

# CURRICULUM VITAE

PERSONAL INFORMATION	CV date	06/1/2021
First and Family name	Maria Victoria Sanchez Vives	
<b>Researcher codes</b>	Open Researcher and Contributor ID (ORCID**)	0000-0002-8437-9083
Google Scholar profile	SCOPUS Author ID (*)	35605402100
<a href="#">Maria V. Sanchez-Vives - Google Académico</a>	WoS Researcher ID (*)	J-8526-2014

## **Current position**

Institution	Institut d'Investigacions Biomèdiques August Pi i Sunyer (IDIBAPS)		
Department	Systems Neuroscience Research Group		
Address /Country	C/ Rosello 149-153, 08036, Barcelona, Spain		
Current position	ICREA Research Professor / Group Leader	From	2008
Key words	Cerebral cortex; Electrophysiology; Neurotechnology; Oscillations		

Education

<b>Education</b>	<b>PhD, Licensed, Graduate</b>	<b>University</b>	<b>Year</b>
	PhD Medicina y Cirugía	Universidad de Alicante	1992
	Grado de Licenciatura (Tesis)	Universidad de Alicante	1991
	Licenciatura Medicina y Cirugía	Universidad de Alicante	1988

## **Professional History**

## **2.1 Senior Posts**

<b>Dates</b>	<b>Detail of position held</b>	<b>Institution</b>
2017-present	Adjunct Professor of Psychology	University of Barcelona
2008-present	ICREA Research Professor	ICREA at IDIBAPS
1999-2008	Associate Professor of Physiology	Universidad Miguel Hernández

## 2.2 Previous Posts

<b>Dates</b>	<b>Detail of position held</b>	<b>Institution</b>
01/99-06/99	Research Associate Scientist, Neurobiology	Yale University Medical School
01/95-12/98	Postdoctoral Fellow / Associate, Neurobiol.	Yale University Medical School
10/93-12/94	Postdoctoral Fellow	Rockefeller University
09/88-12/92	Teaching Assistant, Physiology	Medical School, University of Alicante
10/88-12/92	PhD student, Physiology	Medical School, U of Alicante
10/85-10/88	Internship, Physiology	Medical School, U of Alicante

## **General indicators of quality of scientific production**



## CV SUMMARY

Maria V. Sanchez-Vives, M.D., PhD in Neuroscience, has been ICREA Research Professor at IDIBAPS (Institut d'Investigacions Biomèdiques August Pi i Sunyer) in Barcelona since 2008, where she leads the Systems Neuroscience team. She is also co-Director of the Event Lab (Experimental Virtual Environments in Neuroscience and Technology) and Adjunct Professor of the Dept of Basic Psychology at the University of Barcelona. After obtaining her doctorate from the University of Alicante (1992), she was a postdoctoral researcher/later Research Associate at Rockefeller University (1993-1994) and Yale University (1995-2000). She established her own laboratory at the Instituto de Neurociencias de Alicante (Universidad Miguel Hernández UMH-Consejo Superior de Investigaciones Científicas) with a permanent position (civil servant) as (Profesora Titular) Associate Professor of Physiology (2000-2007) at the Faculty of Medicine (UMH).

She has received several **competitive awards**: pre and postdoctoral FPI fellowships, NATO postdoctoral fellowship, American Epilepsy Foundation, Human Frontiers Science Foundation Grant Program.

She has also been a partner of 10 European projects, coordinator of three of them (CORTICONIC; SLOW-Dyn and VRperGENERE). MVSV is currently a partner of the Human Brain Project and the Graphene Flagships, being a member of the “Science and Infrastructure Board” and Coordinator of a Workpackage “Networks underlying cognition and consciousness”.

In recent years she has been **keynote speaker** at conferences such as: 28<sup>th</sup> Annual Computational Neuroscience Society Meeting (Spain, 2019); IDC symposium: “Body, self and other” (Israel, 2019); ICGI2019 International Conference on Graphics and Interaction (Portugal, 2019); IMPAKT festival Utrecht (2019); Frontiers Workshop on the Augmentation of Brain Function at the École Polytechnique Fédérale de Lausanne (Switzerland, 2018); 1st International Conference on Neuroscience in Bucharest, Romania (2018); Plenary address at the Annual Meeting of the Trinity College Dublin (Ireland, 2013). As **invited speaker**: “Transitions across brain states” Spanish Neuroscience Society (Spain, 2019); 15<sup>th</sup> Granada seminar on Physics “Collective effects in networks” (Spain, 2019); on virtual reality at the Spanish Society of Pain (2019); workshop in Maastricht on “Psychophysics in the Age of VR” (2019); Dresden Physics Workshop: “Predicting transitions in complex systems” (Germany, 2018); NANS (North American Neuromodulation Society, 2018); Dresden Physics Workshop: “Predicting transitions in complex systems” (2018), European Institute Theoretical Neuroscience (EITN) (2017,2018); Institute of Electrical and Electronics Engineers (IEEE) (2017); ICANN 25th International Conference on Artificial Neural Networks (2016); British Neuroscience Association, Festival of Neuroscience, Edinburgh (2015); Polish Neuroscience Society meeting (2015); Spanish Neuroscience Society meeting (2014); FENS (Federation of European Neuroscience Societies)(2013), amongst many others (see below).

She is Chief Editor of *Frontiers in Systems Neuroscience*.

Co-founder of the spin-off Virtual Bodyworks (<https://virtualbodyworks.com/>).

She has got the 2020 Prize for Co-Responsibility by FIDEM (International Foundation of Entrepeneour Women).

## Publications

MVSV has published over **150 articles/chapters** in leading scientific journals including Science, Nature Neuroscience, Nature Reviews Neuroscience, Nature Physics, Nature Materials, Proc Natl Acad Sci USA, PLoS Biology, Journal of Neuroscience, Neuron, and has also presented more than **300 scientific presentations** in international conferences. During the decade **2010-2020** MVSV authored or co-authored **93 peer-reviewed journal papers** in leading journals **262 presentations at conferences**, of which **94** were either invited/section talks or plenary talks.

## Selected publications

1. Seinfeld, S., Zhan, M., Poyo-Solanas, M., Barsuola, G., Vaessen, M., Slater, M., Sanchez-Vives, M.V., and de Gelder, B. (2021) Being the victim of virtual abuse changes default mode network responses to emotional expressions. *Cortex* 268-284
2. Gonzalez Franco, et al (2020) The Rocketbox library and the utility of freely available rigged avatars for procedural animation of virtual humans and embodiment. *Frontiers in Virtual Reality* 1:561558
3. Dasilva, Camassa, Navarro-Guzman, Pazienti, Perez-Mendez, Zamora Lopez, Mattia, & Sanchez-Vives (2020) 'Modulation of cortical slow oscillations and complexity across anesthesia levels'. *Neuroimage*, Volume 224, 117415
4. Balaguer-Ballester, Nogueira, Abofalia, Moreno-Bote & Sanchez-Vives (2020) Representation of foreseeable choice outcomes in orbitofrontal cortex triplet-wise interactions. *PLoS Computational Biology*, 16(6), e1007862.
5. de Borst, Sanchez-Vives et al (2020) First-Person Virtual Embodiment Modulates the Cortical Network that Encodes the Bodily Self and Its Surrounding Space during the Experience of Domestic Violence. *Eneuro*, 7(3).
6. Donegan, Ryan, Swidrak and Sanchez-Vives (2020), 'Immersive virtual reality for clinical pain: considerations for effective therapy'. *Frontiers in Virtual Reality*; 1:9.
7. Garcia-Cortadella et al (2020). Distortion-Free Sensing of Neural Activity Using Graphene Transistors. *Small*, 16(16), 1906640.
8. Matamala-Gomez, M., Nierula, B., Donegan, T., Slater, M., & Sanchez-Vives, M. V. (2020). Manipulating the Perceived Shape and Color of a Virtual Limb Can Modulate Pain Responses. *Journal of Clinical Medicine*, 9(2), 291.
9. Sanchez-Vives, M. V., Barbero-Castillo, A., Perez-Zabalza, M., & Reig, R. (2020). GABAB receptor-modulation of thalamocortical dynamics and synaptic plasticity. *Neuroscience* (in press)
10. Dasilva, M., Navarro-Guzman, A., Ortiz-Romero, P., Camassa, A., Muñoz-Cespedes, A., Campuzano, V., and Sanchez-Vives, M.V. (2020) Altered neocortical dynamics in a mouse model of Williams-Beuren syndrome. *Molecular Neurobiology*, 57(2), 765–777.
11. Gonzalez-Liencres, Zapata , Iruretagoyena , Seinfeld, Perez-Mendez, Arroyo-Palacios, Borland , Slater & Sanchez-Vives (2020). Being the victim of intimate partner violence in virtual reality: first-versus third-person perspective. *Frontiers in psychology*, 11, 820.

12. Perez-Zabalza, Reig, Manrique, Jercog, Winograd, Parga and Sanchez-Vives (2020). Modulation of cortical slow oscillatory rhythm by GABA(B)receptors: an in vitro experimental and computational study. *Journal of Physiology*, 598(16), 3439-3457
13. Ruiz-Mejias, M., Castano-Prat, P., Donegan, T., and Sanchez-Vives, M.V. (2020) Cortical activity and rhythmic patterns in mouse models of aging and Alzheimer's disease. *OBM Geriatrics*, 4(1), 19
14. Sanchez-Vives, M.V. (2020) Origin and dynamics of cortical slow oscillations: ionic and synaptic mechanisms. *Current Opinion in Physiology*, 15, 217-223.
15. Barbero-Castillo, A., Weinert, J. F., Camassa, A., Perez-Mendez, L., Caldas-Martinez, S., Mattia, M., & Sanchez-Vives, M. V. (2019). Proceedings# 31: cortical network complexity under different levels of excitability controlled by electric fields. *Brain Stimulation: Basic, Translational, and Clinical Research in Neuromodulation*, 12(2), e97-e99.
16. Capone, C., Rebollo, B., Muñoz, A., Illa, X., Del Giudice, P., Sanchez-Vives, M. V., & Mattia, M. (2019). Slow waves in cortical slices: how spontaneous activity is shaped by laminar structure. *Cerebral cortex*, 29(1), 319-335.
17. Castano-Prat, P., Perez-Mendez, L., Perez-Zabalza, M., Sanfeliu, C., Giménez-Llort, L., & Sanchez-Vives, M. V. (2019). Altered slow (< 1 Hz) and fast (beta and gamma) neocortical oscillations in the 3xTg-AD mouse model of Alzheimer's disease under anesthesia. *Neurobiology of aging*, 79, 142-151.
18. D'Andola, M., Giulioni, M., Dante, V., Del Giudice, P., & Sanchez-Vives, M. V. (2019). Control of cortical oscillatory frequency by a closed-loop system. *Journal of NeuroEngineering and Rehabilitation*, 16(1), 1-14.
19. Matamala-Gomez, M., Donegan, T., Bottioli, S., Sandrini, G., Sanchez-Vives, M. V., & Tassorelli, C. (2019). Immersive virtual reality and virtual embodiment for pain relief. *Frontiers in human neuroscience*, 13, 279.
20. Mattia, M., & Sanchez-Vives, M. V. (2019). Unraveling Brain Modularity Through Slow Oscillations. In *Nonlinear Dynamics in Computational Neuroscience* (pp. 17-31). Springer, Cham.
21. Navarro, D. V., Alvarado, M., Figueroa, A., Salas-Lucia, F., Pacheco, P., Gonzalez-Liencres, C., ... & Berbel, P. (2019). Distribution of GABAergic Neurons and VGAT and VGAT Immunoreactive Boutons in the Ferret (*Mustela putorius*) Piriform Cortex and Endopiriform Nucleus. Comparison With Visual Areas 17, 18 and 19. *Frontiers in Neuroanatomy*, 13, 54.
22. Nierula, B., & Sanchez-Vives, M. V. (2019). Can BCI Paradigms Induce Feelings of Agency and Responsibility Over Movements?. In *Brain-Computer Interface Research* (pp. 103-114). Springer, Cham.
23. Pastorelli, E., Capone, C., Simula, F., Sanchez-Vives, M. V., Del Giudice, P., Mattia, M., & Paolucci, P. S. (2019). Scaling of a large-scale simulation of synchronous slow-wave and asynchronous awake-like activity of a cortical model with long-range interconnections. *Frontiers in systems neuroscience*, 13, 33.
24. Bourdin, P., Martini, M., & Sanchez-Vives, M. V. (2019). Altered visual feedback from an embodied avatar unconsciously influences movement amplitude and muscle activity. *Scientific Reports*, 9(1), 1-9.
25. De Bonis, G., Dasilva, M., Pazienti, A., Sanchez-Vives, M. V., Mattia, M., & Paolucci, P. S. (2019). Analysis pipeline for extracting features of cortical slow oscillations. *Frontiers in systems neuroscience*, 13, 70.
26. Masvidal-Codina, E., Illa, X., Dasilva, M., Calia, A. B., Dragojević, T., Vidal-Rosas, E. E., ... & Godignon, P. (2019). High-resolution mapping of infraslow cortical brain activity enabled by graphene microtransistors. *Nature materials*, 18(3), 280-288.
27. Matamala-Gomez, M., Gonzalez, A. M. D., Slater, M., & Sanchez-Vives, M. V. (2019). Decreasing pain ratings in chronic arm pain through changing a virtual body: different strategies for different pain types. *The Journal of Pain*, 20(6), 685-697.
28. Nierula, B., Spanlang, B., Martini, M., Borrell, M., Nikulin, V. V., & Sanchez-Vives, M. V. (2019). Agency and responsibility over virtual movements controlled through different paradigms of brain-computer interface. *The Journal of Physiology*.
29. D'Andola, M., Rebollo, B., Casali, A. G., Weinert, J. F., Pigorini, A., Villa, R., ... & Sanchez-Vives, M. V. (2018). Bistability, causality, and complexity in cortical networks: an in vitro perturbational study. *Cerebral cortex*, 28(7), 2233-2242.
30. Dasilva, M., Navarro-Guzman, A., Maiolo, L., Ozaita, A., & Sanchez-Vives, M. V. (2018). Altered functional connectivity in a mouse model of Fragile X syndrome. In *Advances in Cognitive Neurodynamics (VI)* (pp. 255-261). Springer, Singapore.
31. Masvidal-Codina, E., Illa, X., Dasilva, M., Calia, A. B., Dragojević, T., Vidal-Rosas, E. E., ... & Godignon, P. (2019). High-resolution mapping of infraslow cortical brain activity enabled by graphene microtransistors. *Nature materials*, 18(3), 280-288.
32. Perez-Marcos, D., Martini, M., Fuentes, C. T., Rivas, A. I. B., Haggard, P., & Sanchez-Vives, M. V. (2018). Selective distortion of body image by asynchronous visuotactile stimulation. *Body Image*, 24, 55-61.
33. Castano-Prat, P., Aparicio-Torres, G., Muñoz, A., & Sanchez-Vives, M. V. (2018). Influence of  $\beta$ -Amyloid Plaques on the Local Network Activity in the APP/PS1 Mouse Model of Alzheimer's Disease. In *Advances in Cognitive Neurodynamics (VI)* (pp. 245-253). Springer, Singapore.

34. Morone, G., Matamala-Gomez, M., Sanchez-Vives, M. V., Paolucci, S., & Iosa, M. (2018). Watch your step! Who can recover stair climbing independence after stroke?. *European journal of physical and rehabilitation medicine*, 54(6), 811-818.
35. Pazzini, L., Polese, D., Weinert, J. F., Maiolo, L., Maita, F., Marrani, M., ... & Fortunato, G. (2018). An ultra-compact integrated system for brain activity recording and stimulation validated over cortical slow oscillations in vivo and in vitro. *Scientific reports*, 8(1), 1-13.
36. Rebollo, B., Perez-Zabalza, M., Ruiz-Mejias, M., Perez-Mendez, L., & Sanchez-Vives, M. V. (2018). Beta and gamma oscillations in prefrontal cortex during NMDA hypofunction: an in vitro model of schizophrenia features. *Neuroscience*, 383, 138-149.
37. Seinfeld, S., Arroyo-Palacios, J., Iruretagoyena, G., Hortensius, R., Zapata, L. E., Borland, D., ... & Sanchez-Vives, M. V. (2018). Offenders become the victim in virtual reality: impact of changing perspective in domestic violence. *Scientific reports*, 8(1), 1-11.
38. Suarez-Perez, A., Gabriel, G., Rebollo, B., Illa, X., Guimerà-Brunet, A., Hernández-Ferrer, J., ... & Sanchez-Vives, M. V. (2018). Quantification of signal-to-noise ratio in cerebral cortex recordings using flexible MEAs with co-localized platinum black, carbon nanotubes, and gold electrodes. *Frontiers in neuroscience*, 12, 862.
39. Blaschke, B. M., Tort-Colet, N., Guimerà-Brunet, A., Weinert, J., Rousseau, L., Heimann, A., ... & Garrido, J. A. (2017). Mapping brain activity with flexible graphene micro-transistors. *2D Materials*, 4(2), 025040.
40. Brotons-Mas, J. R., Schaffelhofer, S., Guger, C., O'Mara, S. M., & Sanchez-Vives, M. V. (2017). Heterogeneous spatial representation by different subpopulations of neurons in the subiculum. *Neuroscience*, 343, 174-189.
41. Castano-Prat, P., Perez-Zabalza, M., Perez-Mendez, L., Escorihuela, R. M., & Sanchez-Vives, M. V. (2017). Slow and fast neocortical oscillations in the senescence-accelerated mouse model SAM-P8. *Frontiers in aging neuroscience*, 9, 141.
42. D'Amico, D., Gener, T., de Lagrán, M. M., Sanchez-Vives, M. V., Santos, M., & Dierssen, M. (2017). Infralimbic neurotrophin-3 infusion rescues fear extinction impairment in a mouse model of pathological fear. *Neuropsychopharmacology*, 42(2), 462-472.
43. Hébert, C., Masvidal-Codina, E., Suarez-Perez, A., Calia, A. B., Piret, G., Garcia-Cortadella, R., ... & Prats-Alfonso, E. (2018). Flexible graphene solution-gated field-effect transistors: efficient transducers for micro-electrocorticography. *Advanced Functional Materials*, 28(12), 1703976.
44. Nierula, B., Martini, M., Matamala-Gomez, M., Slater, M., & Sanchez-Vives, M. V. (2017). Seeing an embodied virtual hand is analgesic contingent on colocation. *The Journal of Pain*, 18(6), 645-655.
45. Nogueira, R., Abolafia, J. M., Drugowitsch, J., Balaguer-Ballester, E., Sanchez-Vives, M. V., & Moreno-Bote, R. (2017). Lateral orbitofrontal cortex anticipates choices and integrates prior with current information. *Nature Communications*, 8(1), 1-13.
46. Sanchez-Vives, M. V., Massimini, M., & Mattia, M. (2017). Shaping the default activity pattern of the cortical network. *Neuron*, 94(5), 993-1001.
47. Capone, C., Rebollo, B., Muñoz, A., Illa, X., Del Giudice, P., Sanchez-Vives, M. V., & Mattia, M. (2017). Slow waves in cortical slices: how spontaneous activity is shaped by laminar structure. *Cerebral Cortex*, 1-17.
48. Padrao, G., Gonzalez-Franco, M., Sanchez-Vives, M. V., Slater, M., & Rodriguez-Fornells, A. (2016). Violating body movement semantics: Neural signatures of self-generated and external-generated errors. *Neuroimage*, 124, 147-156.
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50. Sanchez-Vives, M. V., Weinert, J. F., Rebollo, B., Casali, A. G., Pigorini, A., Massimini, M., & D'Andola, M. (2016). Modulation of cortical intrinsic bistability and complexity in the cortical network. In 25th International Conference on Artificial Neural Networks, ICANN 2016 (p. 547). Springer Verlag.
51. Sancristóbal, B., Rebollo, B., Boada, P., Sanchez-Vives, M. V., & Garcia-Ojalvo, J. (2016). Collective stochastic coherence in recurrent neuronal networks. *Nature Physics*, 12(9), 881-887.
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53. Capone, C., Tort-Colet, N., Mattia, M., Sanchez-Vives, M.V. (2016) Multistable Attractor Dynamics in Columnar Cortical Networks Transitioning from Deep Anesthesia to Wakefulness, *Artificial Neural Networks And Machine Learning - ICANN 2016*, Pt I, 9886, 545 - 546.
54. Amigó, J. M., Monetti, R., Tort-Colet, N., & Sanchez-Vives, M. V. (2015). Infragranular layers lead information flow during slow oscillations according to information directionality indicators. *Journal of computational neuroscience*, 39(1), 53-62.
55. Bettinardi, R. G., Tort-Colet, N., Ruiz-Mejias, M., Sanchez-Vives, M. V., & Deco, G. (2015). Gradual emergence of spontaneous correlated brain activity during fading of general anesthesia in rats: Evidences from fMRI and local field potentials. *Neuroimage*, 114, 185-198.

56. Illa, X., Rebollo, B., Gabriel, G., Sánchez-Vives, M. V., & Villa, R. (2015, June). A SU-8-based flexible microprobe for close and distal recordings from the cortical network. In Bio-MEMS and Medical Microdevices II (Vol. 9518, p. 951803). International Society for Optics and Photonics.
57. Martini, M., Kilteni, K., Maselli, A., & Sanchez-Vives, M. V. (2015). The body fades away: investigating the effects of transparency of an embodied virtual body on pain threshold and body ownership. *Scientific reports*, 5, 13948.
58. Martini, M., Perez-Marcos, D., & Sanchez-Vives, M. V. (2015). Author's reply to the commentary by Gilpin et al. *Eur. J. Pain*, 19(1), 143-144.
59. Reig, R., Zerlaut, Y., Vergara, R., Destexhe, A., & Sanchez-Vives, M. V. (2015). Gain modulation of synaptic inputs by network state in auditory cortex in vivo. *Journal of Neuroscience*, 35(6), 2689-2702.
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61. Seinfeld, S., & Sanchez-Vives, M. V. (2015). Healthy aging promotion through neuroscientific information-based strategies. *International journal of environmental research and public health*, 12(10), 12158-12170.
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63. Sanchez-Vives, M.V. (2015), 'Slow Oscillations - Physiology', in Prof. Dieter Jaeger & Prof. Ranu Jung (eds), *Encyclopedia of Computational Neuroscience*, Springer.
64. Sanchez-Vives, M. V., & Mattia, M. (2014). Slow wave activity as the default mode of the cerebral cortex. *Arch Ital Biol*, 152(2-3), 147-155.
65. Slater, M., & Sanchez-Vives, M. V. 2014, 'Transcending the Self in Immersive Virtual Reality. ', *Computer* , 47(7), 24-30..
66. Abolafia, J. M., Martinez-Garcia, M., Deco, G., & Sanchez-Vives, M. V. (2013). Variability and information content in auditory cortex spike trains during an interval-discrimination task. *Journal of neurophysiology*, 110(9), 2163-2174.
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68. Gener, T., Perez-Mendez, L., & Sanchez-Vives, M. V. (2013). Tactile modulation of hippocampal place fields. *Hippocampus*, 23(12), 1453-1462.
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74. Normand, J. M., Sanchez-Vives, M. V., Waechter, C., Giannopoulos, E., Grosswindhager, B., Spanlang, B., ... & Slater, M. (2012). Beaming into the rat world: enabling real-time interaction between rat and human each at their own scale. *PloS one*, 7(10), e48331.
75. Perez-Marcos, D., Sanchez-Vives, M. V., & Slater, M. (2012). Is my hand connected to my body? The impact of body continuity and arm alignment on the virtual hand illusion. *Cognitive neurodynamics*, 6(4), 295-305.
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121. Cellular mechanisms of long-lasting adaptation in visual cortical neurons in vitro. **MV Sanchez Vives**, LG Nowak, DA McCormick. *Journal of Neuroscience* (2000), 20(11), pp. 4286-4299.
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### 133. Refereed Conference Proceedings

134. P173 Attractor dynamics of cortical assemblies underlying brain awakening from deep anesthesia. C Capone, N Tort-Colet, **MV Sanchez-Vives**, M Mattia. *BMC Neuroscience* (2017), 18 (Suppl 1):P173.
135. Electrical Modulation of Cerebral Cortex Activity: Mechanisms and Applications. **MV Sanchez Vives**, M D'Andola, P Boada-Collado, M Giulioni, JF Weinert. In: *Converging Clinical and Engineering Research on Neurorehabilitation II. Biosystems & Biorobotics* (J Ibáñez, J González-Vargas, J Azorín, M Akay, J Pons, eds), (2017), 15: 1409 -1411. Springer, Cham. doi:10.1007/978-3-319-46669-9\_231.
136. A SU-8 based flexible microprobe for close and distal recordings from the cortical network. X Illa, B Rebollo, G Gabriel, **MV Sanchez-Vives**, R Villa. *Proceedings of SPIE – The international society for optical engineering* (2015), 9518. doi: 978-1-62841-641-1.
137. I oscillate therefore I exist: Brain rhythms and consciousness. **MV Sanchez-Vives**. *Acta Physiologica* (2014) 10-10.
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### 141. Book Chapters

142. Can BCI Paradigms Induce Feelings of Agency and Responsibility Over Movements? Nierula B., Sanchez-Vives M.V. (2019). In: Guger C., Mrachacz-Kersting N., Allison B. (eds) *Brain-Computer Interface Research*. SpringerBriefs in Electrical and Computer Engineering. Springer, Cham
143. Unravelling brain modularity through slow oscillations. M Mattia and MV Sanchez-Vives. In: *Nonlinear Dynamics in Computational Neuroscience* (F Cortino and A Torcini, eds), pp 17-31. Springer, Cham. ISBN: 978-3-319-71047-1. doi: 10.1007/978-3-319-71048-8
144. Influence of β-amyloid plaques on the local network activity in the APP/PS1 mouse model of Alzheimer's disease. P Castano-Prat, G Aparicio-Torres, A Muñoz, **MV Sanchez-Vives**. In: *Advances in Cognitive Neurodynamics (VI)* (Delgado-García J, Pan X, Sánchez-Campusano R, Wang R, eds), pp 245-253. *Advances in Cognitive Neurodynamics*. Springer, Singapore
145. Altered Functional Connectivity in a Mouse Model of Fragile X Syndrome. M Dasilva, A Navarro-Guzman, L Maiolo, M Marrani, A Ozaita, **MV Sanchez-Vives**. In: *Advances in Cognitive Neurodynamics (VI)* (Delgado-García J, Pan X, Sánchez-Campusano R, Wang R, eds), pp 255-261. *Advances in Cognitive Neurodynamics*. Springer, Singapore
146. Carbon Nanotubes as Suitable Interface for Improving Neural Recordings. G Gabriel, X Illa, A Guimera, B Rebollo, J Hernández-Ferrer, I Martin-Fernandez, MT Martínez, P Godignon, **MV Sanchez-Vives** and R Villa. In: *Physical and Chemical Properties of Carbon Nanotubes* (S Suzuki, ed.) (2013). InTech. ISBN: 978-953-51-1002-6. doi: 10.5772/52174
147. Spontaneous Rhythmic Activity in the Adult Cerebral Cortex in vitro. **MV Sanchez-Vives**. In: *Isolated Brain Circuits* (K Ballanyi, ed.). *Neuromethods*, vol 73. (2012). Springer Humana, Totowa, NJ. ISBN: 978-1-62703-019-9. doi: 10.1007/978-1-62703-020-5\_8
148. Timing Excitation and Inhibition in the Cortical Network. A Compte, R Reig, **MV Sanchez-Vives**. In: *Coherent behaviour in neuronal networks* (K Josic, J Rubin, M Matias, R Romo, eds.) (2009), 3: 17-46. Springer, New York, NY. ISBN 978-1-4419-0388-4. doi: 10.1007/978-1-4419-0389-1\_2.
149. Synaptic Plasticity and Mnemonic Encoding by Hippocampal Formation Place Cells. M Tsanov, SM O'Mara, J Brotons, **MV Sanchez-Vives**. In: *Synaptic Plasticity: New Research* (2009). ISSN 9781604567328.

150. An active cortical network in vitro. **MV Sanchez Vives**, R Reig, M Winograd, VF Descalzo. In: *Mechanisms of Spontaneous Active States in the Neocortex* (I Timofeev, ed.), pp. 26 – 52 (2007). Research Signpost. ISBN 81-308-0175-2.

### Research projects

Over his career, Prof. Sanchez-Vives has participated in more than **50 projects**. We highlight the following projects that have been active in the last 10 years:

- H2020-SGA-FETFLAG-HBP-2019\_945539: “Human Brain Project – Specific Grant Agreement 3 (SGA3)”. European Union. 01/04/2020-31/03/2023 – Role: PI, WP2 leader.
- H2020-SGA-FET-GRAPHENE-2019\_881603: “Graphene-Core 3”. European Union. 01/04/2020-31/03/2023. PI Partner.
- REC-RDAP-GBV-AG-2019881712: “Virtual Reality Prevention of Gender-Violence in Europe based on Neuroscience of Embodiment, peRspective and Empathy (VRperGENERE)”. European Union. 01/03/2020-28/02/2022 – Coordinator.
- H2020-MSCA-ITN-2019\_860563: “euSNN: European School of Network Neuroscience”. European Union. 01/10/2019-30/09/2023. PI.
- BFU2017-85048-R: “TRANSLACORTEX: Desde el estudio de la fisiología cortical a la comprensión y tratamiento de las patologías que la afectan”. MINECO. 01/01/2018- 31/12/2020.. PI.
- 785219: “GRAPHENE-CORE 2”. European Union. 01/04/2018- 31/03/2020. 300.000 €. PI.
- 785907: “Human Brain Project – Specific Grant Agreement 2 (SGA2)” European Union. 01/04/2018- 31/03/2020. PI.
- PCIN-2015-162-C02-01: “SloW-Dyn: Dinamica de las oscilaciones lentas: experimentos, análisis, modelos e intervenciones terapéuticas”. MINECO: PCIN- FLAGERA. 01/12/2015-30/11/2018. Coordinator.
- 696656: “GRAPHENE-based disruptive technologies H2020”: Research & Innovation Actions (RIA). 01/04/2016-31/03/2018. Principal investigator.
- 720270: “WaveScalES - WAVE SCALing Experiments and Simulations Systems and Cognitive Neuroscience” for Human Brain Project (HBP) FET Flagship. 01/04/2016-31/03/2018. PI.
- BFU2014-52467-R: “COGITARE – Cortical organization generated in transgenic models of cognitive deficit and reversal exploration”. MINECO. 01/01/2015- 31/12/2017. PI.
- FET- ICT-contract 600806 “CORTICONIC – Computations and Organization of Retes through the Interaction of Computational, Optical and Neurophysiological Investigations of the Cerebral Cortex”. European Commission. 01/01/2013- 31/12/2015. Coordinator.
- FP7-FET-257695, VERE + VERE ENLARGED. Virtual Embodiment and Robotic Re-Embodiment. Bélgica; Unión Europea (IIBB/IDIBAPS/CSIC). 01/06/2010-31/12/2015. PI
- BFU2011-27094, Dinámica y modulación de ritmos de la red cortical en diferentes estados cerebrales. Ministerio de Ciencia e Innovación. 01/01/2012-31/12/2014. PI
- FLAGSHIP - ICT-2013.9.9, GRAFENE - Graphene-Based Revolutions in ICT And beyond FP7 Seventh Framework Programme of European From 01/10/2014. PI

### Contracts, technological or transfer merits

Co-founder of the spin-off Virtual Bodyworks (<https://virtualbodyworks.com/>) based on research results

### Patents

1. A. Guimera; E Masvidal; R. Villa; X Illa; J Antonio Garrido; MV Sanchez-Vives. P201831068. Graphene transistor system for measuring electrophysiological signals. Spain. 2018.
2. MV. Sanchez Vives; M. Slater, PCT/EP2016/068201. MOTOR TRAINING Spain. 25/07/2015. Universitat de Barcelona, IDIBAPS e ICREA.
3. MV. Sanchez-Vives; M. Slater.; J. Arroyo-Palacios, PCT/EP2016/068205. PHYSIOLOGICAL RESPONSE Spain. 25/07/2015. Univ. de Barcelona, IDIBAPS e ICREA.
4. R. Villa; E. Prats; G. Gabriel; P. Godignon; MV Sanchez Vives 201331895. MicroSonda Neuronal y procedimiento de Fabricación de la misma Spain. 2013. Universitat Autònoma de Barcelona.

### Professional Memberships and Program Committees

- |           |  |
|-----------|--|
| 2019-now  | Member of the Science and Infrastructure Board of Human Brain Project                |
| 2018-now  | Member of the World Economic Forum Expert's Network, Future Health and Healthcare    |
| 2018      | Programme committee/ organizer "Limitless! Augmentation of brain function", Laussane |
| 2013-2015 | President of the Spanish Society of Neuroscience Program Committee                   |
| 2015-2016 | Member of the Program Committee of FENS (Fed. of European Neuroscience Societies)    |
| 2015      | Evaluation panel of Trinity College Dublin, Ireland.                                 |
| 2013-now  | Member of AcademiaNet: Profiles of Leading Women Scientists                          |
| 2009-2012 | Human Frontier Science Program. Research Grant Review Committee Panel member.        |
| 2012--now | Elected member of the European Dana Alliance for the Brain.                          |

- 2009-2014 Member of American Physiological Society, USA.  
 2008-on/off Member of EBBS (European Brain Behaviour Society)  
 1991-now Member of American Society for Neuroscience, USA.  
 1990-now Member of the Spanish Society of Neuroscience (SENC)

**Grant reviewer:** I am/have been reviewer for grant panels such as Plan Nacional (ANEP), FIS (Instituto Carlos III), Ikerbasque, ERC, Human Frontiers (HFSP), National Science Foundation, Wellcome Trust, Israel Science Foundation, Weizmann Institute promotions, Biociencias de la Comunidad de Madrid, Junta de Andalucía and others.

**Paper reviewer:** Journal of Neuroscience, Journal of Neurophysiology, Frontiers, J Neurosci Methods, Presence-Teleoperators and Virtual Environments (MIT Press), Cerebral Cortex, others.

#### **Organisation of Scientific Meetings (Recent Only- since 2010)**

- 2019 Symposium organizer: "Transitions across brain states" 18<sup>th</sup> meeting SENC Santiago, Spain  
 2018 Local organizer of the international workshop: "Understanding Consciousness: A scientific quest for the 21<sup>st</sup> century", Barcelona  
 2018 Organizer of workshops at European Institute of Theoretical Neuroscience, Paris: "Brain states, models and experiments" and "Sleep, Slow Waves and Aging"  
 2016 Organizer of a workshop on "Slow Wave Dynamics" at the European Institute of Theoretical Neuroscience, Paris  
 2015-2016 Planning of FENS meeting in Copenhagen 2016 as Member of Program Committee.  
 2013-2015 Planning of Granada SENC meeting 2015 as President of the Program Committee of SENC.  
 2015 Organizer of the International Workshop B-Debate: "A dialogue with the cerebral cortex: cortical activity and interfaces". April 29-30, Barcelona, Spain. [www.bdebate.org](http://www.bdebate.org)  
 2012 Co-organizer of Workshop B-Debate: How Mind Emerges from Brain: a View into the Future  
 2010 Co-organizer of Workshop: "Body representation in physical and virtual reality with application to rehabilitation", Centro Stefano Franscini, ETH, Monte Verità, Switzerland

#### **Educational Activities**

MVSV has 3 “quinquenios” (1990-2005) but has not taught undergraduates since (2008-ICREA). She supervises TFGs, Master and PhD theses, participates on international **summer schools** (Israel, Poland, Italy, Spain) and frequently gives seminars.

- 2008-2019 Classes in Summer Schools, Master Programs or Seminars and research supervisor.  
 2000-2007 Associate Professor of Physiology (Medical School, Univ. Miguel Hernandez, Spain). Theoretical and practical classes of Physiology in Medical School, Pharmacy.  
 2003-2007 Member of the Commission of Neuroscience Doctorate (Institute of Neurosciences, UMH)  
 2000-2007 Postgraduate neuroscience teaching  
 1989-1992 Teaching Assistant, Physiology, Medical School. UA, Spain.

#### **Research supervision**

##### **(a) Awarded PhDs**

- Melodia Torao Angosto 2020, Cortical Network Dynamics in Physiological and Pharmacologically induced Brain States Universitat de Barcelona
- Almudena Barbero Castillo 2020, Mechanisms and modulation of cortical rhythms and complexity, Universitat de Barcelona
- Camilla Tanca 2019, Virtual Humans: A framework for the embodiment in avatars and social perception of virtual agents in immersive virtual environments, Scuola Superiore Santa Anna Pisa
- Antonella Maselli 2019, Multisensory Processing in Full-Body Illusions, Maastricht University
- Francesca Melozzi 2018, The role of structural brain features on resting state functional organization: a large scale computational study in mice, Université d'Aix-Marseille
- Julia F Weinert 2018, Interfacing the Cerebral Cortex: Two-dimensional recording techniques and electrical stimulation to explore and modulate spatio-temporal network dynamics in the cortex, Universitat de Barcelona
- Marta Matamala 2017, The use of immersive virtual reality in neurorehabilitation and its impact on neuroplasticity, Universitat de Barcelona
- Birgit Nierula 2017, Multisensory processing and agency in VR embodiment; interactions through BCI and their therapeutic applications, Universitat de Barcelona
- Sofia Seinfeld 2017, Improving empathy in domestic violence offenders through perspective-taking in immersive virtual reality, Universitat de Barcelona

- Patricia Castaño Prat 2017, Oscilaciones lentas en la red cortical alterada:una caracterización de los modelos murinos 3xTg-AD, SAMP8 y Fmr1KO, Universitat de Barcelona
- Núria Tort Colet 2017, Emergent rhythmic activity and functional connectivity in the thalamocortical circuit at different brain states, Universitat de Barcelona
- Beatriz Rebollo 2017, Synaptic and non-synaptic propagation of slow waves and their modulation by endogenous electric fields, Universitat de Barcelona
- Diego Lopez Pigozzi 2013, Brain mechanisms underlying the tracking and localization of dynamic cues, Universitat de Barcelona
- Marcel Ruiz Mejias 2013, Oscillations in the cerebral cortex: mechanisms of control and alterations in a transgenic model
- Daniel Alejandro Jercog 2013, Dynamics of spontaneous activity in the cerebral cortex across brain states
- Maria Perez Zabalza 2013, Synaptic and Intrinsic mechanisms involved in the Generation of Cortical Slow Rhythms
- Luis E Zapata Raboso 2013, Uso de la realidad virtual en violencia de género: tecnología al servicio de la rehabilitación de conductas violentas
- Juan Abolafia Moya 2011, Neuronal Basis of Auditory Adaptation and Temporal Discrimination in the Auditory Cortex of the Awake Freely Moving Rat, Universitat de Barcelona
- Thomas Gener 2011, Modulation of spatial processing by somatosensory inputs in the rat, Universitat de Barcelona
- Jorge Brotons Mas 2007, The Role Of Subicular Place Cells In Spatial Information Processing: Effects Of Variations In Visual Information, Arena size And Open Field Compartmentalisation, Trinity College Dublin (MVSF co-director)
- María Marta Arnold 2007, Procesamiento de información sensorial en corteza cerebral de animales crónicamente implantados, Instituto de Neurociencias de Alicante - CSIC
- Ramón Reig García 2007, Impacto de la actividad espontánea en la transmisión y plasticidad sináptica a corto plazo en la corteza cerebral, Instituto de Neurociencias de Alicante - CSIC
- Milena Winograd 2007, Persistent activity in the prefrontal cortex, Inst. de Neurociencias de Alicante - CSIC
- Vanessa Fernandez Descalzo 2006, Papel de las propiedades intrínsecas neuronales en las respuestas visuales, Universidad Miguel Hernandez - CSIC

#### **(b) Awarded Master's Degrees**

- Sara Caldas Martinez 2018, Optopharmacological muscarinic modulation of slow wave cerebral cortex activity, Universitat Autònoma de Barcelona
- Alejandro Suárez 2017, Signal-to-Noise ratio quantification in brain recordings obtained through electrodes and transistors of different materials, Universitat de Barcelona
- Nuria Tort Colet 2013, Emergent thalamocortical activity in different brain states, Universitat de Barcelona
- Arturo Fuentes Kahal 2013, Reducción del sesgo de género en hombres tras una experiencia en realidad virtual, Universitat de Barcelona
- Julia F. Weinert 2013, Modulation of cortical oscillations with electric fields in vitro
- Patricia Castaño Prat 2012, Registro de la actividad emergente de la corteza cerebral en un modelo transgénico de Alzheimer, Universitat de Barcelona
- Lorena Perez Mendez 2012, Tactile modulation of hippocampal place fields, Universitat de Barcelona
- Sofia Seinfeld 2012, Efecto modulador de la música en la respuesta al miedo a las alturas en un entorno de realidad virtual inmersiva, Universitat de Barcelona
- Julita de la Vega Arias 2010, Real time analysis of hippocampal activity for the control of external devices, IDIBAPS—Universitat de Barcelona

#### **(c) Awarded DEAs**

- Thomas Gener 2007, Modulation of spatial processing by somatosensory inputs in the rat, Universidad Miguel Hernandez - CSIC
- Milena Winograd 2005, Actividad persistente intrínseca en la corteza prefrontal, UMH - CSIC
- Marta Arnold 2004, Influencia de la expectancia en las respuestas a estímulos en las cortezas sensoriales primarias, UMH - CSIC
- Vanessa Fernandez Descalzo 2003, Papel de las propiedades intrínsecas neuronales en las respuestas visuales, UMH - CSIC
- Ramón Reig García 2003, Influencia de las oscilaciones lentas corticales en la plasticidad sináptica a corto plazo, UMH - CSIC

#### **Conferences, workshops, invited talks and meeting presentations since 2008:**

- 09/Nov/2020 · "In the search for consciousness: Brain processing of real and virtual worlds" · Fondazione Prada Human Brains: Culture and Consciousness Neurological Basis of Consciousness  
<https://humanbrains.fondazioneprada.org/en/> · (Italy)
- 29/Oct/2020 · "Brain Matters Webinar <https://www.humanbrainproject.eu/en/brain-matters/>" · Brain Matters

## Webinar Human Brain Project- EBRAINS

- 16/Oct/2020 · "Agency and responsibility while controlling movement through brain computer interfaces for neurorehabilitation" · ICNR 2020 (International Conference on Neurorehabilitation) · (Spain)
- 18/Jul/2020 · "Universal fingerprints of slow-wave activity in vivo, in vitro and in silico cortical networks A Camassa, A Galluzzi, M Dasilva, B Rebollo, M Mattia, M V. Sanchez-Vives" · Computational Neuroscience Society 2020 ONLINE
- 14/Feb/2020 · "From the experimental bench to the platforms: providing/using data and models" · Human Brain Project & Dutch Neuroscience: Shaping Collaborations Amsterdam in the 'Pakhuis de Zwijger', Piet Heinkade 179. · (Netherlands)
- 06/Feb/2020 · "Neuroscience Future Vision" · Human Brain Project Summit & Open Day Athens, Greece
- 31/Jan/2020 · "Realidad Virtual Immersiva en el tratamiento del Dolor Crónico" · Sociedad Catalana de Dolor, Academia de Ciencias Médicas, Barcelona · (Spain)
- 24/Jan/2020 · "What does the virtual body tells us about sensory processing and motor control" · MOTIVE Symposium University of Barcelona · (Spain)
- 03/Dec/2019 · "Realitat virtual inmersiva en rehabilitació física i psicològica (violència de gènere)" · Regió Sanitària Barcelona|Consorci Sanitari de Barcelona Servei Català de la Salut (CatSalut) Esteve Terradas, 30. Parc Sanitari Pere Virgili. Edifici Mestral
- 21/Nov/2019 · ""Embodiment in Virtual Reality: impact and applications"" · International Conference on Graphics and Interaction 2019 <http://gpcg.pt/icgi2019/> · (Portugal)
- 12/Nov/2019 · "Partening projects in HBP and Open Calls in SGA3" · 'Spanish Hub Workshop' EBRAINS – a platform for collaboration in digital neuroscience Madrid · (Spain)
- 06/Nov/2019 · "Graphene Connect & Health Investment Forum Roundtable on Challenges, barriers and opportunities of graphene in medical applications" · Col.legui de Metges de Barcelona · (Spain)
- 31/Oct/2019 · "Transforming lives in virtual reality" · IMPAKT Festival Utrecht <https://impakt.nl/events/mavi-sanchez-vives-2/> · (Netherlands)
- 31/Oct/2019 · "Virtual Reality and Body Ownership- Round Table" · IMPAKT Festival Utrecht <https://impakt.nl/events/virtual-reality-and-body-ownership/> · (Netherlands)
- 29/Oct/2019 · "Virtual Reality" · RETINA EL PAIS Retina LTD 2019 Sala Innovación: tecnologías disruptivas. Madrid · (Spain)
- 24/Oct/2019 · "Aplicaciones médicas de la internalización de un cuerpo virtual" · Programa 9es Jornades R+D+I TIC Salut Social "Realitat Virtual i Augmentada aplicada a la salut a Catalunya" <https://mon.uvic.cat/jornadesrdi/programa-2019/> · (Spain)
- 09/Oct/2019 · "VR for training in non violent behaviour" · Virtual Reality and Interpersonal Skills Development · (Switzerland)
- 07/Oct/2019 · "Neuroscience of VR" · EC High level Symposium. Are social media changing our brains? Towards an interdisciplinary view on Social Media · (Italy)
- 26/Sep/2019 · "From local to global dynamics: current results, challenges and opportunities" · Scientific highlights and collaborations across HBP Centre Hospitalier Universitaire de Liège · (Belgium)
- 18/Sep/2019 · "Across brain states and complexity levels of the cerebral cortex networks" · 15th GRANADA SEMINAR ON COMPUTATIONAL AND STATISTICAL PHYSICS Stochastic and Collective Effects in Neural Systems · (Spain)
- 05/Sep/2019 · "Global brain activity in different states and anaesthesia levels" · Spanish Society of Neuroscience Meeting SENC 2019, Santiago de Compostela · (Spain)
- 17/Jul/2019 · "Recovery time after stimulation in mice characterizes brain complexity under different levels of anesthesia" · CNS\*2019, 28th Annual Computational Neuroscience Meeting, July 13-17, Barcelona, Spain · (Spain)
- 16/Jul/2019 · "Synaptic and non-synaptic modulation of cortical activity and synchronization" · Workshop: New Perspectives in Cortical Dynamics July 16th, Barcelona · (Spain)
- 15/Jul/2019 · "Classification of brain states across the awake-sleep transition in the cortex of rats" · CNS\*2019, 28th Annual Computational Neuroscience Meeting, July 13-17, Barcelona, Spain · (Spain)
- 15/Jul/2019 · "Slow-wave activity enrichment across brain states in the mouse" · CNS\*2019, 28th Annual Computational Neuroscience Meeting, July 13-17, Barcelona, Spain · (Spain)
- 15/Jul/2019 · "Propagating densities of spontaneous activity in cortical slices" · CNS\*2019, 28th Annual

Computational Neuroscience Meeting, July 13-17, Barcelona, Spain · (Spain)

- 15/Jul/2019 · "One network, many states: varying the excitability of the cerebral cortex " · Computational Neuroscience Meeting, Barcelona, 2019 <https://www.cnsorg.org/cns-2019> · (Spain)
- 15/Jul/2019 · "Impact of intrinsic neuronal properties in cortical network-dynamics" · CNS\*2019, 28th Annual Computational Neuroscience Meeting, July 13-17, Barcelona, Spain · (Spain)
- 15/Jul/2019 · "Wave propagation, dynamical richness and predictability under different brain states" · CNS\*2019, 28th Annual Computational Neuroscience Meeting, July 13-17, Barcelona, Spain · (Spain)
- 10/Jun/2019 · "Virtual Reality, Embodiment and Presence (to be determined)" · Amazon · (USA - United States of America)
- 31/May/2019 · "Realidad virtual para el tratamiento del dolor: estado actual y potencial. " · XVI Congreso de la Sociedad Española del Dolor, Zaragoza · (Spain)
- 11/May/2019 · "Transforming lives with virtual reality" · Frontiers Forum <https://forum.frontiersin.org/> Fairmount, Montreux · (Switzerland)
- 01/May/2019 · "How to quantify VR-modulation of aggressive behavior" · Workshop Psychophysics in the age of VR · (Netherlands)
- 11/Apr/2019 · "Self-transformation through immersive VR" · <https://www.idc.ac.il/en/research/arl/pages/conference.aspx> IDC, Herzliya, Israel · (Israel)
- 05/Apr/2019 · "Priscilla Mayden Keynote Lecture Towards the Rehabilitation of Domestic Violence Offenders using Virtual Reality " · University of Utah, Salt Lake City
- 21/Mar/2019 · "Realidad virtual inmersiva para la rehabilitación de conductas violentas" · IX Jornada de Criminología. Inteligencia artificial y ciberdelincuencia Centre d'Estudis Jurídics i Formació Especialitzada, Generalitat de Catalunya [http://symposium.uoc.edu/30354/programme/ix-jornada-de-criminologia\\_-inteligencia-artificial-y-ciberdelincuencia.html](http://symposium.uoc.edu/30354/programme/ix-jornada-de-criminologia_-inteligencia-artificial-y-ciberdelincuencia.html) · (Spain)
- 01/Mar/2019 · "Current state of virtual embodiment for the rehabilitation of domestic violence abusers" · Virtual and Robotic Embodiment – from neuroscience to virtual reality and robotics Symposium 28th February – 1st March, 2019 <https://verevent.wordpress.com/> · (Spain)
- 19/Feb/2019 · "Realitat virtual inmersiva en rehabilitació física i psicològica (violència de gènere)" · Tecnologia per a la recerca i la salut JORNADES DE PRESENTACIÓ DEL MOBILE WORLD CONGRESS 2019, Hospital de Bellvitge [http://www.dinamitzaciolicallh.cat/detallAgenda\\_2.aspx?2NqazAk2C9qOxw90ruTuK61ELQjHOcdsbIjVYCD5FqazAzLiAMqazB](http://www.dinamitzaciolicallh.cat/detallAgenda_2.aspx?2NqazAk2C9qOxw90ruTuK61ELQjHOcdsbIjVYCD5FqazAzLiAMqazB) · (Spain)
- 21/Nov/2018 · "Virtual Reality for the Study of Self-Consciousness" · Cerveau 3.0: Conscience et Neuromédecine, Thun, Switzerland · (Switzerland)
- 19/Nov/2018 · "Full band recordings of epileptic activity with graphene microtransistors" · Multi-level integration from the modelling and data sides using epilepsy Workshop. European Institute of Theoretical Neuroscience, Paris · (France)
- 15/Nov/2018 · "Impact of virtual embodiment on sensory and motor processing" · 1st International Conference on Neuroscience, Neuroinformatics, Neurotechnology and Neuro-Psycho- Pharmacology Bucharest, Romania · (Romania)
- 03/Nov/2018 · "Can ephaptic coupling participate in intercolumnar synchronization in neocortex?" · Neuroscience 2018, San Diego · (USA - United States of America)
- 24/Oct/2018 · "VR for prevention and rehabilitation of gender violence" · VR days · (Netherlands)
- 16/Oct/2018 · "Towards area specific simulations of slow wave activity" · HBP Summit, Maastricht · (Netherlands)
- 16/Oct/2018 · "Remote control of brain waves in vivo. " · HBP Summit, Maastricht · (Netherlands)
- 16/Oct/2018 · "Consciousness and brain complexity: a multi-scale exploration across species and models" · HBP Summit, Maastricht · (Netherlands)
- 16/Oct/2018 · "Spatio-temporal modulation of slow waves by means of electric fields" · HBP Summit, Maastricht · (Netherlands)
- 26/Sep/2018 · "Propagating densities of spontaneous activity in cortical slices" · Bernstein Conference, Berlin, Germany · (Germany)
- 19/Sep/2018 · "Photopharmacological modulation of brain waves " · Frontiers Spotlight Conference: Limitless! Augmentation of Brain Function · (Switzerland)

- 19/Sep/2018 · "Transforming your virtual body to transform your brain" · Frontiers Spotlight Conference: Limitless! Augmentation of Brain Function · (Switzerland)
- 19/Sep/2018 · "Brain interfacing through flexible graphene solution gated field effect transistors" · Frontiers Spotlight Conference: Limitless! Augmentation of Brain Function · (Switzerland)
- 26/Aug/2018 · "BCI-Control, Agency And Pain Thresholds in A Virtual Body" · NYC Neuromodulation Conference & NANS Summer Series · (USA - United States of America)
- 25/Aug/2018 · "Immersive Virtual Reality and Pain Management" · NYC Neuromodulation Conference & NANS Summer Series · (USA - United States of America)
- 25/Aug/2018 · "Control of Emergent Cortical Network Activity by DC Fields: Impact and Mechanisms" · NYC Neuromodulation Conference & NANS Summer Series · (USA - United States of America)
- 25/Aug/2018 · "Cortical network complexity under different levels of excitability controlled by direct current stimulation" · NYC Neuromodulation Conference / NANS Summer Series · (USA - United States of America)
- 23/Jul/2018 · "Transforming the body in virtual reality" · IRCCS Fondazione Mondino Research Seminars · (Italy)
- 07/Jul/2018 · "Inhibitory modulation of cortical complexity in vitro" · 11th Federation of European Neurosciences Societies (FENS) Forum, Berlin · (Germany)
- 21/Jun/2018 · "Neurobiological mechanisms and correlates of consciousness" · 1st HBP international conference: Understanding consciousness, Barcelona
- 21/Jun/2018 · "Agency and responsibility over body movements induced through brain-computer interfaces" · 1st HBP international conference: Understanding consciousness, Barcelona · (Spain)
- 07/Jun/2018 · "From cerebral cortex complexity to consciousness" · 15th Experimental Chaos and Complexity Conference Madrid, Spain <https://eventos.urjc.es/9662/speakers/15th-experimental-chaos-and-complexity-conference.html> · (Spain)
- 23/Apr/2018 · "Measurement and modulation of cerebral cortex complexity and consciousness levels" · PRETRA18 Predicting Transitions in Complex Systems International Workshop, Max Planck Institute for the Physics of Complex Systems, Dresden 23 - 27 April 2018 <https://www.pks.mpg.de/pretra18/> · (Germany)
- 26/Mar/2018 · "Graphene transistors for ultra-slow frequency (< 0.1Hz) in vivo neural recordings" · Neuroelectronic Interfaces Gordon Research Conference. Galveston, TX, USA · (USA - United States of America)
- 26/Mar/2018 · "Graphene microtransistors to monitor cerebral cortex dynamics in health and disease" · Neuroelectronic Interfaces Gordon Research Conference · (USA - United States of America)
- 17/Mar/2018 · "Panel 4: The future impact of neuroscience and cognitive psychology on virtual environments" · <http://ieeenvr.org/2018/> · IEEE VR 2018 Reutlingen, Germany · (Germany)
- 15/Mar/2018 · "Processing of visual and tactile stimuli during high and low body ownership illusion" · 6th Mind, Body & Brain (MBB), Berlin · (Germany)
- 08/Mar/2018 · "What the virtual body tells us about sensory processing and motor control" · The Human Brain Project: Neurorobotics Sub-Project Workshop: Does the brain need a body to be a brain? Barcelona, Spain · (Spain)
- 01/Mar/2018 · "Emergent properties of the cortical network at different levels of excitability" · Brain States: Models and Experiments. European Institute for Theoretical Neuroscience (EITN), Paris. · (France)
- 15/Feb/2018 · "Cortical emergent activity as paradigm to study the cortical network in health and disease" · Meeting: Collaborative research in computational neuroscience (CRCNS) National Institute of Health (NIH, USA) – Ministerio de Economía, Industria y Competitividad (MINECO, Spain) · (Spain)
- 05/Feb/2018 · "Synaptic and non synaptic wave propagation in the cortical network" · Cortical codes. European Institute for Theoretical Neuroscience (EITN), Paris. · (France)
- 25/Jan/2018 · "Interfacing neural networks" · Creation of an innovation roadmap. Frankfurt am Main, The SQUAIRE (airport conference center) · (Germany)
- 25/Oct/2017 · "Relevance of the origin of chronic pain when using virtual reality in rehabilitation" · European conference of Neurorehabilitation, Lausanne · (Switzerland)
- 12/Oct/2017 · "Agency and brain computer interfaces in virtual reality" · III International Conference Brain Computer Interface: Science and Practice, Samara · (Russia)
- 27/Sep/2017 · "Decoding of local slow oscillations relies on nearby activity" · 17 National Congress of the Spanish Society of Neuroscience (SENC), Alicante · (Spain)

- 27/Sep/2017 · "Cortical assemblies underlying activity patterns underlying activity patterns under different levels of anesthesia" · 17 National Congress of the Spanish Society of Neuroscience (SENC), Alicante · (Spain)
- 27/Sep/2017 · "Cortical and subcortical activity induced by electrical stimulation of the intralaminar parafascicular thalamic nucleus in anesthetized and awake behaving rats" · 17 National Congress of the Spanish Society of Neuroscience (SENC), Alicante · (Spain)
- 27/Sep/2017 · "Rehabilitación de la fractura de radio utilizando la realidad virtual immersiva" · Congreso ibero-latinoamericano de la Sociedad Española de Cirugía Ortopédica y Traumatología, Barcelona · (Spain)
- 25/Sep/2017 · "Recording electrophysiological signals through graphene-based brain interfaces" · Graphene Week, Athens · (Greece)
- 22/Sep/2017 · "Slow wave dynamics: from experiments, analysis and models to rhythm restoration. " · Experimental and Theoretical Analysis of Cortical Dynamics Workshop Istituto Italiano di tecnologia, Rovereto <https://www.humanbrainproject.eu/en/open-ethical-engaged/events/experimental-and-theoretical-analysis-cortical-dynamics-workshop/> · (Italy)
- 20/Sep/2017 · "Analysis of the cortical column activity using Current Source Density representation and Modular Connectivity Factorization method" · FENS Regional Meeting (FRM), Pécs · (Hungary)
- 03/Aug/2017 · "Cortical dynamics in different consciousness states " · 6th International Conference on Cognitive Neurodynamics, Carmona, Sevilla · (Spain)
- 01/Aug/2017 · "Cortical slow wave propagation patterns and network memory in different brain states in the mouse" · 6th International Conference on Cognitive Neurodynamics (ICCN), Carmona · (Spain)
- 17/Jul/2017 · "Motor-cognitive training through Immersive Virtual Reality (IVR) during the immobilization period in distal radius fracture patients: a randomized control trial study" · International Neurorehabilitation Symposium (part of the RehabWeek 2017), London · (UK - United Kingdom)
- 15/Jun/2017 · "Differences in cortical activity induced by monopolar electrical stimulation of the intralaminar parafascicular thalamic nucleus in anesthetized rats" · Barcelona Computational, Cognitive and Systems Neuroscience (BARCCSYN), Barcelona · (Spain)
- 15/Jun/2017 · "Inferences of global states stability in cortical networks" · Barcelona Computational, Cognitive and Systems Neuroscience (BARCCSYN), Barcelona · (Spain)
- 15/Jun/2017 · "Signal-to-noise ratio quantification for standardizing brain recording systems" · Barcelona Computational, Cognitive and Systems Neuroscience (BARCCSYN), Barcelona · (Spain)
- 15/Jun/2017 · "Predictability of slow oscillations under different levels of anaesthesia: a machine-learning approach" · Barcelona Computational, Cognitive and Systems Neuroscience (BARCCSYN), Barcelona · (Spain)
- 15/Jun/2017 · "Measures of cortical complexity capture variations in network dynamics at different anesthesia levels" · Barcelona Computational, Cognitive and Systems Neuroscience (BARCCSYN), Barcelona · (Spain)
- 15/Jun/2017 · "Inhibitory modulation of cortical bistability and complexity" · Barcelona Computational, Cognitive and Systems Neuroscience (BARCCSYN), Barcelona · (Spain)
- 29/May/2017 · "Experiments and models of gain modulation by network state in primary auditory cortex" · Modelling the Auditory System: Theory and Experiments. EITN, Paris · (France)
- 11/May/2017 · "VR and consciousness" · World Virtual Reality Forum, Lens. <https://wvrf17.worldvrforum.com/> · (Switzerland)
- 25/Apr/2017 · "Network complexity and consciousness" · II Meeting IBERSINC. Madrid · (Spain)
- 25/Mar/2017 · "From Agent Based Models to Virtual Reality" · International Convention of Psychological Science, Vienna · (Austria)
- 25/Mar/2017 · "Bistability and complexity in the cortical network in vivo" · 12th Göttingen Meeting of the German Neuroscience Society, Göttingen · (Germany)
- 21/Mar/2017 · "Neuroscience and Virtual Reality" · IEEE VR Los Angeles <http://www.ieeevr.org/2017/> · (USA - United States of America)
- 15/Mar/2017 · "Inducing agency over body movement through brain-computer interfaces" · 4th Mind, Brain & Body (MBB) Symposium, Berlin · (Germany)
- 11/Mar/2017 · "Leaving the attractor of unconsciousness: modulation of the cortical network towards higher complexity states" · Consciousness in humans, animals & robots I: concepts, theories, and neural mechanisms European institute for Theoretical Neuroscience, Paris <https://eitnconf-090317.sciencesconf.org/program> · (France)
- 22/Jan/2017 · "Inducing agency over body movement through brain-computer interfaces" · European Workshop

on Cognitive Neuropsychology (EWCN), Bressanone · (Italy)

- 15/Nov/2016 · "Modulation of cortical intrinsic bistability and complexity in the cortical network" · Society for Neuroscience San Diego · (USA - United States of America)
- 15/Nov/2016 · "Non-synaptic wave propagation: modulation of slow oscillations by endogenous electric fields" · Society for Neuroscience San Diego · (USA - United States of America)
- 15/Nov/2016 · "Metastable dynamics underlying the multiscale organization of slow oscillations" · Society for Neuroscience San Diego · (USA - United States of America)
- 15/Nov/2016 · "Slow wave propagation in the cortical network and laminar excitability" · Society for Neuroscience San Diego · (USA - United States of America)
- 27/Oct/2016 · "Shaping the default mode of the cortical network" · Circuits & Behavior, Severo Ochoa Symposium 2016 Instituto de Neurociencias de Alicante · (Spain)
- 19/Oct/2016 · "Electrical modulation of cerebral cortex activity: mechanisms and applications." · 3rd International Conference on NeuroRehabilitation (ICNR2016) <http://www.icnr2016.org/> · (Spain)
- 18/Oct/2016 · "Electrical modulation of cerebral cortex activity: mechanisms and applications" · International conference on neuro-rehabilitation (ICNR2016), Segovia · (Spain)
- 13/Oct/2016 · "Default mode of the cortical network and getting out of it" · Human Brain Project Summit, Florence · (Italy)
- 14/Sep/2016 · "Shaping the cortical default activity" · Workshop: How does the brain work? Carlsberg Academy, Copenhagen, September 14-16 2016 · (Denmark)
- 12/Sep/2016 · "Virtual multisensory worlds in psychology – Science and applications. Coordination and Introduction." · XXVIII International Congress of the Spanish Society for Comparative Psychology. September 12-14, 2016. Barcelona · (Spain)
- 08/Sep/2016 · "Modulation of cortical intrinsic bistability and complexity in the cortical network" · 25th International Conference on Artificial Neural Networks (ICANN), Barcelona · (Spain)
- 08/Sep/2016 · "Modulation of cortical intrinsic bistability and complexity in the cortical network. " · The 25th International Conference on Artificial Neural Networks (ICANN), Barcelona · (Spain)
- 08/Sep/2016 · "Multistable attractor dynamics in columnar cortical networks transitioning from deep anesthesia to wakefulness. (presented by M Mattia)" · 25th International Conference on Artificial Neural Networks (ICANN), Barcelona · (Spain)
- 08/Sep/2016 · "Session Higher Nervous Activity 1" · 25th International Conference on Artificial Neural Networks (ICANN), Barcelona · (Spain)
- 08/Sep/2016 · "Modulation of wave propagation in the cortical network by electric fields. " · The 25th International Conference on Artificial Neural Networks (ICANN). September 6-9, 2016. Barcelona. · (Spain)
- 07/Sep/2016 · "Plenary Lecture Joaquin Fuster (University of California Los Angeles, USA) - The Prefrontal Cortex is a predictive and preadaptive organ" · 25th International Conference on Artificial Neural Networks (ICANN), Barcelona · (Spain)
- 04/Jul/2016 · "Spatio-temporal behavior of slow cortical oscillations modulated by weak DC electric fields" · 10th Federation of European Neurosciences Societies (FENS) Forum, Copenhagen · (Denmark)
- 04/Jul/2016 · "Mechanisms underlying the Perturbational Complexity Index in the cortical network in vitro" · 10th Federation of European Neurosciences Societies (FENS) Forum, Copenhagen · (Denmark)
- 16/Jun/2016 · "Altered slow wave (" · Barcelona Computational, Cognitive and Systems Neuroscience (BARCSYN), Barcelona · (Spain)
- 16/Jun/2016 · "Functional connectivity between the intralaminar parafascicular thalamic nucleus and the prefrontal cortex of the rat. " · Barcelona Computational, Cognitive and Systems Neuroscience (BARCSYN), Barcelona · (Spain)
- 15/Apr/2016 · "Estimation of brain states by “perturbational complexity index” in humans and animal models" · 9th International Update on Neuro–Anesthesia & Neuro–Intensive Carem Barcelona · (Spain)
- 25/Feb/2016 · "Slow waves propagation in the cortex: how wavefronts are shaped by the layer structure. " · Computational and Systems Neuroscience (Cosyne) 2016. February 25-28, 2016. Salt Lake City, Utah. · (USA - United States of America)
- 24/Feb/2016 · "Slow oscillations: laminar dynamics and role of thalamus. " · Quantitative Biomedicine for Health and Disease Workshop. Basque Center for Applied Mathematics (BCAM). Bilbao · (Spain)
- 22/Jan/2016 · "Mechanisms underlying the Perturbational Complexity Index in the cortical network in vitro. " ·

The Edmond and Lily Safra Center for Brain Sciences (ELSC), Ein Gedi · (Israel)

- 24/Nov/2015 · "Electrical stimulation for controlling cortical rhythmic activity and for probing the network" · Academia des Ciências de Lisboa. Magnetic probes for neural investigation - Magnetic modelling of neurons. Lisbon 23-26th, 2015. Date: November 23-25th, 2015. · (Portugal)
- 24/Sep/2015 · "Are body ownership illusions analgesic? " · 16th National Congress of SENC (Sociedad Española de Neurociencia). · (Spain)
- 24/Sep/2015 · "The mechanism of complexity and its manipulation in the in vitro cortical networks. " · 16th National Congress of SENC (Sociedad Española de Neurociencia). · (Spain)
- 23/Sep/2015 · "Spatio-temporal modulation of cortical emergent activity in vitro by weak DC electric fields. " · 16th National Congress of SENC (Sociedad Española de Neurociencia). · (Spain)
- 09/Sep/2015 · "Impact of network excitability on cortical emergent patterns and wave propagation" · "Nonlinear Dynamics in Computational Neuroscience: from Physics and Biology to ICT" <http://www.neuro-eng-comp.polito.it/workshop/> · (Italy)
- 07/Sep/2015 · "Cerebral cortex activity and network computations" · 12th International Congress of the Polish Neuroscience Society, Symposium ""A multilevel view of current Spanish neuroscience" · (Poland)
- 18/Jul/2015 · "When function mirrors structure: how slow waves are shaped by cortical layers" · Computational Neuroscience Meeting · (Czech Republic)
- 18/Jun/2015 · "On the cortical origin of Up States." · Barcelona Computational, Cognitive and Systems Neuroscience (BARCSYN). · (Spain)
- 18/Jun/2015 · "Stochastic coherence in the emergent oscillatory activity of the cortical network modulated by electric fields." · Barcelona Computational, Cognitive and Systems Neuroscience (BARCSYN) · (Spain)
- 05/May/2015 · "A SU-8 BASED FLEXIBLE MICROPROBE FOR CLOSE AND DISTAL RECORDINGS FROM THE CORTICAL NETWORK" · Bio-MEMS and Medical Microdevices · (Spain)
- 29/Apr/2015 · "Improvement of the in vitro recordings in cortical slices by using customized flexible neuroprobes" · Workshop Dialogue with the Cerebral Cortex: cortical function and interfacing. International Center for Scientific Debate (B – Debate). · (Spain)
- 29/Apr/2015 · "Transfer entropy, symbolic transfer entropy and transcript mutual information indicators reveal a leading role of infragranular layers during slow oscillations" · Workshop A Dialogue with the Cerebral Cortex: cortical function and interfacing. International Center for Scientific Debate (B – Debate), Barcelona. · (Spain)
- 29/Apr/2015 · "When function mirrors structure: how slow waves are shaped by cortical layers" · Workshop A Dialogue with the Cerebral Cortex: cortical function and interfacing. International Center for Scientific Debate (B – Debate), Barcelona. · (Spain)
- 29/Apr/2015 · "A closed-loop stimulation system to modulate slow oscillations frequency of in vitro acute cortical slices" · Workshop A Dialogue with the Cerebral Cortex: cortical function and interfacing. International Center for Scientific Debate (B – Debate), Barcelona. · (Spain)
- 29/Apr/2015 · "Controlling spontaneous cortical emergent activity. " · Workshop A Dialogue with the Cerebral Cortex: cortical function and interfacing. International Center for Scientific Debate (B – Debate), Barcelona. · (Spain)
- 29/Apr/2015 · "Task relevant variables are encoded in OFC neurons" · Workshop A Dialogue with the Cerebral Cortex: cortical function and interfacing. International Center for Scientific Debate (B – Debate), Barcelona. · (Spain)
- 29/Apr/2015 · "Gradual Emergence of Spontaneous Correlated Brain Activity during Fading of General Anesthesia in Rats: Evidences from fMRI and Local Field Potentials." · Workshop A Dialogue with the Cerebral Cortex: cortical function and interfacing. International Center for Scientific Debate (B – Debate), Barcelona. · (Spain)
- 29/Apr/2015 · "Infragranular layers lead information flow during slow oscillations according to information directionality indicators. " · Workshop Dialogue with the Cerebral Cortex: cortical function and interfacing. International Center for Scientific Debate (B – Debate). · (Spain)
- 29/Apr/2015 · "A compact integrated system for neural signal acquisition and stimulation" · Workshop A Dialogue with the Cerebral Cortex: cortical function and interfacing. International Center for Scientific Debate (B – Debate), Barcelona. · (Spain)
- 14/Apr/2015 · "Sleep, brain state and sensory processing: Functional scaling of synaptic inputs during cortical rhythmic activity." · British Neuroscience Association-Festival of Neuroscience 2015 · (UK - United Kingdom)
- 21/Mar/2015 · "VIRTUAL WORLDS FOR REAL HUMANS: Embodiment in Virtual Environments for Pain

- Management (Talk in symposium)" · International Convention of Psychological Science · (Netherlands)
- 17/Dec/2014 · "What spontaneous activity can tell us about cortical function" · Systems Neuroscience Christmas Mini Symposium · (Spain)
  - 28/Oct/2014 · "Graphene-based devices for neurophysiological recordings" · Trends in Nanotechnology International Conference (TNT2014) · (Spain)
  - 16/Oct/2014 · "CORTICONIC" · 1st Clustering Workshop on Future Emerging NeuroTechnologies <http://www.brainfet.eu/program.html> · (Italy)
  - 08/Oct/2014 · "Missing interactions in neuronal interactions, session. Title to be determined" · HBP-Brainscales meeting "Missing interactions in spike-based computation" · (France)
  - 25/Sep/2014 · "Oscilo luego existo: Ritmos cerebrales y conciencia" · XXXVII Congreso de la Sociedad Española de Ciencias Fisiológicas (SECF) · (Spain)
  - 24/Sep/2014 · "Oscilo luego existo: ritmos cerebrales y conciencia." · Congreso de la Sociedad Española de Ciencias Fisiológicas; Simposio: Estados cerebrales corticales y funciones superiores · (Spain)
  - 15/Sep/2014 · "Transcript-based coupling directionality indicators and applications" · 2014 International Symposium on Nonlinear Theory and its Applications (NOLTA2014) · (Switzerland)
  - 04/Sep/2014 · "Session chair" · London Virtual Social Interaction Workshop · (UK - United Kingdom)
  - 02/Aug/2014 · "Comparing Ordinal Pattern-based Information Directionality Indicators via Real Data" · Conference on Nonlinear Science and Complexity NSC'14 · (China)
  - 08/Jul/2014 · "Ready to close the loop: modulation of cortical oscillations through DC electric fields" · American Institute of Mathematical Sciences conference · (Spain)
  - 07/Jul/2014 · "Prefrontal oscillatory neural activity is modulated by the activation of the parafascicular nucleus of the thalamus" · FENS · (Italy)
  - 07/Jul/2014 · "Characterizing thalamocortical information flow using ordinal symbolic measures" · American Institute of Mathematical Sciences conference · (Spain)
  - 20/Jun/2014 · "Owning a body in virtual reality" · The Immortality Project · (USA - United States of America)
  - 16/Jun/2014 · "Orbitofrontal Cortex Neurons in Rats Convey Information about Abstract Decision" · Barcsyn · (Spain)
  - 16/Jun/2014 · "Emergence and fading of long range functional connectivity with light/deep anaesthesia levels" · Barcsyn · (Spain)
  - 16/Jun/2014 · "Increased beta/gamma oscillations in prefrontal cortex in an in vitro model of schizophrenia" · Barcsyn · (Spain)
  - 16/Jun/2014 · "Modulation of high and slow oscillations in the cerebral cortex by DC electric fields" · Barcsyn · (Spain)
  - 16/Jun/2014 · "Physical exercise restores prefrontal cortex emergent spectral properties in early aging mouse model SAMP8" · Barcsyn · (Spain)
  - 16/Jun/2014 · "Deep brain stimulation of the parafascicular nucleus produces a long-lasting effect on synchronization of prefrontal cortical activity" · Barcsyn · (Spain)
  - 16/Jun/2014 · "Layer 5 leads the flow of information during slow oscillations" · Barcsyn · (Spain)
  - 20/May/2014 · "Relating neural network structure to dynamics" · Cajal Winter Conference · (Spain)
  - 13/Dec/2013 · "Realidad virtual en el estudio y tratamiento de la violencia" · Retos y futuro de las intervenciones en el tratamiento de la violencia · (Spain)
  - 28/Nov/2013 · "Oscillations in the cerebral cortex and their alteration in transgenic models of neurological disease" · NETT2 Induction Meeting, PRBB · (Spain)
  - 22/Nov/2013 · "A plastic brain: virtual reality for body transformations" · Pain and Pleasure: The Art and Science of Body Representation · (Italy)
  - 13/Nov/2013 · "The neural basis of temporal brightness effects" · Society for Neuroscience 2013 · (USA - United States of America)
  - 12/Nov/2013 · "Role of persistent sodium current on cortical rhythms and excitability" · Society for Neuroscience 2013 · (USA - United States of America)
  - 11/Nov/2013 · "A more inhibited prefrontal cortex underlies changes of slow and fast rhythms in TgDyrk1A, a mouse model of Down Syndrome" · Society for Neuroscience 2013 · (USA - United States of America)

- 10/Nov/2013 · "Laminar profile of fast oscillations during cortical Up states in vivo and in vitro" · Society for Neuroscience 2013 · (USA - United States of America)
- 05/Nov/2013 · "A plastic brain: transforming the body in virtual reality" · Trinity College Institute of Neuroscience. Annual Symposium. · (Ireland)
- 19/Oct/2013 · "Modulating emerging cortical activity with electric fields in brain slices" · 21st Annual Meeting of the German Sleep Society · (Germany)
- 06/Oct/2013 · "Transforming the body in VR" · VRST 2013 (Virtual Reality Software and Technology) · (Singapore)
- 27/Sep/2013 · "MODULATING INCREASED HIGH FREQUENCY OSCILLATIONS IN THE PREFRONTAL CORTEX IN AN IN VITRO MODEL OF SCHIZOPHRENIA" · Sociedad Española de Neurociencias 2013 · (Spain)
- 26/Sep/2013 · "INCREASED HIGH FREQUENCY ACTIVITY DURING UP STATES IN THE NEOCORTEX OF A MOUSE MODEL OF ALZHEIMER DISEASE." · Sociedad Española de Neurociencias 2013 · (Spain)
- 25/Sep/2013 · "The role of potassium currents in cortical auditory adaptation" · Sociedad Española de Neurociencias 2013 · (Spain)
- 16/Sep/2013 · "Activity of the rat brain under different levels of anesthesia measured at distinct spatiotemporal scales" · European Conferences in Complex Systems (ECCS 2013) · (Spain)
- 16/Jul/2013 · "Organization of emergent patterns of activity in control and altered cortical networks" · Computational Neuroscience Meeting 2013. Workshop Metastable Dynamics of Neural Ensembles · (France)
- 14/Jul/2013 · "Stochastic coherence in UP and DOWN states" · Computational Neuroscience Meeting 2013 · (France)
- 14/Jul/2013 · "Cortical origin of Up state onsets and offsets in anesthetized rats" · Computational Neuroscience Meeting 2013 · (France)
- 14/Jun/2013 · "La realitat virtual: un cos nou, una experiència nova." · 62ena Reunió Científica de la Societat Catalana de Neuropsicologia · (Spain)
- 14/Jun/2013 · "Alterations in the prefrontal cortical network in TgDyrk1A, a mouse model of Down Syndrome" · Barcelona Computational and Systems Neuroscience (BARCSYN) 2013 · (Spain)
- 14/Jun/2013 · "CONTROL OF CORTICAL OSCILLATIONS AND NETWORK EXCITABILITY BY PERSISTENT SODIUM CURRENT" · Barcelona Computational and Systems Neuroscience (BARCSYN) 2013 · (Spain)
- 13/Jun/2013 · "RAT BRAIN ACTIVITY UNDER ANESTHESIA MEASURED AT DIFFERENT SPATIOTEMPORAL SCALES WHILE VARYING BRAIN STATES" · Barcelona Computational and Systems Neuroscience (BARCSYN) 2013 · (Spain)
- 31/May/2013 · "Engineering and rehabilitation: A case study" · 51 congreso de la Sociedad Española de Rehabilitación y Medicina Física · (Spain)
- 31/May/2013 · "Un entorno virtual y haptico para la rehabilitación remota" · 51 congreso de la Sociedad Española de Rehabilitación y Medicina Física · (Spain)
- 17/May/2013 · "Altered rhythmic activity in a transgenic model of Down Syndrome" · EEG Rhythms of Health and Disease States · (UK - United Kingdom)
- 15/May/2013 · "The neural basis of temporal brightness effects" · Vision Sciences Society 12nd Annual Meeting · (USA - United States of America)
- 08/May/2013 · ""BEAMING to the hospital for rehabilitation: immersive virtual reality for the remote patient"" · Eurographics 2013. BEAMING special session · (Spain)
- 14/Apr/2013 · "Narrowing "Down" the genes: Dyrk1A as a multi-level regulator of adult plasticity" · Workshop on Cognition in Down Syndrome Molecular, Cellular and Behavioral Features and the Promise of Pharmacotherapies Washington DC, April 13 - 15, 2013 · (USA - United States of America)
- 19/Mar/2013 · "Modulating emerging cortical activity with electric fields in brain slices" · 5th International Conference on Non-invasive Brain Stimulation 2013 · (Germany)
- 25/Oct/2012 · "Modulating excitability in the cortical network: impact on emergent activity and travelling waves" · 2012 International Symposium on Nonlinear Theory and its Applications · (Spain)
- 05/Aug/2012 · "The influence of relaxing music on anxiety induced by fear of heights in an immersive virtual

- reality experience" · American Psychological Association meeting · (USA - United States of America)
- 03/Aug/2012 · "Gender Violence: - The Aggressor in the Victim's Role" · American Psychological Association meeting · (USA - United States of America)
  - 02/Aug/2012 · "Spatial differences in auditory memory during the virtual hand illusion" · American Psychological Association meeting · (USA - United States of America)
  - 18/Jul/2012 · "SPATIOTEMPORAL LAYER ACTIVATION DURING CORTICAL UP STATES" · The 8th FENS Forum of Neuroscience · (Spain)
  - 18/Jul/2012 · "DISENTANGLING THE DISCHARGE OF HIPPOCAMPAL NEURONS IN RELATION TO SELF-POSITION AND TO THE POSITION OF OTHERS" · The 8th FENS Forum of Neuroscience · (Spain)
  - 17/Jul/2012 · "INCREASED HIGH FREQUENCY OSCILLATORY ACTIVITY IN THE PREFRONTAL CORTEX IN AN IN VITRO MODEL OF SCHIZOPHRENIA" · The 8th FENS Forum of Neuroscience · (Spain)
  - 17/Jul/2012 · "SLOW AND FAST CORTICAL OSCILLATIONS IN THE PRESENCE OF NA<sup>+</sup>-PERSISTENT CHANNEL BLOCKERS" · The 8th FENS Forum of Neuroscience · (Spain)
  - 15/Jul/2012 · "MODULATION OF FIRING IN ORBITOFRONTAL CORTICAL NEURONS DURING A DECISION TASK ON TIME-INTERVAL CATEGORIZATION" · The 8th FENS Forum of Neuroscience · (Spain)
  - 15/Jul/2012 · "DISTORTION OF THE PERCEIVED BODY IMAGE BY ASYNCHRONOUS VISUOTACTILE STIMULATION" · The 8th FENS Forum of Neuroscience · (Spain)
  - 15/Jul/2012 · "Synaptic transmission and plasticity during slow waves" · The 8th FENS Forum of Neuroscience · (Spain)
  - 12/Jul/2012 · "Using virtual reality to understand brain function" · B-DEBATE How mind emerges from brain: A view into the future · (Spain)
  - 24/May/2012 · "Spatio-temporal organization of emergent activity in the cerebral cortex" · II Jornada Complexitat.cat · (Spain)
  - 12/Nov/2011 · "Attentional modulation of information and variability in auditory cortex spike trains during a decision-making task" · Society for Neuroscience Meeting · (USA - United States of America)
  - 29/Sep/2011 · "Attentional modulation of auditory adaptation during long stimuli" · XIV Congreso Nacional de la Sociedad Española de Neurociencia · (Spain)
  - 29/Sep/2011 · "Slow and fast rhythms generated in the cerebral cortex of the anesthetized mouse" · XIV Congreso Nacional de la Sociedad Española de Neurociencia · (Spain)
  - 28/Sep/2011 · "Exploring the spectrum of dynamical regimes and timescales in spontaneous cortical activity" · XIV Congreso Nacional de la Sociedad Española de Neurociencia · (Spain)
  - 11/Sep/2011 · "Hippocampal coding of spatial information about dynamic cues" · EBBS European Brain and Behaviour Society Meeting · (Spain)
  - 10/Sep/2011 · "The virtual hand illusion enhances auditory memory" · EBBS European Brain and Behaviour Society Meeting · (Spain)
  - 09/Sep/2011 · "Modulation of spatial processing by somatosensory inputs in the rat" · EBBS European Brain and Behaviour Society Meeting · (Spain)
  - 15/Jun/2011 · "A brain-computer interface system for the real-time analysis of position" · BARSYNC Barcelona Computational and Systems Neuroscience meeting · (Spain)
  - 15/Jun/2011 · "GABA<sub>A</sub> modulation of emergent cortical rhythms: an experimental and computational study" · BARSYNC Barcelona Computational and Systems Neuroscience meeting · (Spain)
  - 14/Jun/2011 · "Mechanisms of attentional modulation of adaptation during long auditory stimuli" · BARSYNC Barcelona Computational and Systems Neuroscience meeting · (Spain)
  - 14/Jun/2011 · "Attentional modulation of information and variability in auditory cortex spike trains during a decision-making task" · BARSYNC Barcelona Computational and Systems Neuroscience meeting · (Spain)
  - 14/Jun/2011 · "Slow and fast rhythms in the cerebral cortex" · BARSYNC Barcelona Computational and Systems Neuroscience meeting · (Spain)
  - 14/Jun/2011 · "Slow and fast rhythms generated in the cerebral cortex of the anesthetized mouse" · BARSYNC Barcelona Computational and Systems Neuroscience meeting · (Spain)
  - 14/Jun/2011 · "Modulation of Spatial Processing By Somatosensory Inputs in The Rat" · BARSYNC Barcelona

Computational and Systems Neuroscience meeting · (Spain)

- 17/Nov/2010 · "Cellular and network mechanisms of slow oscillations in the cerebral cortex in vitro" · Society for Neuroscience Meeting · (USA - United States of America)
- 16/Nov/2010 · "Input-output power-law in electrophysiologically characterized neurons in cat area 17" · Society for Neuroscience Meeting · (USA - United States of America)
- 16/Nov/2010 · "A brain-computer interface analyzing position in real-time" · Society for Neuroscience Meeting · (USA - United States of America)
- 14/Nov/2010 · "GABA<sub>B</sub> modulation of emergent cortical rhythms: an experimental and computational study" · Society for Neuroscience Meeting · (USA - United States of America)
- 13/Nov/2010 · "Cortical auditory adaptation in the awake rat and the role of potassium currents" · Society for Neuroscience Meeting · (USA - United States of America)
- 19/Oct/2010 · "RITMES LENTS I RÀPIDS EN L'ESCORÇA CEREBRAL DEL RATOLÍ" · VIII SIMPOSI DE NEUROBIOLOGIA Societat Catalana de Biologia · (Spain)
- 29/Sep/2010 · "Inducing ownership of a virtual arm" · Body Representation in Physical and Virtual Reality with Applications to Rehabilitation. Centro Stephano Franscini Monte Verità · (Switzerland)
- 28/Sep/2010 · "A brain-computer interface system for the real-time analysis of position" · ICT 2010 · (Belgium)
- 27/Sep/2010 · "The Role of Sensorimotor Contingencies in the Body Ownership Illusion" · Conference: Body Representation in Physical and Virtual Reality with Applications to Rehabilitation. Monte Verità · (Switzerland)
- 26/Sep/2010 · "Remotely-driven multimodal sensory rehabilitation within virtual environments" · Body Representation in Physical and Virtual reality with Application to Rehabilitation · (Switzerland)
- 09/Sep/2010 · "Cortical network modulation during up and down states" · Symposium: NEURONAL NETWORK OSCILLATIONS IN HEALTH AND DISEASE, Nobel Forum, Karolinska Institutet, Stockholm, Sweden · (Sweden)
- 08/Sep/2010 · "Inhibitory modulation of up and down states in the cerebral cortex" · Frontiers in Neuroengineering The Monte Verità Workshop · (Switzerland)
- 26/Aug/2010 · "Spatial ECG of the rat during spatial navigation" · 7th International Conference on Methods and Techniques in Behavioral Research Measuring Behavior 2010 · (Netherlands)
- 25/Aug/2010 · "Studying the modulation of brain rhythms by dynamic cues" · 7th International Conference on Methods and Techniques in Behavioral Research Measuring Behavior 2010 · (Netherlands)
- 05/Aug/2010 · "Modulation of spatial processing by somatosensory inputs in the rat" · 9th International Congress of Neuroethology · (Spain)
- 03/Aug/2010 · "Studying the modulation of brain rhythms by dynamic cues" · 7th International Conference on Methods and Techniques in Behavioral Research Measuring Behavior · (Netherlands)
- 03/Aug/2010 · "TRAJECTORY RECONSTRUCTION USING PHYSIOLOGICAL SIGNALS" · 9th International Congress of Neuroethology · (Spain)
- 03/Aug/2010 · "Study of rat's cardiac activity through a discrimination task" · 9th International Congress of Neuroethology · (Spain)
- 02/Aug/2010 · "Modulation of hippocampal activity by dynamic cues" · 9th International Congress of Neuroethology · (Spain)
- 04/Jul/2010 · "Auditory adaptation in primary auditory cortex of the free moving rat and the role of potassium currents" · FENS 2010 (Federation European Neuroscience Societies) · (Netherlands)
- 04/Jul/2010 · "Oscillations in the Beta/Gamma range during spontaneous upstates in supra vs infragranular layers of cerebral cortex in vivo & in vitro" · FENS 2010 (Federation European Neuroscience Societies) · (Netherlands)
- 30/Jun/2010 · "Biocompatible MWNTs-based MEA for the study emergent activity in the cortical network" · 7th International Meeting on Substrate-Integrated Micro Electrode Arrays · (Germany)
- 09/Jun/2010 · "BCI and body representation in virtual reality" · Human Brain Mapping Conference. g.tec's Brain Computer Interfaces Workshop · (Spain)
- 08/Jun/2010 · "Control by Brain-Computer Interface of a Virtual Body" · 16th Annual Meeting of the Organization for Human Brain Mapping · (Spain)
- 02/Feb/2010 · "Excitation and inhibition in cortical circuits" · BRAIN CIRCUITS - FROM RECEPTORS TO

NETWORK DYNAMICS Research Workshop · (Israel)

- 01/Dec/2009 · "Role of intrinsic currents in the auditory adaptation in the awake rat" · Pan-Iberian Systems Neuroscience Workshop · (Portugal)
- 04/Nov/2009 · "Excitatory and inhibitory timing and cortical rhythmic activity" · International Workshop on Synchronization and Multiscale Complex Dynamics in the Brain · (Germany)
- 20/Oct/2009 · "Online reconstruction of rat's position based on firing information from hippocampal place cells" · Society for Neuroscience · (USA - United States of America)
- 18/Oct/2009 · "Inhibitory modulation of up and down states in the cerebral cortex" · Society for Neuroscience · (USA - United States of America)
- 18/Oct/2009 · "Timing excitation and inhibition during up and down states in the cortical network in vitro, in vivo and in computo" · Society for Neuroscience · (USA - United States of America)
- 19/Sep/2009 · "INDUCCIÓN DE ESTADOS DE ACTIVACIÓN O "UP STATES" EN CORTEZAS SENSORIALES PRIMARIAS" · SENC- Sociedad Española de Neurociencias · (Spain)
- 19/Sep/2009 · "ONLINE RECONSTRUCTION OF RAT'S POSITION FROM HIPPOCAMPAL PLACE CELL FIRING INFORMATION" · SENC Sociedad Española de Neurociencias · (Spain)
- 18/Sep/2009 · "Heterogeneidad de la actividad ritmica en la corteza prefrontal" · SENC- Sociedad Española de Neurociencias · (Spain)
- 04/Sep/2009 · "Mecanismos de generación y control de ritmos cerebrales lentos (" · Taller de Neurociencias y Sociedad Argentina de Neurociencias · (Argentina)
- 23/Jul/2009 · "Slow and fast rhythms emergent in the cerebral cortex" · Computational Neuroscience Meeting · (Germany)
- 19/Jul/2009 · "Irregularity of emergent network activity in the local circuit" · Computational Neuroscience Meeting · (Germany)
- 18/Jul/2009 · "Inhibitory control of up states and their propagation in the cortical network" · Computational Neuroscience Meeting · (Germany)
- 13/Jul/2009 · "The body in virtual reality" · Art and Science: Exploring the limits of human perception · (Spain)
- 01/Jun/2009 · "No presentation. Attendance as a member of the HFSP Grant Committee." · HFSP Annual Awardees Meeting · (Japan)
- 06/May/2009 · "Two way influence between spontaneous activity and synaptic plasticity " · Environmental influences on neural plasticity and neurodegeneration. One day symposium at the Cajal Institute · (Spain)
- 23/Apr/2009 · "Virtual reality for the study of body representation" · FET 2009 Conference: Science beyond fiction · (Czech Republic)
- 22/Apr/2009 · "Position Reconstruction Of Awake Behaving Rats By The Use Of Neural Spike Information From Hippocampal Place Cells" · FET 2009 Conference: Science beyond fiction · (Czech Republic)
- 26/Mar/2009 · "From cortical circuit dynamics to a virtual body " · Neuroscience Research Groups Meeting · (Spain)
- 08/Dec/2008 · "Position Reconstruction of Awake Rodents by Evaluating Neural Spike Information from Place Cells in the Hippocampus" · 13TH INTERNATIONAL CONFERENCE ON BIOMEDICAL ENGINEERING · (Singapore)
- 04/Nov/2008 · "Neuronal counterpart of sensorimotor contingencies in VR" · Presence and the Science of Virtual Reality · (Israel)
- 28/Oct/2008 · "PREDICTION OF RAT'S LOCATION BY POSITION RECONSTRUCTION FROM PLACE CELLS FIRING" · VII Simposi de Neurobiologia Experimental Societat Catalana de Biologia · (Spain)
- 28/Oct/2008 · "AMPLITUDE AND TIMING OF AUDITORY RESPONSES IN THE AWAKE RAT ARE MODULATED BY PREVIOUS HISTORY OF STIMULATION" · VII Simposi De Neurobiologia Experimental Societat Catalana de Biologia · (Spain)
- 28/Oct/2008 · "ACTIVIDAD EN CORTEZA MOTORA Y PERCEPCIÓN CORPORAL: UN ESTUDIO DE INTERFAZ CEREBRO-ORDENADOR EN ENTORNOS VIRTUALES" · VII Simposi De Neurobiologia Experimental Societat Catalana de Biologia · (Spain)
- 29/Sep/2008 · "HETEROGENEITIES OF RECURRENT EXCITATION AND SPIKE FREQUENCY ADAPTATION IN THE PREFRONTAL CORTEX IN VITRO" · VII Simposi De Neurobiologia Experimental Societat Catalana de Biologia · (Spain)

- 21/Sep/2008 · "Fast rhythms and timing of excitation and inhibition in the active cortical network" · Computations in Cortical Circuits · (Switzerland)
- 05/Sep/2008 · "Virtual hand Illusion induced by visual-proprioceptive and motor correlations" · I IBRO/LARC CONGRESS OF NEUROSCIENCES OF LATIN AMERICA, THE CARIBBEAN AND IBERIAN PENINSULA · (Brazil)
- 03/Sep/2008 · "High-frequency oscillations in the cortical up states in vitro and in computo" · I CONGRESS IBRO/LARC OF NEUROSCIENCES FOR LATIN AMERICA, CARIBBEAN AND IBERIAN PENINSULA · (Brazil)
- 16/Jul/2008 · "Virtual reality for the study of neuronal structure. " · 6th Forum of European Neuroscience · (Switzerland)
- 16/Jul/2008 · "Slow rhythmic activity and thalamocortical synaptic transmission in auditory cortex. " · 6th Forum of European Neuroscience · (Switzerland)
- 15/Jul/2008 · "Inducing the Virtual Hand Illusion through Brain-Computer Interface. " · 6th Forum of European Neuroscience · (Switzerland)
- 15/Jul/2008 · "Auditory adaptation and post-adaptation in auditory cortex of the free moving rat." · 6th Forum of European Neuroscience · (Switzerland)
- 18/Jun/2008 · "Adaptation and integration mediated by slow membrane currents in neurons" · Minischool and Workshop on Multiple Time Scales in the Dynamics of the Nervous System · (Italy)
- 16/Jun/2008 · "Fast and slow oscillations in the cortical network. Lecture" · Minischool and Workshop on Multiple Time Scales in the Dynamics of the Nervous System · (Italy)
- 14/May/2008 · "B for BCI: Cellular and network mechanisms generating brain rhythms" · 3rd Annual XVR Workshop: Virtual Environments and Brain Computer Interfaces · (Italy)
- 10/May/2008 · "Emergent activity from the cerebral cortex network" · Workshop Systems Biology in Medicine · (Spain)

#### Courses and Seminars since 2008:

- 25/Nov/2020 - 25/Nov/2020 (Advanced or Professional), "Exploración multiescala y modulación de estados cerebrales. Sesión estelar de neurología". Departamento de Neurología, Hospital Clinic de Barcelona
- 08/Sep/2019 - 11/Sep/2019 (Summer School), "Summer School in Computational and Theoretical models in Neuroscience in Venice, Italy". University of Padova and of the Padova Neuroscience Center
- 01/Feb/2019 - 02/Feb/2019 (Advanced or Professional), "Actividad de la corteza cerebral y conciencia". Universidad Autónoma de Madrid
- 22/Aug/2018 - 22/Aug/2018 (Advanced or Professional), "Shaping the default mode of the cortical network activity ". Neurobiology- Yale School of Medicine
- 23/Jul/2018 - 23/Jul/2018 (Advanced or Professional), "Transforming the body in virtual reality". IRCCS Fondazione Mondino
- 19/Jul/2018 - 19/Jul/2018 (Advanced or Professional), "From bistability to complexity in the cerebral cortex". IFCO, Barcelona
- 30/Jun/2018 - 07/Jul/2018 (Summer School), "Consciousness: from theory to practice". Neuroscience School of Advanced Studies
- 06/Mar/2018 - 06/Mar/2018 (Advanced or Professional), "Aging: Electrophysiological and virtual reality studies". Fundació Pasqual Maragall
- 02/Feb/2018 - 02/Feb/2018 (Advanced or Professional), "Realidad Virtual inmersiva en la rehabilitación: bases fisiológicas, evidencias y futuro". Instituto de Neurociencias. Hospital de Parapléjicos de Toledo
- 13/Nov/2017 - 13/Nov/2017 (Advanced or Professional), "From bistability to complexity in the cortical network". Medical School, University of Albacete
- 13/Aug/2017 - 17/Aug/2017 (Advanced or Professional), "Title of the talk to be determined ELSC International School in "In-vivo Intracellular Recordings" <https://elsc.huji.ac.il/in-vivo-rec-2017>". Center for Brain Sciences, Hebrew University Jerusalem
- 25/Jul/2017 - 26/Jul/2017 (Advanced or Professional), "From bistability to complexity in the cortical network <http://www.sfbtr128.de/csf-diagnostics-in-neurodegenerative-diseases-2/>". University of Mainz
- 03/Apr/2017 - 04/Apr/2017 (Graduate), "Master's degree lecture: Señales neurofisiológicas y realidad virtual". Master OTO NRL 2016-2017

- 02/Mar/2017 - 03/Mar/2017 (Advanced or Professional), "Aplicaciones de la realidad virtual en psicología y en la rehabilitación del comportamiento <http://www.copclm.com/programa>". Colegio oficial de la Psicología de Castilla la Mancha
- 24/Feb/2017 - 24/Feb/2017 (Advanced or Professional), "Shaping the default model of the cortical activity <http://www.achucarro.org/en/seminar/20170224-seminar-mavi-sanchez-vives>". Achucarro Basque Center for Neuroscience
- 01/Feb/2017 - 02/Feb/2017 (Advanced or Professional), ""Shaping the default mode of the cortical activity and getting out of it"". Institute for Systems Neuroscience, INSERM , Aix-Marseille Université
- 05/Oct/2016 - 05/Oct/2016 (Advanced or Professional), "Shaping the cortical default activity ". Bernstein Center for Computational Neuroscience Berlin
- 14/Sep/2016 - 14/Sep/2016 (Advanced or Professional), "Shaping the cortical default activity". Carlsberg Academy, Copenhagen
- 05/May/2016 - 05/May/2016 (Seminar), ""Brain stimulation for measuring and modulating cortical dynamics"". Seminar In-House IDIBAPS
- 25/Feb/2016 - 25/Feb/2016 (Seminar), "Is this my body? Mechanisms, consequences and applications of virtual embodiment ". University of Montpellier
- 30/Nov/2015 - 30/Nov/2015 (Graduate), ""Synaptic depression and cortical oscillations: Reciprocal interactions" in the Master: Cellular and Molecular Bases of Neural Plasticity and Learning". Universitat Pompeu Fabra
- 17/Sep/2015 - 18/Sep/2015 (Advanced or Professional), "Advanced Training Course 5: Introduction to neurocomputational modelling Impact of network excitability on cortical emergent patterns and wave propagation ". INDIREA/ Marie Curie Training Network UPF
- 30/Aug/2015 - 05/Sep/2015 (Summer School), "ELSC International School in "In-vivo Intracellular Recordings" <http://elsc.huji.ac.il/in-vivo-rec-2015>". Edmond and Lily Safra Center for Brain Sciences
- 21/Jun/2015 - 29/Jun/2015 (Summer School), ""The social self"". Dept of Psychology, UCL
- 22/May/2015 - 22/May/2015 (Advanced or Professional), "Slow oscillations and functional scaling of synaptic inputs in the cerebral cortex". State University of New York (SUNY)
- 03/Jul/2014 - 03/Jul/2014 (Advanced or Professional), "Transforming the body in virtual reality". Department of Computing, Macquarie University
- 30/Jun/2014 - 14/Jul/2014 (Advanced or Professional), "Transforming the body in virtual reality". University of South Australia
- 24/Jun/2014 - 30/Jun/2014 (Advanced or Professional), "Transforming the body in virtual reality". Zhejiang University Interdisciplinary Institute of Neuroscience and Technology
- 24/Jun/2014 - 30/Jun/2014 (Advanced or Professional), "Emergent oscillatory activity in the cerebral cortex". Zhejiang University Interdisciplinary Institute of Neuroscience and Technology
- 26/May/2014 - 26/May/2014 (Advanced or Professional), "Transforming the body in VR ". Univ of Maastricht
- 02/May/2014 - 02/May/2014 (Advanced or Professional), "Emergent oscillatory activity in the cerebral cortex ". Neuroscience at Bournemouth University
- 23/Jan/2014 - 23/Jan/2014 (Advanced or Professional), "Emergent oscillatory activity in the cerebral cortex". Institute of Fundamental Technological Research, Polish Academy of Sciences
- 22/Jan/2014 - 22/Jan/2014 (Advanced or Professional), "Emergent oscillatory activity in the cerebral cortex". Nencki Institute of Experimental Biology
- 09/Dec/2013 - 10/Dec/2013 (Advanced or Professional), "Cortical oscillations and their alterations in transgenic models of disease". Centre de Recherche Cerveau et Cognition, CNRS
- 15/Nov/2013 - 15/Nov/2013 (Advanced or Professional), "Immersive Virtual Reality: Changing the Self Not Just the Place". Institute for Creative Technologies University of Southern California
- 11/Oct/2013 - 11/Oct/2013 (Advanced or Professional), "Emergent oscillatory activity in the cerebral cortex". VALENS Centre of Excellence (Bio-Instrumentation, Devices and Signal Processing), School of EEE, NTU
- 27/Jul/2013 - 03/Aug/2013 (Summer School), "Advanced Course in Computational Neuroscience 2013". Organized by Computational Neuroscience Society
- 14/May/2013 - 14/May/2013 (Advanced or Professional), "Realidad virtual en la intervención con víctimas e infractores". Centro de Estudios Jurídicos y Formación Especializada de la Generalitat de Catalunya

- 24/Apr/2013 - 24/Apr/2013 (Graduate), "Using virtual reality to understand brain function". Universitat Pompeu Fabra
- 12/Apr/2013 - 12/Apr/2013 (Advanced or Professional), "Actividad emergente de la corteza cerebral y su alteración en modelos transgénicos de patologías cerebrales". CTB Centro de Tecnología Biomédica. Parque Científico y Tecnológico de la U.P.M
- 20/Mar/2013 - 20/Mar/2013 (Seminar), ""Generación de actividad rítmica en la corteza cerebral y sus alteraciones en modelos transgénicos de enfermedad"". "Sesión estelar" Servicio de Neurología, Hospital Clinic
- 25/Sep/2012 - 26/Sep/2012 (Graduate), "Los Retos de la Neurociencia en el siglo XXI: creando diálogos entre cerebro y máquina "La realidad virtual en el estudio del cerebro"". UIMP
- 16/Sep/2012 - 19/Sep/2012 (Advanced or Professional), "12th Granada Seminar Physics, Computation, and the Mind: Advances and Challenges at Interfaces". Institute Carlos I for Theoretical and Computational Physics and University of Granada
- 19/Mar/2012 - 19/Mar/2012 (Seminar), ""Generación y propagación de actividad en la red neuronal cortical"". Meeting IBERSINC
- 30/Jan/2012 - 30/Jan/2012 (Advanced or Professional), ""Shaping the emergent activity of the cerebral cortex network"". Istituto Superiore de Sanita-Univ. La Sapienza
- 13/Jan/2012 - 13/Jan/2012 (Advanced or Professional), "Place cells' encoding of some environmental properties". Institut de Neurociencies UAB
- 16/Dec/2011 - 16/Dec/2011 (Advanced or Professional), "The shaping of emergent cortical activity". Bernstein Center for Computational Neuroscience Heidelberg University
- 28/Apr/2011 - 28/Apr/2011 (Advanced or Professional), "Gestion del Riesgo y la Incertidumbre en los Proyectos". CLUB MLGC (Master de Liderazgo y Gestión de la Ciencia)
- 12/Apr/2011 - 12/Apr/2011 (Advanced or Professional), "Rhythmic Emergent Activity in the Cerebral Cortex Network.". COMPLEXITAT.CAT. Catalan Network For the Study of Complex Systems. Facultat de Fisica, UB
- 14/Jan/2011 - 14/Jan/2011 (Advanced or Professional), "Cerebral Cortex Network Dynamics.". Institute for Bioengineering of Catalonia (IBEC).
- 20/Sep/2010 - 24/Sep/2010 (Advanced or Professional), "1st Baltic Autumn School "Applied Computational Neuroscience: Sleep, Neuroengineering and Dynamics"". University of Lübeck
- 23/Jun/2010 - 27/Jun/2010 (Advanced or Professional), "XI CURSO NACIONAL DE NEUROCIENCIA. Talk: "Ritmos y sincronización en redes neuronales: cómo se generan y para qué.". Universidad Pablo de Olavide en Carmona
- 03/Jun/2010 - 03/Jun/2010 (Graduate), "Cortical Rhythmic Emergent Activity: Mechanisms and Impact on Information Transmission". Universitat Pompeu Fabra-DTIC Research Seminars
- 07/May/2010 - 07/May/2010 (Seminar), "CORTICAL RHYTHMIC ACTIVITY: MECHANISMS OF GENERATION AND THE EXCITATORY /INHIBITORY BALANCE ". Dept of Neuroengineering, Tsinghua University
- 12/Apr/2010 - 12/Apr/2010 (Seminar), ""Cortical Rhythmic Activity: Mechanisms of generation and impact on information processing"". Neurophysics and Physiology Dept.; Université Paris Descartes
- 19/Feb/2010 - 19/Feb/2010 (Seminar), ""Functional organization of spontaneous activity in the cerebral cortex"". Universidad Pablo de Olavide
- 30/Nov/2009 - 30/Nov/2009 (Seminar), "Understanding Cortical Function: From electrophysiology to virtual reality. Opening seminar of 2009/2010 course". IDIBAPS
- 14/Oct/2009 - 17/Oct/2009 (Seminar), "Mechanisms of rhythmicity in the cerebral cortex in vitro". Laval Universtiyy
- 05/Jun/2009 - 05/Jun/2009 (Advanced or Professional), ""Excitatory / inhibitory balance and rhythmicity in the cortical network" ". Division of Cerebral Circuitry National Institute for Physiological Sciences
- 04/May/2009 - 06/May/2009 (Advanced or Professional), "Excitation and inhibition during rhythmic cortical activity". Bernstein Center for Computational Neuroscience
- 12/Feb/2009 - 12/Feb/2009 (Seminar), ""Emerging slow and fast rhythms in the cortical network"". Université de Lausanne, Faculté de biologie et de médecine
- 26/Jan/2009 - 26/Jan/2009 (Seminar), ""Generation and modulation of rhythmic activity in the brain's cortical network"". Centre de Recerca Matematica, UAB
- 11/Dec/2008 - 11/Dec/2008 (Seminar), "IV Jornades de Reserca de la Facultat de Psicologia. Opening of the

- Experimental Virtual Enviroment for Neurosciences and Technology (EVENT Lab). ". Psicology
- 01/Dec/2008 - 01/Dec/2008 (Seminar), "Actividad emergente en la corteza cerebral". IDIBELL
  - 24/Oct/2008 - 24/Oct/2008 (Seminar), "Synaptic transmission and plasticity in up and down states". Oxford University. Department of Physiology, Anatomy and Genetics
  - 18/Sep/2008 - 18/Sep/2008 (Summer School), "The Barcelona cognition, brain and technology summer school - BCBT Sept 8 to 22, 2008 Session:Fast and slow rhythms emerging in the cortical network ". IUA-UPF
  - 17/Jul/2008 - 17/Jul/2008 (Summer School), "«La conciencia. Cerebro, organismo y sociedad» / Entendre l'activitat elèctrica cerebral: passat, present i futur. Charla y participación en mesa redonda.". Universitat de Barcelona
  - 09/Jul/2008 - 11/Jul/2008 (Summer School), "Presence: Technologies and Applications / Experimental Virtual Environments in Neuroscience: The Body Perception Paradigm". PEACH
  - 06/Jun/2008 - 06/Jun/2008 (Seminar), "Spiking Research: From cortical circuit dynamics to a virtual body". Instituto de Neurociencias de Alicante
  - 08/May/2008 - 10/May/2008 (Advanced or Professional), "Systems Biology in Medicine". Hospital Clinic
  - 26/Mar/2008 - 26/Mar/2008 (Seminar), "Neuronal and network mechanisms of adaptation in visual and auditory primary cortices". SUNY College of Optometry, New York City. USA
  - 25/Mar/2008 - 25/Mar/2008 (Seminar), "Rhythmic Activity in the Cortical network and Synaptic Plasticity". CMBN, Rutgers University, New Jersey, USA
  - 06/Mar/2008 - 06/Mar/2008 (Seminar), "La realidad virtual en el estudio de la representación corporal". Departamento de Fisiología. Facultad de Medicina. Universidad Complutense de Madrid,

## Outreach and Dissemination

### Media appearances:

More than **100 appearances** via such channels as TVE, TV3, [BTV](#), PuntAvui TV, etc. (TV); Radio3, RNE, Catalunya Radio, etc., (radio); El País, LeTemps, El Mundo, etc. (newspapers); and international media like: The New Yorker (2018), The Wall Street Journal (2018). In 2019 she was cover of the [TELLOS magazine \(n.110\)](#). Other events to bring science to the general public: in 2020: Fondazione Prada, Talent Woman, Casa de Cultura Girona, Mesa redonda Univ de Vic, Cazador de Cerebros program (filmed). Talks in El País Retina (2019), Telefónica Las Rozas y Telefónica Zaragoza (2019), IMPAKT festival Utrecht (2019), TEDex (2018) etc She appeared in at least 3 documentaries on brain science and virtual reality. Her talk as Frontiers Forum speaker (2019) had 102,490K internet views.

MVSV has participated and organized several activities open to the general public. I organized e.g. a series of conferences on "Brain Health" in Barcelona Civic Centers (2012 and 2013) as well as other co-organized brain fairs and events (e.g., two "Neuro-unconferences" 2013-2014). Collaborated with the Center of Contemporary Culture (Barcelona) for a exhibit and some talks in the frame of the +Humans exhibition (Oct 2015-April 2016). I have also appeared in at least 3 documentaries related to brain science .

- 26/Nov/2020 - 27/Nov/2020. Talent Woman · Talk on "Dialogo entre el cerebro y la tecnología: un área en expansión" <https://www.talent-woman.es/> <https://www.talent-woman.es/speakers/mavi-sanchez/>
- 23/Nov/2020. Round Table on Gender Violence (Taula rodona: Art, Tecnologia i Violència de Gènere) · Round table organized by Universitat de Vic for the Day against Gender Violence: Jesús Carmona, Juliá Barceló, Nicolás Barnés, Mavi Sánchez Vives <https://www.youtube.com/watch?v=GBYXiT4SYI4&t=5136s>
- 14/Oct/2020. Talk in Casa de Cultura de Girona · The future of humanity: brain interfaces and virtual reality <https://www.youtube.com/watch?v=ubfYF9vD9X4&t=3495s>
- 25/Sep/2020. TV recording for "El Cazador de Cerebros" · TV recording with Pere Estupinya for TV2 program: El Cazador de Cerebros
- 15/Jul/2020. Article on Science Business · <https://sciencebusiness.net/news/rethink-human-brain-project-it-enters-final-phase>
- 13/May/2020. Article on Scientific American on our work · <https://blogs.scientificamerican.com/illusion-chasers/immersive-violence/>
- 23/Apr/2020. Paper media coverage · [https://neurosciencenews.com/virtual-reality-empathy-16204/?fbclid=IwAR0CDBwsouxdyalzwP1Hwh4p5rJxaPHdBMUaE-M\\_sFfz\\_YpuCyD7vo\\_hgc](https://neurosciencenews.com/virtual-reality-empathy-16204/?fbclid=IwAR0CDBwsouxdyalzwP1Hwh4p5rJxaPHdBMUaE-M_sFfz_YpuCyD7vo_hgc)
- 28/Nov/2019 - 29/Nov/2019. Interview for El País Digital · Filmed Interview for El País Digital studio in

## Madrid

- 25/Nov/2019. Radio Interview Catalunya Radio, "Popap" · On relation to the day against gender violence, on virtual reality for rehabilitation
- 25/Nov/2019. Demos of VR for rehabilitation of gender violence, City of Justice
- 02/Oct/2019. Radio interview in RNE Program Sapiens · Interview
- 04/Sep/2019. Open to the public presentation · "¿Sentimos responsabilidad por acciones realizadas a distancia? Drones, teleoperadores y control por el pensamiento"
- 15/Aug/2019. Radio Interview in Radio 3 "Siglo XXI" · Interview in Radio 3 for the program "Siglo XXI" Available online from Aug 25th, 2019
- 15/Jul/2019. Retina El País · [https://retina.elpais.com/retina/2019/07/11/innovacion/1562848697\\_850637.html](https://retina.elpais.com/retina/2019/07/11/innovacion/1562848697_850637.html)
- 10/Jul/2019. Entrevista en libro · 'Todo comienza ahora. Buen viaje por el siglo XXI' libro de Isabel Durán. Capítulo dedicado a entrevista.
- 17/Jun/2019. Conference for Professionals in Telefonica Las Tablas Madrid · Conference for 375 professionals of Telefonica on "The brain is in the cloud" in Madrid
- 06/Jun/2019. Talk on brain function and interaction with technology · Fundación Telefónica, Zaragoza
- 03/Jun/2019. The Conversation-Prensa · <https://theconversation.com/mavi-sanchez-vives-el-cerebro-ya-esta-en-la-nube-118072>
- 29/May/2019. RNE interview · Gente Despierta. Interview in Spanish National Radio on virtual reality, the brain and science <http://www.rtve.es/alacarta/audios/gente-despierta/gente-despierta-neurociencia-doctora-sanchez-vives/5244564/>
- 25/May/2019. Bojos per la Ciència · Talk (Neuroscience of virtual reality" and activities for "brain and virtual reality" dissemination. IDIBAPS, May 25th, 2019
- 22/Apr/2019 - 24/May/2019. Interview in newspaper "El Mundo" · "La realidad virtual puede reducir el dolor crónico" <https://www.elmundo.es/papel/lideres/2019/04/22/5cadef2bfc6c8348588b466a.html>
- 15/Apr/2019. Interview in Telos magazine · Title: El cerebro ya está en la nube. Link: <https://telos.fundaciontelefonica.com/revista/>
- 15/Apr/2019. Interview in Retina magazine for El País · Title: Ciencia: "En el entretenimiento es donde está el verdadero factor de riesgo de la realidad virtual" Link: [https://retina.elpais.com/retina/2019/04/12/talento/1555054620\\_384022.html](https://retina.elpais.com/retina/2019/04/12/talento/1555054620_384022.html)
- 01/Apr/2019. Radio interview in RTVE · Interview in program INQUIETAMENTE <http://www.rtve.es/alacarta/audios/inquietamente/inquietamente-grafeno-para-registro-cerebral-27-03-19/5096718/>
- 05/Feb/2019. Virtual i real: Els límits de la subjectivitat · Round table <https://www.salabeckett.cat/activitat-resta/virtual-real-limits-subjectivitat/>
- 07/Dec/2018. Article in "LeTemps"
- 10/Sep/2018. Interview on "Para Todos la 2" TVE · Interview on Spanish television
- 20/Jul/2018. Article SINC agency · <https://www.agenciasinc.es/Entrevistas/El-estudio-de-la-consciencia-se-habia-considerado-hasta-ahora-algo-mistico-o-acentifico>
- 21/May/2018. Article in El Confidencial · Dentro del laboratorio que te convierte en víctima de maltrato, Freud, un bebé o Lenin. Link: [https://www.elconfidencial.com/tecnologia/2018-05-21/dentro-del-laboratorio-que-te-convierte-en-una-mujer-maltratada-un-bebe-o-lenin\\_1565856/](https://www.elconfidencial.com/tecnologia/2018-05-21/dentro-del-laboratorio-que-te-convierte-en-una-mujer-maltratada-un-bebe-o-lenin_1565856/)
- 17/May/2018. Interview - Radiolab · More or less human. Link: <https://www.wnycstudios.org/story/more-or-less-human/>
- 16/Apr/2018. Article in the Wall Street Journal · The Future of Therapy: Becoming Someone Else in VR. Link:
- 07/Apr/2018. TED talk · How your virtual body can transform yourself <http://www.tedxiesebarcelona.com/>
- 02/Apr/2018. Article in The New Yorker · Are we already living in virtual reality? Link: <https://www.newyorker.com/magazine/2018/04/02/are-we-already-living-in-virtual-reality>
- 26/Feb/2018. Article in Diario Médico · Retos de futuro y cómo afrontarlos. Link: <http://www.diariomedico.com/2018/02/26/area-profesional/gestion/retos-de-futuro-y-como-afrontarlos>

- 31/Oct/2017. Talk: Caracterizaciones del lenguaje en el cerebro · Talk at series of conferences (fourth session): Talking Brains. <http://agenda.obrasocial.lacaixa.es/es/-/caracterizaciones-del-lenguaje-en-el-cerebro>
- 26/Sep/2017. Radio interview: Alzhéimer y actividad neuronal en el sueño · Radio interview. RTVE. InquietaMente: Alzhéimer y actividad neuronal en el sueño. Link: <http://www.rtve.es/alacarta/audios/inquietamente/inquietamente-alzheimer-actividad-neuronal-sueno-26-09-17/4240842/>
- 15/Sep/2017. Documentary: Beyond – The Future of Virtual Reality · Documentary: EBS (South Korean TV channel). Beyond – The Future of Virtual Reality: <https://www.youtube.com/watch?v=KTZzG89JiRI&t=1s>
- 05/Sep/2017. Article about SloW Dyn · <http://www.agenciasinc.es/Noticias/Oleadas-de-actividad-neuronal-dan-nuevas-pistas-sobre-el-alzheimer> And <http://www.agenciasinc.es/en/News/Waves-of-neural-activity-give-new-clues-about-Alzheimer-s>
- 05/Sep/2017 - 06/Sep/2017. Online Press related to publication: P Castano-Prat, M Perez-Zabalza, L Perez-Mendez, R Escorihuela and MV Sanchez-Vives (2017). Slow and fast neocortical oscillations in the senescence-accelerated mouse model SAMP8. *Frontiers in Aging Neuroscience* · Sinc: la ciencia es noticia. September 5, 2017. English: HUMAN BRAIN PROJECT: ‘Waves’ of neural activity give new clues about Alzheimer’s. Link: <http://www.agenciasinc.es/en/News/Waves-of-neural-activity-give-new-clues-about-Alzheimer-s> Spanish: HUMAN BRAIN PROJECT: ‘Oleadas’ de actividad neuronal dan nuevas pistas sobre el alzhéimer. Link: <http://www.agenciasinc.es/Noticias/Oleadas-de-actividad-neuronal-dan-nuevas-pistas-sobre-el-alzheimer> News Medical. September 5, 2017. Disruption of 'slow waves' can lead to cognitive decline similar to Alzheimer’s in mice. Link: <https://www.news-medical.net/news/20170905/Disruption-of-slow-waves-can-lead-to-cognitive-decline-similar-to-Alzheimere28099s-in-mice.aspx> Science Daily. September 5, 2017. ‘Waves’ of neural activity give new clues about Alzheimer’s. Link: <https://www.sciencedaily.com/releases/2017/09/170905123259.htm> Health Medicine Network. September 5, 2017. ‘Waves’ of neural activity give new clues about Alzheimer’s. Link: <http://healthmedicinet.com/i2/waves-of-neural-activity-give-new-clues-about-alzheimers/> Medical Xpress. September 6, 2017. ‘Waves’ of neural activity give new clues about Alzheimer’s. Link: <https://medicalxpress.com/news/2017-09-neural-clues-alzheimer.html> Periodistas en Español. September 6, 2017. SloW Dyn, un proyecto que descubre avances para el Alzheimer. Link: <http://periodistas-es.com/slow-dyn-proyecto-descubre-avances-alzheimer-91069>
- 01/Aug/2017. Documentary: Una altra realitat (Lògic) · Lògic UNA ALTRA REALITAT, in Beteve, and in internet
- 07/Jul/2017. Online Press related to publication: Sanchez-Vives MV, Massimini M, Mattia M (2017). Shaping the Default Activity Pattern of the Cortical Network. *Neuron* · Internet news portal: IDIBAPS. July 7, 2017. Les oscil•lacions lentes del cervell, clau en l'estudi funcional de l'escorça cerebral. Link: <http://www.idibaps.org/actualitat/noticies/52867/les-oscil%C2%B7lacions-lentes-del-cervell-clau-en-lestudi-funcional-de-lescorca-cerebral>
- 06/Apr/2017. Talk: Desafíos de la realidad virtual en la rehabilitación motora · g.tec press conference: Inauguració del Neurotechnology center.
- 27/Mar/2017. Online Press related to publication: Blaschke, Tort-Colet, Guimerà-Brunet, Weinert, Rousseau, Heimann, Drieschner, Kempski, Villa, Sanchez-Vives, Garrido (2017). Mapping brain activity with flexible graphene micro-transistors. *2D Materials* · Internet news portal: Graphene Flagship. March 27, 2017. Graphene-Based Neural Probes Probe Brain Activity in High Resolution. Link: [https://graphene-flagship.eu/graphene-based-neural-probes-probe-brain-activity-in-high-resolution?utm\\_campaign=unspecified&utm\\_content=unspecified&utm\\_medium=email&utm\\_source=apsis-anp-3](https://graphene-flagship.eu/graphene-based-neural-probes-probe-brain-activity-in-high-resolution?utm_campaign=unspecified&utm_content=unspecified&utm_medium=email&utm_source=apsis-anp-3)
- 24/Mar/2017. Online Press related to publication: R Nogueira, JM Abolafia, J Drugowitsch, E Balaguer-Ballester, MV Sánchez-Vives and Rubén Moreno-Bote, (2017), Lateral orbitofrontal cortex anticipates choices and integrates prior with current information. *Nature Commu* · Hospital Clínic’s Blog: BLOC DEL CLINIC. March 24, 2017. L’escorça orbitofrontal del cervell permet predir la presa de decisions fins i tot abans que es doni l'estímul. Link: <http://blog.hospitalclinic.org/2017/03/lescorca-orbitofrontal-del-cervell-permet-predir-la-presa-de-decisions-fins-i-tot-abans-que-es-doni-lestimul/> Internet university news portal: E-Noticias UPF. March 24, 2017. En la toma de decisiones, una zona del cerebro permite predecir el comportamiento incluso antes que se dé el estímulo. Link: [https://www.upf.edu/es/inicio-/asset\\_publisher/UI8Z8VAXU47P/content/id/8091477/maximized#.WRmsltztaUl](https://www.upf.edu/es/inicio-/asset_publisher/UI8Z8VAXU47P/content/id/8091477/maximized#.WRmsltztaUl)
- 24/Feb/2017. Interview: Estamos muy lejos de una realidad como la de Matrix · Internet university news portal: Campusa – Noticias de la Universidad del País Vasco. Link: [http://www.ehu.eus/es/preview-campusa/-/asset\\_publisher/1O7v/content/n\\_20170224\\_entrevista-neurociencias?platform=hootsuitehttp://www.ehu.eus/eu/web/guest/preview-campusa/](http://www.ehu.eus/es/preview-campusa/-/asset_publisher/1O7v/content/n_20170224_entrevista-neurociencias?platform=hootsuitehttp://www.ehu.eus/eu/web/guest/preview-campusa/)

/asset\_publisher/1O7v/content/n\_20170224\_entrevista-neurociencias?platform=hootsuite

- 23/Feb/2017. Conference: "Realidad virtual y Cerebro" · Conference in the Forum Achucarro. Basque Center for Neuroscience.
- 22/Feb/2017. Radio interview: La realidad virtual y el cerebro humano · Radio interview: Radio Popular Bilbao. Link: <http://radiopopular.com/la-realidad-virtual-y-el-cerebro-humano/>
- 21/Feb/2017. Radio interview: La mecánica del caracol – Realidad virtual y cerebro y atlas de las aves que anidan en Donostia · Radio interview: Radio Euskadi. Link: [www.eitb.tv/es/radio/radio-euskadi/la-mecanica-del-caracol/4345846/4660330/realidad-virtual-y-cerebro-y-atlas-de-las-aves-que-anidan-en-donostia/](http://www.eitb.tv/es/radio/radio-euskadi/la-mecanica-del-caracol/4345846/4660330/realidad-virtual-y-cerebro-y-atlas-de-las-aves-que-anidan-en-donostia/)
- 12/Feb/2017. Radio interview: Via Lliure: D'aquí 10 anys · Radio interview. Rac1. Link: <http://www.rac.cat/a-la-carta/detail/d15bac9f-25d2-4664-abfe-05d47d40903f>
- 07/Feb/2017 - 13/Feb/2017. Online Press related to publication: B Nierula, M Martini, M Matamala-Gomez, M Slater, MV Sanchez-Vives (2017). Seeing an embodied virtual hand is analgesic contingent on co-location. *Journal of Pain* · *New Scientist*. February 7, 2017. Looking at a virtual hand reduces the pain in your real hand (Nierula et al. (2017), J Pain). Link: <https://www.newscientist.com/article/2120537-looking-at-a-virtual-hand-reduces-the-pain-in-your-real-hand/> Wirtschafts Woche. February 13, 2017. Virtuelle Realität: VR-Brillen machen Schmerzen erträglicher (Nierula et al. (2017), J Pain). Link: <http://www.wiwo.de/technologie/forschung/virtuelle-realitaet-vr-brillen-machen-schmerzen-ertraeglicher/19384374.html> Augsburger Allgemeine. February 13, 2017. Virtuelle Realität macht Schmerzen erträglicher (Nierula et al. (2017), J Pain). Link: <http://www.augsburger-allgemeine.de/wissenschaft/Virtuelle-Realitaet-macht-Schmerzen-ertraeglicher-id40526776.html> Heise Online. February 13, 2017. Virtuelle Realität macht Schmerzen erträglicher (Nierula et al. (2017), J Pain). Link: <https://www.heise.de/newsticker/meldung/Virtuelle-Realitaet-macht-Schmerzen-ertraeglicher-3623443.html> BKK Dachverband. February 13, 2017. Virtuelle Realität macht Schmerzen erträglicher (Nierula et al. (2017), J Pain). Link: <http://www.bkk-dachverband.de/presse/agenturmeldungen/detailansicht/artikel/virtuelle-realitaet-macht-schmerzen-ertraeglicher/>
- 07/Feb/2017. Article in New Scientist · <https://www.newscientist.com/article/2120537-looking-at-a-virtual-hand-reduces-the-pain-in-your-real-hand/>
- 22/Nov/2016. IEC. InterSection Workshop: "What is Life? In remembrance of Lynn Margulis (1938-2011)" · Coordinador: Christophe Thébaud (Tolosa de L.). Ponents: The Universe, per Gloria Ga. Cuadrado (Barcelona); Thermodynamics, per David Jou (UAB); Minimal Life, per Ricard Guerrero (BKH); Intelligent Life, per Mavi Sanchez-Vives (IDIBAPS); Artificial Life, per Ricard Solé (UPF); i Extraterrestrial Life, per Annia Domènec (Paris). Col·loqui. Amb la col·laboració de la SCB, la ICHN i la SCHCT.
- 22/May/2016. Article in Genética Médica · <http://revistageneticamedica.com/2016/05/20/dirk1a-oscilaciones-alteradas-modelo-sindrome-de-down/>
- 08/May/2016. Blog Hospital Clinic- Article Ruiz-Mejias, Marcel, et al. "Overexpression of Dyrk1A, a down syndrome candidate, decreases excitability and impairs gamma oscillations in the prefrontal cortex." *The Journal of Neuroscience* 36.13 (2016): 3648-3659. · <http://blog.hospitalclinic.org/es/2016/04/el-ritme-de-les-ones-a-lescorca-cerebral-clau-per-comprendre-la-sindrome-de-down/>
- 08/May/2016. Blog Hospital Clinic: Sancristóbal, B., Rebollo, B., Boada, P., Sanchez-Vives, M. V., & Garcia-Ojalvo, J. (2016). Collective stochastic coherence in recurrent neuronal networks. *Nature Physics*. · <http://blog.hospitalclinic.org/es/2016/05/ordre-dins-el-soroll-del-cervell/>
- 08/May/2016. Press clips related to publication Sancristóbal, B., Rebollo, B., Boada, P., Sanchez-Vives, M. V., & Garcia-Ojalvo, J. (2016). Collective stochastic coherence in recurrent neuronal networks. *Nature Physics*. · <http://www.lavanguardia.com/vida/20160502/401515981350/ruido-fondo-cerebro-neuronas.html> <http://www.agenciasinc.es/Noticias/Orden-dentro-del-ruido-en-el-cerebro> <http://www.investigacionyciencia.es/noticias/orden-en-el-ruido-cerebral-14206> <http://ecodiario.eleconomista.es/ciencia/noticias/7535701/05/16/El-ruido-de-fondo-de-las-neuronas-ayuda-al-cerebro-a-ser-ordenado.html>
- 08/May/2016. Press clips related to publication Ruiz-Mejias, Marcel, et al. "Overexpression of Dyrk1A, a down syndrome candidate, decreases excitability and impairs gamma oscillations in the prefrontal cortex." *The Journal of Neuroscience* 36.13 (2016): 3648-3659. · <https://www.sciencedaily.com/releases/2016/04/160405114630.htm> <http://noticiasdelaciencia.com/not/18989/el-ritmo-de-las-ondas-en-la-corteza-cerebral-clave-para-el-sindrome-de-down/> <http://www.larazon.es/local/cataluna/descubren-alteraciones-neuronales-asociadas-al-sindrome-de-down-BF12350643#.Ttt17cgPybvRrNF>
- 24/Feb/2016. MWC - Graphene Project FLAGSHIP · CAT: <http://www.idibaps.org/actualitat/noticies/20070/sensors-de-grafe-que-interactuen-amb-el-cervell-al->

mobile-world-congress-2016 EN: [http://www.idibaps.org/actualitat/en\\_noticies/20070/graphene-sensors-interacting-with-the-brain-at-the-2016-mobile-world-congress](http://www.idibaps.org/actualitat/en_noticies/20070/graphene-sensors-interacting-with-the-brain-at-the-2016-mobile-world-congress)

- 24/Feb/2016. Blog - Hospital Clinic - MWC and Graphene · CAT: <http://blog.hospitalclinic.org/2016/02/sensors-de-grafe-que-interactuen-amb-el-cervell-al-mobile-world-congress-2016/> EN: <http://blog.hospitalclinic.org/en/2016/02/sensors-de-grafe-que-interactuen-amb-el-cervell-al-mobile-world-congress-2016/> CAST: <http://blog.hospitalclinic.org/es/2016/02/sensors-de-grafe-que-interactuen-amb-el-cervell-al-mobile-world-congress-2016/>
- 23/Feb/2016. Graphene in Mobile World Congress · [http://www.telecinco.es/informativos/Crean-permiten-detectar-actividad-electrica\\_0\\_2136225289.html](http://www.telecinco.es/informativos/Crean-permiten-detectar-actividad-electrica_0_2136225289.html)
- 11/Jan/2016. Participation in catalogue CCCB +Humans · <http://www.cccb.org/ca/multimedia/publicacions/-humans/221696>
- 01/Jan/2016 - 31/Mar/2016. Cicle de Neurociència. Centre civic Urgell, Barcelona. · Coordinated by M Dierssen and MV Sanchez-Vives. Jan-March 2016
- 01/Jan/2016 - 10/Apr/2016. CCCB + Humans · Participation in the exhibition +Humans with virtual reality experiences.
- 16/Dec/2015. Appearance in different media · <http://www.theappdate.es/prensa/hemeroteca/>
- 13/Sep/2015. Magazine article · <http://www.thenextwomen.com/2015/08/20/meet-women-championing-rd-spain>
- 20/Aug/2015. "The Next Women" business magazine · <http://www.thenextwomen.com/?q=2015/08/20/meet-women-championing-rd-spain>
- 19/May/2015. TV interview Punt Avui TV · [http://www.elpuntavui.cat/video.html?view=video&video\\_id=128293582](http://www.elpuntavui.cat/video.html?view=video&video_id=128293582)
- 12/May/2015. TV interview "Terrícolas" BTV · 30 min interview <http://www.btv.cat/cercarvideos/?cercar=mavi+sanchez> Aired on May 13th
- 29/Apr/2015 - 30/Apr/2015. Organization Workshopt "A dialogue with the cerebral cortex: Cortical function and interfacing" · Collection of press releases from the workshop
- 13/Apr/2015. NOVUM, festival ciència, tecnologia, innovació de Barcelona Idees per inspirar, commoure i estimular el pensament creatiu; Segon Encontre Recerca i Empresa · Presenters: Sanchez-Vives (ICREA-IDIBAPS), Silvia Carrasco (IFCO), Pablo Ordejón (ICN2), Ricard Solé (ICREA-UPF) Organized by Ayuntamiento de Barcelona and Peter Drucker Society, Barcelona. Institut de Cultura de Barcelona Palau de la Virreina, Ramblas, 99
- 26/Sep/2014. Interview · <http://www.excelenciencia.org/articulo.asp?id=10278&catgrupo=37&tipocom=19>
- 11/Apr/2014. Radio interview- Catalunya Radio · <http://www.catradio.cat/audio/804410/La-neurocientifica-Mavi-Sanchez-Vives-parla-de-les-funcions-del-cervell-i-de-la-seva-plasticitat>
- 25/Mar/2014. Cervell i realitat virtual · [http://www.cccb.org/ca/curs\\_o\\_conferencia-cervell\\_i\\_realitat\\_virtual-45533](http://www.cccb.org/ca/curs_o_conferencia-cervell_i_realitat_virtual-45533)
- 25/Mar/2014. Conferencia al CCCB - Cervell i Realitat Virtual · Dimarts 25 de març, a les 19.00 h. CERVELL I REALITAT VIRTUAL. Mavi Sánchez-Vives, professora d'investigació ICREA a l'Institut d'Investigacions Biomèdiques August Pi i Sunyer (IDIBAPS). Presentador: Alex Argemí, responsable de comunicació de l'Institut Català de Nanociència i Nanotecnologia (ICN2). [http://www.cccb.org/ca/curs\\_o\\_conferencia-cervell\\_i\\_realitat\\_virtual-45533](http://www.cccb.org/ca/curs_o_conferencia-cervell_i_realitat_virtual-45533). 25/03/2014.
- 19/Dec/2013. Ciencia al Nadal · Un cervell molt plàstic: transformaciones corporals en realitat virtual <http://complex.upf.edu/outreach/ciencia-al-nadal> <https://www.prbb.org/ca/arxiu/event/811>
- 17/Dec/2013. Salut i Cervell: "Durmiendo y aprendiendo: efectos del sueño en el funcionamiento cerebral"
- 13/Dec/2013. Retos y futuro de las intervenciones en el tratamiento de la violencia · <https://sites.google.com/site/barcelonaviolenceworkshop/> A multidisciplinary workshop bringing together experts on violence from different fields, ranging from the justice department, neurobiology, technology, and psychology.
- 01/Sep/2013 - 17/Dec/2013. Conferences in civic center (course 2013-2014)
- 28/May/2013. Neurodesconferencia II · Organizer and Speaker <http://apps.crg.es/content/internet/events/neuro-desconferencia>
- 20/Mar/2013. Neurodesconferencia I · Event organization and participation in presentations and debates

- 09/Jul/2012. Bloc de Comunicació CLINIC · L'activitat electrica que senvolupa el cervell durant el son afavoreix l'aprenentatge
- 01/Jul/2012. Bloc de Comunicació CLINIC II · Amb realitat virtual es pot arribar a percebre com a propi un braç tres o quatre vegades més llarg del que seria normal.
- 05/Apr/2012 - 07/Apr/2012. 9<sup>a</sup> Fira Recerca en directe · 9<sup>a</sup> Fira Recerca en Directe. Realitat virtual: verdader o fals? IDIBAPS. Date: 5, 6 i 7 d'abril. Place: Sala Gaudi, La Pedrera Building, Barcelona, Spain
- 01/Apr/2012 - 31/Jul/2012. Programa de gimnasia cerebral a través del aprendizaje musical. · Centro Civico Urgell.
- 01/Apr/2012 - 31/May/2012. Conferences in civic center (course 2012-2013) · Centre Civic Teresa Pamies
- 25/Mar/2012. Fira Cientifica - Las Ilusiones del Cerebro · Fira Cientifica Las Ilusiones del Cerebro. Institut d'Investigacions Biomèdiques August Pi i Sunyer (IDIBAPS) Dia: 25 Marzo 2012. Horari: 11:00 a 14:00 y de 16:00 a 19:00. Lloc: Museu Blau, Barcelona.
- 17/Mar/2012. Feria Cientifica - Las ilusiones del cerebro · Fira Cientifica Las Ilusiones del Cerebro. Institut d'Investigacions Biomèdiques August Pi i Sunyer (IDIBAPS). Dia: 17 Marzo 2012. Horari: 11:00 a 14:00 y de 16:00 a 19:00. Centre Cultural Sant Josep. L'Hospitalet del Llobregat.
- 12/Mar/2012. La música como gimnasia cerebral: un programa de aprendizaje musical para mayores. · Centre Civic Urgell
- 12/Mar/2012. La música como gimnasia cerebral · Centre Civic Teresa Pamies
- 20/Mar/2011. Semana Mundial del Cerebro - mNACTEC · Semana Mundial del Cerebro a Barcelona. La Química del Cervell. Date: March 20th, 2011. 10-2:30pm. Place: mNACTEC, Terrassa, Barcelona, Spain.
- 01/Feb/2011. IDIBAPS - Apunts de Recerca 109 · Un pas més cap al transport virtual
- 20/Dec/2010. VII Fira de Les Illusions del Cervell
- 27/Sep/2010 - 29/Sep/2010. ICT 2010: Digitally Driven · A representative from my lab attended, not myself
- 16/May/2010. "Domingos de Ciencia" ,Museo de la Ciencia, Terrassa, Barcelona. · Three stands: Brain-computer interface, Rubber arm illusion, Virtual 3D sounds.
- 15/Apr/2010. Realidad Virtual: La Ilusión de Cuerpo · [http://obrasocial.lacaixa.es/apl/actividades/activitats.actividad\\_es.html?idActividad=36433](http://obrasocial.lacaixa.es/apl/actividades/activitats.actividad_es.html?idActividad=36433)
- 14/Apr/2010. Realidad Virtual: La Ilusión de Cuerpo · [http://www.es.globaltalentnews.com/postit/agregador\\_cultural/3253/Realidad-virtual-la-ilusion-del-cuerpo.html](http://www.es.globaltalentnews.com/postit/agregador_cultural/3253/Realidad-virtual-la-ilusion-del-cuerpo.html)
- 13/Apr/2010. Who wants to be a (neuro)scientist? · Hospital Clinic de Barcelona
- 08/May/2009. Feria "Las ilusiones del cerebro" · Se obtuvo financiación por parte de la FECYT, el Institut de Cultura de Barcelona, el Centro de Regulación Genómica (CRG), la Fundació Catalana per la Recerca i l'Innovació y el Institut de Neurociència de la Universitat Autònoma de Barcelona (UAB). Acudieron cientos de personas y tuvo repercusión en prensa escrita y TV.
- 18/Mar/2009 - 22/Mar/2009. VIU LA CIENCIA. Espai Ciència i Tecnologia en el Saló de l'Ensenyament. · My laboratory had a stand at the Fira to explain high school students the research we do and what neuroscience research is.
- 19/Dec/2008. Brain Illusions. Sala 2 RazzMatazz. · <http://ilusiones.web83.es/index.php>
- 17/May/2008. II COSMONIT en COSMOCAIXA LA NIT DELS MUSEUS. · El Racó de la Percepció.