



9-11
march
2021

brain malformations

the final conference of neuro-mig cost action

the framework program

*all times are expressed in CET

**all proceedings are moderated by Mateusz Marciniak

_day 1 (09.03.2021): 14:00-18:00

opening ceremony

- 14:00-14:05: Michal Klichowski
WELCOME FROM ORGANIZING COMMITTEE
- 14:05-14:15: Agnieszka Cybal-Michalska
WELCOME FROM ADAM MICKIEWICZ UNIVERSITY IN POZNAN
- 14:15-14:45: Grazia M.S. Mancini and Anna Jansen
FOUR YEARS NEURO-MIG: WHAT HAVE WE LEARNED

keynote speakers – session 1a: HIGHLIGHT ON NEURONAL MIGRATION RESEARCH

- 14:45-15:15: Orly Reiner (Weizmann Institute of Science, Israel)
ESSENTIAL ROLES OF THE HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN U (HNRNPU) PROTEIN IN THE DEVELOPING BRAIN
+15 min discussion
- 15:30-16:00: Silvia Cappello (Max Planck Institute of Psychiatry, Germany)
MODELING NEURONAL HETEROTOPIA WITH MOUSE AND HUMAN CEREBRAL ORGANIDS
+15 min discussion

_15 min coffee break

keynote speakers – session 1b: HIGHLIGHT ON NEURONAL MIGRATION RESEARCH

- 16:30-17:00: Laurent Nguyen (University of Liege, Belgium) et R. Le Bail, C.G. Silva
IMPAIRED INTERNEURON MIGRATION ALTERS CEREBRAL CORTEX MORPHOGENESIS AND CONNECTIVITY
+15 min discussion
- 17:15-17:45: Katja Kobow (University Hospital Erlangen, Germany)
DNA METHYLATION-BASED CLASSIFICATION OF MALFORMATIONS OF CORTICAL DEVELOPMENT
+15 min discussion and day 1 summary

_day 2 (10.03.2021): 12:00-19:30

_keynote speakers – session 2a: CLINIC AND NEUROIMAGING OF BRAIN MALFORMATIONS

- **12:00-12:30: Nataliya Di Donato (Dresden University of Technology, Germany)**
LISSENCEPHALY: IS IT STILL A CLASSICAL NEURONAL MIGRATION DISORDER?
+15 min discussion
- **12:45-13:15: Renske Oegema (Utrecht University, Netherlands)**
A CLINICAL APPROACH TO HETEROTOPIA
+15 min discussion
- **13:30-14:00: Maarten Lequin (Utrecht University, Netherlands)**
IS IMAGING STILL USEFUL IN MALFORMATIONS OF CORTICAL DEVELOPMENT? AN UPDATE
+15 min discussion

_15 min coffee break

_keynote speakers – session 2b: CLINIC AND NEUROIMAGING OF BRAIN MALFORMATIONS

- **14:30-15:00: Nadia Bahi-Buisson (Necker-Enfants Malades Hospita, France)** *et S. Farcy, C. Maillard, F. Francis, A. Baffet*
FURTHER ADVANCES IN ELUCIDATING MOLECULAR AND CELLULAR MECHANISMS UNDERLYING DYNEINOPATHIES
+15 min discussion
- **15:15-15:45: Andrew Fry (Cardiff University, United Kingdom)**
DELINEATING NMDAR-ASSOCIATED MALFORMATIONS OF CORTICAL DEVELOPMENT
+15 min discussion
- **16:00-16:30: Marije Meuwissen (University Hospital Antwerp, Belgium)**
GENETIC TESTING IN CEREBRAL PALSY CONTRIBUTES SIGNIFICANTLY TO DIAGNOSIS: THE ANTWERP EXPERIENCE
+15 min discussion

_15 min coffee break

_free abstract communications

- **17:00-17:15: Stephanie Baulac (Sorbonne University, France)** *et S. Baldassari, M. Chipaux, G. Dorfmueller*
BRAIN MOSAICISM IN FOCAL CORTICAL DYSPLASIAS
+one-shot 5 min discussion
- **17:20-17:35: Rossella Di Giaimo (Max Planck Institute of Psychiatry, Germany)** *et Z. Bekjarova, F. Di Matteo, F. Pipicelli, G. Maccarone, P. Kielkowski, S. Cappello*
INSUFFICIENCY OF FUNCTIONAL CYSTATIN B IN HUMAN EPILEPSY IMPAIRS NEURONAL MIGRATION
+one-shot 5 min discussion
- **17:40-17:55: Kristina Lanko (Erasmus University, Netherlands)** *et M.J.A. Weerts, T.S. Barakat*
DELINEATING THE MOLECULAR AND PHENOTYPIC SPECTRUM OF THE SETD1B-RELATED SYNDROME
+one-shot 5 min discussion
- **18:00-18:15: Jordy Dekker (Erasmus University, Netherlands)** *et R. Schot, K.A. Aldinger, D.B. Everman, J.A. Sullivan, V. Shashi, M.S. Zaki, J.G. Gleeson, A. Vitobello, A.-S. Denomme-Pichon, A.-L. Mosca-Boidron, S. Nambot, L. Perrin, S.E. McKeown, F. D'Arco, R.J. Leventer, D. Doherty, W.B. Dobyns, G.M.S. Mancini, K.C. Slep*
THE CLINICAL AND NEURORADIOLOGICAL SPECTRUM OF VARIANTS IN THE GAR DOMAIN OF MACF1
+one-shot 5 min discussion
- **18:20-18:35: Roel Quintens (Belgian Nuclear Research Centre [SCK•CEN], Belgium)**
P53 ACTIVATES A DUAL TRANSCRIPTIONAL PROGRAM TO REGULATE BRAIN SIZE IN RESPONSE TO EMBRYONIC DNA DAMAGE
+one-shot 5 min discussion
- **18:40-18:55: Kristina Lanko (Erasmus University, Netherlands)** *et L.E. Sanderson, T.S. Barakat*
BI-ALLELIC VARIANTS IN HOPS COMPLEX SUBUNIT VPS41 CAUSE CEREBELLAR ATAXIA AND ABNORMAL

MEMBRANE TRAFFICKING

+one-shot 5 min discussion

- **19:00-19:15: Daphne Smits (Erasmus University, Netherlands)** et R. Schot, P. Magini, L. Vandervore, M. Columbaro, E. Kasteleijn, F. Palombo, L. Iommarini, M. Lequin, A.M. Porcelli, P. Govaert, M. Dremmen, M.C.Y. de Wit, M. Severino, M.T. Divizia, N. Ordonez-Herrera, A. Alhashem, A. Al Fares, M. Al Ghamdi, A. Rolfs, P. Bauer, J. Demmers, F. Verheijen, M. Wilke, M. van Slegtenhorst, P.J. van der Spek, A. Jansen, R. Stottmann, R. Hufnagel, R. Hopkin, D. Aljeaid, W. Wiszniewski, P. Gawlinski, F. Alkuraya, V. Stanley, A. Bertoli-Avella, G. Mirzaa, W.B. Dobyns, M. Seri, T.Pippucci, M.Fornerod, G.M.S. Mancini
STRESS: CAN NEURONAL PROGENITORS HANDLE IT
+one-shot 5 min discussion and day 2 summary

_day 3 (11.03.2021): 14:00-19:30

_flash-talk session

- **14:00-14:05: Jean-Christophe Vermoyal (Mediterranean Institute of Neurobiology [INMED], France)** et L. Goirand-Lopez, A. Vinck, A. Fortoul, F. Watrin, F. Francis, S. Capello, T. Marissal, J.-B. Manent
COMPARATIVE ASSESSMENT OF NETWORK-LEVEL DEFECTS IN RODENT MODELS OF SUBCORTICAL BAND HETEROTOPIA AND PERIVENTRICULAR HETEROTOPIA
- **14:05-14:10: Aurelien Fortoul (Mediterranean Institute of Neurobiology [INMED], France)** et F. Francis, S. Capello, J.-B. Manent, F. Watrin
IMPACT OF HETEROTOPIA ON PRIMARY SOMATOSENSORY CORTEX DEVELOPEMENT AND THALAMOCORTICAL CONNECTIVITY IN SUBCORTICAL BAND HETEROTOPIA AND PERIVENTRICULAR HETEROTOPIA MOUSE MODELS
- **14:10-14:15: Donia Zaidi (National Institute for Health and Medical Research [INSERM], France)** et J. Ferent, S.R. Puiggros, B.N. Yigit, N. Ozlu, D. Jabaudon, F. Francis
INVESTIGATION OF CELL CYCLE DYSFUNCTIONS IN THE MURINE EML1 CONDITIONAL KNOCKOUT MODEL OF HETEROTOPIA
- **14:15-14:20: Richard Belvindrah (Sorbonne University and National Institute for Health and Medical Research [INSERM], France)** et M. Penisson, F. Francis
LIS1 MUTATION PREVENTS BASAL RADIAL GLIA-LIKE CELL PRODUCTION IN THE MOUSE
- **14:20-14:25: Stefanie Brock (Free University of Brussels [VUB], Belgium)** et F. Cools, A. Jansen
NEUROPATHOLOGY OF GENETICALLY DEFINED MALFORMATIONS OF CORTICAL DEVELOPMENT – A SYSTEMATIC LITERATURE REVIEW
- **14:25-14:30: Eva Medico Salsench (Erasmus University, Netherlands)** et R. Maroofian, R. Deng, K. Lanko, B.P. Gonzalez, O. Sanchez-Lijarcio, S. Ibanez-Mico, A. Wojcik, M. Vargas, A. Schroeder, C.-T. Fong, A. Begtrup, I.H. Kaya, M. AlMuhaizea, D. Colak, H. Houlden, R.-J. Galjaard, N. Kaya, T.S. Barakat
EXPANDING THE MUTATIONAL LANDSCAPE AND CLINICAL PHENOTYPE OF THE YIF1B RELATED BRAIN DISORDER
- **14:30-14:35: Ece Sonmezler (Dokuz Eylul University, Turkey)**
A NOVEL HOMOZYGOUS VARIANT IN THE TUBGCP2 GENE UNDERLYING SEVERE NEURODEVELOPMENTAL DISEASE ALTERS Γ -TURC RING COMPLEX
- **14:35-14:40: Elena Perenthaler (Erasmus University, Netherlands)** et S. Yousefi, R. Deng, A. Nikoncuk, T.S. Barakat
CHARACTERIZATION OF THE FUNCTIONAL ENHANCERS IN HUMAN NEURAL STEM CELLS
- **14:40-14:45: Julien Ferent (National Institute for Health and Medical Research [INSERM], France)** et F. Francis
TRIDIMENSIONAL VISUALIZATION OF ECTOPIC AXONAL TRACTS WITHIN THE HETEROTOPIC CORTEX OF THE MURINE EML1 CONDITIONAL KNOCKOUT MODEL

_15 min coffee break

_keynote speakers – session 3a: UNEXPLORED PATHS ON DISEASE MECHANISM AND THERAPY

- **15:00-15:30: Karina Krajdjen Haratz (Tel Aviv University, Israel)**
WHAT NEXT: COST ACTION ON MIDBRAIN-HINDBRAIN MALFORMATIONS
+15 min discussion

- **15:45-16:15: Gustavo Malinger (Tel Aviv University, Israel)**
WHAT NEXT? MALFORMATIONS INVOLVING THE MIDBRAIN-HINDBRAIN. EARLY RECOGNITION BY TRANSVAGINAL HIGH RESOLUTION ULTRASOUND
+15 min discussion
- **16:30-17:00: Christopher A. Walsh (Harvard University, United States)**
SOMATIC MUTATION AND GENOMIC DIVERSITY IN HUMAN BRAIN IN DEVELOPMENT, DISEASE, AND DEGENERATION
+15 min discussion

_15 min coffee break

_keynote speakers – session 3b: UNEXPLORED PATHS ON DISEASE MECHANISM AND THERAPY

- **17:30-18:00: Ghayda Mirzaa (University of Washington, United States)**
MEGALENCEPHALY: ADVANCES FROM GENOMIC DISCOVERIES TO PRECISION-BASED MEDICINE
+15 min discussion
- **18:15-18:45: Carlos Cardoso (Mediterranean Institute of Neurobiology [INMED], France)**
ABNORMAL DEVELOPMENT OF NEURONAL WIRING IN ANIMAL MODEL OF GREY MATTER HETEROTOPIA
+15 min discussion

_closing ceremony

- **19:00-19:25: Grazia M.S. Mancini, Anna Jansen and Carlos Cardoso**
CLOSING REMARKS AND GENERAL DISCUSSION
- **19:25-19:30: Michal Klichowski**
ACKNOWLEDGMENTS AND FAREWELL