model of Interactions Between Neuronal and Astrocytic Networks: The Role of Astrocytes in the Stability of the Neuronal Firing Rate

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Deep audio-visual saliency: Baseline model and data

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Automatic assessment of the myoclonus severity from videos recorded according to standardized Unified Myoclonus Rating Scale protocol and using human pose and body movement analysis

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Assessment of PIV performance in validating CFD models from nasal cavity CBCT scans

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