

PUBLICATIONS OF THE RESEARCH GROUPS OF

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VOLUME I

KATHOLIEKE UNIVERISTEIT LEUVEN
(KU Leuven)

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ANA RITZ SANTOS, ALEXANDROSD K. KANELLOPOULOS and CLAUDIA BAGNI

“Learning and behavioral deficits associated with absence of the Fragile X mental retardation protein: what a fly and mouse model can teach us”

Learning & Memory, Vol. 21, nr. 10, pp. 543-5 55. doi: 10.1101/lm.035956.114. **Impact Factor : 4.375**

EMANUELA PASCIUTO and CLAUDIA BAGNI.

“SnapShot: FMRP mRNA Targets and Associated Human Diseases”

Cell, SnapShot (1)(2)(3), Vol.158 , nr. 6, pp. 1446-1446. **Impact Factor: 33,116.**

EMANUELA PASCIUTO and CLAUDIA BAGNI.

“SnapShot: FMRP Interacting Proteins”

Cell, SnapShot (1)(2)(3), Vol. 159, nr. 1, pp. 218-218. **Impact Factor: 33,116.**

- (1) *The Snapshots we had in Cell are mini reviews related to the work supported by FMRE GSKE.*
(2) *These two major Works(see below)supported by GSKE, that we will submit for publication before Christmas.*

Depletion of the Cytoplasmic Fragile X Mental Retardation Protein 1 leads to autism-like behavior and deficits in synaptic plasticity.

Ana Rita Santos, Tariq Ahmed, Zsuzsanna Callaerts-Vegh, Rudi D’Hooge, Detlef Balschun and Claudia Bagni

The Fragile X Related Protein 2 regulates the expression of synaptic plasticity genes via the BDNF/TrkB pathway.

Nicholas Rajan, Esperanza Fernandez, Mark Fiers, Tilmann Achsel and Claudia Bagni

- (3) *Unfortunately under the format of Snapshots, Cell press does not allow to have any acknowledgement.*

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RAFFAELE FERRARI, DENA G HERNANDEZ, MICHAEL A NALLS, JONATHAN D ROHRER, ADAIKALAVAN RAMASAMY, JOHN B J KWOK, CAROL DOBSON-STONE, WILLIAM S BROOKS, PETER R SCHOFI ELD, GLENDA M HALLIDAY, JOHN R HODGES, OLIVIER PIGUET, LAUREN BARTLEY, ELIZABETH THOMPSON, ERIC HAAN, ISABEL HERNÁNDEZ, AGUSTÍN RUIZ, MERCÈ BOADA, BARBARA BORRONI, ALESSANDRO PADOVANI, CARLOS CRUCHAGA, NIGEL J CAIRNS, LUISA BENUSSI, GIULIANO BINETTI, ROBERTA GHIDONI, GIANLUIGI FORLONI, DANIELA GALIMBERTI, CHIARA FENOGLIO, MARIA SERPENTE, ELIO SCARPINI, JORDI CLARIMÓN, ALBERTO LLEÓ, RAFAEL BLESÁ, MARIA LANDQVIST WALDÖ, KARIN NILSSON, CHRISTER NILSSON, IAN R A MACKENZIE, GING-YUEK R HSIUNG, DAVID M A MANN, JORDAN GRAFMAN, CHRISTOPHER M MORRIS, JOHANNES ATTEMS, TIMOTHY D GRIFFITHS, IAN G MCKEITH, ALAN J THOMAS, P PIETRINI, EDWARD D HUEY, ERIC M WASSERMANN, ATIK BABORIE, EVELYN JAROS, MICHAEL C TIERNEY, PAU PASTOR, CRISTINA RAZQUIN, SARA ORTEGA-CUBERO, ELENA ALONSO, ROBERT PERNECZKY, JANINE DIEHL-SCHMID, PANAGIOTIS ALEXOPOULOS, ALEXANDER KURZ, INNOCENZO RAINERO, ELISA RUBINO, LORENZO PINESSI, EKATERINA ROGAEVA, PETER ST GEORGE-HYSLOP, GIACOMINA ROSSI, FABRIZIO TAGLIAVINI, GIORGIO GIACCONE, JAMES B ROWE, JOHANNES C M SCHLACHETZKI, JAMES UPHILL, JOHN COLLINGE, SIMON MEAD, ADRIAN DANEK, VIVIANNA M VAN DEERLIN, MURRAY GROSSMAN, JOHN Q TROJANOWSKI, JULIE VAN DER ZEE, WILLIAM DESCHAMPS, TIM VAN LANGENHOVE, MARC CRUTS, CHRISTINE VAN BROECKHOVEN, STEFANO F CAPPA, ISABELLE LE BER, DIDIER HANNEQUIN, VÉRONIQUE GOLFER, MARTINE VERCELLETTO, ALEXIS BRICE, BENEDETTA NACMIAS, SANDRO SORBI, SILVIA BAGNOLI, IRENE PIACERI, JØRGEN E NIELSEN, LENA E HJERMIND, MATTHIAS RIEMENSCHNEIDER, MANUEL MAYHAUS, BERND IBACH, GILLES GASPARONI, SABRINA PICHLER, WEI GU, MARTIN N ROSSOR, NICK C FOX, JASON D WARREN, MARIA GRAZIA SPILLANTINI, HUW R MORRIS, PATRIZIA RIZZU, PETER HEUTINK, JULIE S SNOWDEN, SARA ROLLINSON, ANNA RICHARDSON, ALEXANDER GERHARD, AMALIA C BRUNI, RAFFAELE MALETTA, FRANCESCA FRANGIPANE, CHIARA CUPIDI, LIVIA BERNARDI, MARIA ANFOSSI, MAURA GALLO, MARIA ELENA CONIDI, NICOLETTA SMIRNE, ROSA RADEMAKERS, MATT BAKER, DENNIS W DICKSON, NEILL R GRAFF-RADFORD, RONALD C PETERSEN, DAVID KNOPMAN, KEITH A JOSEPHS, BRADLEY F BOEVE, JOSEPH E PARISI, WILLIAM W SEELEY, BRUCE L MILLER, ANNA M KARYDAS, HOWARD ROSEN, JOHN C VAN SWIETEN, ELISE G P DOPPER, HARRO SEELAAR, YOLANDE A L PIJNENBURG, PHILIP SCHELTENS, GIANCARLO LOGROSCINO, ROSA CAPOZZO, VALERIA NOVELLI, ANNIBALE A PUCA, MASSIMO FRANCESCHI, ALFREDO POSTIGLIONE, GRAZIELLA MILAN, PAOLO SORRENTINO and MARK KRISTIANSEN,

“Frontotemporal dementia and its subtypes: a genome wide association study”,

***Lancet Neurology*, Vol. 13, nr.7, pp. 686-699. (PMID: 24943344). Impact Factor: 21.823.**

MICHAEL D. GALLAGHER, EUNRAN SUH, MURRAY GROSSMAN, LAUREN ELMAN, LEO MCCLUSKEY, JOHN C. VAN SWIETEN, SAFA AL-SARRAJ, MANUELA NEUMANN, ELLEN GELPI, BERNARDINO GHETTI, JONATHAN D. ROHRER, GLENDA HALLIDAY, CHRISTINE VAN BROECKHOVEN, DANIELLE SEILHEAN, PAMELA J. SHAW, MATTHEW P. FROSCHE, IRINA ALAFUZOFF, ANNA ANTONELLI, NENAD BOGDANOVIC, WILLIAM BROOKS, NIGEL J. CAIRNS, JOHNATHAN COOPER-KNOCK, CARL COTMAN, PATRICK CRAS, MARC CRUTS, PETER P. DE DEYN, CHARLES DECARLI, CAROL DOBSON-STONE, SEBASTIAAN ENGELBORGH, NICK FOX, DOUGLAS GALASKO, MARLA GEARING, ILSE GIJSELINCK, JORDAN

GRAFMAN, PÄIVI HARTIKAINEN, KIMMO J. HATANPAA, J. ROBIN HIGHLEY, JOHN HODGES, CHRISTINE HULETTE, PAUL G. INCE, LEE-WAY JIN, JANINE KIRBY, JULIA KOFLER, JILLIAN KRIL, JOHN B. J. KWOK, ALLAN LEVEY, ANDREW LIEBERMAN, ALBERT LLADO, JEAN-JACQUES MARTIN, ELIEZER MASLIAH, CHRISTOPHER J. MCDERMOTT, ANN MCKEE, CATRIONA MCLEAN, SIMON MEAD, CAROL A. MILLER, JOSH MILLER, DAVID G. MUNOZ, JILL MURRELL, HENRY PAULSON, OLIVIER PIGUET, MARTIN ROSSOR, RAQUEL SANCHEZ-VALLE, MARY SANO, JULIE SCHNEIDER, LISA C. SILBERT, SALVATORE SPINA, JULIE VAN DER ZEE, TIM VAN LANGENHOVE, JASON WARREN, STEPHEN B. WHARTON, CHARLES L. WHITE III, RANDALL L. WOLTJER, JOHN Q. TROJANOWSKI, VIRGINIA M. Y. LEE, VIVIANNA VAN DEERLIN, ALICE S. and CHEN-PLOTKIN

“*TMEM106B* is a genetic modifier of frontotemporal lobar degeneration with *C9orf72* hexanucleotide repeat expansions.”

***Acta Neuropathologica*, Vol. 127, nr. 3, pp. 407-418. (PMID: 24442578). Impact factor: 9.777.**

JULIE VAN DER ZEE, TIM VAN LANGENHOVE, GABOR G. KOVACS, LUBINA DILLEN, WILLIAM DESCHAMPS
SEBASTIAAN ENGELBORGH, RADOSLAV MATEĽJ, MATHIEU VANDENBULCKE, ANNE SIEBEN, BART DERMAUT · KATRIEN SMETS, PHILIP VAN DAMME, CELINE MERLIN, ANNELIES LAUREYS, MARLEEN VAN DEN BROECK, MARIA MATTHEIJSENS, KARIN PEETERS, LUISA BENUSSI, GIULIANO BINETTI, ROBERTA GHIDONI, BARBARA BORRONI, ALESSANDRO PADOVANI, SILVANA ARCHETTI, PAU PASTOR, CRISTINA RAZQUIN, SARA ORTEGA □ CUBERO, ISABEL HERNANDEZ, MERCE BOADA, AGUSTIN RUIZ, ALEXANDRE DE MENDONCA, GABRIEL MILTENBERGER □ MILTENYI, FREDERICO SIMOES DO COUTO, SANDRO SORBI, BENEDETTA NACMIAS, SILVIA BAGNOLI, CAROLINE GRAFF, HUEI-HSIN CHIANG, HAKAN THONBERG, ROBERT PERNECZKY, JANINE DIEHL-SCHMID, PANAGIOTIS ALEXOPOULOS, GIOVANNI B. FRISONI, CHRISTIAN BONVICINI, MATTHIS SYNOFZIK, WALTER MAETZLER · JENNIFER MULLER VOM HAGEN, LUDGER SCHOLS, TOBIAS B. HAACK,
TIM M. STROM, HOLGER PROKISCH, ORIOL DOLS-ICARDO, JORDI CLARIMON, ALBERTO LLEO, ISABEL SANTANA,
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RAQUEL SANCHEZ-VALLE, ALBERT LLADO, ELLEN GELPI, STAYKO SARAFOV, IVAILO TOURNEV, ALBENA JORDANOVA, EVA PAROBKOVA, GIAN MARIA FABRIZI, SILVIA TESTI, ERIC SALMON, THOMAS STROBEL, PATRICK SANTENS, WIM ROBBERECHT, PETER DE JONGHE, JEAN-JACQUES MARTIN, PATRICK CRAS, RIK VANDENBERGHE, PETER PAUL DE DEYN, MARC CRUTS, KRISTEL SLEEGERS and CHRISTINE VAN BROECKHOVEN

“Rare mutations in *SQSTM1* modify susceptibility for frontotemporal lobar degeneration.”

***Acta Neuropathologica*, Vol. 128, pp. 397-410. Impact Factor: 9.777.**

Epub: 05-Jun-2014 (PMID: 24899140)

JESSIE THEUNS, ALINE VERSTRAETEN, KRISTEL SLEEGERS, ELINE WAUTERS, ILSE GIJSELINCK, STEFANIE SMOLDERS, DAVID CROSIERS, ELLEN CORSMIT, ELLEN ELINCK, MANU SHARMA, REJKO KRÜGER, SUZANNE LESAGE, ALEXIS BRICE, SUN JU CHUNG, MI-JUNG KIM, YOUNG JIN KIM, OWEN A. ROSS, ZBIGNIEW K. WSZOLEK, EKATERINA ROGAEVA, ZHENGRUI XI, ANTHONY E. LANG, CHRISTINE KLEIN, ANNE WEISSBACH, GEORGE D. MELLICK, PETER A. SILBURN, GEORGIOS, HADJIGEORGIU, EFTHIMIOS DARDIOTIS, NOBUTAKA HATTORI, KOTARO OGAKI, ENG-KING TAN, YI ZHAO, JAN AASLY, ENZA MARIA VALENTE, SIMONA PETRUCCI, GRAZIA ANNESI, ALDO QUATTRONE, CARLO FERRARESE, LAURA BRIGHINA, ANGELA DEUTSCHLÄNDER, ANDREAS PUSCHMANN, CHRISTER NILSSON, GAËTAN GARRAUX, MARK S. LEDOUX, RONALD F. PFEIFFER, MAGDALENA, BOCZARSKA-, JEDYNAK, GRZEGORZ

OPALA, DEMETRIU, MARAGANORE, SEBASTIAAN ENGELBORGHES, PETER PAUL DE DEYN, PATRICK CRAS, MARC CRUTS and CHRISTINE VAN BROECKHOVEN.

“Global investigation and meta-analysis of the *C9orf72* (G_4C_2)_n repeat in Parkinson disease.”
Neurology, Vol. 83, nr.21, pp. 1906-1913.(PMID: 25326098). **Impact Factor: 8.303.**

ELISE CUYVERS, KAROLIEN BETTENS, STÉPHANIE PHILTJENS, TIM VAN LANGENHOVE, ILSE GIJSELINCK, JULIE VAN DER ZEE, SEBASTIAAN ENGELBORGHES, MATHIEU VANDENBULCKE, JASPER VAN DONGEN, NATHALIE GEERTS, GITHA MAES, MARIA MATTHEIJSENS, KARIN PEETERS, PATRICK CRAS, RIK VANDENBERGHE, PETER P. DE DEYN, CHRISTINE VAN BROECKHOVEN, MARC CRUTS and KRISTEL SLEEGERS.

“Investigating the role of rare heterozygous *TREM2* variants in Alzheimer’s disease and frontotemporal dementia.”

Neurobiology of Aging, Vol. 35, pp. 726.e11-e19. (PMID: 24119542). **Impact Factor: 4.853.**

Prof. dr. Stefanie DEDEURWAEDERE.

ASLA PITÄNEN, XAVIER E. NDODE-EKANE, KATARZYNA LUKASIUK, GRZEGORZ M. WILCZYNSKI, ALEXANDER DITYATEV, MATTHEW C. WALKER, ELODIE CHABROL, STEFANIE DEDEURWAERDERE, NAIARA VASQUEZ and ELISABETH M. POWELL.

“Neural ECM and epilepsy.: Chapter 11.”

Progress in Brain Research, Vol. 214, pp.229-262. **Impact Factor: 5.103.**

H. AMHANOUL, S. STAELENS and S. DEDEURWAERDERE.

“Neuroscience forefront review: Imaging brain inflammation in epilepsy.”

Neuroscience, Vol. 279, pp.238-252. **Impact Factor: 3.327.**

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Dr. Fadel TISSIR

CHAI G., ZHOU L., MANTO M., HELMBACHER F., CLOTMAN F., GOFFINETANDRE M and TISSIR F.

***Celsr3* is required in motor neurons to steer their axons in the hindlimb.**

Nature Neuroscience; Vol. 17, pp. 1171-1179. **Impact Factor: 15.250.**

QU YIBO, YUHUA HUANG, JIA FENG, ALVAREZ-BOLADO G., A. GROVE E., YINGZI YANG, TISSIR F., SHOU L. and GOFFINET ANDRÉ M.

Genetic evidence that *Celsr3* and *Celsr2*, together with *Fzd3*, regulate forebrain wiring in a *Vangl*-independent manner.

Proc Natl Acad Sci (PNAS), Vol. 111, E2996-3004. **Impact Factor: 10.580.**

BOUTIN C., LABEDAN P., DIMIDSCHSTEIN J., RICHARD F., CREMER H., ANDRÉ P., YANG YINGZI, MONTCOUQUIOL M., GOFFINET ANDÉ M. and TISSIR F.

A Dual role for planar cell polarity genes in ciliated cells.

***Proc Natl Acad Sci (PNAS)*, Vol. 111: E3129-3138. Impact Factor: 10.580.**

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A. EL ARFANI, E. BENTEA, N. AOURZ, B. AMPE, P. DE DEURWAERDÈRE, A. VAN EECKHAUT, A. MASSIE, S. SARRE, I. SMOLDERS and Y. MICHOTTE.

NMDA receptor antagonism potentiates the L-DOPA-induced extracellular dopamine release in the subthalamic nucleus of hemi-Parkinson rats.

***Neuropharmacology*, Vol. 85, pp. 198-205. Impact Factor: 5,106.**

J. LEWERENZ, R. KASSUBEK, P. ALBRECHT, J. VAN LIEFFERINGE, M.A. WESTHOFF, M.E. HALATSCH, P.J. MEAKIN, G. KARPEL-MASSLER, J.D. HAYES, E. ARONICA, I. SMOLDERS, A. LUDOLPH, A. METHNER, A. MASSIE, G.E. HARDINGHAM and P. MAHER.

Phosphoinositide 3-kinases upregulate system x_c^- via eukaryotic initiation factor 2 α and activating transcription factor 4 – A pathway active in glioblastomas and epilepsy.

***Antioxidants & Redox Signaling*, Vol. 20, Nr. 18, pp. 2907-2922. Impact Factor: 7,407.**