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**prof. dr. E.J. Bellefroid, prof. dr. M. Parmentier,  
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**VOLUME I**

**Prof. Dr. E.J.Bellefroid**

R. VAN WAYENBERGH, V.TAELMAN, B.PICHON, A.FISCHER, S. KRICHA, M. GESSLER, D.CHRISTOPHE and E.J.BELLEFROID.

**Identification of BOIP, a novel cDNA highly expressed during spermatogenesis that encodes a protein interacting with the orange domain of the hairy-related transcription factor HRT1/Hey1 in *Xenopus* and Mouse.**

Developmental Dynamics, Vol. 228, pp. 716 – 725. **Impact Factor: 5,558.**

J. SOUOPGUI and E. BELLEFROID.

**Basic helix-loop-helix proneural genes and neurogenesis in *Xenopus* embryos.**

The vertebrate organiser, Springer-Verslag, pp. 151 – 172.

**Prof.Dr. M. Parmentier**

V.WITTAMER, J.D.FRANSSSEN, M.VULCANO, J.F.MIRJOLET, E.LE POUL, I.MIGEOTTE, S.BREZILLO, R.TYDESLEY, C.BLANPAIN, M.DETHEUX, A.MONTOVANI, S.SOZZANI, G.VASSART, D.COMMUNI and M.PARMENTIER.

**Specific recruitment of antigen-presenting cells by chemerin, a novel processed ligand from human inflammatory fluids.**

J. Exp.Med, Vol.198, Nr. 7, pp.977 - 985. **Impact Factor: 15,700**

E.LE POUL, C.LOISON, S.STRUYF, J.Y.SPTINGAEL, V.LANNOY, M.E.DECOBECQ, S.BREZILLON, V.DUPRIEZ, G.VASSART, J.VAN DAMME, M.DETHEUX and M.PARMENTIER.

**Functional characterization of human receptors for short chain fatty acids their role in polymorphonuclear cell activation.**

The Journal of Biological Chemistry, Vol.278, Nr. 28, pp.25481 - 25489. **Impact Factor: 7,400.**

C.GOVAERTS, A.BONDUE, J.Y.SPRINGAEL, M.OLIVELLA, X.DEUPI, E.LE POUL, S.J.WODAK, L.PARDO, C.BLANPAIN and M.PARMENTIER.

**Activation of CCR5 by chemokines involves an aromatic cluster between transmembrane helices 2 and 3.**

The Journal of Biological Chemistry, Vol.278,Nr. 3, pp.1892 - 1903. **Impact Factor: 7,400.**

M.EL YACOUBI, C.LEDENT, J.COSTENTIN, J.M.VAUGEOIS and M.PARMENTIER.

**Caffeine reduces hypnotic effects of alcohol through adenosine A<sub>2A</sub> receptor blockade.**

NeuroPharmacology, Vol. 45, pp.977 - 985. **Impact Factor : 4,200.**

C.BLANPAIN, B.J.DORANZ, A.BONDUE, C.GOVAERTS, A.DE LEENER, G.VASSAERT, R.W.DOMS, A.PROUDFOOT and M.PARMENTIER.

**The core domain of chemokines binds CCR5 extracellular domains while their amino terminus interacts with the transmembrane helix bundle.**

The Journal of Biological Chemistry, Vol.278,Nr. 7, pp.5179 - 5187. **Impact Factor: 7,400.**

**Dr. L. Ris**

B.CAPRON, D.NONCLERCQ, H.ALEXANDRE, C.SINDIC, G.TOUBEAU, E.GODAU, and L.RIS.

**Labyrinthectomy changes T-type calcium channels in vestibular neurones of the guinea pig.**

NeuroReport, , Vol.14, Nr. 12, pp.1585 - 1589. **Impact Factor: 2.503.**

I. DEWACHTER, D.REVERSE, L. RIS, F. VAN LEUVEN and E.GODAU.

**Capacitative calcium entry induces hippocampal long term potentiation in the absence of presenilin-1.**

The Journal of Biological Chemistry, Vol. 278, Nr. 45, pp. 44393 - 44399. **Impact Factor: 6.482.**

M.GENLAIN, D.NONCLERCQ, G.LAURENT, G.TOUBEAU, E.GODAU and L.RIS.

**Properties of neurons from the rat medial vestibular nucleus in microexplant culture.**

NeuroScience Letters, Vol. 338, pp. 45 – 48. **Impact Factor: 1.967.**

M.PETERS, K.MIZUNO, M.ANGELO, K.P.GIESE, E.GODAU and L.RIS.

**Loss of Ca<sup>2+</sup>/calmodulin kinase kinase  $\beta$  affects the formation of some, but not all, types of hippocampus-dependent long-term memory.**

The Journal of Neuroscience, Vol. 23, Nr. 30, pp. 9752 – 9760. **Impact Factor: 8.306.**

M.BERANECK, M.HACHEMAOUI, E.IDOUX, A.UNO, P.P.VIDAL, L.E.MOORE, N.VIBERT, E.GODAU  
and L.RIS

**Long-term plasticity of ipsilesional medial vestibular nucleus neurons after unilateral labyrinthectomy.**  
J. Neurophysiol., Vol. 90, pp. 184 – 203. **Impact Factor: 3.876.**

**Dr. P. Vanderhaeghen**

J.SEIBT, C.SCHUURMANS, G.GRADWHOL, C.DEHAY, F.GUILLEMOT, F.POLLEUX and  
P.VANDERHAEGHEN.

**Neurogenin2 specifies the connectivity of thalamic neurons by controlling axon responsiveness to intermediate target cues.**

Neuron, Vol.39, pp.439 - 452. **Impact Factor: 14.109.**

A.DUFOUR, J.SEIBT, L.PASSANTE, V.DEPAEPE, T.CIOSSEK, J.FRISEN, K.KULLANDER,  
J.G.FLANAGAN, F.POLLEUX and P.VANDERHAEGHEN.

**Area specificity and topography of thalamocortical projections are controlled by ephrin/Eph genes.**

Neuron, Vol.39, pp.453 - 465. **Impact Factor: 14.109.**

**Prof.Dr. P. Maquet**

S.SCHWARTZ, R.PASSINGHAM, C.FRITH and P.MAQUET.

**Sleep-related consolidation of a visuomotor skill: brain mechanisms as assessed by functional magnetic resonance imaging.**

The Journal of Neuroscience, Vol.23, Nr. 4, pp.1432 - 1440. **Impact Factor: 8.306.**

S.LAUREYS, P.PEIGNEUX, M.DESSEILLES, M.BOLY, T.DANG-VU AND P.MAQUET.

**Off-line processing of memory traces during human sleep: contribution of functional neuroimaging.**

Sleep and Biological Rhythms, Vol.1, pp. 75 - 83. **Impact Factor: 3.547.**

E.SALMON, S.LESPAGNARD, F.LEKEU, S.ADAM, S.BECHET and F.COLLETTE.

**Imagerie fonctionnelle cérébrale et recherche d'un diagnostic précoce de maladie d'Alzheimer.**

Neurone, Vol. 8, Nr. 2, pp.54 -57. **Impact Factor:**

S.LAUREYS, P.PEIGNEUX, S.FUCHS, A.DESTREBECQZ, F.COLLETTE, X.DELBEUCK, C.PHILLIPS,  
J.AERTS, G.DEL FIORE, C.DEGUELDRE, A.LUXEN, A.CLEEREMANS and P.MAQUET.

**Learned material content and acquisition level modulate cerebral reactivation during posttraining rapid-eye-movements sleep.**

NeuroImage, Vol. 20, pp.125 - 134. **Impact Factor: 6.192.**

**Prof. Dr. R. Vogels.**

G. KAYAERT, I.BIEDERMAN and R.VOGELS.

**Shape tuning in macaque inferior temporal cortex.**

The Journal of Neuroscience, Vol. 23, Nr. 7, pp.3016 - 3027. **Impact Factor: 8.306.**

P.JANSSEN, YAN LIU, G.ORBAN and R.VOGELS .

**At least at the level of inferior temporal cortex, the stereo correspondence problem is solved.**

Neuron, Vol.37, pp. 693 - 701. **Impact Factor: 14.109.**

H.OP DE BEECK, J.WAGEMANS, and R.VOGELS

**Asymmetries in stimulus comparisons by monkey and man.**

Current Biology, Vol. 13, pp. 1803 – 1808. **Impact Factor: 11.91.**

**Prof.Dr. C. Van Broeckhoven**

M.CRUTS, B. DERMAUT, R. RADEMAKERS, M. VAN DEN BROECK, F. STOGBAUER AND C. VAN  
BROECKHOVEN.

**Novel APP mutation V715A associated with presenile Alzheimer's disease in a German family.**

J.Neurol, Vol 250, pp.1374 - 1375. **Impact Factor: 2.778**

D. AUDENAERT, L. CLEAS, B. CEULEMANS, A. LOFGREN, P. DE JONGHE and C. VAN BROECKHOVEN.

**A deletion in *SCN1B* is associated with febrile seizures and early-onset absence epilepsy.**  
Neurology, Vol 61, pp.854 - 856. **Impact factor: 5.678.**

L.CLAES, B.CEULEMANS, D.AUDENAERT, K.SMETS, A.LOFGREN, J.DEL-FAVERO, S.ALA-MELLO, L.BASEL-VANAGAITE, B.PLECKO, S.RASKIN, P.THIRY, N.I.WOLF, P.DE JONGHE and C. VAN BROECKHOVEN

**De novo *SCN1A* mutations are a major cause of severe myoclonic epilepsy of infancy.**  
Human Mutation, Vol.21, pp.615 - 621. **Impact factor: 6.328.**

J.THEUNIS, J.REMACLE, R.KILLICK, E.CORSMIT, K.VENNEKENS, D.HUYLEBROECK, M.CRUTS and C. VAN BROECKHOVEN.

**Alzheimer-associated C allele of the promoter polymorphism -22C>T causes a critical neuron-specific decrease of presenilin 1 expression.**

Human Molecular Genetics, Vol.12, Nr.8, pp.869 - 877. **Impact Factor: 8,597**

N.AMMAR, E.NELIS, L.MERLINI, N.BARISC, R.AMOURI, C.CEUTERICK, J.J.MARTIN, V.TIMMERMAN, F.HENTATI and P DE JONGHE.

**Identification of novel *GDAP1* mutations causing autosomal recessive Charcot-Marie-Tooth disease.**  
Neuromuscular Disorders, Vol.13, pp.720 - 728. **Impact factor: 2,894**

A.JORDANOVA, P. DE JONGHE, C.F.BOERKOEL, H.TAKASHIMA, E. DE VRIENDT, C.CEUTERICK, J.J.MARTIN, I.J. BUTLER, P.MACNIAS, Ch. PAPASOZOMENOS, D.TERESPOLSKY, L.POTOCKI, C.W.BROWN, M.SHY, D.A.RITA, I.TOURNEV, I.KREMENSKY, J.R.LUPSKI and V.TIMMERMAN.  
**Mutations in the neurofilament light chain gene (*NEFL*) cause early onset severe Charcot-Marie-Tooth disease.**

Brain, Vol. 126, pp. 590 – 597. **Impact Factor: 7,967**

K.VERHOEVEN, P.DE JONGHE, K.COEN, N.VERPOORTEN, M.AUER-GRUMBACH, J.M.KWON, D.FITZPATRICK, E.SCHMEDDING, E. DE VRIENDT, A. JACOBS, V.VAN GERWEN, H.P.HARTUNG and V.TIMMERMAN.

**Mutations in the small GTP-ase late endosomal protein RAB7 cause Charcot-Marie-Tooth type 2B neuropathy.**

Am. Journal Hum. Genet., Vol. 72, pp. 722 – 727. **Impact Factor: 11,602**

K.VERHOEVEN, P.DE JONGHE, T.VAN DE PUTTE, E. NELIS, A.ZWIJSEN, N.VERPOORTEN, E.DE VRIENDT, A.JACOBS, V.VAN GERWEN, A.FRANCIS, C.CEUTERICK, D.HUYLEBROECK and V TIMMERMAN.

**Slowed conduction and thin myelination of peripheral nerves associated with mutant Rho guanine-nucleotide exchange factor 10**

Am. Journal Hum. Genet., Vol. 73, pp. 926 – 932. **Impact Factor:11,602**

J.SENDERICK, C.BERGMANN, C.STENDEL, J.KIRFEL, N.VERPOORTEN, P.DE JONGHE, V.TIMMERMAN, R.CHRIST, M.H.G.VERHEIJEN, G.LEMKE, E.BATTALOGU, Y.PARMAN, S.ERDEM, E.TAN, H.TOPALOGU, A.HAHN, W.MULLER-FELBER, N.RIZZUTO, G.M.FABRIZI, M.STUHRMANN, S.RUDNIK-SCHÖNEBORN, S.ZÜCHNER, J.M.SCHRÖDER, E.BUCHHEIM, V.STRAUB, J.KLEPPER, K.HUEHNE, B.RAUTENSTRAUSS, R.BÜTTNER, E.NELIS and K.ZERRES.

**Mutations in a gene encoding a novel SH3/TPR domain protein cause autosomal recessive Charcot-Marie-Tooth type 4C neuropathy.**

Am. Journal Hum. Genet., Vol. 73, pp. 1106 – 1119. **Impact Factor: 11,602**

A.JORDANOVA, F.P.THOMAS, V.GUERGUELICHEVA, I.TOURNEV, F.A.A.GONDIM, B.ISKPEKOVA, E.DE VRIENDT, A. JACOBS, I. LITVINENKO, A. IVANOVA, B.BUZHOV, P.DE JONGHE, I.KREMENSKY and V.TIMMERMAN.

**Dominant intermediate Charcot-Marie-Tooth type C maps to chromosome 1p34-p35.**

Am. Journal Hum. Genet., Vol. 73, pp. 1423 – 1430. **Impact Factor: 11,602**

R.RADEMAKERS, M.CRUTS and C.VAN BROECKHOVEN.

**Genetics of early-onset Alzheimer dementia.**

The Scientific World Journal, Vol. 3, pp. 497 – 519.

**Prof.Dr. S.N.Schiffmann**

D. BLUM, M.J.GALAS, A.PINTOR, E.BROUILLET, C.LEDENT, C.E.MULLER, K.BANTUBUNGI, M.GALLUZZO, D.GALL, L.CUVELIER, A.S.ROLLAND, P.POPOLI and S.N.SCHIFFMANN.

**A dual role of adenosine A<sub>2A</sub> receptors in 3-nitropropionic Acid-Induced striatal lesions: Implications for the neuroprotective potential of A<sub>2A</sub> antagonists.**

The Journal of Neuroscience , Vol.23, Nr. 12, pp.5361 - 5369. **Impact Factor: 8.306.**

D.BLUM, R.HOUREZ, M.-J.GALAS, P.POPOLI and S.N.SCHIFFMANN.

**Adenosine receptors and Huntington's disease: implications for pathogenesis and therapeutics.**

The Lancet Neurology, Vol.2, pp.366 - 374. **Impact Factor: 3.07.**

P.d'ALCANTARA, S.SWILLENS and S.N.SCHIFFMANN.

**Bidirectional synaptic plasticity as a consequence of interdependent Ca<sup>2+</sup>-controlled phosphorylation and dephosphorylation pathways.**

European Journal of Neuroscience, Vol.17, pp.2521 - 2528. **Impact Factor: 3.872.**

D.GALL, C.ROUSSEL, I.SUSA, E.D'ANGELO, P.ROSSI, B.BEARZATTO, M.C.GALAS, D.BLUM, S.SCHURMANS and S.N.SCHIFFMANN.

**Altered neuronal excitability in cerebellar granule cells of mice lacking calretinin.**

The Journal of Neuroscience, Vol.23, Nr. 28, pp.9320 - 9327 **Impact Factor: 8.306.**

D.DASSESE, P.d'ALCANTARA, C.LEDENT, S.SWILLENS, M.ZOLI and S.N.SCHIFFMANN.

**A<sub>2A</sub> receptor and striatal cellular functions: Regulation of gene expression, currents, and synaptic transmission.**

Neurology, Vol.61, pp.S24 – S29. **Impact Factor: 5.678.**

J.M.VANDERWINDEN, J.P.TIMMERMANS and S.N.SCHIFFMANN..

**Glial cells, but not interstitial cells, express P2X7, an ionotropic purinergic receptor, in rat gastrointestinal musculature.**

Cell Tissue Res, Vol.312, pp.149 - 154. **Impact Factor: 2.991.**

K.W.JEON.

**A survey of cell biology.**

International Review of Cytology, Vol.229, pp.115 - 208. **Impact Factor: 4.286.**