

Biographical Sketch

Professor José León-Carrión, Ph.D., Department Chair
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José León-Carrión is professor and Chair of Neuropsychology and Director of the Human Neuropsychology Laboratory at the University of Seville. He is also Director of the Research, Development and Innovation Department at the Center for Brain Injury Rehabilitation (C.RE.CER.) in Seville, Spain. He studied at the Universidad Autónoma de Madrid, receiving a BA Degree in Philosophy and a Ph.D. in Psychology.

He is a founder and member of the World Academy for Multidisciplinary Neurotraumatology and a member of the European Brain Injury Society (EBIS), and former Vice Chairman of the Executive Committee of the International Brain Injury Association (IBIA). He is a reviewer and consultant for the U.S. Department of Defense Traumatic Brain Injury Grant Program. He has participated in conferences world-wide. Professor León-Carrión is a member of various journal editorial boards in his field and is recognized for his work in neurorehabilitation and his authorship of neuropsychology textbooks, books and articles related to brain injury assessment and rehabilitation of. He is also an international expert on consciousness studies and rehabilitation and treatment of patients in coma, vegetative state, minimal conscious state, locked-in syndrome and severe neurocognitive disorders. He is the recipient of numerous awards in recognition of his outstanding achievement as an expert in the field of neuropsychological rehabilitation.

To facilitate neuropsychological assessment, he has developed various tools: the Computerized Sevilla Neuropsychological Test Battery for the assessment of frontal patients, Luria's Memory Words-Revised Test, the Neurologically-related Changes of Personality Inventory (NECHAPI), and the Neuropsychological Clinical Evaluation of Aphasia Puebla-Sevilla.

Professor León-Carrión has also developed methodologies for the assessment and intervention of patients in vegetative state, minimal conscious state and low-level states. He has also developed activities designed to aid in the rehabilitation of disabled individuals, in order to increase their social equity and improve their quality of life.

Over the past 35 years, Professor León-Carrión has developed a solid and extensive scientific career in rehabilitation and brain injury, both nationally and internationally, publishing extensively in specialized journals and books, as well as being a principal and co-investigator in numerous studies on TBI rehabilitation.

Recent articles include:

Egea-Guerrero JJ, Revuelto-Rey F, Murillo-Cabezas MA, Muñoz-Sánchez A, Vilches-Arenas P, Sánchez-Linares JM, Domínguez-Roldán J, León-Carrión J. **Accuracy of the S100 β Protein as a marker of brain damage in Traumatic Brain Injury.** Brain Injury, January 2012; 26(1): 76–82.

León-Carrión J, León-Domínguez U, Barroso y Martín JM, Domínguez-Morales, MR. **Recovery of cognitive functions during comprehensive rehabilitation after traumatic coma.** Journal of Rehabilitation Medicine. 2012 May;44(6):505-11.

Leon-Carrion, J; Leon-Dominguez, U; Pollonini, L; Wu MH; Frye RE; Dominguez-Morales, MR; Zouridakis G. **Synchronizing the anterior and posterior cortex to produce consciousness in patients with traumatic brain injury (TBI)** Brain Research, October 2012 2;1476:22-30.

Egea-Guerrero JJ, Murillo-Cabezas F, León-Carrión J. **Clinical utility of the S100B protein during brain injury management.** NeuroTrauma Letter. Abril 9th, 2013.

León-Domínguez U, Vela-Bueno A, Froufé-Torres M, León-Carrión J. **A chronometric functional sub-network in the thalamo-cortical system regulates the flow of neural information necessary for conscious cognitive processes.**

Neuropsychologia. 2013 Jun;51(7):1336-49.

León-Carrión J, Machuca-Murga F, Solís-Marcos I, León-Domínguez U, Domínguez-Morales MR. **The sooner patients begin neurorehabilitation, the better their functional outcome.** Brain Inj. 2013; 27(10):1119-23.

Leon-Dominguez U, Izzetoglu M, Leon-Carrion J, Solis-Marcos I, Garcia-Torrado FJ, Forastero-Rodríguez A, Mellado-Miras P, Villegas-Duque D, Lopez-Romero JL, Onaral B, Izzetoglu K. **Molecular concentration of deoxyHb in human prefrontal cortex predicts the emergence and suppression of consciousness.** Neuroimage. 2014 Jan 15;85 Pt 1:616-25.

León-Carrión J, León-Domínguez U, Halper J, Pollonini L, Zouridakis G, Domínguez-Morales MD. **Restoring Cortical Connectivity Directionality and Synchronization is Essential to Treating Disorder of Consciousness.** Curr Pharm Des. 2014;20(26):4268-74

Solís-Marcos I, Castellano-Guerrero AM, Domínguez-Morales MR, León-Carrión J. **Predictores de la recuperación funcional cognitiva en pacientes con traumatismo craneoencefálico.** Rev Neurol. 2014 Apr 1;58(7):296-302.

León-Domínguez U, Martín-Rodríguez JF, León-Carrión J. **Executive n-back tasks for the neuropsychological assessment of working memory.** Behav Brain Res. 2015 Oct 1;292:167-73.

Herrera-Melero, MC; Egea-Guerrero, JJ.; Vilches-Arenas, A; Rincón Ferrari, MD; Flores-Cordero, JM; Leon-Carrion, J; Murillo-Cabezas, F. **Acute predictors for mortality after severe TBI in Spain: gender differences and clinical data.** Brain Injury 2015 Aug. 21:1-6.

León-Domínguez U, León-Carrión J. **Cómo se protege tu cerebro. Revista MUY INTERESANTE.** 2016 Jan. <http://www.muyinteresante.es/ciencia/articulo/como-se-protege-tu-cerebro-401453898165>

Riganello F, Macri S, Alleva E, Petrini C, Soddu A, León-Carrión J, Dolce G. **Pain perception in unresponsive wakefulness syndrome may challenge the interruption of artificial nutrition and hydration: neuroethics in action.** Front Neurol. 2016; 7: 202. doi: 10.3389/fneur.2016.00202. Epub 2016 Nov 16. IF: 3,552.

León-Dominguez U, León-Carrión J. **Near Infrared Spectroscopy.** Entry for *The Encyclopedia of Clinical Neuropsychology*. Editors: Prof. Jeffrey Kreutzer, John DeLuca, Bruce Caplan. Springer Intl Publishing, Sept. 2017. doi:10.1007/978-3-319-56782-2. ISBN: 978-3-319-56782-2 (Print) 978-3-319-56782-2 (Online).

León-Domínguez U, Solís-Marcos I, Barrio-Álvarez E, Barroso y Martín JM, León-Carrión J. **Safe driving and executive functions in healthy middle-aged drivers.** Applied Neuropsychology: Adult 2017.Sep-Oct;; 24(5):395-403. doi: 10.1080/23279095.2015.1137296. Epub 2016 Apr 18. IF:0.728