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THE PEOPLE

María Isabel Loza García

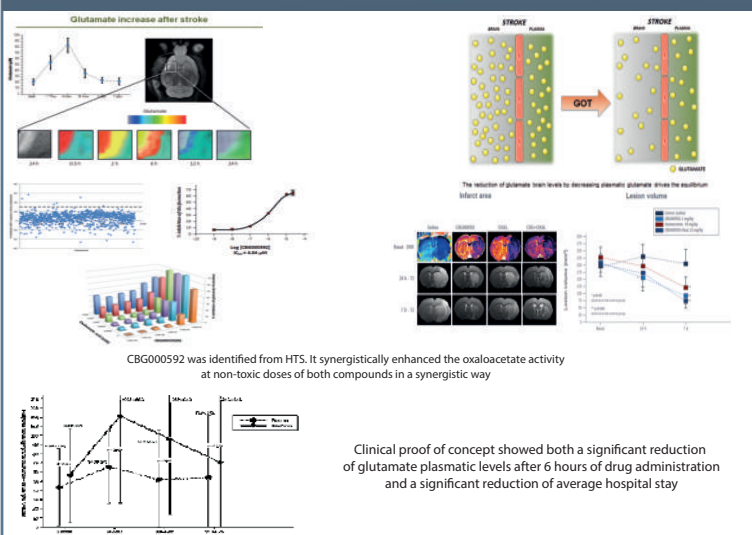


Ángel Carracedo Álvarez

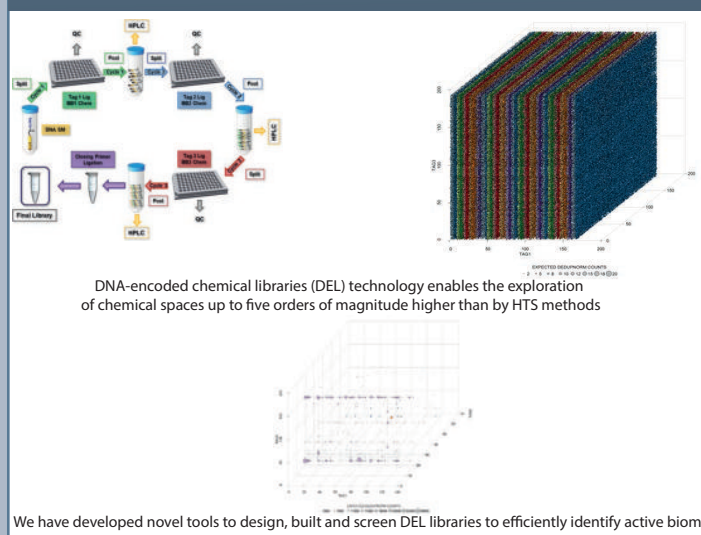


THE PROJECTS

Blood glutamate grabbing in stroke: A proof of concept



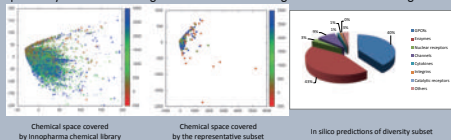
DNA encoded libraries for undruggable targets



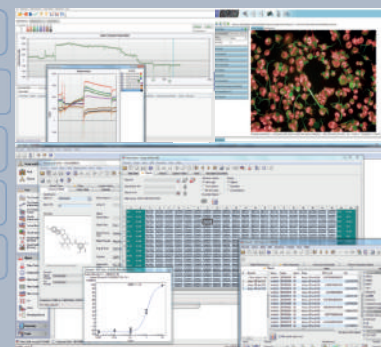
THE HARDWARE

- Liquid handling: acoustic liquid handling (Echo) and tip-based liquid handling (Freedom Evo, Janus)
- Automated HTS: Thermo Orbiter integrating Cytomats, Multidrops, plate washers, fluorescence imaging plate reader (Hamamatsu FDSS 7000) and multilabel plate readers (Tecan M1000 Pro, Perkin Elmer Enspire)
- Microfluidics mobility shift assays: Labchip EZ Reader II (Caliper)
- Fluorescence imaging plate reader: Hamamatsu FDSS 7000
- High Content Screening: Operetta automated microscope
- Automated Patch-clamp: Ionflux HT (Fluxion)
- Chemical analysis and separation unit: UPLC MS/MS (Waters Xevo TQD)
- Chemical library of 60000 compounds including repurposing libraries (PreSTWick and Microsource) completed by *in silico* screening in order to cover the higher chemical and biological diversity.

GPCRs	Radioligand binding, second messenger assays, beta-arrestin translocation, DMR label-free assays
Nuclear receptors	AR, ER, PPAR and prostanoid receptors
Enzymes	Kinases (Automated microfluidic mobility shift assays), phosphodiesterases, beta-secretase, acetylcholinesterase, epigenetic enzymes
Ion channels	Automated patch clamp for both voltage and ligand-gated ion channels. Fluorescence assays
Transporters	DAT, NET, SERT, Pgp...



THE SOFTWARE



THE OUTPUT

- PLoS Pathog. 2016;12(7):e1005763.
- J Biolom Screen. 2016;21(8):816-23
- Nature. 2016;535(7613):561-5
- Science. 2013;340(6140):1567-70
- Future Med Chem. 2017;9(8):731-748
- SLAS Discov. 2018;23(5):397-404
- Ann Neurol. 2018;Jul, 16[Epub ahead of print]

- Involved in 11 NCE that entered into clinical trials
- 3 companies created (Pharmatools, Allelyus, Oncostellae)
- Authorship in 14 patents
- More than 80 PhD Theses supervised
- Members of the Coordination Committee for Education and Training topics of the Spanish Technological Platform for Innovative Medicines
- Coordinator of the Galician Network of Drug R&D (2007-onwards) and the Spanish Network of Excellence in Drug Discovery (REDEFAR) and contributors to many national and international networks
- 25 collaboration agreements with Academic institutions for technology transference.
- 5 master agreements with pharmaceutical companies
- A Joint Research Unit with Laboratorios Esteve

THE FUTURE

Sustainability: The Innovation HUB
 "Long Term Sustainability of Research Infrastructures" (ESFRI) and "Sustainable, European Research Infrastructures: A Call for Action" (European Commission).

