



Ángel Chamorro
Group leader (R4)



Sergio Amaro
Accredited researcher
(R3A)



Anna Planas
Accredited researcher
(R3A-IIBB-CSIC)



Salvatore Rudilosso
Junior researcher (R2B)



Josep Juan González
Accredited researcher
(R3A)



Laura Llull
Accredited researcher
(R3A)



Mattia Gallizioli
Post-doctoral researcher
(R2A)



Carlos Laredo
Post-doctoral researcher
(R2A)



Arturo Renú
Accredited researcher
(R3A)



Ramon Torné
Accredited researcher
(R3A)



Jordi Pedragosa
Post-doctoral researcher
(R2A)



Leire Pedrosa
Post-doctoral researcher
(R2A)



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Accredited researcher
(R3A)



Ricard Valero
Accredited researcher
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Maria Arbaizar
Pre-doctoral researcher
(R1)



Sara Figuerola
Pre-doctoral researcher
(R1)



Carles Justicia
Accredited researcher
(R3A-IIBB-CSIC)



Valerie Petegnief
Accredited researcher
(R3A-IIBB-CSIC)



Alejandro Rodríguez-Vázquez
Pre-doctoral researcher
(R1)



Daniel Santana Moreno
Pre-doctoral researcher
(R1)



Elisabet Gonzalez
Nursing staff



Yolanda Gonzalez
Nursing staff



Mònica Serrano
Nursing staff



Martha Elena Vargas
Administrative staff



Leonardo Marquez
Technician



Francisca Ruiz
Technician

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Accredited researcher
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Post-doctoral researcher
(R2A)

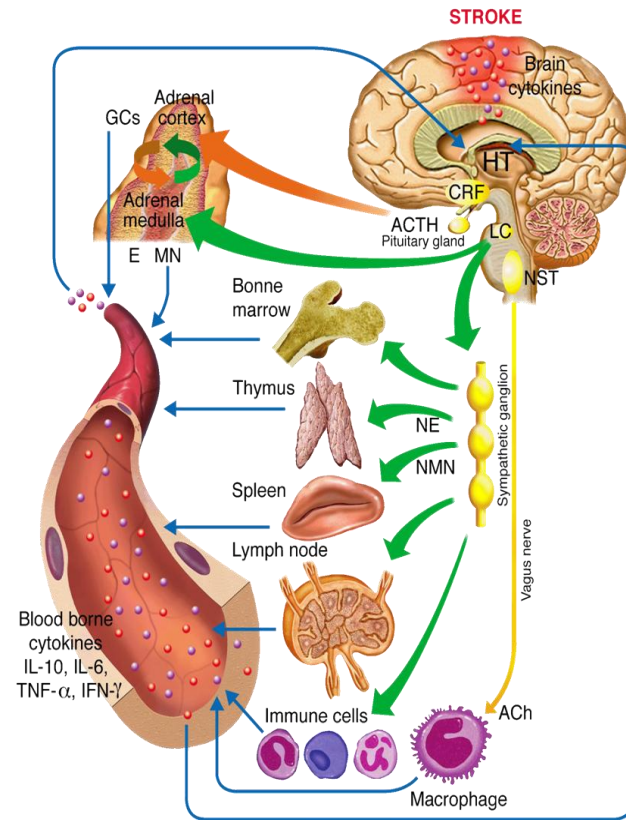
Maria Arbaizar
Pre-doctoral researcher
(R1)

Leire Pedrosa
Post-doctoral researcher
(R2A)

Sara Figuerola
Pre-doctoral researcher
(R1)

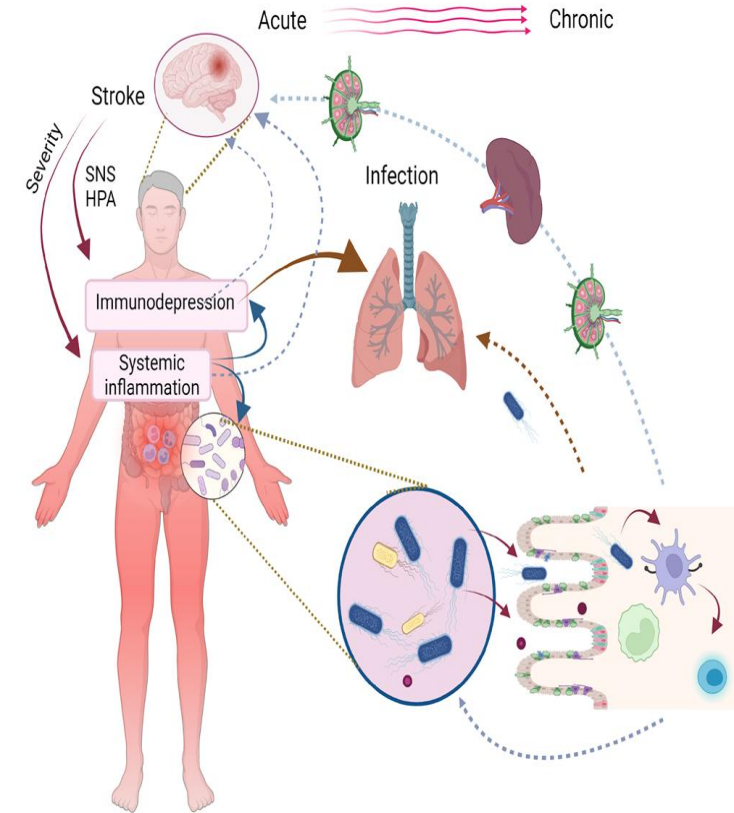
Francisca Ruiz
Technician

Respuesta inmune innata en microglía y células mieloides infiltrantes y su posible control de respuestas inmunes adaptativas



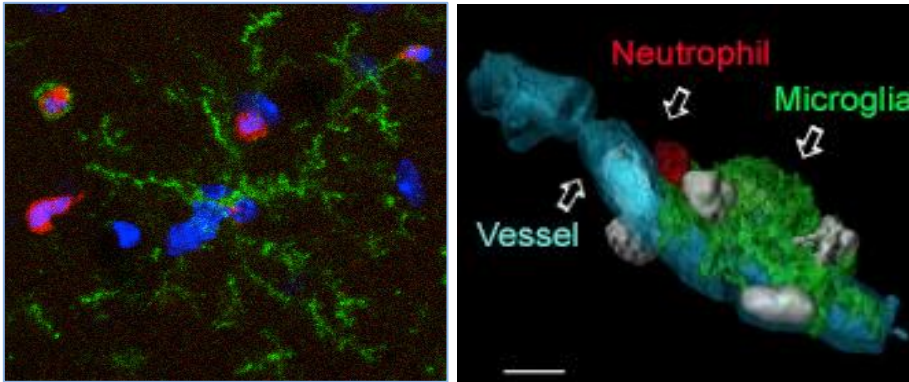
Chamorro et al, Stroke, 2007

Rol de la inflamación y la inmunodepresión post-ictus como facilitadoras de la expansión de bacterias comensales oportunistas responsables de infecciones



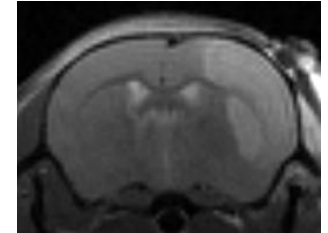
Created with BioRender.com

Interacción microglia-leucocitos-vasculatura

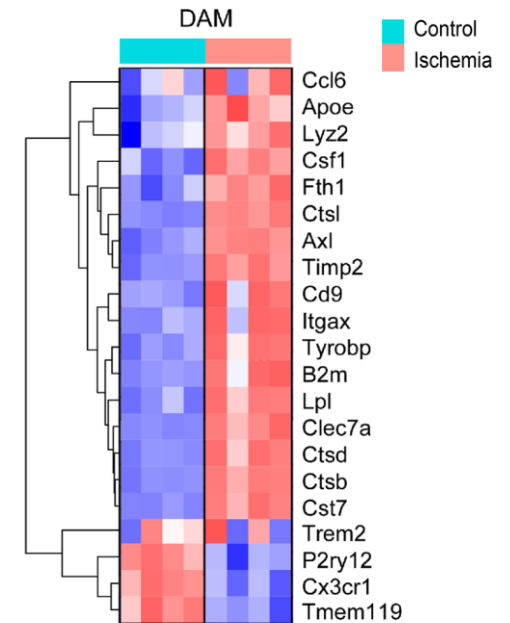


Otxoa-de-Amezaga et al., *Acta Neuropathol* 2019; 137:321-41

Modelos de Isquemia cerebral y otras patologías cerebrovasculares / Técnicas de neuroimagen

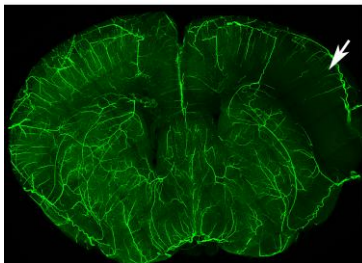


Dianas terapéuticas para modular la actividad microglial post-isquemia



Arbaizar et al., *BioRxiv* 2022

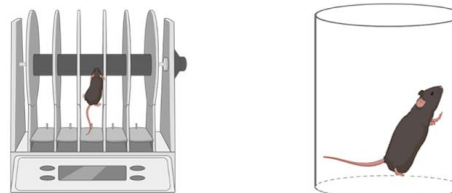
Recuperación vascular/tisular



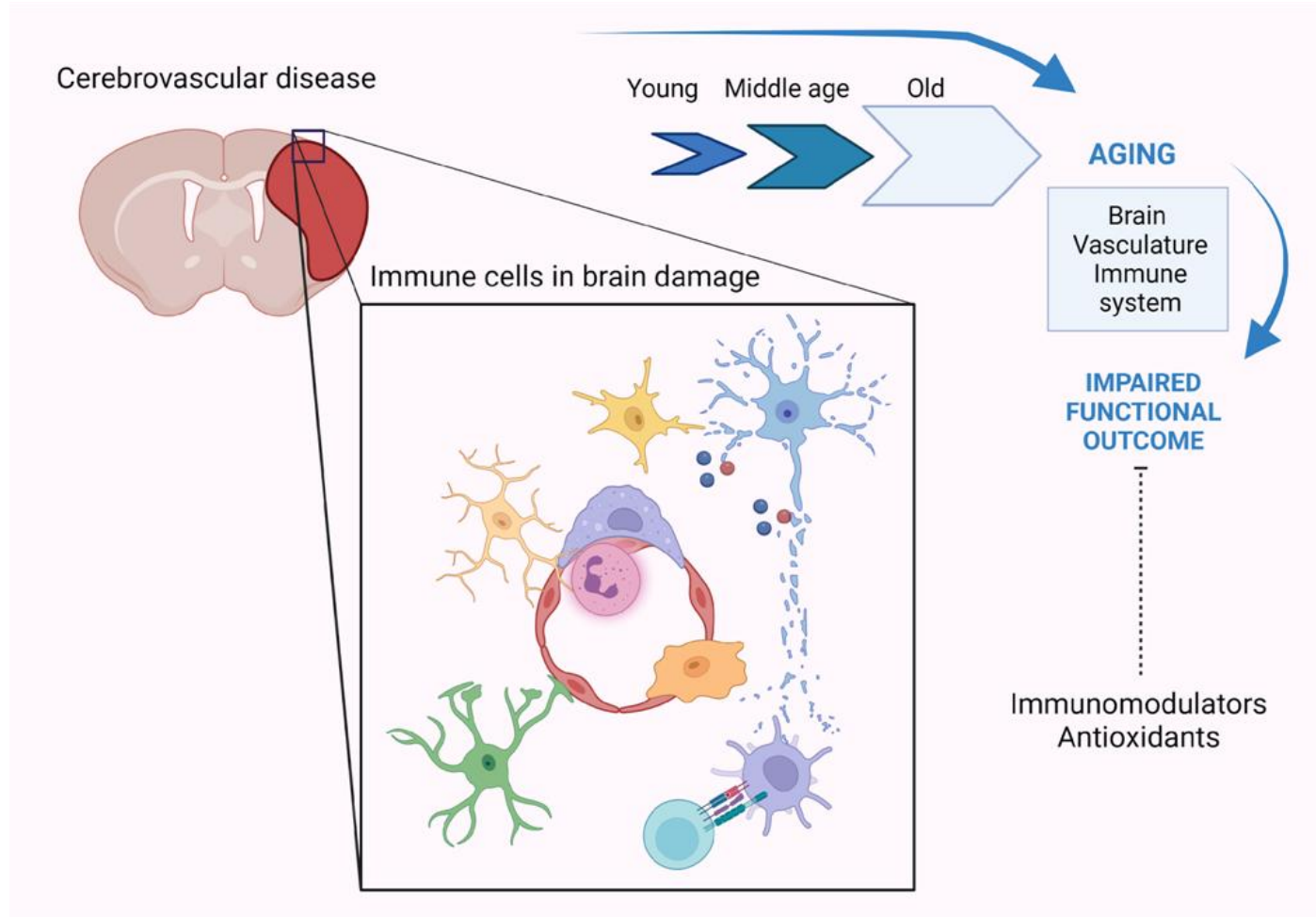
Pedragosa et al., *J Cereb Blood Flow Metal* 2018

Biomarcadores de lesión/recuperación

Recuperación funcional



Estudio de alteraciones vasculares e inmunológicas en el envejecimiento (co-morbilidades) que empeoran el pronóstico del ictus



Tratamiento con nanopartículas para mejorar la función endotelial tras el ictus (Isquémico y HSA)

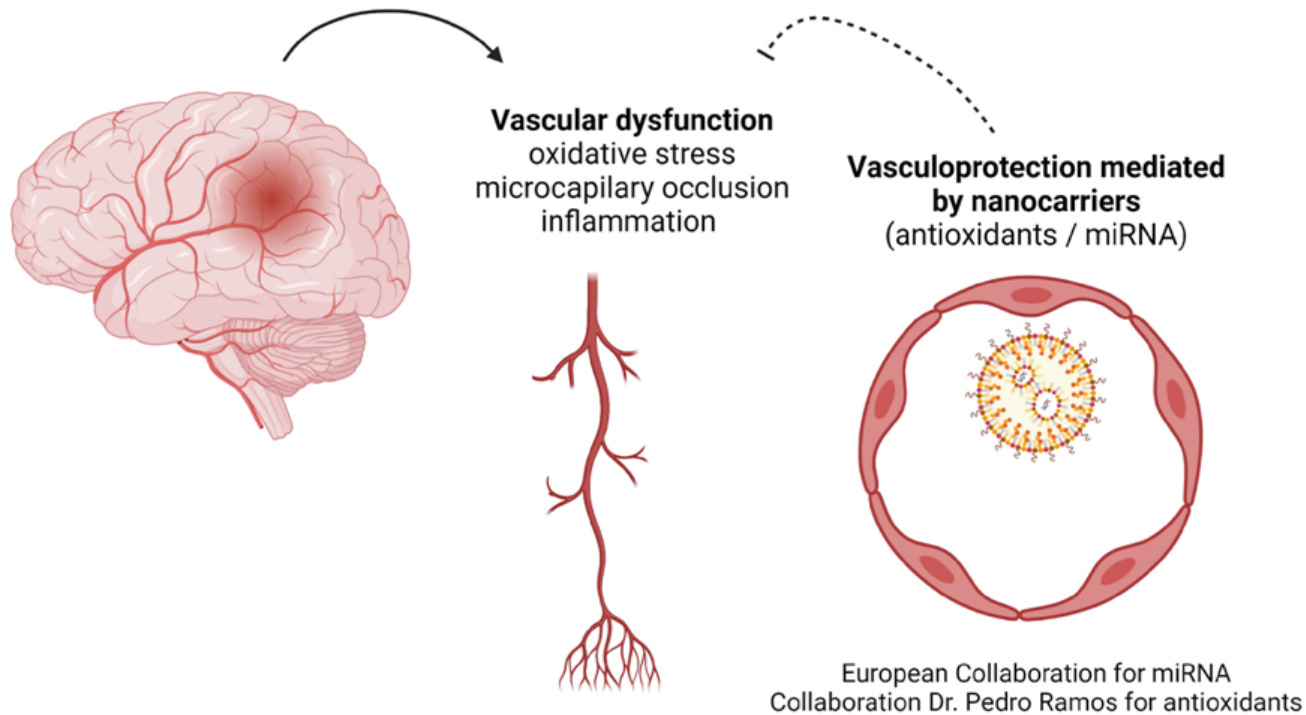


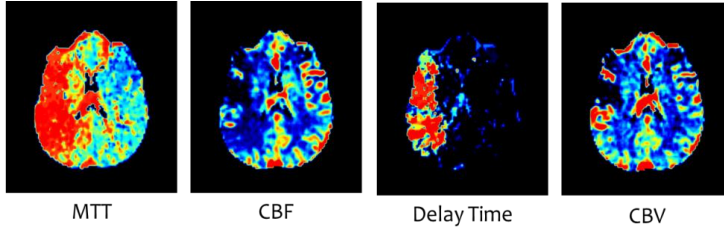
Image Postprocessing



Carlos Laredo
Post-doctoral researcher
(R2A)

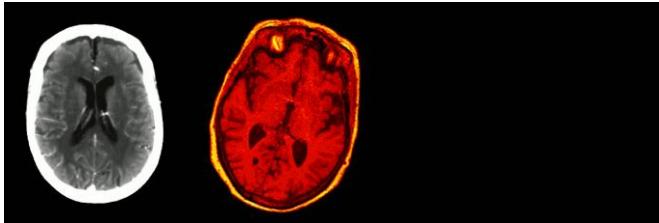
• Perfusion Imaging

CT & MRI Perfusion (T1, T2*, ASL)

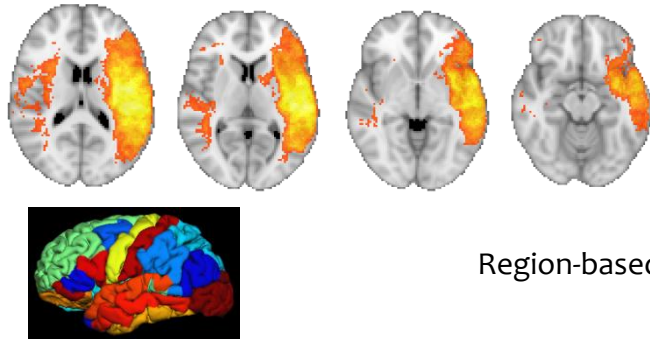


• Modality Independent Analysis

Registration & Normalization



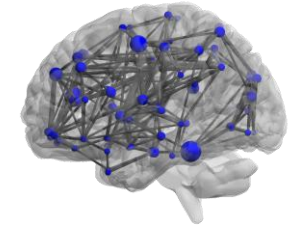
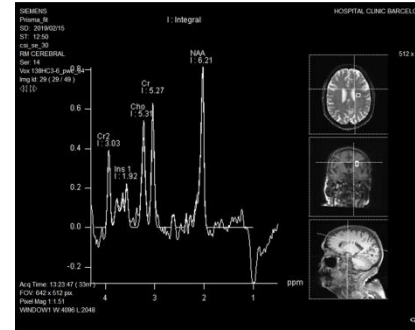
Voxel-based Analysis



Region-based Analysis

• Modality Specific Analysis

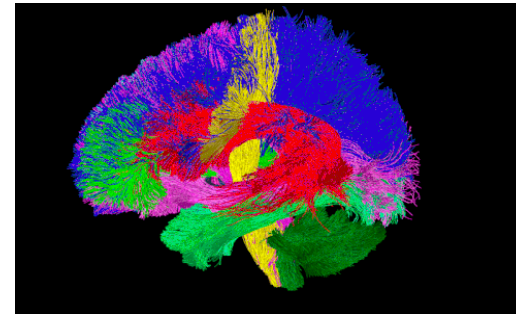
Spectroscopy



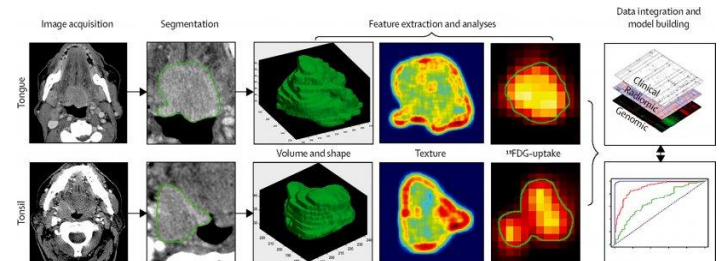
Brain Connectivity

Other Techniques

Brain Microstructure



Radiomics



Infarto cerebral maligno



Xabier Urra
Accredited researcher
(R3A)



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Pre-doctoral researcher
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Objetivo: *conocer los mejores predictores precoces del desarrollo de infarto cerebral maligno y los principales mecanismos patogénicos del mismo, empleando técnicas de imagen avanzada como el análisis optimizado del CT-perfusión adquirido en la fase aguda y la imagen metabólica 3D (RM espectroscópica SPICE)*

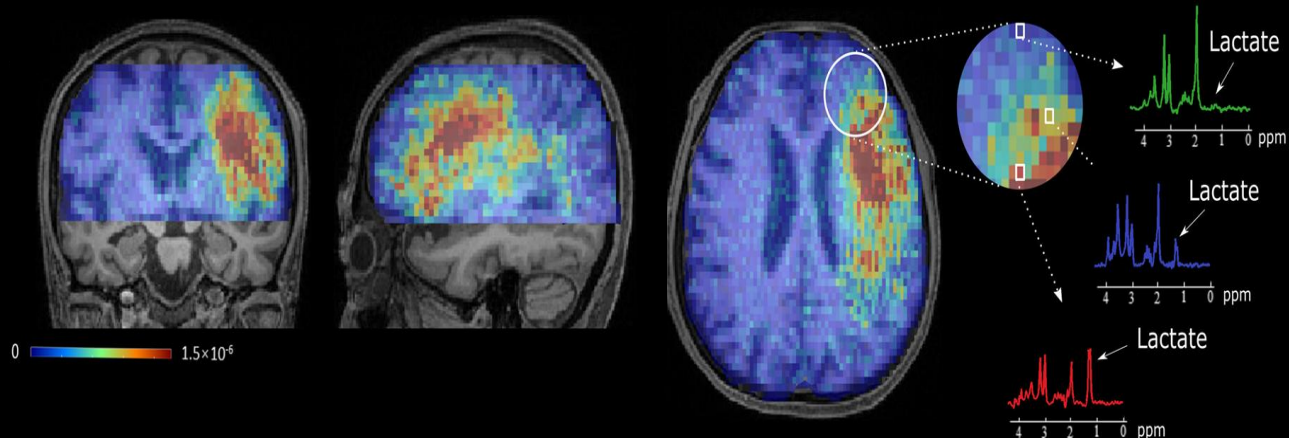
Contrato de investigación "Emili Letang – Josep Font" 2020

Predicción precoz del infarto cerebral maligno mediante neuroimagen de perfusión y biomarcadores circulantes

Proyecto de Investigación en Salud AES 2021

Estudio multimodal de los determinantes del destino tisular y la recuperación funcional en el infarto cerebral maligno

NAA
Lactato





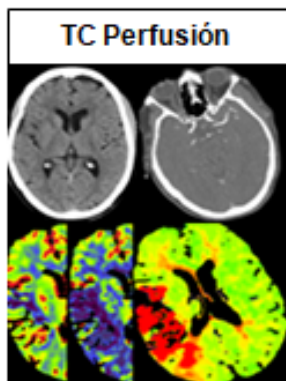
Expediente Nº P120/00901

ESTADO GLUCÉMICO EVALUADO CON MONITORIZACIÓN CONTINUA EN EL ICTUS ISQUEMICO AGUDO TRATADO CON TERAPIAS DE REPERFUSIÓN CEREBRAL: CORRELATO CLÍNICO-RADIOLÓGICO Y RELEVANCIA FISIOPATOLÓGICA

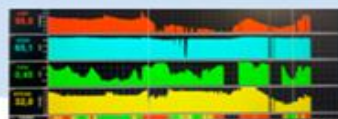
Investigadores: Arturo Renú (IP), Alejandro Rodríguez; Carlos Laredo; Elisabet González; Laura Llansó; Laura Llull; Valle Pérez; Víctor Obach; Yolanda González; Martha Vargas. Laura Oleaga; Antonio López-Rueda; Jordi Blasco; Luis San Román. Marta García-Orellana; Nicolás de Riva.



Ictus isquémico

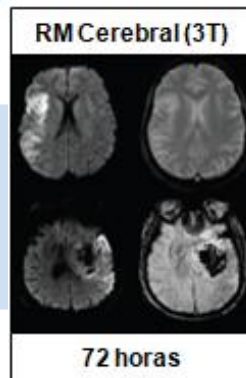


Monitorización perfusión y autorregulación cerebral



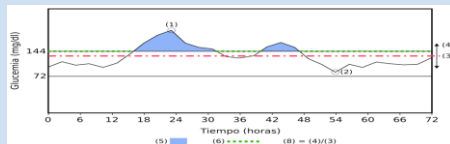
r-tPA i.v + TM

TM Primaria



Pronóstico funcional mRs 90 días

Monitorización continua de glucosa



Sangre T0



Sangre 24h



Sangre T72h

IDIBAPS group: Subarachnoid Hemorrhage



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Overall aim:

Discovery and validation of neuroimaging, blood and CSF biomarkers of early and delayed ischemic damage, blood-brain barrier disruption and functional recovery in spontaneous SAH.

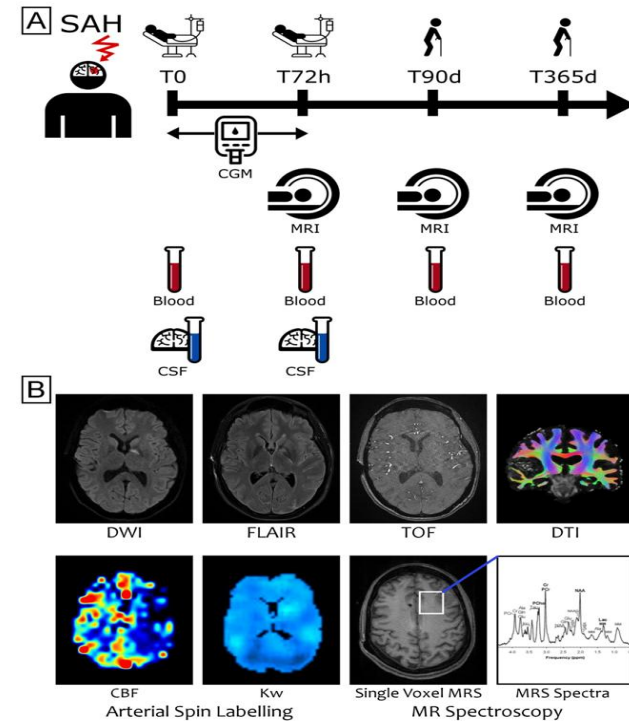
Active projects:

BBB disruption after subarachnoid hemorrhage: clinical relevance, role of hyperglycemia and effect of potentiating endogenous antioxidant mechanisms. A translational study. **Fundación la Marató de TV3.**

Ischemic brain injury after aneurysmal subarachnoid hemorrhage: a multimodal study focused in the role of microthrombosis and oxidative stress. **FIS-ISCIH.**

HSACat registry.

Monitorización continua de glucosa en pacientes con Hemorragia Subaracnoidea aneurismática: fisiopatología y correlato clínico. **Contrato interno Emili Letang, Hospital Clínic de Barcelona.**

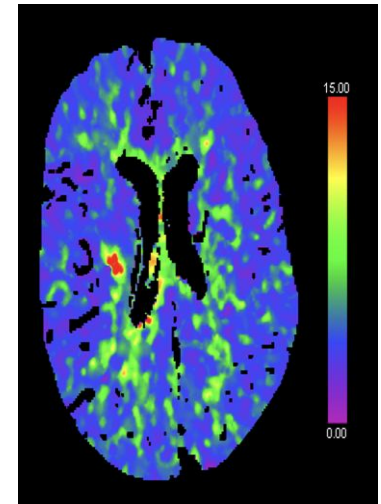


A/ Schematic diagram of the study. CGM: Continuous Glucose Monitoring, CSF: Cerebrospinal Fluid, MRI: Magnetic Resonance Imaging; **B/** Magnetic Resonance Imaging protocol



Salvatore Rudilosso
Junior researcher (R2B)

EVOLUCIÓN CLÍNICO-RADIOLÓGICA DEL ICTUS ISQUÉMICO AGUDO SIN OCLUSIÓN VASCULAR PROXIMAL EVALUADO EN VENTANA TEMPORAL TARDÍA DE FIBRINÓLISIS SISTÉMICA

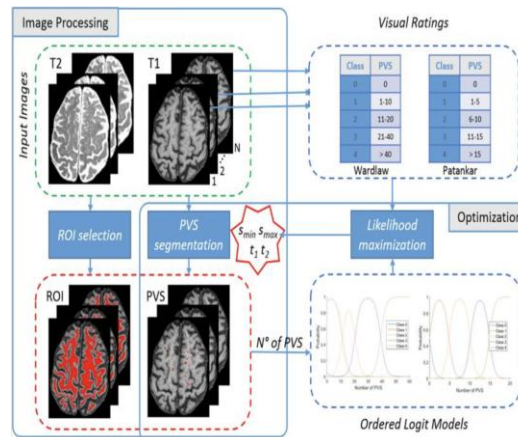


STUDY OF THE FUNCTION OF THE GLYMPHATIC SYSTEM ALONG THE PERIVASCULAR SPACES AND THE IMPACT OF SLEEP QUALITY IN PATIENTS WITH LACUNAR STROK

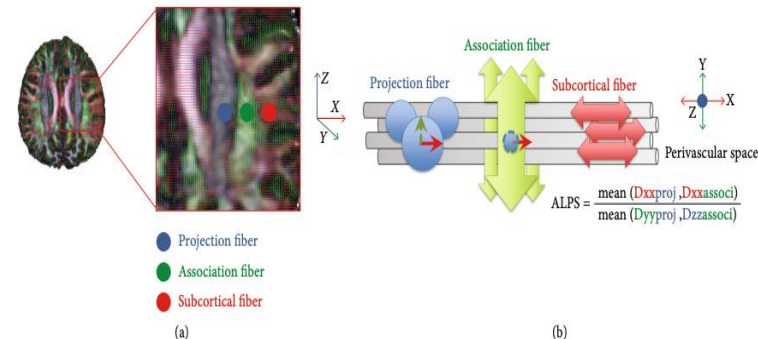
Grant of the Catalan Society of Neurology

DTI-ALPS

motion of water molecules in the direction of the perivascular space by measuring diffusivity metrics



Automated segmentation of perivascular spaces





Safety and efficacy of uric acid in patients with acute stroke (URICO-ICTUS): a randomised, double-blind phase 2b/3 trial



Ángel Chamorro, Sergio Amaro, Mar Castellanos, Tomás Segura, Juan Arenillas, Joan Martí-Fàbregas, Jaime Gállego, Jurek Krupinski, Meritxell Gomis, David Cánovas, Xavier Carné, Ramón Deulofeu, Luis San Román, Laura Oleaga, Ferran Torres, Anna M Planas, for the URICO-ICTUS Investigators*

Lancet Neurol 2014

JAMA | Preliminary Communication

Effect of Intra-arterial Alteplase vs Placebo Following Successful Thrombectomy on Functional Outcomes in Patients With Large Vessel Occlusion Acute Ischemic Stroke The CHOICE Randomized Clinical Trial

Arturo Renú, MD; Mónica Millán, MD; Luis San Román, MD; Jordi Blasco, MD; Joan Martí-Fàbregas, MD; Mikel Terceño, MD; Sergio Amaro, MD; Joaquín Serena, MD; Xabier Urra, MD; Carlos Laredo, PhD; Roger Barranco, MD; Pol Camps-Renom, MD; Federico Zarco, MD; Laura Oleaga, MD; Pere Cardona, MD; Carlos Castaño, MD; Juan Macho, MD; Elisa Cuadrado-Godía, MD; Elio Vivas, MD; Antonio López-Rueda, MD; Leopoldo Guimaraens, MD; Anna Ramos-Pachón, MD; Jaume Roquer, MD; Marian Muchada, MD; Alejandro Tomasello, MD; Antonio Dávalos, MD; Ferran Torres, MD; Ángel Chamorro, MD; for the CHOICE Investigators

JAMA. 2022;327(9):826-835. doi:10.1001/jama.2022.1645

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CHOICE 2 TRIAL



ICI22-00064



Thanks !!



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