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RESEARCH GROUPS**

**prof. dr. L. Arckens, prof. dr. E.J. Bellefroid,
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prof. dr. L. Leybaert, prof. dr. J.M. Maloteaux,
prof. dr. P. Maquet**

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VOLUME I

Prof. Dr. L. Arckens

S. CLERENS, W.VAN DEN ENDE, P. VERHEART, L. GEENEN and L.ARCKENS.

Sweet substitute: a software tool for *in silico* fragmentation of peptide-linked N-glycans.

Proteomics, Vol. 4, pp. 629 - 632. **Impact Factor: 5,483.**

L. CNOPS, B. VAN DE PLAS and L. ARCKENS.

Age-dependent expression of collapsin response mediator proteins(CRMPs) in cat visual cortex..

European Journal of Neuroscience, Vol.19, pp.2345 - 2351. **Impact Factor: 3,820.**

I. LEYSEN, E. VAN DER GUCHT, U.T. EYSEL, R. HUYBRECHTS, F.VANDESANDE and L.ARCKENS.

Time-dependent changes in the expression of the MEF2 transcription factor family during topographic map reorganization in mammalian visual cortex..

European Journal of Neuroscience, Vol. 20, pp. 769 – 780. **Impact Factor:3,820.**

Prof. Dr. E.J. Bellefroid

R. VAN WAYENBERGH, V.TAELMAN, B.PICHON, M. SOLTER, T. PIELER, D.CHRISTOPHE and E.J.BELLEFROID.

Sequences downstream of the bHLH domain of the *Xenopus* hairy-related transcription factor-1 act as an extended dimerization domain that contributes to the selection of the partners.

Developmental Dynamics, Vol. 276, pp. 47 – 63. **Impact Factor: 5,558.**

P.PIROT, L.A.VAN GRUNSVEN, J.C.MARINE, D.HUYLEBROECK and E. BELLEFROID.

Direct regulation of the *Nrarp* gene promoter by the notch signalling pathway.

Biochemical and Biophysical Research Communication, Vol 322, pp. 526 – 534.

Impact Factor: 2,946.

Prof. Dr. De Schutter

K.G. CLEAYS, P. DUPONT, L. CORNETTE, S. SUNAERT, P. VAN HECKE, G. ORBAN and Prof.Dr DE SCHUTTER.

Color discrimination involves ventral and dorsal stream visual areas.

Cerebral Cortex, Vol. 14, pp. 803 – 822. **Impact Factor: 5,322.**

Prof. Dr. A.M. Goffinet

Y.JOSSIN, N.IGNATOVA, T. HIESBERGER, C.LAMBERT DE ROUVROIT, and A.M.GOFFINET.

The central fragment of reelin, generated by proteolytic processing *in vivo*, is critical to its function during cortical plate development.

The Journal of Neuroscience, Vol.24, Nr. 4, pp.514 - 521. **Impact Factor: 7,900.**

F. TASSIR, CHUAN-EN WANG and A.M.GOFFINET.

Expression of the chemokine receptor *Cxcr4* mRNA during mouse brain development.

Development Brain Research, Vol. 149, pp.63 - 71. **Impact Factor: 1,850.**

A; KUVBACHIEVA, A-M BESTEL, F. TASSIR, I. MALOUM, N. RAMOZ, F. BOURGEOIS, J-M MOLIAC, M. SIMONNEAU and A.M.GOFFINET.

Identification of a novel brain-specific and reelin-regulated gene that encodes a protein colocalized with synapsin.

European Journal of Neuroscience, Vol. 20, pp. 603 – 610. **Impact Factor: 3,800.**

H.H. BOCK, Y. JOSSIN, P. MAY, O. BERGNER and J. HERZ.

Apolipoprotein E receptors are required for reelin-induced proteasomal degradation of the neuronal adaptor protein *disable-1*.

The Journal of Biological Chemistry, Vol. 279, Nr. 32, pp. 33471 – 33479. **Impact Factor: 6,360.**

Prof. Dr. L.Leybaert

K. BRAET, C.MABILDE, L. CABOOTER, G RAPP and L.LEYBAERT.

Electroporation loading and photoactivation of caged InsP₃: tools to investigate the relation between cellular ATP release in response to intracellular InsP₃ elevation.

Journal of Neuroscience Methods, Vol.132, pp.81 - 89. **Impact Factor: .**

W.VANDAMME, K. BRAET, L. CABOOTER and L.LEYBAERT.

Tumor necrosis factor alpha inhibits purinergic calcium signalling in blood-brain barrier endothelial cells.

Journal of Neurochemistry, Vol. 88, pp. 411 – 421. **Impact Factor: .4,969.**

K. BRAET, L. CABOOTER, K. PAEMELEIRE and L. LEYBAERT.

Calcium signal communication in the central nervous system.

Biology of the Cell, Vol. 96, pp. 79 – 91. **Impact Factor: 2,127.**

K. BRAET, L. CABOOTER and L. LEYBAERT

Calcium signal communication between glial and vascular brain cells.

Acta Neurol. Belg., Vol. 104, pp. 51 – 56. **Impact factor:**

Prof. Dr. J.M. Maloteaux

N.VANHOUTTE, I.DE HEMPTINNE, C.VERMEIREN, E. HERMANS and J.M. MALOTEAUX.

In vitro differentiated neural stem cells express functional glial glutamate transporters.

Neuroscience Letters, Vol.370, pp. 230 - 235. **Impact factor: 1,980.**

M.PEETERS, P.ROMIEU, T.MAURICE, T.-P. SU, E.HERMANS and J.M.MALOTEAUX

Involvement of the sigma₁ receptor in the modulation of dopaminergic transmission by amantadine.

The Journal of Neuroscience, Vol. 19, pp. 2212 - 2220. **Impact factor: 4,200.**

I.DE HEMPTINNE, C.VERMEIREN, J.M.MALOTEAUX and E.HERMANS.

Induction of glial glutamate transporters in adult mesenchymal stem cells.

Journal of Neurochemistry, Vol. 91, pp. 155 - 166. **Impact Factor: 4,900.**

N.PIERROT, P.GHISDAL, A.-S.CAUMONT and J.N.OCTAVE.

Intraneuronal amyloid-β1-42 production triggered by sustained increase of cytosolic calcium concentration induces neuronal death.

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D.PITSI and J.N.OCTAVE.

Presenilin 1 stabilizes the C-terminal fragment of the amyloid precursor protein independently of γ-secretase activity.

The Journal of Biological Chemistry, Vol. 279, Nr. 24, pp. 25333 – 25338. **Impact Factor: 6,360.**

Prof. Dr.P. Maquet

S.LAUREYS, S. ANTOINE, M-E.FAYMONVILLE, J.BERRE, S. ELINCX, P. DAMAS, B.LAMBERMONT, F. DAMAS, N.JANSSENS, C.LEMAIRE, G. DEL FIORE, J.AERTS, A.LUXEN, G.MOONEN, J-L VINCENT, M.LAMY, S.GOLDMAN and P.MAQUET.

Etudes par tomographe à émission de positons chez des patients en coma, état végétatif, état de conscience minimal, syndrome de verrouillage et mort encéphalique ;

Collection Neurophysiologie Clinique, pp.367 - 376. **Impact Factor:**

M.BOLY, M-E FAYMONVILLE, P. PEIGNEUX, B.LAMBERMONT, P.DAMAS, G.DEL FIORE, C.DEGUELDRE, G.FRANCK, A.LUXEN, M.LAMY, G.MOONEN ,S.LAURYES AND P.MAQUET.
Auditory processing in severely brain injured patients
Differences between the minimally conscious state and the Persistent Vegetative State
Arch Neurol, Vol.61, pp. 233 - 23883. **Impact Factor: 4,835.**

S.LAUREYS, M-E FAYMONVILLE, X.DE TIEGE, P.PEIGNEUX, J.BERRE, G.MOONEN, S.GOLDMAN and P.MAQUET.
Brain function in the vegetative state
Advances in Experimental Medecine and Biology, Vol. 550, pp.229 -238.
Impact Factor: 0,642.

S.LAUREYS, A.M.OWEN and N.D.SCHIFF.
Brain function in coma, vegetative state, and related disorders.
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F.PERRIN, P.PEIGNEUX, S.FUCHS, S.VERHAEGHE, S.LAUREYS, B.MIDDLETON, C.DEGUELDRE, G.DEL FIORE, G.VANDEWALLE, E.BALTEAU, R.POIRRIER, V.MOREAU, A. LUXEN, DERK-JAN DIJK and P.MAQUET.
Nonvisual responses to light exposure in the human brain during the circadian night.
Current Biology, Vol. 14, pp.1842 – 1846. **Impact Factor: 11,901.**

P.PEIGNEUX, M.VAN DER LINDEN, G.GARRAUX, S.LAUREYS, C.DEGUELDRE, J.AERTS, G.DEL FIORE, G.MOONEN, A.LUXEN and E.SALMON.
Imaging a cognitive model of apraxia: the neural substrate of gesture-specific cognitive processes.
Human brain Mapping, Vol. 21, pp. 119 – 142. **Impact Factor: 4,815.**

P.PEIGNEUX, S.LAURYES, S.FUCHS, F.COLLETTE, F.PERRIN, J.REGGERS, C.PHILLIPS, C.DEGUELDRE, G.DEL FIORE, J.AERTS, A.LUXEN and P.MAQUET.
Are spatial memories strengthened in the human hippocampus during slow wave sleep.
Neuron, Vol. 44, pp. 535 – 545. **Impact Factor: 14,439.**

M-E. FAYMONVILLE, K.H. PANTKE, J.BERRE, B.SADZOT, M.FERRING, P.VAN BOGAERT, X.de TIEGE, N.MAVROUDAKIS, B.LAMBERMONT, P. DAMAS, G. FRANCK, M.LAMY, A.LUXEN, G. MOONEN, S. GOLDMAN, S.LAUREYS and P. MAQUET.
Zerebrale funktionen bei hirngeschädigten patienten
Anaesthesist, Vol. 53, pp. 1195 – 1202. **Impact Factor: 0,819.**

P. PEIGNEUX, G. MELCHIOR, C. SCHMIDT, T. DANG_VU, M.BOLY, S.LAUREYS, and P. MAQUET.
Memory processing during sleep mechanism and evidence from neuroimaging studies.
Psychologica Belgica, Vol. 44, pp. 121 – 142. **Impact factor:**

S.LAUREYS
Functional neuroimaging in the vegetative state.
NeuroRehabilitation, Vol. 19, pp. 335 – 341. **Impact Factor:**