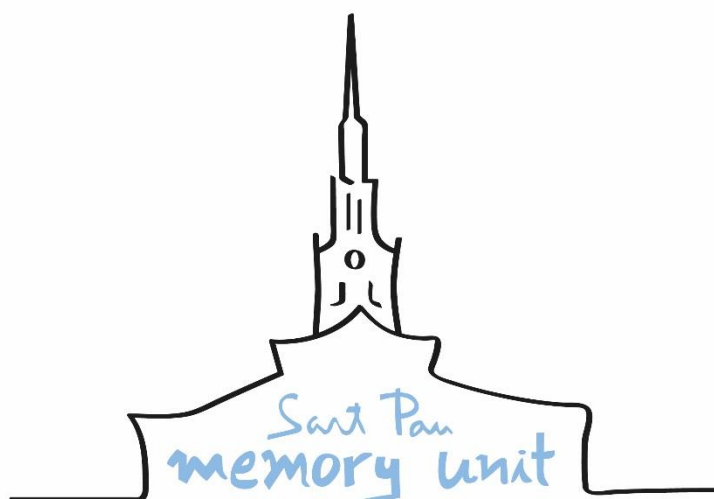




# CV SANT PAU MEMORY UNIT

Year 2017

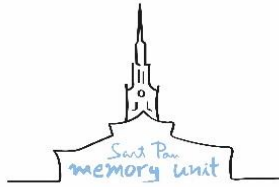




## Most relevant scientific production by the group

### TABLE OF CONTENTS

<b>1. Publications</b>	<b>p.2</b>
1.1. Publications in indexed journals	p.2
1.2. Publications from international collaborations	p.5
1.3. Book chapters	p.9
<b>2. Research projects</b>	<b>p.10</b>
2.1. Carlos III Health Institute Funding	p.10
2.2. National fundraising marathons	p.12
2.3. Others	p.14
<b>3. Doctoral theses</b>	<b>p.20</b>
3.1. Read	p.20
<b>4. Scholarships</b>	<b>p.21</b>
<b>5. Awards</b>	<b>p.21</b>



## 1. PUBLICATIONS

### 1.1. Publications in indexed journals

1. **Alcolea D, Vilaplana E, Suárez-Calvet M, Illán-Gala I, Blesa R, Clarimón J, Lladó A, Sánchez-Valle R, Molinuevo JL, García-Ribas G, Compta Y, Martí MJ, Piñol-Ripoll G, Amer-Ferrer G, Noguera A, García-Martín A, Fortea J, Lleó A.** Cerebrospinal fluid sAPP $\beta$ , YKL-40 and neurofilament light in frontotemporal lobar degeneration in frontotemporal lobar degeneration. *Neurol.* 2017; 89(2): 178-188.  
[Doi: 10.1212/WNL.0000000000004088](https://doi.org/10.1212/WNL.0000000000004088)
2. **Carmona-Iragui M, Balasa M, Benejam B, Alcolea D, Fernández S, Videla L, Sala I, Sánchez-Saudinos MB, Morenas-Rodriguez E, Ribosa-Nogué R, Illán-Gala I, Gonzalez-Ortiz S, Clarimón J, Schmitt F, Powell DK, Bosch B, Lladó A, Rafii M, Head E, Molinuevo JL, Blesa R, Videla S, Lleó A, Sánchez-Valle R, Fortea J.** Cerebral amyloid angiopathy in Down syndrome and sporadic and autosomal dominant Alzheimer's disease. *Alz & Dement.* 2017; 13(11): 1251-1260.  
[Doi: 10.1016/j.jalz.2017.03.007](https://doi.org/10.1016/j.jalz.2017.03.007)
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[Doi: 10.3233/JAD-160827](https://doi.org/10.3233/JAD-160827)
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[Doi: 10.1016/j.neurobiolaging.2016.12.009](https://doi.org/10.1016/j.neurobiolaging.2016.12.009)
5. **Colom-Cadena M, Pegueroles J, Herrmann A, Henstridge C, Muñoz L, Querol-Vilaseca M, San Martín C, Luque-Cabecerans J, Belbin O, Núñez Laves R, Blesa R, Smith C, McKenzie C, Roy A, Fortea J, Andilla J, Loza-Alvarez P, Gelpi E, Hyman B, Spires-Jones T, Lleó A.** Synaptic p- $\alpha$ -synuclein in dementia with Lewy bodies. *Brain.* 2017; 1(140): 3204-3214.  
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6. **Colom Cadena M, Grau Rivera O, Planellas LL, Cerquera C, Morenas E, Helgueta S, Muñoz L, Kulisevsky J, Martí MJ, Tolosa E, Clarimon J, Lleó A, Gelpi E.** Regional Overlap of Pathologies in Lewy Body Disorders. *J Neuropathol Exp Neurol.* 2017; 76(3): 216 – 224.  
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7. Compta Y, Ramos-Campoy O, Grau-Rivera O, **Colom-Cadena M, Clarimón J, Martí MJ, Gelpi E.** Joint FTL-D-FUS of the neuronal intermediate filament inclusion disease type, progressive supranuclear palsy, and mild Alzheimer's pathology presenting as parkinsonism with early falls and late hallucinations, psychosis and dementia. *Neuropathol Appl Neurobiol.* 2017; 43(4): 352-357.



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  20. **Morenas-Rodríguez E**, Camps-Renom P, Pérez-Cordón A, Horta-Barba A, Simón-Talero M, Cortés-Vicente E, Guisado-Alonso D, Vilaplana E, García-Sánchez C, Gironell A, Roig C, Delgado-Mederos R, Martí-Fàbregas J. Visual hallucinations in patients with acute stroke: a prospective exploratory study. *Eur J Neurol.* 2017; 24(5): 734-740.  
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  21. Ortiz B, **Videla L**, Gich I, Alcacer B, Torres D, Jover I, Sánchez E, Iglesias M, **Fortea J**, Videla S. Señales de alarma de trastornos del espectro autista en personas con Síndrome de Down. *Rev Med Int Sindr Down.* 2017; 21(1): 3-11.  
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  22. **Pegueroles J; Vilaplana E, Montal V, Sampedro F, Alcolea D, Carmona Iragui M, Clarimon J, Blesa R, Lleó A, Fortea J.** Longitudinal brain structural changes in preclinical Alzheimer's disease. *Alzheimers Dement.* 2017;13(5): 499 – 509.  
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  23. **Querol-Vilaseca M, Colom-Cadena M, Pegueroles J, Clarimon J, Belbin O, Fortea J, Lleó A.** YKL-40 (Chitinase 3-like I) is expressed in a subset of astrocytes in AD and other tauopathies. *J Neuroinflamm.* 2017; 14(1): 118.  
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25. Sintas C, Carreño O, Fernández-Castillo N, Corominas R, Vila-Pueyo M, Toma C, Cuenca-León E, **Barroeta I**, Roig C, Volpini V, Macaya A, Cormand B. Mutation Spectrum in the CACNA1A Gene in 49 Patients with Episodic Ataxia. *Sci Rep.* 2017; 7(1): 2514.  
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26. **Sirisi S**, Elorza-Vidal X, Arnedo T, Armand-Ugón M, Callejo G, Capdevila-Nortes X, López-Hernández T, Schulte U, Barrallo-Gimeno A, Nunes V, Gasull X, Estévez R. Depolarization causes the formation of a ternary complex between GlialCAM, MLC1 and CIC-2 in astrocytes: implications in megalencephalic leukoencephalopathy. *Hum Mol Genet.* 2017; 26(13): 2436-2450.  
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[Doi: 10.1002/mds.26845](https://doi.org/10.1002/mds.26845)
28. Tell-Martí G, Puig-Butillec JA, Potronya M, Planad E, Badenasc C, Antonell A, Sanchez-Valle R, Molinuevo JL, **Lleó A**, **Alcolea D**, **Fortea J**, Fernandez-Santiago R, **Clarimón J**, Lladó A, Puig S. A common variant in the MC1R gene (p.V92M) is associated with Alzheimer's disease risk. *J Alzheimers Dis.* 2017; 56(3): 1065-1074.  
[Doi: 10.3233/JAD-161113](https://doi.org/10.3233/JAD-161113)

## 1.2. Publications from international collaborations

1. Bos I, Vos S, Frölich L, Kornhuber J, Wiltfang J, Maier W, Peters O, Rütger E, Engelborghs S, Niemantsverdriet E, De Roeck E, Tsolaki M, Freund-Levi C, Johannsen P, Vandenberghe R, **Lleó A**, **Alcolea D**, Frisoni GB, Galluzzi S, Nobili F, Morbelli S, Drzezga A, Didic M, van Berckel BN, Salmon E, Bastin C, Dauby S, Santana I, Baldeiras I, de Mendonça A, Silva D, Wallin A, Nordlund A, Coloma PM, Wientzek A, Alexander M, Novak GP, Gordon MF, Alzheimer's Disease Neuroimaging Initiative, Wallin AK, Hampel H, Soininen H, Herukka SK, Scheltens P, Verhey FR, Visser PJ. The frequency and influence of dementia risk factors in prodromal Alzheimer's disease. *Neurobiol Aging.* 2017; 56: 33-40.  
[Doi: 10.1016/j.neurobiolaging.2017.03.034](https://doi.org/10.1016/j.neurobiolaging.2017.03.034)
2. Collins JA, **Montal V**, Hochberg D, Quimby M, Mandelli ML, Makris N, Seeley WW, Gorno-Tempini ML, Dickerson BC. Focal temporal pole atrophy and network degeneration in



- semantic variant primary progressive aphasia. *Brain*. 2017; 140(2): 457–471.  
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3. Dekker AD, Fortea J, Blesa R., De Deyn, P.P. Cerebrospinal fluid biomarkers for Alzheimer's disease in Down syndrome. *Alzheimers Dement (Amst.)*. 2017; 8: 1 - 10.  
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[Doi: 10.2967/jnumed.116.187211](https://doi.org/10.2967/jnumed.116.187211)
  5. De Roeck A, Van den Bossche T, Verheijen J, De Coster W, Van Dongen J, Dillen L, Baradaran-Heravi Y, Vermeulen S, Cuyvers E, Sanchez-Valle R, Lladó A, Nacmias B, Sorbi S, Gelpi E, Grau-Rivera O, Gómez-Tortosa E, Pastor P, Ortega-Cubero S, Pastor MA, Graff C, Thonberg H, Benussi L, Ghidoni R, Binetti G, de Mendonça A, Martins M, Borroni B, Padovani A, Almeida MR, Santana I, Diehl-Schmid J, Alexopoulos P, **Clarimón J, Lleó A, Fortea J**, Tsolaki M, Koutroumani M, Matěj R, Rohan Z, Cras P, van der Zee J, Van Broeckhoven C, Sleegers K. Deleterious ABCA7 mutations and transcript rescue mechanisms in early onset Alzheimer's disease. *Acta Neuropathol*. 2017; 134(3): 475–487.  
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  8. Hamlett ED, Goetzl EJ, Ledreux A, Vasilevko V, Boger HA, LaRosa A, Clark D, Carroll SL, **Carmona Iragui M, Fortea J**, Mufson EJ, Sabbagh M, Mohammed AH, Hartley D, Doran E, Lott IT, Granholm AC. Neuronal exosomes reveal Alzheimer's disease biomarkers in Down syndrome. *Alzheimers Dement*. 2017; 13(5): 541-549.  
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18. van Waalwijk van Doorn LJ, Gispert JD, Kuiperij HB, Claassen JA, Arighi A, Baldeiras I, Blennow K, Bozzali M, Castelo-Branco M, Cavedo E, Emek-Savaş DD, Eren E, Eusebi P, Farotti L, Fenoglio C, Freund-Levi Y, Frisoni GB, Galimberti D, Genc S, Greco V, Hampel H, Herukka SK, Liu Y, Lladó A, **Lleó A**, Nobili FM, Oguz KK, Parnetti L, Pereira J, Picco A, Pikkarainen M, de Oliveira CR, Saka E, Salvadori N, Sanchez-Valle R, Santana I, Scarpini E, Scheltens P, Soininen H, Tarducci R, Teunissen C, Tsolaki M, Urbani A, Vilaplana E, Visser PJ, Wallin AK, Yener G, Molinuevo JL, Meulenbroek O, Verbeek MM. Improved Cerebrospinal Fluid-Based Discrimination between Alzheimer's Disease Patients and Controls after Correction for Ventricular Volumes. *J Alzheimers Dis.* 2017; 56(2): 543 – 555.  
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### 1.3. Book chapters

1. Youssif C, Flix B, **Belbin O**, Comalada M. Measuring NLR Oligomerization IV: Using FRET-FLIM to Determine the Close Proximity of Inflammasome Components. In: Di Virgilio F, Pelegrín P, editors. *NLR Proteins: Methods and Protocols*. Springer: New York; 2017. p 169-183.
2. **Lleó A**, **Blesa R**. Clinical course of Alzheimer's disease. In: Waldemar G, editor. *Contribution towards Alzheimer's disease*. Oxford Neurology library: Oxford; 2017.



## 2. RESEARCH PROJECTS

### 2.1. Carlos III Health Institute Funding

**Title of the project:** Alzheimer's disease and Down syndrome. Multimodal studies of cerebrospinal fluid, magnetic resonance and amyloid PET.

**Name and surname(s) of principal investigator:** Rafael Blesa

**Collaborators:** Sebastian Videla, Maria del Valle Camacho, Maria Carmona, Sofia Gonzalez

**Place of realization:** Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau

**Funding body:** Carlos III Institute of Health, Ministry of Economy and Competitiveness, Spanish Government

**Type of entity:** Public Organism

**Project reference:** PI13/01532

**Total no. of researchers taking part in the project:**  
5

**Start date:** 01/11/2014

**No. of group member researchers taking part in the project (including PI):** 2

**End date:** 30/06/2018

**Title of the project:** Synaptic markers in Alzheimer's disease

**Name and surname(s) of principal investigator:** Alberto Lleó Blesa

**Collaborators:** Montserrat Estorch, Maria Belén Sanchez Saudinós, Estrella Morenas, Martí Colom

**Place of realization:** Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau

**Funding body:** Carlos III Institute of Health, Ministry of Economy and Competitiveness, Spanish Government

**Type of entity:** Public Organism

**Project reference:** PI14/01561

**Total no. of researchers taking part in the project:**  
5

**Start date:** 01/01/2015

**No. of group member researchers taking part in the project (including PI):** 4

**End date:** 30/06/2019

**Title of the project:** Brain structure and metabolism in preclinical Alzheimer's disease. Interactions between "new and old" biomarkers.

**Name and surname(s) of principal investigator:** Juan Fortea Ormaechea

**Collaborators:** Belén Sanchez, Jordi Pegueroles, Bessy Benejam, Susana Fernández, María Carmona, Valle

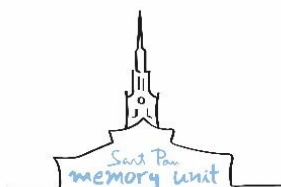


CV SANT PAU MEMORY UNIT. Year 2017

Camacho, Oriol Dols, Sofía González, Frederic Sampedro	
Place of realization: Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau	
Funding body: Carlos III Institute of Health, Ministry of Economy and Competitivity, Spanish Government	
Type of entity: Public Organism	
Project reference: PI14/01126	Total no. of researchers taking part in the project: 10
Start date: 01/01/2015	No. of group member researchers taking part in the project (including PI): 7
End date: 30/06/2019	

<b>Title of the project: Evaluation and characterization of biomarkers of the preclinical stage of AD</b>	
Name and surname(s) of principal investigator: Olivia Belbin	
Collaborators: Raúl Núñez Llaves, Martí Colom Cadena, Estrella Morenas.	
Place of realization: Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau	
Funding body: Carlos III Institute of Health, Ministry of Economy and Competitivity, Spanish Government	
Type of entity: Public Organism	
Project reference: PI15/00058	Total no. of researchers taking part in the project: 4
Start date: 01/01/2016	No. of group member researchers taking part in the project (including PI): 4
End date: 31/12/2018	

<b>Title of the project: Study of the expression profile of exosomal microRNA in biofluids for the identification of biomarkers for diagnostic use in frontotemporal dementia.</b>	
Name and surname(s) of principal investigator: Jordi Clarimón Echavarria	
Collaborators: Estrella Morenas, Maria Belén Sánchez, Laia Muñoz.	
Contracted personnel: Laura Cervera	
Place of realization: Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau	
Funding body: Carlos III Institute of Health, Ministry of Economy and Competitivity, Spanish Government	
Type of entity: Public Organism	
Project reference: PI15/00026	Total no. of researchers taking part in the project:



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CV SANT PAU MEMORY UNIT. Year 2017

Start date: 01/01/2016 End date: 31/12/2018	4 No. of group member researchers taking part in the project (including PI): 4
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**Title of the project: Positron emission tomography (PET) tracer study for Tau [18F] THK-5351 in patients with different Taupathies.**

**Name and surname(s) of principal investigator:** Rafael Blesa González  
**Collaborators:** Sebastián Videla, María del Valle Camacho, Bessy Benejam, Eduard Vilaplana, Ignacio Illán Gala, María Carmona.

**Place of realization:** Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau

**Funding body:** : Carlos III Institute of Health, Ministry of Economy and Competitiveness, Spanish Government  
**Type of entity:** Public Organism

Project reference: PI16/01825 Start date: 01/01/2017 End date: 31/12/2019	Total no. of researchers taking part in the project: 7 No. of group member researchers taking part in the project (including PI): 5
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## 2.2. MARATÓ TV3

**Title of the project: Alzheimer's disease in Down syndrome. Multimodal studies with LCR, RM, EEG and PET.**

**Name and surname(s) of principal investigator:** Juan Fortea Ormaechea  
**Collaborators:** Rafael Blesa, Dani Alcolea, María Carmona, Bessy Benejam, Eduard Vilaplana, Sebastián Videla, Laura Videla, Valle Camacho, Alejandro Fernández, Sofía González, Susana Fernández, Sandra Giménez, Frederic Sampedro.  
**Contracted personnel:** Jordi Pegueroles, Victor Montal

**Place of realization:** Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau

**Funding body:** National Fundraising Marathon (TV3 Marathon Foundation)  
**Type of entity:** Foundation

Project reference: 201412 10 Start date: 16/03/2015 End date: 15/03/2018	Total no. of researchers taking part in the project: 14 No. of group member researchers taking part in the project (including PI): 8
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**Title of the project: Biomarkers profile in different phenotypes of Motor Neuron Disease.**

Name and surname(s) of principal investigator: Ricard Rojas

Collaborators: Juan Fortea, Ellen Gelpi, Maria Carmona, Eduard Vilaplana, Susana Anton, Isabel Sala, Estrella Morenas, Sofia Gonzalez

Place of realization: Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau

Funding body: National Fundraising Marathon (TV3 Marathon Foundation)

Type of entity: Foundation

Project reference: 201437 10

Total no. of researchers taking part in the project:  
9

Start date: 16/03/2015

No. of group member researchers taking part in  
the project (including PI): 5

End date: 15/03/2018

**Title of the project: Synaptic markers in preclinical AD.**

Name and surname(s) of principal investigator: Alberto Lleó Bisa

Collaborators: Daniel Alcolea, Àlex Bayés, Olivia Belbin, Jordi Clarimón, Ignacio Illán, Estrella Morenas, Rita Reig, M.Belén Sánchez-Saudinos.

Contracted personnel: Marta Querol, Martí Colom

Place of realization: Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau

Funding body: National Fundraising Marathon (TV3 Marathon Foundation)

Type of entity: Foundation

Project reference: 201426 10

Total no. of researchers taking part in the project:  
9

Start date: 01/04/2015

No. of group member researchers taking part in  
the project (including PI): 7

End date: 31/03/2018

**Title of the project: Pre-clinical Alzheimer's disease and Type 2 diabetes and obesity. Effects of bariatric surgery: a multimodal study.**

Name and surname(s) of principal investigator: Rafael Blesa, Amanda Giménez

Collaborators: Daniel Alcolea, Valle Camacho, Maria Carmona, Juan Fortea, Sofia González, Alberto Lleó, Frederic Sampederro, Laura Videla, Eduard Vilaplana

Place of realization: Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau



**Funding body:** National Fundraising Marathon (TV3 Marathon Foundation)

**Type of entity:** Foundation

**Project reference:** 201614 31

**Total no. of researchers taking part in the project:**  
11

**Start date:** 10/03/2017

**No. of group member researchers taking part in the project (including PI):** 7

**End date:** 09/03/2020

### 2.3. OTHERS

**Title of the project:** The Epistasis Project

**Name and surname(s) of principal investigator:** A. David Smith (University of Oxford, UK).

**Collaborator:** Olivia Belbin

**Place of realization:** Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau and Mayo Clinic

**Funding body:** Moulton Charitable Foundation & Herbertpur Trust

**Type of entity:** Foundation

**Project reference:** Investigation network

**Total no. of researchers taking part in the project:**  
27

**Start date:** 01/01/2008

**No. of group member researchers taking part in the project (including PI):** 1

**End date:** 31/12/2017

**Title of the project:** EMIF-AD. A biomarker platform for AD biomarkers.

**Name and surname(s) of principal investigator:** Dr. Simon Lovestone / Pieter J. Visser

**Local affiliated partner:** Alberto Lleó

**Place of realization:** Innovative Medicine Initiative

**Funding body:** Innovative Medicine Initiative

**Type of entity:** Public-Private Consortium

**Project reference:** EMIF-AD

**Total no. of researchers taking part in the project:**  
58 teams

**Start date:** 2013

**No. of group member researchers taking part in the project (including PI):** 1 team

**End date:** 2018

**Title of the project:** Search for synaptic biomarkers for AD.



CV SANT PAU MEMORY UNIT. Year 2017

Name and surname(s) of principal investigator: Olivia Belbin

Associate technician: Raúl Núñez Llaves

Place of realization: Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau

Funding body: Miquel Servet Scholarship, Carlos III Institute of Health, Ministry of Economy and Competitiveness, Spanish Government

Type of entity: Spanish Government

Project reference: CP13/00091

Total no. of researchers taking part in the project:  
2

Start date: 01/01/2014

No. of group member researchers taking part in  
the project (including PI): 2

End date: 31/05/2017

**Title of the project: Research group for dementia**

Name and surname(s) of principal investigator: Jordi Clarimón

Collaborators: Alberto Lleó, Rafael Blesa, Juan Fortea, Olivia Belbin, Isabel Sala, Daniel Alcolea, Maria Belén Sánchez, Susana Sofia Anton, Maria Carmona, Martí Colom, Oriol Dols, Laia Muñoz, Eduard Vilaplana, Estrella Morenas, Ignacio Illán, Victor Montal, Laura Cervera, Jordi Peguerols, Raul Nuñez, Marta Querol.

Contracted personnel: Oriol Dols.

Place of realization: Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau

Funding body: AGAUR (Agència de Gestió d'Ajuts Universitaris i de Recerca)

Type of entity: Catalan university and research system

Project reference: 2014 SGR 235

Total no. of researchers taking part in the project:  
21

Start date: 04/09/2014

No. of group member researchers taking part in  
the project (including PI): 21

End date: 30/04/2017

**Title of the project: A comprehensive genomic analysis of patients with motor neuron disease and frontotemporal dementia to disentangle the missing genetic architecture of amyotrophic lateral sclerosis.**

Name and surname(s) of principal investigator: Jordi Clarimón Echavarría

Collaborators: Alberto Lleó, Ricardo Rojas, Alberto García-Redondo

Place of realization: Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau

Name of funding body: National Fundraising Marathon (RTVE Marathon).

Type of entity: Foundation





CV SANT PAU MEMORY UNIT. Year 2017

Project reference: 29 / MARATÓ RTVE	Total no. of researchers taking part in the project: 4
Start date: 01/02/2015	No. of group member researchers taking part in the project (including PI): 2
End date: 01/02/2017	

**Title of the project: Evaluation of the impact of Amyloid-beta PET imaging on the diagnosis and clinical control of patients with cognitive impairment evaluated for suspected Alzheimer's disease (AD).**

Name and surname(s) of principal investigator: Javier Arbizu

Local PI: Alberto Lleó

Co-I : Jose Ignacio Banzo, Gonzalo Rios, Francisco Javier Olazaran, Miguel Baquero, Antonio del Olmo, Manuel Gomez, Alberto Villarejo, Pilar Tamayo, David Garcia, Pablo Martinez-Lage, Jose Luis Molinuevo, Cristina Gamez, Pascual Sanchez, Francisco Lomeña, Ramon Reñe, Francisco Pujadas, Ignacio Carrió, Jordi Gascon, Mario Riverol, Carles Lorenzo, Cristobal Carnero, Ana Maria Garcia, Juan Carlos Alonso, John Patrick Pilkington, Raquel Manso, Guillermo Garcia, Pablo Sopena, Maria Dolores Marin, Angel Martin.

Local Collaborators: Maria Carmona, Ignacio Illán, Juan Fortea, Estrella Morenas, Valle Camacho, Daniel Alcolea

Place of realization: Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau

Funding body: Carlos III Institute of Health, Ministry of Economy and Competitiveness, Spanish Government

Type of entity: Public Organism

Project reference: DTS15/00141	Total no. of researchers taking part in the project: 31
Start date: 01/01/2016	No. of group member researchers taking part in the project (including PI): 1
End date: 31/12/2018	

**Title of the project: Study with the tau Positron Emission Tomography radiotracer [18F]THK-5351 in patients with different Tauopathies (TAUDEM).**

Name and surname(s) of principal investigator: Alberto Lleó Bisa

Collaborators: M<sup>a</sup> del Valle Camacho, Rafael Blesa González, Ignacio Illán, Estrella Morenas, Jordi Pegueroles, Frederic Sampedro, Susana Fernández, Bessy Benejam, Sebastian Videla.

Place of realization: Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau

Funding body: BBVA Foundation

Type of entity: Private Foundation

Project reference: TAUDEM / BBVA 2016	Total no. of researchers taking part in the project: 10
Start date: 30/09/2016	No. of group member researchers taking part in the project (including PI): 7
End date: 30/09/2019	



**Title of the project:** Large-scale pooling/genotyping of individuals with Down syndrome for insight into predictive pathways for Alzheimer's disease.

**Name and surname(s) of principal investigator:** Cornelia van Duijn, Tonnie Coppus.

**Other investigators:** Anne-Sophie REBILLAT, Shahid Zaman, John Hardy, André Strydom, Johannes Levin.

**Local IP:** Juan Fortea. **Local CO-PI:** Jordi Clarimón

**Place of realization:** European Genetics Consortium for Down Syndrome. Hospital de la Santa Creu i Sant Pau (Barcelona), Radboud University Nijmegen Medical Center / Department of Primary and Community Care (Holanda), Institut Jérôme Lejeune (París), Ludwig-Maximilians-Universität München (Munich), UCL Division of Psychiatry/University College London (Londres), CIDDRG Douglas House / Department of Psychiatry (Cambridge)

**Funding body:** Jérôme Lejeune Foundation

**Type of entity:** Foundation

**Project reference:** EU-JG1

**Total no. of researchers taking part in the project:**

**Start date:** 01/01/2017

**End date:** 31/12/2018

**No. of group member researchers taking part in the project (including PI):** 2

**Title of the project:** Genetics of neurodegenerative diseases Unit

**Name and surname(s) of principal investigator:** Jordi Clarimón

**Contracted personnel:** Oriol Dols.

**Place of realization:** Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau

**Funding body:** Hospital de la Santa Creu i Sant Pau Foundation

**Type of entity:** Foundation

**Project reference:** IR16-P7

**Total no. of researchers taking part in the project:**  
2

**Start date:** 01/01/2017

**End date:** 31/12/2017

**No. of group member researchers taking part in the project (including PI):** 2

**Title of the project:** Down Alzheimer Barcelona Neuroimaging Initiative (DABNI).

**Name and surname(s) of principal investigator:** Rafael Blesa González

**Contracted personnel:** Laura Videla, Sílvia Valldeneu, Marta Salinas

**Place of realization:** Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau



Funding body: Obra Social Fundació la Caixa

Type of entity: Foundation

Project reference: 4560/6393 (LA CAIXA-DOWN ALZHEIMER)

Start date: 01/03/2017

End date: 01/03/20

Total no. of researchers taking part in the project: 1

No. of group member researchers taking part in the project (including PI): 1

**Title of the project: Study of biomarkers and the development of new therapeutic strategies in a multicentric cohort of Frontotemporal Dementia.**

Name and surname(s) of principal investigator: Alberto Lleó

Collaborators: Gerard Piñol, Albert Lladó, Raquel Sánchez Valle, Olivia Belbin, Jordi Clarimón, Daniel Alcolea, Eduard Vilaplana, María Belén Sánchez Saudinós, Ignacio Illán, Nuria Bargallo, Guadalupe Fernández, Alba Naudi, David Argiles.

Contracted personnel: Sònia Sirisi, Soraya Torres, Angel Lucas Blasco

Place of realization: Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau

Funding body: Health Department, Pla estratègic recerca i salut (PERIS).

Type of entity: Government of Catalonia

Project reference: SLT002/16/00408

Start date: 27/03/2017

End date: 31/12/2019

Total no. of researchers taking part in the project: 14

No. of group member researchers taking part in the project (including PI): 7

**Title of the project: Evaluation and characterization of synaptic proteins as biomarkers for the synaptic damage related to AD.**

Name and surname(s) of principal investigator: Olivia Belbin

Associate technician: Raúl Núñez Llaves

Place of realization: Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau

Funding body: Health Department, Pla estratègic recerca i salut (PERIS).

Type of entity: Government of Catalonia

Project reference: SLT002/16/00099

Start date: 01/05/2017

End date: 01/05/2020

Total no. of researchers taking part in the project : 2

No. of group member researchers taking part in the project (including PI): 2



**Title of the project: Biological Correlates of Alzheimer in Down Syndrome**

Name and surname(s) of principal investigator: Ann-Charlotte Granholm-Bentley, D.A. Paredes, A. Ledreux, M. Margittai  
Consultant: Juan Fortea Ormaechea

Place of realization: NIH-NIA. National Institute of Aging

Funding body: NIH-NIA. National Institute of Aging  
Type of entity: Public organism

Project reference: 1 R21 AG056974-01

Total no. of researchers taking part in the project:  
web

Start date: 01/07/2017

No. of group member researchers taking part in  
the project (including PI): 1

End date: 30/06/2019

**Title of the project: Study of alternative RNA splicing of samples with neuropathological diagnosis of ALS associated with TDP-43.**

Name and surname(s) of principal investigator: Jordi Clarimón Echavarría  
Collaborators: Oriol Dols-Icardo, Laia Muñoz-Llahuna, Laura Cervera

Place of realization: Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau

Funding body: Spanish Foundation on ALS research (FUNDELA).  
Type of entity: Foundation

Project reference: FUNDELA 2017

Total no. of researchers taking part in the project:  
4

Start date: 10/10/2017

No. of group member researchers taking part in  
the project (including PI): 4

End date: 09/10/2018

**Title of the project: Domiciliary Alzheimer Visiting in Down syndrome**

Name and surname(s) of principal investigator: María Carmona Iragui

Place of realization: Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau

Funding body: Alzheimer association & Global Brain Health Institute  
Type of entity: Association

Project reference: GBHI\_ALZ-18-543740

Total no. of researchers taking part in the project:  
1

Start date: 01/11/2017

No. of group member researchers taking part in



End date: 01/11/2019

the project (including PI): 1

### 3. DOCTORAL THESES

#### 3.1. Read

**Name of doctorate:** Martí Colom Cadena

**Director from group:** Lleó, A., Gelpi, E.  
**Tutor:** Isidre Ferrer

**Title:** Neuropathology of Lewy body diseases: Confluence of multiple pathologies and role of synaptic p- $\alpha$ -synuclein

**University:** Universitat de Barcelona

**Reading date:** 14.06.17

**Commendations:** Excellent, cum laude

**Name of doctorate:** María Carmona-Iragui

**Director from group:** Lleó, A., Fortea, J., Blesa, R.

**Title:** Sporadic cerebral amyloid angiopathy, beyond lobar intracerebral hemorrhage: multimodal biomarker studies of atypical presentations.

**University:** Universitat Autònoma de Barcelona

**Reading date:** 12.09.17

**Commendations:** Excellent, cum laude

**Name of doctorate:** Miguel Angel Santos Santos

**Director from group:** Fortea, J., Escartín, A., Gorno-Tempini, M.L.

**Title:** Clinicopathologic correlations and neuroimaging biomarkers in primary progressive aphasia.

**University:** Universitat Autònoma de Barcelona

**Reading date:** 29.09.17



**Commendations:** Excellent, cum laude

**Name of doctorate:** Eduard Vilaplana Martinez

**Director from group:** Lleó, A., Fortea, J.

**Title:** A biphasic model for cortical structural changes in preclinical AD: a multimodal MRI, CSF and PET study.

**University:** Universitat Autònoma de Barcelona

**Reading date:** 31.10.17

**Commendations:** Excellent, cum laude

#### 4. SCHOLARSHIPS

1. Scholarship Sara Borrell, awarded to Dr. **Sònia Sirisi**. Period: 01/01/2018 – 31/12/2020.
2. Scholarship Río Hortega, awarded to Dr. **Ignacio Illán**. Period: 01/01/2018 – 31/12/2019.
3. Scholarship PERIS, awarded to Dr. **Eduard Vilaplana**. Period: 01/02/2018 – 31/01/2021.

#### 5. AWARDS

- Prize-winning doctoral theses to the Best Doctoral Thesis in Neuroscience (SEN, Spanish Society of Neurology) awarded to Dr. Daniel Alcolea, for “Cerebrospinal fluid biomarkers for the study of the pathophysiological pathways in Alzheimer’s disease”.
- **Benejam B., Videla L, Carmona M, Alcolea D, Fernández González S, Videla S, Lleó A, Blesa R, Fortea J.** Biomarcadores en líquido cefalorraquídeo y correlatos neuropsicológicos en una cohorte de personas con síndrome de Down. In: LXIX Reunión Anual de la Sociedad Española de Neurología. Valencia 21-24 november 2017. Outstanding Oral Communication.
- **Illán Gala I, Montal V, Vilaplana E, Pegueroles J, Alcolea D, Rojas R, Lladó A, Blesa R, Sánchez Valle R, Lleó A, Fortea J.** Cortical Microstructural Changes in FTLD: A Novel Imaging Biomarker. In: XXI Reunión Anual de la Societat Catalana de Neurologia. Barcelona 04-05 may 2017. Prize-winning oral communication.



- **Montal Blancafort V, Illán Gala I, Vilaplana E, Pegueroles J, Alcolea D, Borrego S, Sánchez Saudinós MB, Subirana A, Clarimón J, Lladó A, Blesa R, Sánchez Valle R, Lleó A, Fortea J.** Cambios microestructurales corticales en los síndromes relacionados con la degeneración lobular frontal: un nuevo marcador de neuroimagen. In: LXIX Reunión Anual de la Sociedad Española de Neurología. Valencia 21-24 november 2017. Outstanding Oral Communication.
- **Vilaplana E, Montal V, Pegueroles J, Alcolea D, Carmona-Iragui M, Sampedro F, Camacho V, Clarimon J, Blesa R, Lleó A, Fortea J.** Biphasic model of preclinical Alzheimer's disease: AV45 PET, CSF Tau and cortical thickness. In: Alzheimer Association International Conference 2017 (AAIC). London (United Kingdom) 16-20 july 2017. Comunicació premiada. <http://dx.doi.org/10.1016/j.jalz.2017.07.065>. Prize-winning oral communication+ fellowship.
- **Vilaplana E, Montal V, Pegueroles J, Alcolea D, Illán I, Carmona-Iragui M, Clarimón J, Blesa R, Lleó A, Fortea J.** PET de tau: envejecimiento sano y patológico. In: LXIX Reunión Anual de la Sociedad Española de Neurología. Valencia 21-24 november 2017. Outstanding Oral Communication.