

Translational pharmacology (Laurent Roybon)

1. Short description of the infrastructure.

The translational pharmacology platform was elaborated to kick start innovative projects within the field of drugs and targets discovery. The platform is instrumental for accomplishing the overarching goal of Multipark: *“to span from internationally leading pre-clinical research to translational and multidisciplinary clinical research across the spectrum of the main neurodegenerative diseases”* (cf. Multipark Strategic Plan 2020-2025), and for achieving the specific goal: *“To create new therapeutic approaches for prevention, disease modification and management of unmet medical needs”* (cf. Multipark Strategic Plan 2020-2025). The platform offers a wide range of tools including compound-based screening libraries (Olsson) and various arrays/assays (Roybon, Cenci-Nilsson, Ruscher) for validation of drugs and their targets. Hence, the missions of the platform are 1) to develop various lines of research that lead to the identification of targets for drug discovery, 2) to offer possibilities of screening, and 3) to guide MP researchers in their drug discovery projects.

2. Is this infrastructure receiving support also from other Strategic Research Areas (SRAs) or organizations at Lund University (e.g. Medical faculty, LBIC). If yes, please specify the type of support and its amount.

This infrastructure is not receiving support from any other strategic areas.

3. Number and names of MultiPark senior researchers using the infrastructure in the period 2018-2020¹.

Laurent Roybon, Roger Olsson, Tadeusz Wieloch, Angela Cenci Nilsson, Karsten Ruscher. Jia-Yi Li and many others

4. Number and names of senior researchers outside of Multipark and/or non-academic partners using the infrastructure 2018-2020.

Not applicable

5. Does the infrastructure have a steering document accessible to the users? If yes, when was it last updated?²

Not applicable

6. Is the infrastructure charging user fees? If yes, state the amount and what is covered by the user fees.

The infrastructure is not charging user fees

7. List publications generated with the help of this infrastructure during the past 3 years (2018-2020). Do not include manuscripts in preparation and please give the full reference (i.e., complete author list, complete title, journal name with year, volume, pages)³.

LAURENT ROYBON

Lamas NJ, Roybon L

¹ If the infrastructure was first established in 2020, please include this information.

² Note that the Multipark leadership may ask to see this document with a very short notice.

³ If the infrastructure was first established in 2020, please include this information here too.

Harnessing the potential of human pluripotent stem cell-derived motor neurons for drug discovery in Amyotrophic Lateral Sclerosis (ALS): from the clinic to the laboratory and back to the patient.

Frontiers in Drug Discovery (review under editorial consideration)

N. Gustavsson; E. Savchenko; O. Klementieva; L. **Roybon**

The intracellular milieu of Parkinson's disease patient brain cells modulates alpha-synuclein protein aggregation.

Acta Neuropathologica Communications. 2021 Sep 16;9(1):153

Peteri UK, Pitkonen J, de Toma I, Nieminen O, Utami KH, Strandin TM, Corcoran P, **Roybon L**, Vaheri A, Ethell I, Casarotto P, Pouladi MA, Castrén ML.

Urokinase plasminogen activator mediates changes in human astrocytes modeling fragile X syndrome.

Glia. 2021 Dec;69(12):2947-2962.

K. Russ; G. Teku; L. Bousset; V. Redeker; S. Piel; E. Savchenko; Y. Pomeschchik; J. Savistchenko; T.C. Stummann; C. Azevedo; A. Collin; S. Goldwurm; K. Fog; E. Elmer; M. Vihinen; R. Melki; L.

Roybon.

TNF α and α -synuclein fibrils differently regulate human astrocyte immune reactivity and impair mitochondrial respiration.

Cell Reports 23;34(12):108895.

Peteri, U. K., J. Pitkonen, K. H. Utami, J. Paavola, L. **Roybon**, M. A. Pouladi and M. L. Castren (2021).

Generation of the Human Pluripotent Stem-Cell-Derived Astrocyte Model with Forebrain Identity.

Brain Science 11(2).

K. Simmnacher, F. Krach, Y. Schneider, J. Alecu, L. Mautner, P. Klein, L. **Roybon**, I. Prots, W. Xiang, B. Winner.

Unique signatures of stress-induced senescent human astrocytes.

Experimental Neurology. 2020 Dec;334:113466.

Y. Pomeschchik, O. Klementieva, J. Gil, I. Martinsson, M. Grønning Hansen, T. de Vries, A. Sancho-Balsells, K. Russ, E. Savchenko, A. Collin, A. Rita Vaz, S. Bagnoli, B. Nacmias, S. Sorbi, D. Brites, G. Marko-Varga, Z. Kokaia, M. Rezeli, G.K. Gouras, L. **Roybon**.

Human iPSC-derived hippocampal spheroids: a new tool for stratifying Alzheimer's disease patient specific cellular phenotypes and developing therapies.

Stem Cell Reports. 2020 Jul 14;15(1):256-273.

Brazdis RM, Alecu JE, Marsch D, Dahms A, Simmnacher K, Lörentz S, Brendler A, Schneider Y, Marxreiter F, **Roybon L**, Winner B, Xiang W, Prots I.

Demonstration of brain region-specific neuronal vulnerability in human iPSC-based model of familial Parkinson's disease.

Human Molecular Genetics. 2020 May 8;29(7):1180-1191.

M. Oksanen, I. Hyötyläinen, K. Trontti, T. Rolova, S. Wojciechowski, M. Koskivi, M. Viitanen, A.-L. Levonen, I. Hovatta, L. **Roybon**, K.M. Kanninen, Š. Lehtonen, R.H. Hämäläinen, J. Koistinaho.

NRF2 activation boosts antioxidant defenses and ameliorates inflammatory and amyloid properties in human Presenilin-1 mutated Alzheimer's disease astrocytes.

Glia. 2020 Mar;68(3):589-599.

C. Azevedo, M. Chumarina, E. Serafimova, S. Goldwurm, A. Collin, L. **Roybon**, E. Savchenko, Y. Pomeschchik.

Generation of an induced pluripotent stem cell line (CSC-32) from a patient with Parkinson's disease carrying a heterozygous variation p.A53T in the SNCA gene.

Stem Cell Research, Jan 11;43:101694. doi: 10.1016

M. Chumarina, K. Russ, C. Azevedo, A. Heuer, M. Pihl, Anna Collin, E. Åsander Frostner, E. Elmer, P. Hyttel, G. Cappelletti, M. Zini, S. Goldwurm, L. **Roybon**

Cellular alterations identified in pluripotent stem cell-derived midbrain spheroids generated from a female patient with progressive external ophthalmoplegia and parkinsonism who carries a novel variation (p.Q811R) in the POLG1 gene.

Acta Neuropathologica Communications; 2019 Dec 16;7(1):208

H. Bogetofte, P. Jensen, M. Ryding, S. Ida Schmidt, J. Okarmus, M. Christine Hohnholt, C. Azevedo, L. **Roybon**, L. Kristoffer Bak, H. Waagepetersen, B. James Ryan, R. Wade-Martins, M. Røssel Larsen, M. Meyer

PARK2 mutation causes metabolic disturbances and impaired survival of human iPSC-derived neurons

Front Cell Neurosci. 2019 Jul 5;13:297.

E. Savchenko, G. N. Teku, A. Boza-Serrano, K. Russ, M. Berns, T. Deierborg, N. J. Lamas, H. Wichterle, J. Rothstein, C. E. Henderson, M. Vihinen, L. **Roybon**

FGF family members differentially regulate maturation and proliferation of stem cell-derived astrocytes

Sci Rep. 2019 Jul 3;9(1):9610.

N. Gustavsson, A. Marote, Y. Pomeschchik, K. Russ, C. Azevedo, M. Chumarina, S. Goldwurm, A. Collin, L. Pinto, A.J. Salgado, O. Klementieva, L. **Roybon**, E. Savchenko

Generation of an induced pluripotent stem cell line (CSC-46) from a patient with Parkinson's disease carrying a novel p.R301C mutation in the GBA gene

Stem Cell Res. 2019 Jan;34:101373.

F.A. Siebzehnrübl, K.A. Raber, Y.K. Urbach, A. Schulze-Krebs, F. Canneva, S. Mocerri, J. Habermeyer, D. Achoui, B. Gupta, D.A. Steindler, M. Stephan, H. Phuc Nguyen, M. Bonin, O. Riess, A. Bauer, L. Aigner, S. Couillard-Despres, M. Arce Paucar, P. Svenningsson, A. Osmand, A. Andreew, C. Zabel, A. Weiss, R. Kuhn, S. Moussaoui, I. Blockx, A. Van der Linden, R.Y. Cheong, L. **Roybon**, Å. Petersén, and S. von Hörsten

Early postnatal behavioral, cellular, molecular changes in models of Huntington disease are reversible by HDAC inhibition

Proc Natl Acad Sci U S A. 2018 Sep 11;115(37):E8765-E8774

Marote, Y. Pomeschchik, A. Collin, S. Goldwurm, N. Lamas, L. Pinto, A.J. Salgado, L. **Roybon**

Generation of an induced pluripotent stem cell line (CSC-41) from a Parkinson's disease patient carrying a p.G2019S mutation in the LRRK2 gene

Stem Cell Res. 2018 Apr;28:44-47.

E. Savchenko, A. Marote, K. Russ, A. Collin, S. Goldwurm, L. **Roybon**, Y. Pomeschchik

Generation of a human induced pluripotent stem cell line (CSC-42) from a patient with sporadic form of Parkinson's disease

Stem Cell Res. 2018 Mar;27:90-94.

Marote, Y. Pomeschchik, S. Goldwurm, A. Collin, N. Lamas, L. Pinto, A.J. Salgado, L. **Roybon**
Generation of an induced pluripotent stem cell line (CSC-44) from a Parkinson's disease patient
carrying a compound heterozygous mutation (c.823C>T and EX6 del) in the PARK2 gene
Stem Cell Res. 2018 Mar;27:82-85.

Marote, Y. Pomeschchik, S. Goldwurm, A. Collin, N. Lamas, L. Pinto, A.J. Salgado, L. **Roybon**
Generation of an integration-free induced pluripotent stem cell line (CSC-43) from a patient
with sporadic Parkinsons
Stem Cell Res. 2018 Mar;27:78-81.

K. Russ, A. Marote, E. Savchenko, A. Collin, S. Goldwurm, Y. Pomeschchik, L. **Roybon**
Generation of a human induced pluripotent stem cell line (CSC-40) from a Parkinson's disease
patient with a PINK1 p.Q456X mutation
Stem Cell Res. 2018 Mar;27:61-64.

D. Cartelli, A. Amadeo, A.M. Calogero, F.V. Casagrande, C. De Gregorio, M. Gioria, N. Kuzumaki, I.
Costa, J. Sassone, A. Ciammola, N. Hattori; H. Okano, S. Goldwurm, L. **Roybon**, G. Pezzoli, G.
Cappelletti
Parkin absence accelerates microtubule aging in dopaminergic neurons.
Neurobiol Aging. 2018 Jan;61:66-74.

ANGELA CENCI NILSSON

Andreoli L, Abbaszadeh M, Cao X, **Cenci** MA. Distinct patterns of dyskinetic and dystonic
features following D1 or D2 receptor stimulation in a mouse model of parkinsonism. Neurobiol
Dis 2021, 157: 105429.

Outeiro TF, Heutink P, Bezard E, Angela M **Cenci**. From iPS cells to rodents and non-human
primates: filling gaps in modeling Parkinson's disease. Mov Disord 2021, 36(4):832-841.

Clemensson EKH, Abbaszadeh M, Fanni S, Espa, E, **Cenci** MA. Tracking Rats in Operant
Conditioning Chambers Using a Versatile Homemade Video Camera and DeepLabCut. J Vis Exp
2020, Issue 160, Accession no: 32597866

Cenci MA, Bjorklund A. Animal models for preclinical Parkinson's research: An update and
critical appraisal. Prog Brain Res 2020, 252: 27-59.

Kuter KZ, **Cenci** MA, Carta AR. The role of glia in Parkinson's disease: Emerging concepts and
therapeutic applications. Prog Brain Res 2020, 252: 131-168.

Cenci MA, Riggare S, Pahwa R, Eidelberg D, and Hauser RA. Dyskinesia matters. Mov Disord.
2020, 35(3): 392-396.

Sebastianutto, I., Goyet, E., Andreoli, L., Font-Ingles, J., Moreno-Delgado, D., Bouquier, N.,
Jahannault-Talignani C, Moutin E, Di Menna L, Maslava N, Pin JP, Fagni L, Nicoletti F, Ango F,
Cenci MA§, Perroy J§. D1-mGlu5 heteromers mediate noncanonical dopamine signaling in
Parkinson's disease. J Clin Invest 2020, 130(3): 1168-1184. § shared senior authorship.

Espa E, Clemensson EKH, Luk KC, Heuer A, Bjorklund T, **Cenci**, MA. Seeding of protein aggregation causes cognitive impairment in rat model of cortical synucleinopathy. *Mov Disord*, 2019, 34(11), 1699-1710.

Francardo V, Geva M, Bez F, Denis Q, Steiner L, Hayden MR, **Cenci** MA (2019) Pridopidine induces functional neurorestoration via the Sigma-1 receptor in a mouse model of Parkinson's disease. *Neurotherapeutics* 2019, 16:465-479

Petersson P, Halje P, **Cenci** MA. Significance and translational value of high-frequency cortico-basal ganglia oscillations in Parkinson's disease. *J Parkinsons Dis* 2019; 9(1):183-196.

Fieblinger T, Zanetti L, Sebastianutto I, Breger LS, Quintino L, Lockowandt M, Lundberg C, **Cenci** MA. Striatonigral neurons divide into two distinct morphological-physiological phenotypes after chronic L-DOPA treatment in parkinsonian rats. *Sci Rep* 2018, 8(1):10068

Refolo V, Bez F, Polissidis A, Kuzdas-Wood D, Sturm E, Kamaratou M, Poewe W, Stefanis L, Angela **Cenci** M, Romero-Ramos M, Wenning GK, Stefanova N. Progressive striatonigral degeneration in a transgenic mouse model of multiple system atrophy: translational implications for interventional therapies. *Acta Neuropathol Commun* 2018; 6(1):2.

Cenci MA, Crossman. Animal models of L-DOPA-induced dyskinesia. *Mov Disord* 2018; 33(6):889-899

Cenci MA, Jorntell H, Petersson P. On the neuronal circuitry mediating L-DOPA-induced dyskinesia. *J Neural Transm* 2018; 125(8):1157-1169

Sebastianutto I, **Cenci** MA. mGlu receptors in the treatment of Parkinson's disease and L-DOPA-induced dyskinesia. *Curr Opin Pharmacol* 2018; 38:81-89

ROGER OLSSON

Seamless integration of bioelectronic interface in an animal model via in vivo polymerization of conjugated oligomers, Giuseppina Tommasini, Gwennaël Dufil, Federica Fardella Xenofon Strakosas, Eugenio Fergola, Tobias Abrahamsson, David Bliman, Roger **Olsson**, Magnus Berggren, Angela Tino, Eleni Stavrinidou, Claudia Tortiglione *Bioactive Materials* <https://doi.org/10.1016/j.bioactmat.2021.08.025>

A Biomimetic Evolvable Organic Electrochemical Transistor, Jennifer Y. Gerasimov, Dan Zhao, Ayesha Sultana, Tobias Abrahamsson, Shaobo Han, David Bliman, Deyu Tu, Daniel T. Simon, Roger **Olsson**, Xavier Crispin, Magnus Berggren & Simone Fabiano, 2021, In: *Advanced Electronic Materials*.

FRET-Based Screening Identifies p38 MAPK and PKC Inhibition as Targets for Prevention of Seeded α -Synuclein Aggregation, Alexander Svanbergsson, Fredrik Ek, Isak Martinsson, Jordi Rodo, Di Liu, Edoardo Brandi, Caroline Haikal, Laura Torres-Garcia, Wen Li, Gunnar Gouras, Roger Olsson, Tomas Björklund & Jia-Yi Li, 2021 Jul 13, In: *Neurotherapeutics*.

Identification of potential chemical compounds enhancing generation of enucleated cells from immortalized human erythroid cell lines, Svetlana Soboleva, Ryo Kurita, Fredrik Ek, Hugo Åkerstrand, Rita Silvério-Alves, Roger Olsson, Yukio Nakamura & Kenichi Miharada, 2021, In: Communications Biology. 4, 1, 677.

Diamond Blackfan anemia is mediated by hyperactive Nemo-like kinase, M. C. Wilkes, K. Siva, J. Chen, G. Varetto, M. Y. Youn, H. Chae, F. Ek, R. **Olsson**, T. Lundbäck, D. P. Dever, T. Nishimura, A. Narla, B. Glader, H. Nakauchi, M. H. Porteus, C. E. Repellin, H. T. Gazda, S. Lin, M. Serrano, J. Flygare & K. M. Sakamoto, 2020, In: Nature Communications. 11, 1, 3344.

Discovery of Procognitive Antipsychotics by Combining Muscarinic M1 Receptor Structure-Activity Relationship with Systems Response Profiles in Zebrafish Larvae, Karin Hellman, Jörgen Ohlsson, Marcus Malo, Roger Olsson & Fredrik Ek, 2020 Jan 15, In: ACS Chemical Neuroscience. 11, 2, p. 173-183

Tumour suppressor 15-hydroxyprostaglandin dehydrogenase induces differentiation in colon cancer via GLI1 inhibition, Shakti Ranjan Satapathy, Geriolda Topi, Janina Osman, Karin Hellman, Fredrik Ek, Roger **Olsson**, Wondossen Sime, Lubna M Mehdawi & Anita Sjölander, 2020 Aug 19, In: Oncogenesis. 9, 8, 74

Tumour-suppressive effect of oestrogen receptor β in colorectal cancer patients, colon cancer cells, and a zebrafish model, Geriolda Topi, Shakti Ranjan Satapathy, Pujarini Dash, Syrina Mehrabi, Roy Ehrnström, Roger **Olsson**, Marie-Louise Lydrup & Anita Sjölander, 2020 Jul, In: Journal of Pathology. 251, 3, p. 297-309 13 p

Enantiomeric N-substituted phthalimides with excitatory amino acids protect zebrafish larvae against PTZ-induced seizures, Carolina Campos-Rodriguez, Fredrik Ek, Eduardo Ramirez-San Juan & Roger **Olsson**, 2020, In: European Journal of Pharmacology. 888, 173489

A Phenotypic Screening Assay Identifies Modulators of Diamond Blackfan Anemia Kavitha Siva, Fredrik Ek, Jun Chen, Abdul Ghani Alattar, Kristmundur Sigmundsson, Roger **Olsson**, Marcin Wlodarski, Thomas Lundbäck & Johan Flygare, 2019, In: SLAS Discovery. 24, 3, p. 304-313 10 p

Bortezomib prevents cytarabine resistance in MCL, which is characterized by down-regulation of dCK and up-regulation of SPIB resulting in high NF- κ B activity Catja Freiburghaus, Venera Kuci Emruli, Angelica Johansson, Christian Winther Eskelund, Kirsten Grønabæk, Roger **Olsson**, Fredrik Ek, Mats Jerkeman & Sara Ek, 2018 Apr 25, In: BMC Cancer. 18, 1, 466

Evaluation of Drug Exposure and Metabolism in Locust and Zebrafish Brains Using Mass Spectrometry Imaging Marvin Villacrez, Karin Hellman, Tatsuya Ono, Yutaka Sugihara, Melinda Rezeli, Fredrik Ek, Gyorgy Marko-Varga & Roger **Olsson**, 2018 Aug 15, In: ACS Chemical Neuroscience. 9, 8, p. 1994-2000 7 p

Osmotic Concentration of Zebrafish (*Danio rerio*) Body Fluids is Lower in Larvae than in Adults. Tomasz M Kozłowski, Mikael Jönsson, Fredrik Ek, Roger **Olsson** & Ronald H H Kröger, 2018 Feb 1, in: Zebrafish. 15, 1, p. 9 -14 6 p

ROGER OLSSON and FREDRIK EK (specific to screening platform)

Alexander Svanbergsson, Fredrik **Ek**, Isak Martinsson, Jordi Rodo, Di Liu, Edoardo Brandi, Caroline Haikal, Laura Torres-Garcia, Wen Li, Gunnar Gouras, Roger **Olsson**, Tomas Björklund, Jia-Yi Li; FRET-based screening identifies p38 MAPK and PKC inhibition as targets for prevention of seeded α -synuclein aggregation. Neurotherapeutics 2021 Jul 13. doi: 10.1007/s13311-021-01070-1

Svetlana Soboleva, Ryo Kurita, Fredrik **Ek**, Hugo Åkerstrand, Roger **Olsson**, Yukio Nakamura, and Kenichi Miharada*; Identification of potential chemical compounds inducing enucleation of immortalized human erythroid cell lines.

Communications Biology (2021) DOI: 10.1038/s42003-021-02202-1

Simon Hultmark, Aurélie Baudet, Ludwig Schmiderer, Rajkumar Sasidharan, Christer Larsson, Sören Lehmann, Gunnar Juliusson, Fredrik **Ek*** and Mattias Magnusson*; Combinatorial molecule screening identifies a novel diterpene and the BET inhibitor CPI-203 as differentiation inducers of primary acute monocytic leukemia cells

Haematologica, 2021 10.3324/haematol.2020.249177

Wilkes MC, Siva K, Chen J, Varetto G, Youn MY, Chae H, **Ek** F, **Olsson** R, Lundbäck T, Dever DP, Nishimura T, Narla A, Glader B, Nakauchi H, Porteus MH, Repellin CE, Gazda HT, Lin S, Serrano M, Flygare J, Sakamoto KM# Diamond Blackfan Anemia is Mediated by Hyperactive Nemo-Like Kinase

Nature Communication 11, 3344 2020

Siva, K., Fredrik **Ek**, Jun Chen, Abdul Ghani Alattar, Sigmundsson, K., Roger **Olsson**, Wlodarski, M., Lundbäck, T. & Johan Flygare, A Phenotypic Screening Assay Identifies Modulators of Diamond Blackfan Anemia 2019, In : SLAS discovery : advancing life sciences R & D. 24, 3, p. 304-313 10 p.

<https://journals.sagepub.com/doi/10.1177/2472555218823531>

Catja Freiburghaus, Venera Kuci Emruli, Angelica Johansson, Christian Winther Eskelund, Kirsten Grønbaek, Roger **Olsson**, Fredrik **Ek**, Mats Jerkeman and Sara Ek*Cytarabine-resistant MCL is characterized by down-regulation of dCK and up-regulation of SPIB resulting in high NF-κB activity,

BMC Cancer 2018 25;18(1):466

KARSTEN RUSCHER

Talhada D, Marklund N, Wieloch T, Kuric E, **Ruscher K**. Plasticity-Enhancing Effects of Levodopa Treatment after Stroke. Int. J. Mol. Sci. 2021. 22. doi:10.3390/ijms221910226.

Michalettos G, Walter HL, Antunes ARP, Wieloch T, Talhada D, **Ruscher K**. Effect of Anti-inflammatory Treatment with AMD3100 and CX(3)CR1 Deficiency on GABA(A) Receptor Subunit and Expression of Glutamate Decarboxylase Isoforms After Stroke. Mol. Neurobiol. 2021. doi:10.1007/s12035-021-02510-x.

Tresse E, Riera-Ponsati L, Jaber E, Sew WQG, **Ruscher K**, Issazadeh-Navikas S. IFN-β rescues neurodegeneration by regulating mitochondrial fission via STAT5, PGAM5, and Drp1. *The EMBO Journal*. 2021. 40: e106868. doi:10.15252/embj.2020106868.

Durrant CS, **Ruscher K**, Sheppard O, Coleman MP, Özen I. Beta secretase 1-dependent amyloid precursor protein processing promotes excessive vascular sprouting through NOTCH3 signaling. *Cell Death Disease*. 2020. 11, 98.

Ozen I, **Ruscher K**, Nilsson R, Flygt J, Clausen F, Marklund N. Interleukin-1 Beta Neutralization Attenuates Traumatic Brain Injury-Induced Microglia Activation and Neuronal Changes in the Globus Pallidus. *International Journal of Molecular Sciences*. 2020. Jan 8;21(2). pii: E387.

Talhada D, Feiteiro J, Costa AR, Talhada T, Cairrão E, Wieloch T, Englund E, Santos CR, Gonçalves I, **Ruscher K**. Triiodothyronine modulates neuronal plasticity mechanisms to enhance functional outcome after stroke. *Acta Neuropathologica Communications*. 2019. 7(1): 216.

Häggman Henrikson J, Pombo Antunes AR, Wieloch T, **Ruscher K**. Enhanced functional recovery by levodopa is associated with decreased levels of synaptogyrin following stroke in aged mice. *Brain Research Bulletin*. 2020. 155:61-66.

Talhada D, Santos CRA, Gonçalves I, **Ruscher K**. Thyroid Hormones in the Brain and Their Impact in Recovery Mechanisms After Stroke. *Frontiers Neurology*. 2019. 10:1103.

Talhada D, Gonçalves I, Gomes JC, Saraiva MJ, Reis Santos C, **Ruscher K**. Transthyretin expression in the postischemic brain. *PLoS One*. 2019. 14(9):e0221555.

TADEUSZ WIELOCH

Corbett D, Carmichael ST, Murphy TH, Jones TA, Schwab ME, Jolkkonen J, Clarkson AN, Dancause N, **Wieloch T**, Johansen-Berg H, Nilsson M, McCullough LD, Joy MT. Enhancing the alignment of the preclinical and clinical stroke recovery research pipeline: Consensus-based core recommendations from the Stroke Recovery and Rehabilitation Roundtable translational working group.(2017) *Int J Stroke*. 12:462-471. doi: 10.1177/1747493017711814.

Quattromani MJ, Hakon J, Rauch U, Bauer AQ, **Wieloch T**. (2018) Changes in resting-state functional connectivity after stroke in a mouse brain lacking extracellular matrix components. *Neurobiol Dis*. 112:91-105.

Imbriglio T, Verhaeghe R, Martinello K, Pascarelli MT, Chece G, Bucci D, Notartomaso S, Quattromani M, Mascio G, Scalabrì F, Simeone A, Maccari S, Del Percio C, **Wieloch T**, Fucile S, Babiloni C, Battaglia G, Limatola C, Nicoletti F, Cannella M. (2019) Developmental abnormalities in cortical GABAergic system in mice lacking mGlu3 metabotropic glutamate receptors. *FASEB J*. 33:14204-14220.

Maguire JM, Bevan S, Stanne TM, Lorenzen E, Fernandez-Cadenas I, Hankey GJ, Jimenez-Conde J, Jood K, Lee JM, Lemmens R, Levi C, Norrving B, Rannikmae K, Rost N, Rosand J, Rothwell PM, Scott R, Strbian D, Sturm J, Sudlow C, Traylor M, Thijs V, Tatlisumak T, **Wieloch T**, Woo D, Worrall BB, Jern C, Lindgren A. (2019) *Eur Stroke J*. 2:229-237.