

BIOGRAPHICAL SKETCH

1a Personal details

- Title(s), initial(s), first name, surname: Nael, Nadif Kasri
- Current position: Assistant professor

1b Education/training

Master's ('doctoraal')

- University/College of Higher Education: Catholic University Leuven
- Date (dd/mm/yy): 01/07/2000
- Studies: Biochemistry
- Main subject: Biochemistry

Doctorate/PhD ('promotie')

- University/College of Higher Education: Catholic University Leuven
- Date (dd/mm/yy): 21/09/2004
- Supervisor ('Promotor'): Prof. dr. Humbert de Smedt
- Title of thesis: Regulation of IP3R by calcium and calcium-binding proteins
- Registration as a specialist (dd/mm/yy): NA
- Medical specialty: NA

2. Positions and Honors

I. Positions and Employment

- Postdoctoral Research at K.U.Leuven, Belgium 2005-2006
- Postdoctoral Research at Cold Spring Harbor Laboratory, USA 2006-2010
- Assistant Professor, Radboud University Nijmegen Medical Centre, Donders Institute for Brain, Cognition and Behaviour 2011-
- PI Donders Institute for Brain, Cognition and Behaviour 2011-
- Junior PI Radboud University Nijmegen Medical Centre 2013-

II. Other relevant Experience and Professional Memberships

- Co-promoter of 8 PhD students.
- Reviewer for journals (Molecular Psychiatry, Neuron, Human Mol Genetics,...)
- Reviewer for grant agencies (ANR, FWO, MRC, EU-ERANET).
- Member Research Neuroscience Societies (SFN, FENS, HFSP, Dutch Neurofederatie)
- Invited speaker for seminars, presentations at International Conferences
- Board Member of Dulbecco Telethon Italy

Honors and awards

- NIH DECODE Inscopix award. 2015
- Radboudumc Nijmegen Junior-PI award 2013
- Hypatia Track Research Fellow 2011
- Marie-Curie EU FP7 reintegration Grant, 2011
- Fund for Scientific Research Flanders fellow 2008
- Human Frontiers Science Program fellow 2006
- Fund for Scientific Research Flanders fellow 2005
- Synaptic Basis of Disease travel award, Geneva, Switzerland 2008
- IBRO Travel award, Melbourne, Australia 2007
- Belgian American Education Foundation B.A.E.F. honorary fellow 2006

3. Output (*Selection of peer-reviewed publications and patents*)

Total number of publications: 54 H index: 19

I. Your ten most contributing (most significant) publications

1. Frega M, van Gestel S, Linda K, van der Raadt J, Keller J, van Rhijn JR, Schubert D, Albers CA, **Nadif Kasri N** Rapid neuronal differentiation of induced pluripotent stem cells for measuring network activity on micro-electrode arrays 2017 *JOVE*, doi: 10.3791/54900.
2. Martens M, Frega M, Classen J, Epping L, Bijvank E, Benevento M, van Bokhoven H, Tiesinga P, Schubert D, **Nadif Kasri N**. Euchromatin histone methyltransferase 1 regulates cortical neuronal network development. *Sci Rep*. 2016 6:35756.
3. Benevento M, Iacono G, Selten M, Ba W, Oudakker A, Frega M, Keller J, Mancini M, Lewerissa E, Kleefstra T, Stunnenberg HG, Zhou H, van Bokhoven H and **Nadif Kasri N**. Histone methylation by the Kleefstra syndrome protein EHMT1 mediates homeostatic synaptic scaling. *Neuron* 2016, 91:341-55
4. Ba W, Selten MM, van der Raadt J, van Veen H, Li LL, Benevento M, Oudakker AR, Lasabuda RSE, Letteboer SJ, Roepman R, van Wezel RJA, Courtney MJ, van Bokhoven H and **Nadif Kasri N**. ARHGAP12 functions as a developmental brake on excitatory synapse function. *Cell Reports* 2016, 4:1355-68
5. Ba W, Yan Y, Reijnders MR, Schuurs-Hoeijmakers JH, Feenstra I, Bongers EM, Bosch DG, de Leeuw N, Pfundt R, Gilissen C, de Vries PF, Veltman JA, Hoischen A, Mefford HC, Eichler EE, Vissers LE, **Nadif Kasri N#***, de Vries BB TRIO loss of function is associated with mild intellectual disability and affects dendritic branching and synapse function. *Hum Mol Genet*. 2016 25:892-902
6. Rivero O, Selten M, Sich S, Popp S, Bacmeister L, Amendola E, Negwer M, Schubert D, Proft F, Kiser D, Schmitt A, Gross C, Kolk SM, Strelakova T, van den Hove D, J. Resink T, **Nael Nadif Kasri#**, Klaus-Peter Lesch Cadherin-13, a risk gene for neurodevelopmental and psychiatric disorders, impacts cognition and GABAergic function in hippocampus. *Transl Psychiatry* 2015, 5:e655
7. Nikkie FM Olde Loohuis, Ba W, Peter Stoerchel, Aron Kos, Amanda Jager, Gerhard Schrott, Gerard JM Martens, Hans van Bokhoven, **Nael Nadif Kasri#*** and Armaz Aschrafi#. MicroRNA-137 Controls Synaptic Efficacy and mGluR-Dependent LTD by Targeting AMPA-Receptor Subunit GluA1. *Cell Reports*, 2015 11:1876-84.
8. Nakano-Kobayashi A, Tai Y, **Nadif Kasri N#**, Van Aelst L# The X-linked Mental Retardation Protein OPHN1 Interacts with Homer1b/c to Control Spine Endocytic Zone Positioning and Expression of Synaptic Potentiation. *J Neurosci*. 2014 ;34:8665-71.
9. **Nadif Kasri N#**, Nakano-Kobayashi# A and van Aelst, L. Rapid synthesis of the X-linked mental retardation protein OPHN1 mediates mGluR-dependent LTD through interaction with the endocytic machinery. *Neuron* 2011, 72, 300–315
10. **Nadif Kasri N**, Nakano-Kobayashi A, Malinow R, Li B and van Aelst L. The Rho-linked mental retardation protein oligophrenin-1 controls synapse maturation and plasticity by stabilizing AMPA receptors. *Genes Dev* 2009, 23, 1289–1302

II. Median impact factor for your research field(s)¹: Neuroscience 2.78

III. The top 3 leading Journals in your research field
Nature Neuroscience, Neuron, Molecular Psychiatry

IV. Patents (*incl. title and patent number*): None

4. Brief summary of research over the last five years

I'm is a neurobiologist with extensive training in studying functional and structural synaptic plasticity, combining electrophysiological, imaging and molecular biological methods in cellular and animal models. After performing my postdoctoral stay, with a Human Frontiers fellowship, at Cold Spring Harbor Laboratories, I started his own independent research group in 2011 at the Radboudumc, Nijmegen, the Netherlands, where I'm part of the Donders Institute for Brain, Cognition and Behaviour. I was awarded the Hypatia fellowship and a Marie Curie Career Integration Grant. The overall aim of my group is to get insight in the molecular mechanisms underlying learning and memory using the knowledge obtained from human genetics studies as a molecular stepping-stone. In this context, my group focuses on pathways involved in AMPA receptor trafficking as well as epigenetic regulation of synaptic plasticity. My research group covers different aspects from genes to molecular mechanisms, physiology to behaviour. With this research the group aims to understand the pathophysiology of neurodevelopmental disorders as well as unravel fundamental concepts of learning and memory. Recently we implemented human induced pluripotent stem cells in our research combined with multi-electrode recordings in order to stratify patient groups with autism and design more directed therapy. My group is embedded within the department of Human Genetics, allowing close contact with clinicians diagnosing patients with neurodevelopmental disorders.

¹ Information on the median impact factor of a research field is provided by the ISI Web of Science. Under the section 'Additional resources' you will find 'Journal Citation Reports'. Via the 'subject category' and subsequently 'view a group of journals by subject category' information on the median impact factor of a research field is provided.

5. Research support:

I. Grants (last 10 years)

Grants PI	Amount	Year of award	Status
Mechanistic understanding of long-range connections in auditory perception: from molecule to circuitry CAS-NWO	365 k€	2016	ongoing
Imaging memory formation and consolidation in mouse models of intellectual disability Inscopix-NIH	150 k€	2014	ongoing
Electrophysiological characterization of hippocampal circuitry in models for Koolen-de-Vries syndrome (KdVS). Donders institute for Brain, Cognition and Behaviour/Radboudumc	260 k€	2014	ongoing
Foxp2 and language related networks Donders institute for Brain, Cognition and Behaviour/Radboudumc	260 k€	2014	ongoing
Harnessing the potential of hPSC for ID disorders. Jerome Lejeune Foundation	38.5 k€	2013	completed
AMPA trafficking in models of intellectual disability. Hypatia Track Radboudumc	800 k€	2011	completed
MEREGLU FP7-Marie Curie International Reintegration Grant" (277091) (2011-2015)	100 k€	2011	completed
Elucidating the neuronal function of the mental retardation protein Oligophrenin-1 FWO (Belgium) postdoctoral fellowship	180 k€	2008	completed
<i>Subtotal</i>	2153,5		
Grants Co-PI	Amount	Year of award	Status
Preclinical investigation of epigenetic compounds in models for Kleeftstra syndrome GeneSpark	207 k€	2016	ongoing
Integrative cellular functional genomics and phenomics in patient-derived iNeurons for rapid drug identification in neurodevelopmental disorders Donders institute for Brain, Cognition and Behaviour/Radboudumc	260 k€	2016	ongoing
Harnessing the potential of induced pluripotent stem cells for cognitive disorders NWO ALW2PJ/13082	264 k€	2014	ongoing
<i>Subtotal</i>	731 k€		