WFNR SPECIAL INTEREST GROUP ANNUAL REPORT

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| Name of Special Interest Group | Cognitive Rehabilitation |
| Chair  Email | Stephanie Clarke  Stephanie.Clarke@chuv.ch |
| Co-Chair(s) where applicable | Gilles Rode  gilles.rode@chu-lyon.fr |
| Number of Members | 43 |
| Key objectives and action plan | To promote an integrated approach to cognitive disorders and cognitive interventions across timeframes (acute to chronic), evaluations (clinical to biomedical), treatments (behavioural to pharmacological), using an evidence-based approach to treatment of cognitive disorders  To promote translational research in the field of cognitive neuroscience, including topics of brain organisation, impact of cognitive deficits on neurorehabilitation, neural plasticity, and new strategies in cognitive rehabilitation  To offer teaching courses |
| Activities during previous 12 months | During the WCNR 2020: participation in Seminars (Prism adaptation – state of the art), Symposia (Special Issue Session on COVID-19) and Plenary lectures  Hackathon organised by Prof. Gilles Rode and his colleagues during the WFNR/SOFMER 2020 <https://www.facebook.com/HackingRehabLyon/>  <https://www.youtube.com/channel/UCtTv22jeSBaKZKXzWOA96Dw>  <https://lyon-est.univ-lyon1.fr/la-faculte/actualites/hacking-rehab-lyon#.X-zI6y3pO75>  Participation in the WFNR Webinar “Neurological sequelae of COVID-19 and neurorehabilitation strategies” |
| Proposed activities | The SIG Cognitive Rehabilitation planned to produce a series of lectures within their field of expertise (brain organisation, impact of cognitive deficits on neurorehabilitation, neural plasticity, new strategies in cognitive rehabilitation), to be used as introduction to Teaching Faculty events. The recording was to be carried out during the WCNR 2020 in Lyon, in collaboration with the University of Lyon. Because of COVID-19 the production of this series of lectures is postponed to the forthcoming WCNR.  The SIG teaching courses in Cognitive neurorehabilitation focus on an integrated approach to cognitive deficiencies based on the International Classification of the Functioning (WHO 2001). Each teaching course includes biomedical evaluation of neural basis of cognitive deficits and identification of undamaged brain regions involved in cerebral plasticity and recovery by anatomical (CT, MRI, tractography) and functional (fMRI, EEG, MEG) imaging analysis, clinical evaluation of sub-types deficits and related disorders based on bedside, psychometric and ecological assessment, indications for behavioural and pharmacological treatments, and evidence-based approach to treatment of cognitive disorders. Different teaching courses will be proposed according to the expectations of physicians and the economical and social context. Introductory courses for physicians in developing countries in order to promote development of cognitive neurorehabilitation; advanced courses for physicians interested by development of thorough programs and research in cognitive neurorehabilitation. These teaching courses follow recommendations of the WHO global disability action plan 2014-2021 for a better health for all people with disabilities. |
| Publications  (Selected publications, relevant to 2020 SIG supported events) | Holé J, Reilly KT, Masj S. Rpde G (2020) Caloric vestibular stimulation reduced the directional bias in representational neglect. Brain Sci. 2020, 10(6), 323; <https://doi.org/10.3390/brainsci10060323>  Revol P, Touil N, Havé L, Rode G, Jacquin-Courtois S, Rossetti Y.  [Prisms adaptation improves haptic object discrimination in hemispatial neglect.](https://pubmed.ncbi.nlm.nih.gov/31790943/?from_term=Rode+G&from_filter=ds1.y_1&from_pos=9)  Cortex. 2020 Feb;123:152-161. doi: 10.1016/j.cortex.2019.10.004. Epub 2019 Oct 29.PMID: 31790943​  Lunven M, Rode G, Bourlon C, Duret C, Migiaccio R, Chevriollon E, Thiebaut de Schotten, Bartolomeo P (2019) Anatomical predictors of succesful prism adaptation in chronic visual neglect, Cortex 2019 Nov;120:629-641.  Wilf M, Serino A, Clarke S, Crottaz-Herbette S (2019) Prism adaptation enhances decoupling between the default mode network and the attentional networks. NeuroImage 200:210-220  Clarke S (2020) Identifying patterns of cognitive deficits: path to better outcome after stroke. Journal of Neurology, Neurosurgery, and Psychiatry 99, 449-450  Beaud V, Crottaz-Herbette S, Dunet V, Vaucher J, Bernard-Valnet R, Du Pasquier R, Bart PA, Clarke S (2020) Pattern of cognitive deficits in severe COVID 19. J Neurol Neurosurg Psychiatry 2020; 0:1–2. doi:10.1136/jnnp-2020-325173  Kerkhoff G, Rode G, Clarke S (2020) Treating neurovisual deficits and spatial neglect. In Platz T Clinical Pathways. Springer |

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