Curriculum Vitae

Hans Supèr

1. Personal

Name: Hans Supèr
Date and place of birth: 5th March 1966, 2e Valthermond (Drenthe, The Netherlands)
Nationality: Dutch
Marital status: Married with three children

2. Professional History

2.1 Affiliations

1. ICREA Research Professor (www.icrea.cat)
2. Visca-Lab (http://www.neurociencies.ub.edu/vision-and-control-of-action/)
3. Institut de Neurociències, Universitat de Barcelona (http://www.neurociencies.ub.edu/)
4. Institut de Recerca Pediàtrica Hospital Sant Joan de Déu
5. Braingaze (co-founder & CTO www.braingaze.com)
6. ACAP (founding director) www.tdah.cat

2.2 Work Address

Departament de Cognició, Desenvolupament i Psicologia de l'Educació
University of Barcelona (www.ub.edu)
Pg. Vall d´Hebron 171
08035 Barcelona, Spain

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2.3 ID

ORCID : 0000-0001-9328-0096
Researcher ID : L-3324-2014

2.4 Education

1992-1996
Ph.D. Neurobiology (Free University of Amsterdam, VU & University of Barcelona, UB)
1990-1992
M.Sc. Neurobiology (University of Groningen, RUG)
1988-1990
B.Sc. Biology (University of Groningen, RUG)

2.5 Degrees

1997 - Ph.D.
Free University of Amsterdam (VU), The Netherlands and University of Barcelona (UB), Spain. Doctoral thesis: Cajal-Retzius cells and their role in cortical development.

1992 - M.Sc. Neurobiology

Faculty of Biology, University of Groningen (RUG), The Netherlands.

2.6 Research positions

To pursue my research goals, I moved abroad a couple of times as I have worked at several Research Institutes and Universities located in different countries. I have formed and headed several research labs.

2018-present

Founder and director of unit ACAP (Unitat d'Avaluació de la Cognició, l'Atenció i Aprenentatge) of the Psychology Clinic of the UB. ACAP is a unit from the Finestres Foundation, UB where graduate and master students can carry out clinical work.

2016-present

Invited member of Recerca Sant Joan de Déu (IRSJD). IRSJD is a research center belonging to the CERCA of the Catalan Government. The goal is to promote scientific clinical research and transfer to market

2014- present

Co-founder and CTO Braingaze S.L. Braingaze (www.braingaze.com) is a spin-off from the University of Barcelona and offers innovative eye tracking technology for digital health solutions.

2011-present

Selected member of the Institute of Neurosciences (UBneuro). UBneuro is an initiative of the Excellence Research Groups of the Generalitat de Catalunya that aims at fostering scientific research on human behavior to the highest standards

2009- 2014

Founder-Director of the VISCA lab

In 2009 I became director of the VISCA (VISion and Control of Action) lab (www.ub.edu/viscagroup). The VISCA lab combines 5 groups of around 15-20 scientists and forms an interdisciplinary research lab on visual science and action control unique in Catalonia. The VISCA lab has been recognized and qualified as excellent in 2009 by the Catalan Government (AGAUR). IN 2014 I stepped aside as director to be able to concentrate on Braingaze

2005-present

ICREA Research Professor

I hold a permanent senior research position paid by the Catalan Institution for Research and Advanced Studies (ICREA, www.icrea.cat). ICREA's aim is to recruit top scientists for the Catalan R&D system, scientists capable of leading new research groups, strengthening existing groups, and setting new lines of research on the right track. I am affiliated with the University of Barcelona (UB, www.ub.edu), Spain at the Dept of Basic Psychology, Faculty of Psychology & Institute for Brain, Cognition and Behavior (IR3C; http://www.ir3c.ub.edu). The UB holds 142th place in the Academic Ranking of World Universities 2010, and highest-placed Spanish university. The Faculty of Psychology of the UB has been included in the best European universities by the CHE Excellence Ranking 2009 and 2010.

2005-present

Assistant professor

With respect to teaching duties I have a part–time contract as an Assistant Professor with the UB.

2002-2005

Principal investigator

I held a permanent position at the Royal Netherlands Academy of Arts and Sciences (KNAW, www.knaw.nl) and was affiliated with the Netherlands Ophthalmic Research Institute (NORI), Amsterdam The Netherlands.

In 2008 it is changed into the Institute for Neurosciences (NINwww.nin.knaw.nl). During this period I formed and headed the Vision and Cognition-II research group.

1999-2001

Senior postdoc position at the Netherlands Ophthalmic Research Institute (NORI), Amsterdam, The Netherlands. I held a contract with The Netherlands Organisation for Scientific Research (NWO; www.nwo.nl).

1997-1999

Postdoctoral position in the lab of Prof. dr. V. Lamme at the Netherlands Ophthalmic Research Institute (NORI), Amsterdam, The Netherlands. I worked on a project ("Towards an understanding and treatment of perceptual deficits following brain injury") funded by The Netherlands Organisation for Scientific Research (NWO) grant to Prof. dr. V. Lamme.

1992–1996

PhD student in the lab of Prof. Dr. E. Soriano at the Dept of Cell Biology, University of Barcelona, Barcelona, Spain. Here I worked on my project entitled: "Functions of Cajal-Retzius cells in cortical development".

1992-1992

Research Fellow in the group of Prof. Dr. C. Koch, California Institute of Technology, Pasadena, USA. I worked on my own designed research project on a single compartment neuronal model using the GENESIS software package. The project was entitled "Computer simulation of input and output relation of a pyramidal cell"

1991-1992

Erasmus student in the lab of Prof. Dr. E. Soriano at the Dept of Cell Biology, University of Barcelona, Barcelona, Spain. The study focused on the development of afferent systems to the hippocampus and their relationships to early generated neuronal populations.

1990-1991

M.Sc. student in the lab of Prof. Dr. P. G. M. Luiten, University of Groningen, Groningen, The Netherlands. My first research project was on the immunohistochemical characterization of cholinergic receptors and protein kinase C after learning and memory task.

3. Grants

3.1 Project grants

2022

Project title: Detection of risk of Alzheimer's disease through the analysis of fixed eye movements recorded by a selfie camera of a smart phone (PDC2022-133054-i00)
Funding agency: Min Ciencia e Innovación, Spain
Total amount: 143.000 euros
Main applicant: Hans Supèr

2021

Project title: Evaluating impact of individual agents of a flavor on unconsciousness decision-making
Funding agency: PepsiCo, USA
Total amount: 70.000 USD$
Main applicant: Hans Supèr

2021-2022

Project title: BGaze
Funding agency: 'Smart Living Homes - Whole Interventions Demonstrator For People At Health And Social Risks' in short: "GATEKEEPER"(857223)
Total amount: 60K (3rd of the 114 proposals)
Main applicant: Hans Supèr BGaze

2019-2020

Project title: MindTrack (968264)
Funding agency: SME Instrument, Phase 1, EU H2020 (H2020-EIC-SMEInst-2018-2020-3)
Analysis of cognitive eye vergence responses for the early diagnosis of Alzheimer's Disease
Total amount: 50.000 euros
Main applicant: Hans Supèr

2019-2021

Project title: Sincronizacion de movimientos oculares y sincronizacion de las neuronas (PGC2018-096074-B-I00)
Funding agency: MINECO, Spain
Total amount: 108.000 euros
Main applicant: Hans Supèr

2019-2020

Project title: TURBO grant (80k€)
Improvement of diagnostic and prognostic assessment of patients with a disorder of consciousness: eye and face movements
Funding agency: TTW perspectief, NWA.
Total amount: 80.200 euros
Main applicant: Dr. Utku Yavuz, dept. Biomedical Signals and Systems, UT.

2019

Project title: 5- Birds project,
Funding agency: Facebook New York, USA
Total amount: 105.000 USD$
Main applicant: Hans Supèr

2018

Project title: Rosetta study
Funding agency: Facebook New York, USA
Total amount: 215.000 USD$
Main applicant: Hans Supèr

2018

Project title: Gaze: Transforming Mental Health
Funding agency: EIT Health Headstart programme
Total amount: 40.000 euros
Main applicant: Hans Supèr

2018-2021

Project title: Cognitive Vergence captured by CMOS sensors (2018 DI 75)
Funding agency: Industrial Doctorates, AGAUR, , Generalitat de Catalunya, Spain
Total amount: 66.200 euros
Main applicant: Hans Supèr

2018

Project title: Vision and Control of Action lab (2017 SGR 48)
Funding agency: SGR2014 from AGAUR, Generalitat de Catalunya, Spain
Total amount: 35.000 euros
Co-applicant

2016

Project Title: Program Start-Up Catalonia (ESP15-1-0003)
Funding Agency: Agència per a la Competitivitat de l'Empresa (ACCIÓ)
Total Amount: 7940 euros
Main applicant: Hans Supèr

2016-2019

Project title: Development of improvement attention measures by novel eye tracking technology (2015 DI 051)
Funding agency: Industrial Doctorates, AGAUR, , Generalitat de Catalunya, Spain
Total amount: 66.200 euros
Main applicant: Hans Supèr

2015-2018

Project title: "Redes de Excelencia"TIN2015-71130-REDT.
Funding agency: MINECO
Total amount: 40.000 euros
Main applicant Otazu porter, xavier

2015-2018

Project title: Explorando el novedoso papel de la vergencia ocular en la atención visual y la percepción
Funding agency: PSI2014-57454-P Plan Nacional, MICINN, Spain
Total amount: 53.000 euros
Main applicant: Hans Supèr

2014-2017

Project title: Vision and Control of Action lab (2014 SGR 79)
Funding agency: SGR2014 from AGAUR, Generalitat de Catalunya, Spain
Total amount: 30.000 euros
Co-applicant

2015-2016

Project title: Simple screening of cognitive development in infants by low-cost remote eye measurements (OPP1119441 BMGF:03360000010)
Funding agency: : Bill Gates Foundation
Total amount: 100k$
Main applicant: Hans Supèr

2015-2016

Project title: Mastering skills in the training Network for ADHD and autism spectrum Disorders (Ref 608131)
Funding agency: : Marie Curie ETN
Total amount:): 124.000 Euros
Main applicant Jan Buitelaar

2013-2015

Project title: Rastreo ocular para diagnosis precoz y tratamiento del tdah y neuromarketing (SOL – 00070497)
Funding agency: CDTI

Total amount:): 329.000 Euros
Main applicant Laszlo Bax and Hans Supèr

2014-2017
Project title: Towards novel diagnostics method by eye tracking (2013 DI 072)
Funding agency: Industrial Doctorates, AGAUR, Generalitat de Catalunya, Spain
Total amount: 66.200 euros
Main applicant: Hans Supèr

2010-2013
Project title: Laminar integration of feedforward and feedback signals for visual perception (PSI2010-18139)
Funding agency: Plan Nacional, MICINN, Spain
Total amount: 83.490 euros
Main applicant: Hans Supèr

2009-2013
Project title: Vision and Control of Action lab (2009 SGR 308)
Funding agency: SGR2009 from AGAUR, Generalitat de Catalunya, Spain
Total amount: 46.800 euros
Main applicant: Hans Supèr

2009-2010
Project title: When feedforward meets feedback: visual perception by laminar integration and its disturbance in patients (SAF2009-10367)
Funding agency: Plan Nacional, MICINN, Spain
Total amount: 24.200 euros
Main applicant: Hans Supèr

2009-1011
Project title: Eye movement analysis during monocular and binocular rivalry: fundamentals for an objective diagnosis for attention problems in ADHD (FAKO-2009)
Funding agency: Private foundation Alicia Koplowitz
Total amount: 70.000 euros
Co-applicant, (total 3 members)

2008-2009
Project title: Evaluation of ADHD by means of a binocular rivalry task (185653)
Funding agency: Ajust per a iniciatives de recerca, UB, Spain
Total amount: 10.200 euros
Co-applicant, (total 3 members)

2006-2009
Project title: Cognitive processing in the visual system: dynamic recurrent interactions (SEJ 15096-2006)
Funding agency: Plan Nacional, MEC, Spain
Total amount: 65.340 euros
Main applicant: Hans Supèr

2005
Project title: Laboratory infrastructure for eye movement registration (AJRE 516460-010)
Funding agency: DIUE - Departament d'Innovació, Universitats i Empresa (Generalitat de Catalunya)

Total amount: 43.868 euros.
Co-applicant, (total 4 members)

2005-2008
PIGC - Projectes de recerca per potenciar els grups de recerca consolidats (2005-SGR-00953)
Funding agency: DURS - Departament d'Universitats, Recerca i Societat, Spain
Total amount: 50.000 euros
Co-applicant, (total 3 members)

2003-2008
Project title: Recurrent processing and cognitive functions.
Funding agency: VIDI, NWO. The Netherlands
Total amount: 590.000 euros.
Main applicant, (personal grant)

2002-2007
Project title: Cortical organization and cognitive functions.
Funding agency: Cognition, NWO, The Netherlands,
Total amount: 360.000 euros.
Main applicant, (total 2 members)

1997-1998
Características y funciones de la células de Cajal-Retzius durante el desarrollo cortical (SAF97-1429-E04-02)
Funding agency: Plan Nacional, MEC, Spain
Co-applicant

1995-1997
Biologia Cel.lular del Transport Intracel.lular 1. Neurobiologia de Desenvolupament (SGR-00564)
Funding agency: Plan Nacional, MEC, Spain
Co-applicant

1994-1996
Project title: Role of early neurons in cortical development.
Funding agency: EU
Total amount: ~50.000 euros.
Main applicant, (personal grant)

1993-1997
SAF94-0743-C02-01, Plan Nacional, MEC, Spain, Co-applicant

3.2 Fellowships & small subsidies

2021 Finalist Startup meets Pharma, 3000 euros
2020 PespiCo Greenhouse accelerator, 20K USD
2020 Mentorship award EIT Health, 5000 euros
2019 Travel grant EIT Health Catapult London 1000 euros
2019 Travel grant RISE conference Hong-Kong 1000 euros
2019 Travel grant Medtec Live EIT Health 1650 euros
2017 Two fellowships from the Barcelona Knowledge Campus (BKC) of the UB for students for 6 months
2017 Funding for patent application OEPM (FPE-0213-00-20163)
2016 Two fellowships for students to work for 6 months at Braingaze from the Banco Santander (CEPYME)
2016 Funding for patent application OEPM (FO3574ES01)
2014 Subsidy to finance participation in international Horizon 2020 research projects from the UB

2014 Subsidy from del Vicerectorat de Recerca, Innovació i Transferència, UB
2014 Subsidy to organize key note BCN lectures at the UB from Facultad de Psicologia.
2013 Subsidy to organize key note BCN lectures at the UB from Facultad de Psicologia.
2012 Subsidy to organize key note BCN lectures at the UB from Facultad de Psicologia.
2012 Subsidy to finance participation in international Horizon 2020 research projects from the UB
1997 Adriani van Coeverden Foundation, The Netherlands (Travel grant to the USA)
1992 De Korientiers foundation, The Netherlands (Support to publish Ph.D. thesis)
1992 Foundation of the University of Groningen, The Netherlands (Travel grant to the USA)
1992 ERASMUS, EU. 6 months stay

3.3 Prizes, awards, and honors

2022 Finalist of the Takeda UK ADHD iChallenge
2022 Finalist Start-ups Meet Pharma 2021
2021 Innovation editor of the journal BRAINS from Cluster Salut Mental
2021 Awarded mentoring grant IPA4SME
2021 Finalist of the PespiCo Greenhouse accelerator, USA (10 out of 188 application2)
2020 Winners of the Tech Tour Digital Health Programme 2020, EU
2020 Selected for the SOSV 17th Cohort Chinacellerator, China (<5% acceptance rate)
2020 Selected for the Ping An 4th Cohort Cloud Accelerator, China (<5% acceptance rate)
2020 Finalist of the Santander X program, EU
2019 Semi-finalist EIT Health Catapult, London
2019 Finalist Rockstart Health Accelerator, The Netherlands
2019 Winner EHC regional competition, EIT Health Catapult.
2018 Winner EIT Health Headstart competition
2019 Finalist MedtecLive competition
2018 Member of the scientific advisory board of the Catalan Association for ADHD
2018 Finalists of the Disruptive program of Sanitas
2017 Finalists of the HealthTech Start-up Competition of Biocat, Spain
2017 Member of QANU evaluation commission, The Netherlands
2016 Finalists “Get in the Ring” Philips Medtech, The Netherlands
2016 Finalist in 4 Years From Now of the Mobile World Congress, Barcelona, Spain
2016 Invited member of Recerca Sant Joan de Déu (IRSJD)
2015 Student award Tecnocampus, Mataro, Spain
2013 3rd prize Premis Creatic, Tecnocampus, Mataro, Spain
2012 Patent accepted (Nr publication: ES2589000 T3)
2011 Member of the editorial board of the The Scientific World JOURNAL
2011 Selected member of the Institute for Neuroscience (UBNeuro). UBNeuro is an initiative of the Excellence Research Groups of the Generalitat de Catalunya that aims at fostering scientific research on human behavior to the highest standards
2010 Member of the evaluation panel EUSCEA 2WAYS Science, Barcelona
2010 Member of the editorial board of the journal Frontiers in Perception Science
2005 ICREA Senior Research Professor (ICREA)

ICREA, Catalan Institution for Research and Advanced Studies, is a foundation supported by the Catalan Government. ICREA. ICREA’s aim is to recruit top scientists for the Catalan R&D system, scientists capable of leading new research groups, strengthening existing groups, and setting new lines of research on the right track. In its nine years of activity, ICREA has hired a total of 250 researchers in different areas of research: 31% in life and medical sciences, 28% in experimental sciences and mathematics, 11% in social sciences, 16% in humanities and 15% in technology.

In 2005 when I applied, 25 (5%) scientists were selected from the 524 applications to become an ICREA Research Professor.

2005 Ramon y Cajal (Career development) award from the Spanish Ministry of Education (MICINN), Spain
2002 Royal Dutch Academy of Arts and Sciences (KNAW) Research fellowship
2003 VIDI (Career development) award from The Netherlands Organization for Scientific Research (NWO).

4. Teaching

In 2005 I started teaching at the UB although it is not a requirement of my position. I teach the fundamental principles of the anatomy and physiology of the visual system, neural basis of cognitive processing, and oculomotor control. Most students that I teach have a background in Cognitive or Clinical Psychology, Biology, or Neuroscience.

Being an organizer of a Master course and Undergraduate course, I introduced an evaluation procedure of the teachers by the students. The same evaluation the Charité University applies in Berlin where I taught for 4 years. Evaluation covers content of the class and abilities of the teacher. Every year my average score has been 85%, which is considered as good/excellent.

4.1 Teaching at the UB

2021-pesent
Dept Psychology, University of Barcelona, Spain
Title course "Eye movements"
Optional course

2016
Course Fonaments de Cognicio Humana, UB.
graduate course

2015-present
Institute For Life Long Learning, IL3 UB
Title: Eye tracking In Neuromarketing
Online course

2007- present
Master Neuroscience, University of Barcelona, Spain
Title course: Neurobiology of the senses
ECTS: 2.5

2007- 2011
Graduate course, Dept Psychology, University of Barcelona, Spain
Title course: Advanced Seminars on Cognitive Neurosciences. (Note: This is the only course at the UB given entirely in English). After the adaptation of the University to the European Bachelor-Master system, the course terminated in 2011.
ECTS: 3

2005-2008
I organized a weekly journal club and regularly invited guest speakers, national and from abroad.

4.2 External teaching

2017

CSC1 course of the ITN MinD project on 28 May, 2018
Title: $ci€nc€

2008- 2009
Master Optometry and Visual Sciences, University Politecnica de Catalunya, Terassa, Spain

2005-2009
International Graduate Program, Medical Neuroscience, Charite University, Berlin, Germany

4.3 Master and Ph.D. Thesis

I am the director of the following PhD theses:

PhD student: Amin Hashemi
Title of his Project is: Eye metrics evaluation as a biomarker tool for mental health diagnosis
Starting date: Nov 2019
Expected end data: 2023

PhD student: Patricia Busto
Title of her Project is: Vergence responses in ASD and ADHD
Starting date: June 2019
Expected end data: 2023

PhD student: Carolina Jimenez
Title of her Project is: Role of eye vergence in cognitive processing
Starting date: June 2014
Defended: 5th July 2021

PhD student (part-time): Paloma Varela
Title of her Project is: Clinical validation of vergence as diagnostics method for ADHD
Starting date: February 2015
Expected end data: 2023

PhD student: Flavia Lorena Esposito
Title of her Project is: Towards novel diagnostics method by eye tracking
Starting date: September 2014
Defended. 20 dec 2019

PhD student: Alejandro Lehrer
Title of his Project is: Laminar integration of feedforward and feedback signals for visual perception.
Starting date: September 2011
Defended: February 17th, 2022

PhD student: Laura Pérez Zapata
Title of her Project is: “Anisotropy of orientation perception: determinant factors”.
Starting date: 2007
Defended 2016 (cum laude)

PhD student: Maria Solé Puig
Title of her Project is: Global and local perception of shape
Starting data: 2008

Defended in 2016 (cum laude)

Further, I have supervised many Master theses and visiting students.

Selection of master students (TFM)

- Preethi Ramanathan (Master student, Human-Computer Interaction, University of Trento, Italy)
- Bálint Szarvas (graduate student Corvinus University of Budapest, Hungary)
- Alix Gonzales (Bio-medical student, UPC) Sept 2021- mayo 2022 Master student; (TFM)
- Laura Daniele (Bio-medical student, UPC) Aug 2021- Dice 2022 Master student
- Maria Vaga (Psychology student, UB) Sept 201-June 2022; Master Student, TFG
- Sara el Bouhali Douay (Psychology student, UB) Sept 201-June 2022; Master Student, TFG
- Maria Estefanell Clinical validation study of an online tool for objective diagnosis of Mild Cognitive Impairment and early Alzheimer from home Feb 2020- July 2020 (TFM)
- Natalia Pujol Gualdo Eye tracking games for treatment of Alzheimer Nov 2019-june 2020 (TFM)
- Marc Triguero, Video games for ADHD treatment, Jan 2019- Jun 2019 (TFM)
- Paloma Varela bgaze: análisis del coste efectividad de la implantación de las nuevas tecnologías en el proceso diagnóstico del trastorno por déficit de atención e hiperactividad en las consultas de psiquiatría infantil en el hospital de mataró, Jan 2019-june 2019 (TFM)
- Paulo André Moraga, Eye tracking games for treatment of ADHD, Sept 2018-june 2019 (TFM)
- Alba García Baos, Eye tracking games for treatment of ADHD January 2018-june 2018(TFM)
- Tomás Ariel D'Amelio Eyetracking games for treatment of ADHD Sept 2017- January 2018 (TFM)
- Jose Oliveira Correia Role of vergence in cognitive processing and clinical applications January 2018-june 2018; Erasmus + program (TFM)
- Willemijn Vinck The modulation of eye vergence, a new eye tracking measurement applied to advertising Sept 2015- April 2016 (TFM)
- Igor Peric, Machine learning approach to cognitive pro_ling and clinical disorder assessment from biometric and behavioral data Januar 2015- June 2015 (TFM)
- Enrique Buenechea, Pilotig webcam based tracking of Cognitive Vergence. 15/02/2016 – 15/05/2016 (TFM)
- Theo Dessertaine, Assessing the feigning situation with machine learning methods January 2017- August 2017 (TFM)
- Akke Houben, Computer modeling of eye motion synchrony in figure-gound (2017-2018) (TFM)
- Víctor García Tapia, Estudio de la viabilidad del cálculo de la vergencia en el espectro visible (January-June 2016)
- Sara Suarze Cubero 15/3 - 30/6 2017
- Laura Español 23/2 - 30/6 2017
- Marina Pons 1/7 - 30/8 2017
- Maria Rey Ayala 15/3 - 12/7 2017

5. Management engagements

2019-present
Member of scientific advisory board of FCAFA-TDAH

2020-present
Session editor of Innovation of the journal BRAINS from Cluster Salut Mental, Barcelona.

2019 Round table discussion at congress UPC, Barcelona

2017-present
Founding Director of ACAP.

2017-2018
Review Dutch Psychology Faculties (QUNA)

2017 Round table discussion at congress TDAH Valles TDAH

2017 Member (Supplement) of the PhD thesis defense of Onur Ferhat “A Gaze Estimation Method and System for Natural Light Cameras” 20 September 2017,

2016 Co-organizer of the European Conference on Visual Perception (ECVP) in 2016, Barcelona, Spain

2014 Member of the PhD thesis defense of Konstantina Kilteni “The role of semantic congruence on body ownership illusions within immersive virtual environments 28/4/2014.

2014 Member (director) of the PhD thesis defense of Alexis Pérez Bellido Watching sounds: An investigation of auditory influences on visual. Processing. 12nd in September 2014

2013-present
Co-founder and CTO of Braingaze. S.L.

2012-2013
Organizer of Barcelona Lecture Series on Brain, Cognition and Behavior.

2011-present
Member of the editorial board of the The Scientific World JOURNAL as part of the journal's Neuroscience Domain

2010-present
Member of the editorial board of the Frontiers in Perception Science

2008-present
Member of the Biomedicine Doctoral Program (UB). The Doctoral Program in Biomedicine aims to provide multidisciplinary training to university graduates with degrees in Biology, Biochemistry, Biotechnology, Pharmacy, Physics, Medicine, Dentistry, Chemistry, Veterinary and Engineering in the field of biomedical research. Its particular emphasis is on understanding the molecular mechanisms which cause diseases, as well as on developing optimum strategies for their treatment and cure.

2006-2011
Organizer of Advance course neuroscience seminars
Together with Antoni Rodrigues Fornells I organize the course “Advanced Seminars on Cognitive Neurosciences.” for (post)graduate students. This is the only course at the UB that is entirely given in English.

2007-present
Member of the Eye Tracker Lab committee of the Faculty of Psychology, University of Barcelona

2006-present
Member of the Virtual Lab committee of the Faculty of Psychology, University of Barcelona

2005-present
Together with Albert Martinez I am organizer of the Master course “Neurobiology of the Senses”, which is part of the Master Neuroscience of the University of Barcelona

6. Invited lectures & presentations

6.1 Keynote talks and lectures

2022 GIES Gerontech and Innovation Expo cum Summit GIES 2022 13-14 October 2022 in Hong Kong
2021 Eye Vergence movements: a novel role in visual cognition and clinical relevance. Conference: Understanding Vision: Social, Cognitive and Clinical Perspectives 24/25th of June 2021, UK
2018 Braingaze: Transforming Mental Healthcare & Neuromarketing (11/12/2018) Foreign Ministry Barcelona, Netherlands Business Support Office
2018 $ci€nc€: El camino de la innovación científica hacia el mercado. Programa d'emprenedoria, innovació i salut, Mataro (15-2-2018)
2018 Novedoso bio-marcador para diagnostico clínico de TDAH en niños y adultos 72ª reunión científica de la Sociedad de Neuropsicología, Barcelona (29-6-2018) (Talk and round table)
2018 $ci€nc€ at the MiND international Conference in Barcelona (30-5-2018). MiND CSC2 course 'start your own company':
2017 Vergència Cognitiva i Diagnòstic de TDAH at the TDAH Valles III Congrés Nacional TDAH VALLÈS, Sabadell, Spain (21-10-2017) (Talk and round table)
2017 Cognitive Vergence: a novel biomarker supporting ADHD diagnosis in children and adults. Eunethydis, Cologne, Germany (5-10-2017)
2017 Nieuwe objectieve methode voor ADHD diagnostiek ADHD network meeting, Utrecht, The Netherlands 30 March 2017
2016 Eye vergence as an objective marker for diagnosis of ADHD. 6ª Jornada TDAH 6ª Jornada TDAH y Trastornos Emocionales. Centro Médico Teknon, Barcelona 12/11/2016
2016 From mind to market: Braingaze. Jornada Científica de l'Institut de Recerca Sant Joan de Déu,Barcelona, 21st Setember 2016
2016 Eye vergence as an objective marker for diagnosis of ADHD. ADHD Foundation 4th Annual Conference. ADHD Foundation Liverpool. 13-14th October 2016
2014 Eye vergence as a measure of cognitive visual processing. "Clinical applications of Smart glasses" at the University of Twente, 12th dec 2014
2014 Radboud Universuty, Nijmegen, The Netrelands
2014 Mental Eye Movement (MEM): a proposition for a new role of vergence. Univeristy of Twente
2014 Attention related eye vergence is disrupted in children with adhd at the XVI World Congress of the World Psychiatry Association, Madrid - Spain, Sept 14th-18th, 2014.
2014 From Visca to Braingaze. 1st Jornadad'Innovació del CSdM in Mataro jornada Transferencia CSdM
2011 Mind the Eye! Retina and eye movements and their role in perception and navigation BSS, TU Twente, The Netherlands
2011 Towards bio-inspired retinal vision for autonomous robot navigation. IBEC Research Institute, Barcelona
2009 Neurophysiological fundamentals of saccades. 1st WSETM Winter School on eye movements, Barcelona, Spain. Sep 28.
2009 Neural codes preceding, during and following object perception. 8th Göttingen Meeting of the German Society
2008 Understanding the Neural Basis of Visual Cognition Centre for Cognition, Donders Institute for Brain, Cognition and Behaviour, Nijmegen
2006 Visual System pathways, processing and perception Faculty of Psychology, University of Barcelona, Barcelona, Spain
2006 A Role of V1 in Sensorimotor Integration. Faculty of Biology University of Valencia, Spain.
2006 Visual Perception: anatomy and physiology. Faculty of Biology, University of Barcelona, Barcelona, Spain
2006 Sensoriomotor integration in primary visual cortex Primer Congreso Ibérico de Percepción (CIP) Barcelona, Spain
2003 Cortical state and perceptual processing in monkey V1. Seventh Conference of the Association for the Scientifi Study of Consciousness (AVSS7), Memphis, USA.

2002 Neural substrate for visual perception in primary visual cortex. International Neuroscience Summit (INS), Berlin, Germany.
2002 Visual working memory: from perception to memory. Cognitive Neurosciences, Amsterdam, The Netherlands
2000 Cognitive Vision Sciences, Rochester, USA Contextual modulation in primary visual cortex as a neuronal substrate for visual perception.

6.2 Talks

2019 IRSJD Innovation unconference. Unleashing your Creativity and Innovative Ideas, 16 May 2019
2018 BGaze: solución neurobiológica & tecnológica para diagnosticar TDAH en niños y adultos
24 oct l Jornada de debats IRSJD 2018 - Salut Mental at l Parc Sanitari Sant Joan de Déu.
2018 BGaze: Una nueva solución accesible optimizada con AI para diagnosticar trastornos mentales: 16 de octubre 2018 HEalthio Barcelona
2017 VIBOT, Girona, Spain, 13 June 2017
2016 Role of eye vergence in visual attention and use in clinical diagnostics, UKCL, UK.
2016 Role of eye vergence in visual attention and use in clinical diagnostics. Goethe Inst, Germany
2014 Role of vergence during eye fixation in orienting visual attention. Vision Science Society, Florida, USA
2014 1st Jornada Recerca i Empresa, Faculty of Psychology UB, Barcelona, Spain
2014 From Visca to Braingaze. 1st Jornada Rerca I Tranfereicia de Coneixement IR3C, Barcelona, Spain
2013 Role of feedback in feedforward figure-ground segregation 5th Iberian Conference on Perception (CIP), La Coruña, Spain, 27-28th of June, 2013
2013 Role of feedback in feedforward figure-ground segregation BCNSYN, Barcelona
2012 ICREA Colloquium, Title Economy: from biology to economy
2011 Feedback enhances feedforward figure-ground segmentation by changing firing mode, BCNSYN, Barcelona
2007 Seeing and Saccading: A Role of V1 in Sensorimotor Integration. Honda Research Centre, Germany.
2007 A role of V1 in perceptual decisions. Second Congreso Ibérico de Percepción (CIP) Madrid, Spain
2007 Seeing and Saccading: A Role of V1 in Sensorimotor Integration. Jornadas Cientificas Barcelona, Spain
2007 Neural Activity & Visual Consciousness, ASSOFIA Girona, Spain
2005 Visual Perception: anatomy and physiology Faculty of Psychology, University of Barcelona, Spain
2004 Perceptual processing in V1. Donders Centrum, Nijmegen, The Netherlands
2004 Layers and Areas in Vision. Symposium Visual Sciences, Amsterdam, The Netherlands
2004 Neural organization of visual perception. University of Utrecht, The Netherlands
2004 Neural organization of visual perception. Oogheelkundige Fysica dag, IOI, Amstyerdam, The Netherlands
2003 Transformation of perceptual activity into saccade-related activity in the monkey primary visual cortex. Vision Society for Science, Sarasota, USA
2003 Neural basis of perceptual organization. Smith-Kettlewell Eye Res. Inst, San Francisco, USA
2003 Neural basis of perceptual organization. Vanderbilt University, Nashville, USA
2003 Neural basis of perceptual organization. Nat. Institute of Health (NIH), Bethesda, USA
2003 Neural basis of perceptual organization. New York University, New York, USA
2003 Neural basis of perceptual organization. Columbia University, New York USA
2003 Neural basis of perceptual organization. Harvard, Cambridge, USA
2003 Neural basis of perceptual organization. MIT, Cambridge, USA
2003 Neural basis of perceptual organization. Salk Institute, San Diego, USA
2003 Neural basis of perceptual organization. Stanford University, Stanford, USA
2001 Contextual modulation in primary visual cortex as a neuronal substrate for working memory. Vision Society for Science, Sarasota, USA.
1995 Early developmental axonal connections in the hippocampus. Congress on Morphology, Barcelona, Spain.

7. Courses Attended

2012 Course on FET open project FP7 Brussels
2007 2 days management course on project preparation and project management. Organized by ICREA, Barcelona, Paid by ICREA.
2004 6 days management course paid by the KNAW, Title: “Manager between professionals”. GITP, Bilthoven, The Netherlands, Organizer: Marcel Wanrooy
2003 A three day course, Adobe Photoshop, Netherlands Ophthalmic Research Institute, Amsterdam, The Netherlands, Organizers T. Put and G. van der Meulen (2003).
2002 5 days course, Title: “Neuro-informatics Simulation Tools”. Edinburgh Summer School In University of Edinburgh, Institute for Adaptive and Neural Computation, Division of Informatics, Edinburgh, Scotland, UK; Organizer: Fred Howell
1997 14 days Animals course, Certificate: Article 9 status (Legal qualification to perform animal research). AMC, The Netherlands (1997). Paid by the NWO.
1991 A PhD course of a week. Title: “Neural Networks: Mathematical modeling, artificial neural networks, and neurobiological concepts. University of Amsterdam, Amsterdam, The Netherlands. Organizers: Prof dr. F. Lopes da Silva and dr. B. Kröse.

8. Review

8.1 Articles

- Science (3x)
- Journal of Vision (4)
- Vision Research (4x)
- Journal of Neurophysiology (2x)
- Cerebral Cortex (2x)
- Cognitive Brain Research (1x)
- Trends in Neurosciences (1x)
- European Journal of Neuroscience (1x)
- Neuroscience Letters (1x)
- PLos One (2x)
- Frontiers in Perception Science (2x)
- Soft computing (1x)
- The Scientific World Journal (1x)
- Journal of Expert system with applications(1x)
- SoftwareX
- Journal of Neuroscience
- Journal of Biomedical Engineering

8.2 Grants

2021 Romanian National Council for Innovation and Development (Romania)
2021 Neurological Foundation's, Auckland, New Zealand
2021 Agencia Andaluza del conocimiento, Ayudas Proyectos I+D+i uni y entidades públicas de invest, Spain
2021 Programa Estatal Proyectos de I+D de Generación de Conocimiento Tipo B 2020
2021 The Wellcome trust/DBT India Alliance Fellowship
2020 Romanian National Council for Innovation and Development (Romania)
2020 Agencia para la Calidad del Sistema Universitario de Castilla y León (ACSUCYL)
2019 Romanian National Council for Innovation and Development (Romania)

2018 Programa Estatal Proyectos de I+D+i Retos Investigación (Spain)
2017 Project Grant Action medical Research for Children (UK)
2016 Romanian National Council for Innovation and Development (Romania)
2015 Romanian National Council for Innovation and Development (Romania)
2013 Romanian National Council for Innovation and Development (Romania)
2012 Romanian National Council for Innovation and Development (Romania)
2010 Erwin-Schrödinger-Research fellowship (Austria)
2009 2WAYS Communicating Life Sciences (EU)
2009 Proyectos de Excelencia (Spain)
2004 ZonMw NWO (The Netherlands)
2005 Talent NWO (The Netherlands)
2003 Welcome Trust (UK)

8.3 Institutes

2018 Member of review committee to evaluate Dutch Psychology faculties of the following Universities; Leiden, VU Amsterdam, University of Amsterdam, University of Twente, university of Rotterdam as a member of QANU review committee

9. Languages

- Dutch native
- English fluent
- Spanish fluent
- German basic
- Catalan basic

10. Research

10.1 Research background and interest

The understanding of the functional organization of the cerebral cortex that underlies cognitive behavior. To understand the complexity of the anatomical organization of the cerebral cortex, I started my scientific journey by studying Neurobiology at the University of Groningen, The Netherlands. I next studied the ontogenetic and evolutionary development of the cerebral cortex to get a grasp of the immense complexity of the cortex. These studies were done in the lab of Prof. Dr. E. Soriano at the University of Barcelona, Spain. To learn about the functional organization of the neocortex, I continued my research studying system neurophysiology of the visual cortex in awake, behaving monkeys. These studies were done at the lab of Prof. Dr. V.A.F. Lamme in Amsterdam and later on in my own lab. Here I studied the role of the primary visual cortex (V1) in cognitive behavior. In 2005, I moved to the Psychology faculty of the University of Barcelona. The research of my group focuses on the role of eye movements in visual cognitive processes and the application is mental health care. Techniques we use are computer modeling, image processing, Machine learning, psychophysics, EEG, and eye tracking

10.2 Research pioneering

- I was, to my best knowledge, the first to study the possible functional role of layer 1 (Cajal-Retzius cells) in the mouse neocortex and hippocampus. The neurons of Cajal-Retzius were described more than a century

ago by Cajal and since until then only few descriptive studies were published; in total 36 papers (Pubmed) in last 15 years before the start of my project in 1992. In the 15 years after the end of my project (1996) more than 300 papers were published. An increase of >800%!

- I proposed a hypothesis putting forward that a switch in developmental rules resulted in the origin of the neocortex and the subsequent growth of the neocortex during mammalian evolution (Cerebral Cortex 11:1101-1109; Brain Res. Reviews 27:40-64). The growth of the cortex is characterized by the addition of more cortical areas and the segregation of the cortical mantle into more cortical layers and columns. In particular this occurred in higher primates, where the cerebral cortex has expanded and differentiated enormously during the course of evolution and has led to an increase in the potential to process more and better incoming sensory information.

- I was the first to show a neural correlate of visual awareness (Nature Neuroscience 4:304-310) and working memory (Science, 293: 120-124) in the early visual cortex. More important, these studies show that neural responses to sensory stimuli consist of two parts; an early part that represents the basic visual elements that construct the stimulus and a late part that represents the cognitive processes. These findings demonstrated that cognitive behavior is mediated by recurrent interactions between neurons in different cortical layers and areas.

- I was the first to show a neural correlate of visual working memory (Science, 293: 120-124) in the early visual cortex. These studies demonstrate the memory is a distributed process and not exclusive to the frontal cortex.

- I was the first to provide strong neuro-physiological evidence of motor-related (saccade) preparation in the visual cortex of monkeys (Proc. Natl. Acad. Sci. 101: 3230-3235). This finding indicates that the early visual cortex is not a pure sensory but contains motor-related activity.

- I demonstrated that the neural correlate of visual perception depends on the momentarily state of the cortex. In these studies I showed the role of neuronal synchrony, and the change herein, on response modulation (J Neurosci., 2003; Cerebral Cortex, 2006)

- By means of computer modeling I showed that several perceptual phenomena (figure-ground segmentation, border-ownership assignment, perceptual masking, surface filling-in) can be explained by feedforward suppression (PLos One 2010; J Cog Neurosci, 2011). This studies question the widely held belief that perception depends exclusively on recurrent processing through feedback. I showed that feedback enhances the feedforward generated perceptual signals

- I was the first to demonstrate a novel role for eye vergence and eye synchrony in visual attention and perception and the correlation with neural substrates of attention. This novel eye movement type is called Cognitive Vergence, and Eye Synchrony and these method has been protected by a patent (44 countries).

- Cognitive vergence has been clinically validated for the objective diagnosis of ADHD in children and adults, and Dyslexia. Currently Cognitive Vergence is tested as a method for the early detection of Alzheimer and of ASD.

- In a first pilot we have demonstrated the potential of interactive eye tracking game for the improvement of ADHD symptoms (Garcia et al., 2019). Also, cognitive improvements have found in Alzheimer patients after such digital treatment.

- We have developed a webcam-based eye tracker to capture our biomarker (Romeo et al., 2023). This is a software only solution for the objective detection of ADHD and Alzheimer Disease on a smartphone. We have already developed world's first mobile game that is controlled by the eyes. We used the selfie cam as eye tracker for controlling the game. On google play store: https://play.google.com/store/apps/details?id=com.braingaze.racecarR01&gl=ES

10.3 Current projects

Eye movements and cognitive processing

We recently found an unpredicted but clear relation of eye vergence with attention and perception. We showed that during gaze fixation visual stimuli modulate the angle of eye vergence as a function of their ability to capture attention. Vergence responses correlate with bottom-up and top-down attention, memory and visual perception. A role of eye vergence in attention is further supported by our studies showing that the EEG component that specifically signals visual attention correlates with eye vergence.

In this project we further investigate the role of eye vergence movements in cognitive processing, being attention, figure-ground perception, memory, of visual information using psychophysical and computer modeling studies. We introduced a new name, i.e., cognitive vergence, to refer to this role of vergence.

Eye motion synchrony

In this project we will further study the temporal correlation of the movements of both eyes to show that they may be of important in attention and perception. We show that synchrony of the velocities of eye movements changes when perceiving a visual stimulus but not when the stimulus goes unnoticed. Modulation of synchronous activity facilitates the occurrence of appropriate recurrent interactions between separate neural assemblies, producing figure-ground segregation (Togt, Eur. J. Neurosci, 2006; Supér et al, J Neurosci 2003; Togt et al Cerebral Cortex 2006). We already have shown a remarkable modulation in the alignment of fixational eye movements during figure-ground perception. This modulation is especially apparent for figures that are detected. Figure-ground perception depends on the momentarily state of the visual cortex. Synchrony in eye velocity mimics this behaviour. The relation with perceptual behaviour and the similarities with figure-ground activity/synchrony in the primate visual cortex (Supèr et al., 2003; Van der Togt et al., 2006) may suggest that coordination of the movements of both eyes while fixating an object is important for the perceptual processing of sensory information.

Cognitive Vergence and child and adult ADHD

This project aims to test vergence in children with attention deficit hyperactivity disorder (ADHD) and to investigate whether medication has an effect on attention-related vergence and whether vergence is specific for different presentations (sub-types) of ADHD.

Children with ADHD do not develop normal binocular vision and have problems with eye vergence. We will test ADHD children and adults with and without medication and will test specificity of vergence for ADHD presentations/subtypes. This project aims to provide further evidence for a new diagnostic tool, based on vergence that can detect ADHD at early developmental stages.

Cognitive Vergence and Alzheimer

In the current project we aim to test whether Cognitive Vergence is present in elderly people suffering dementia like Alzheimer disease. Our primary findings show that Alzheimer patient have poor vergence responses to odd ball stimuli compared to the vergence responses in healthy controls. We will further evaluate Cognitive Vergence in Alzheimer patients and test whether can be used as an objective marker to support an early and objective diagnosis of Alzheimer Disease. We compare cognitive vergence to gold standard wet biomarkers and brain imaging.

Cognitive Vergence by webcam eye tracking

In this project, we strive to develop a solution, which can register and measure Cognitive Vergence eye movements with a standard webcam as found in most laptops/mobile devices under uncontrolled environmental conditions. Eye tracking techniques use Infrared technology to track the positions of both eyes. The advantage of infrared is that it give high precision. Disadvantage is the elevated costs of infrared eye trackers. Our project will open the path towards solution to perform an accurate, objective and quick test by just downloading software (an App) and to play a simple "videogame" on their smartphone/table/laptop.

Interactive eye tracking game as digital treatment

This project aims to test whether Cognitve Vergence can be improved in ADHD patients by playing interactive eye tracking game. RECOGNeyes is a computer game that you play using your eyes as the game controller. The game is designed to train people to have better control over their attention. As you advance in the game, you learn to control different aspects of your visual attention system. The game is played on a laptop with a small eye-tracker attached below the screen. Players receive continuous immediate feedback while playing the game. The game employs tracking algorithms that change the game difficulty based on performance.

10.4 Active collaborations

- Oriol Grau. Alzheimer Prevention Program BarcelonaBeta Brain Research Center (BBRC) & Hospital Mar, Barcelona.
- Neus Falgàs. Alzheimer's Unit, Hospital Clínic de Barcelona & Grinberg Lab, University of California San Francisco.
- Michael Absoud. Kings College, London, UK. Project on ADHD diagnois in toddlers with our method.
- Palomo Varela, Hospital Mataro, CSdM, Mataro, Spain. Project on a novel method for diagnosing ADHD
- Prof Dr J. Antoni Ramos-Quiroga, MD,PhD, Department of Psychiatry. CIBERSAM, Hospital Universitari Vall d'Hebron, Group of Psychiatry, Mental Health and Addiction, Vall d'Hebron Research Institute (VHIR), Pg. Vall d'Hebron, 119-129, 08035 Barcelona
- Prof Dr Phil Asherson; MRC Social, Genetic and Developmental Psychiatry (SGDP), Institute of Psychiatry, Psychology and Neuroscience, King's College London, Po Box 80
- Professor Christine M. Freitag, MD, MA, Department of Child and Adolescent Psychiatry, Psychosomatics and Psychotherapy Autism Research and Intervention Center of Excellence Frankfurt Universitätsklinikum Frankfurt am Main, Goethe-Universität, Deutschordenstraße 50 60528 Frankfurt am Main, Germany
- Prof dr Stephen V. Faraone, Ph.D. Distinguished Professor of Psychiatry and of Neuroscience & Physiology, SUNY Upstate Medical University
- Mathias Keil, Departament de Cognició, Desenvolupament i Psicologia de l'Educació, Faculty of Psychology, Univeristy of Barcelona
- Joan Lopez Moliner, Departament de Cognició, Desenvolupament i Psicologia de l'Educació, Faculty of Psychology, Univeristy of Barcelona

Companies

- Metaversia, Spain
- TrisPharma, USA
- Luca Healthcare, China
- Ryse Management, UK
- Tobii, Copenhagen, Sweden
- Neurenscis, Amsterdam, The Netherlands
- Bax&Co, Barcelona, Spain
- Meta, Ny, USA

10.5 Skills

Research skills

- Light and electron microscopy
- Axonal tracing techniques
- Neuronal birth dating techniques
- Cyto and histochemical staining techniques
- Brain operations on mice, rats and monkeys
- Neurophysiological (multi-unit) recordings in awake, behaving monkeys
- Lesions (aspiration, pharmalogical interventions)
- Computer simulations of neural networks models (Izhikevich model, NEURON, GENESIS).
- Psychophysical techniques
- Eye movement recordings
- Data analysis (SDT)
- fMRI recordings
- EEG recordings
- Trans-cranial magnetic stimulation

Computer skills

- Operations systems: MS Windows, MS DOS
- Programming: C, MatLab (MathWorks Inc.)
- Applications: MS Office, CorelDraw, Adobe Photoshop, Macromedia Dreamweaver.

10.6 Publications

My h-index is 28 (i10=41) based on the published papers (Total: 121 Google citations; 93 Research gate). These top 28 papers have been cited more than 4500 times. I have 2 papers that are cited more than 500 times; 16 papers more than 100 times.

10.6.1 Publications journals

Submitted/writing up

- August Romeo, Hans Supèr (2022) Optimal twist angle for a graphene-like bilayer" (JPCM-121145) Journal of Physics: Condensed Matter (under review)
- August Romeo, Oleksii Leonovych, Maria Solé Puig, Hans Supèr (2022) Cognitive vergence recorded with a webcam-based eye tracker during an oddball task in an elderly population (submitted to Journal of Eye Movement Research)
- Destiny Orantes, Oleksii Leonovych, Stephen V. Faraone, Hans Super, Kevin M. Antshel, (2023) Using Eye Vergence to Improve Detection of ADHD Malingering in College Students (writing up)
- August Romeo, Maria Solé Puig, Hans Supèr (2022). Two distinct modes of ocular drift observed during figure-ground perception (writing up).

2022

- Amin Hashemi, Oleksii Leonovych, Elizabeth Carolina Jiménez, Alba Sierra-Marcos, August Romeo, Patricia Bustos Valenzuala, Maria Solé Puig, Joan Lopez Moliner, Elisabet Tubau, Hans Supèr (2022) Classification of MCI patients using vergence eye movements and pupil responses obtained during a visual oddball test. Aging and Health Research (in press)
- August Romeo, Hans Supèr (2022) Spiking model of fixational eye movements and figure-ground segmentation (2022) Network Computation in Neural Systems 33(1):1-24 doi: 10.1080/0954898X.2022.2073393
- Patricia Bustos-Valenzuela, August Romeo, Sara Boxhoorn, Bartosz Helfer, Christine M Freitag, Phil Asherson, Hans Supèr (2022) Atypical cognitive vergence responses in children with attention deficit hyperactivity disorder but not with autism spectrum disorder in a facial emotion recognition task. Psychiatry Research Communications Psychiatry Research 2, 100045 https://doi.org/10.1016/j.psycom.2022.100045

2021

- Nico Bast, Sara Boxhoorn, Hans Supèr, Bartosz Helfer, Leonie Polzer, Christoph Klein, Hannah Cholemkery, Christine M. Freitag (2021) Atypical Arousal Regulation in children with Autism but not with ADHD as indicated by pupillometric measures of Locus Coeruleus Activity. J. Biological Psychiatry: Cognitive Neuroscience and Neuroimaging. https://doi.org/10.1016/j.bpsc.2021.04.010
- Maria Solé Puig, August Romeo, Hans Supèr (2021) Vergence eye movements during figure-ground perception. Consciousness and Cognition 92, 103138 doi: 10.1016/j.concog.2021.103138
- Jiménez EC, Avella-Garcia C, Kustow J, Cubbin S, Corrales M, Richarte V, Esposito FL, Morata I, Perera A, Varela P, Cañete J, Faraone SV, Supèr H, Ramos-Quiroga JA. (2020) Eye Vergence Responses During an Attention Task in Adults With ADHD and Clinical Controls. J Atten Disord. Journal of attention disorders 25 (9), 1302-1310 doi: 10.1177/1087054719897806.
- Elizabeth Carolina Jiménez, Alba Sierra-Marcos, August Romeo, Amin Hashemi, Oleksii Leonovych, Patricia Bustos Valenzuela, Maria Solé Puig, Hans Super (2021). Altered vergence eye movements and pupil response of patients with Alzheimer's disease and mild cognitive impairment during an oddball task. Journal of Alzheimer's Disease Journal of Alzheimer's Disease, 1-13
- Lerer, A., Supèr, H., & Keil, M. S. (2021). "Dynamic Decorrelation as a unifying principle for explaining a broad range of brightness phenomena" Plos Computational Biology PLoS computational biology 17 (4), e1007907
- H Supèr (2021) Telemedicine strategies and digital treatment in mental health during confinement Telemedicine strategies and digital treatment in mental health during confinement. Brains, 29-33

2020

- Jiménez EC, Romeo A, Pérez Zapata L, Solé Puig M, Bustos-Valenzuela P, Cañete J, Varela Casal P, Supèr H. (2020) Eye vergence responses in children with and without reading difficulties during a word detection task. Vision Res.169:6-11. doi: 10.1016/j.visres.2020.02.001
- H Supèr, MS Puig (2020) Eyes converge during figure-ground perception. J of Vision 20 (11)
- S Boxhoorn, N Bast, H Supèr, L Polzer, H Cholemkery, CM Freitag (2020) Pupil dilation during visuospatial orienting differentiates between autism spectrum disorder and attention-deficit/hyperactivity disorder Journal of Child Psychology and Psychiatry 61 (5), 614-624 doi: 10.1111/jcpp.13179.
- H Supèr, MS Puig (2020) Eyes converge during figure-ground perception. J of Vision 20 (11), 111-111.

2019

- García-Baos A, D'Amelio T, Oliveira I, et al. Novel interactive eye-tracking game for training attention in children with attention-deficit/hyperactivity disorder. Prim Care Companion CNS Disord. 2019;21(14):19m02428.
- FL Esposito, H Supèr (2019) Eye vergence responses to novel and familiar stimuli in young children Acta psychologica 193, 190-196

- A Lerer, H Supèr, MS Keil (2019) Luminance gradients and non-gradients as a cue for distinguishing reflectance and illumination in achromatic images: A computational approach. Neural Networks 110, 66-81

2018

- Lerer A, Supèr H, Keil MS. (2018) Luminance gradients and non-gradients as a cue for distinguishing reflectance and illumination in achromatic images: A computational approach. Neural Netw. 110:66-81. doi: 10.1016/j.neunet.2018.11.001.
- Flavia Esposito & Hans Supèr (2017) Vergence responses to face stimuli in young children. Neuroreport (doi: 10.1097/WNR.0000000000000963)
- Paloma Varela, Flavia Lorena Esposito, Imanol Morata, Alba Capdevila, Maria Solé Puig, Núria de la Osa, Lourdes Ezpeleta, Stephen V. Faraone, Josep Antoni Ramos-Quiroga, Jose Cañete, Hans Supèr (2017) Clinical validation of eye vergence as an objective marker for diagnosis of Attention Deficit Hyperactivity Disorder in children. Journal of Attention Disorder (doi: 10.1177/1087054717749931.)

2017

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- Romeo A & Supèr H 2017, 'Two vs one' rivalry by the Loxley-Robinson model', Biological Cybernetics, 111, 5-6, 405 - 420.
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- H Super, J Cañete, SV Faraone, P Asherson, JA Ramos-Quiroga (2017) Neurobiological marker for child and adult ADHD diagnoses European Psychiatry 41, S454-S455

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- A. Romeo, H. Supèr (2016) Onset of global synchrony by application of a size-dependent feedback. ICANN Part 1 LNCS 9886 p 528.
- Alejandro Lerer, Hans Super, Matthias S.Keil (2016) Receptive Fields for Illumination Effects and Brightness Illusions. Perception 45,p138
- Alejandro Lerer, Hans Super, Matthias S.Keil (2016) Neural Network with Local Receptive Fields for Illumination Effects. ICANN Part 2 LNCS 9887 p 549 Doi 10.1007/978-3-319-4478º-0
- Maria Solé Puig, Josep Marco Pallarés, Laura Perez Zapata, Laura Puigcerver, Jose Cañete Crespillo & Hans Supèr (2016) Attentional selection accompanied by eye vergence as revealed by event-related brain potentials. PloS one 11 (12), e0167646
- Florena Esposito, P Varela, E Ozan Alkan, I Morata, N de la Osa, L Ezpeleta, J Cañete Crespillo, H Super. Validation of BGaze method supporting ADHD diagnosis European Psychiatry 33, S135
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- Romeo A, Supèr H (2016) Global oscillation regime change by gated inhibition. Neural Netw. 2016 Oct;82:76-83. doi: 10.1016/j.neunet.2016.06.007.
- F Esposito, H Super Object-based visual attention assessed by eye vergence movements in early infancy Perception 45, 234-234
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- H. Supèr & J. Cañete (2016) Towards an objective diagnosis of ADHD : a role of Cognitive Vergence. Rev Psiquiatr Infanto-Juv.33-397-406.

2015

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10.6.2 Invited book chapters

2014 Precision in matching oriented lines is modulated by perspective and viewing frame Laura Pérez Zapata, J. Antonio Aznar-Casanova, Matthias Keil, Manuel Moreno & **Hans Supèr** In: Advances in Visual Perception Research

2012 **Supèr, H**. Romeo, A, Arall M. Figure-ground responses in the visual cortex. In Visual Cortex, Publ, InTech, , ISBN 980-953-307-044-0

2012 **Supèr, H.** Neurobiological foundations of figure-ground segregation in primates. In: How Animals See the World: Behavior, Biology, and Evolution of Vision. Editors: O. Lazareva ,T. Shimizu ,E. Wasserman, Oxford University Press. . ISBN-10: 0195334655 | ISBN-13: 978-0195334654

2010 Pérez Zapata L, Solé Puig M, **Supèr, H.** What We See and Where We Look: Bottom-Up and Top-Down Control of Eye Gaze In: Eye movement: Theory, Interpretation, and Disorder. Chapter 6 Editor: Dominic P. Anderson Nova Science Publishers Inc. ISBN: 978-1-61728-110-5

2008 Supèr, H. Role of primary visual cortex in oculomotor behavior. In: Visual Perception: New Research, Chapter 8, Editors: Isak l. Nilsson and William V. Lindberg, Nova Science Publishers Inc.

2008 **Supèr, H**. Figure-ground responses in V1 and their role in perception. To appear in: Research Advance in the Cerebral Cortex, (Editor: RM. Mohan, Global Research Network).

2005 **Supèr, H.** Effects of attention on figure-ground responses in the primary visual cortex during working memory. Neurobiology of Attention Chapter 83, Page 502, Editors: L. Itti, G. Rees and J. K. Tsotsos, Elsevier, San Diego, CA, 2005 Mar, isbn = 0-12-375731-2, 744 pages.

10.6.3 Selection of conference abstracts (up to 2016)

- Esposito, F., Varela, P., Alkan, E., Morata, I., De la Osa, N., Ezpeleta, L., . . . Super, H. (2016). Validation of BGaze method supporting ADHD diagnosis. European Psychiatry, 33(S1), S135-S135. doi:10.1016/j.eurpsy.2016.01.211
- A. Romeo, H. Supèr, Onset of global synchrony by application of a size-dependent feedback. poster, 25th International Conference on Artificial Neural Networks (ICANN) 2016,.
- Alejandro Lerer, Matthias S.Keil and Hans Super. Receptive Fields for Illumination Effects. Poster Presentation in Federation of all European Neuroscience Societies (FENS) 2016, Copenhagen.
- Alejandro Lerer, Matthias S.Keil and Hans Super Receptive Fields for Illumination Effects and Brightness Illusions. Poster Presentation in European Conference on Visual Perception (ECVP) 2016, Barcelona.

- Alejandro Lerer, Matthias S.Keil and Hans Super. Neural Network with Local Receptive Fields for Illumination Effects. Poster Presentation in International Conference on Artificial Neural Networks (ICANN) 2016, Barcelona.
- Elizabeth Jiménez, Cristina Torres, Jose Cañete, Hans Supèr. *Attention-related eye vergence responses in Alzheimer Disease. ADPD Vienna 2017*
- Hans Supèr, Jose Cañete, Stephen V. Faraone, Philip Asherson, Josep Antoni Ramos-Quiroga. Neurobiological marker for child and adult ADHD diagnoses. EPA Florance 2017
- *Hans Supèr, Jose Cañete, Stephen V. Faraone, Philip Asherson, Josep Antoni Ramos-Quiroga. Neurobiological marker for child and adult ADHD diagnoses. World ADHD Congress Vancouver, 2017*
- Perceptual Grouping and Feature Based Attention by Firing Coherence Based on Recurrent Connections,poster, European Conference on Visual Perception (ECVP) 2016, Barcelona, Aug 27 - Sept 1, 2016.
- A. Romeo, H. Supèr, Onset of global synchrony by application of a size-dependent feedback, poster, 25th International Conference on Artificial Neural Networks (ICANN) 2016,.
- Alejandro Lerer, Matthias S.Keil and Hans Super. Receptive Fields for Illumination Effects. Poster Presentation in Federation of all European Neuroscience Societies (FENS) 2016, Copenhagen.
- Alejandro Lerer, Matthias S.Keil and Hans Super Receptive Fields for Illumination Effects and Brightness Illusions. Poster Presentation in European Conference on Visual Perception (ECVP) 2016, Barcelona.
- Alejandro Lerer, Matthias S.Keil and Hans Super. Neural Network with Local Receptive Fields for Illumination Effects. Poster Presentation in International Conference on Artificial Neural Networks (ICANN) 2016, Barcelona.
- Paloma Varela , Flavia Esposito Maria Solé Puig , Josep Cañete Crespillo , Hans Supèr Detection of Attention Deficit Hyperactivity Disorder in an clinical population by measuring attention-related eye vergence. 10th International Congress of the INA, Jerusalem, October 14-16, 2015.
- Hans Supèr, Maria Solé Puig, Laura Pérez Zapata, Laura Puigcerver, Flavia Lorena Esposito, Neus Esperalba Lopez, Carmen Sánchez G. del Castillo, Jose Cañete Crespillo. (2014) ATTENTION RELATED EYE VERGENCE IS DISRUPTED IN CHILDREN WITH ADHD. XVI World Congress of Psychiatry, 14-18 September, Madrid, Spain (oral presentation).
- Flavia Lorena Esposito, Maria Solé Puig, Laura Pérez Zapata, Laura Puigcerver, Neus Esperalba Lopez, Carmen Sánchez G. del Castillo, Jose Cañete Crespillo, Hans Supèr (2014) Modulation in attention related eye vergence is disrupted in children with Attention Deficit Hyperactivity Disorder. 22nd European Congress of Psychiatry: EPA 2014, Munich
- Hans Supèr (2014) Role of vergence during eye fixation in orienting visual attention. Vision Science Society, St. Pete Beach, Floriday, USA. (Oral presentation)
- Maria Solé Puig, Laura Pérez Zapata, Laura Puigcerver, Neus Esperalba Lopez, Carmen Sánchez G. del Castillo, Flavia Lorena Esposito, Jose Cañete Crespillo, Hans Supèr (2014) Modulation in attention related eye vergence is disrupted in children with Attention Deficit Hyperactivity Disorder, 2014 Istanbul Eunethydis, Istanbul, Turkey
- Flavia Lorena Esposito, Maria Solé Puig, Laura Pérez Zapata, Laura Puigcerver, Neus Esperalba Lopez, Carmen Sánchez G. del Castillo, Jose Cañete Crespillo, Hans Supèr (2014) Modulation in attention related eye vergence is disrupted in children with Attention Deficit Hyperactivity Disorder. El X Congreso Nacional sobre Trastornos de la Personalidad, 23-25 April, Barcelona, Spain
- Flavia Lorena Esposito, Maria Solé Puig, Laura Pérez Zapata, Laura Puigcerver, Neus Esperalba Lopez, Carmen Sánchez G. del Castillo, Jose Cañete Crespillo, Hans Supèr. (2014) VERGENCIA OCULAR AFECTADA EN NIÑOS DIAGNOSTICADOS CON TRASTORNO POR DÉFICIT DE ATENCIÓN E HIPERACTIVIDAD, 16-18 May, Barcelona, Spain 5º Congreso Nacional sobre el TDAH.
- 2012 M. Arall Estany, A. Romeo, H. Supèr, Simulation of retinal responses to moving objects, Barcelona, Spain 8th Forum of Neuroscience (FENS), Barcelona (Spain) July 14-18, 2012
- Hans Supèr (2011) Feedback enhances feedforward figure-ground segmentation by changing firing mode. BARSYNC, Barcelona, Spain.

- August Romeo & Hans Supèr (2011) Bio-motivated mechanisms for sensory navigation. BARSYNC, Barcelona, Spain.Marina Arall, August Romeo & Hans Supèr (2011) Retinal Vision; a computational approach. BARSYNC, Barcelona, Spain.
- Marina Arall, August Romeo & Hans Supèr (2011) Retinal Vision; a computational approach. Benasque, Spain.
- Sancho Moro, H. Steven Scholte, Hans Supèr (2010) The role of human cortical visual areas in detecting visual saliency. 16th Annual Meeting of the Organization for Human Brain Mapping, June 6-10, 2010Barcelona, Spain.
- Pérez Zapata, L.; Aznar-Casanova, A.; Supèr, H. (2009) Does illusory surface inclination affect eye movements? 3rd Iberian Conference on Perception (CIP-2009) Fechas: 8-10-Julio-2009 Spanish Journal of Psychology, Nov. 2009, Guimaraes, Portugal
- Pérez Zapata, L.; Moreno, M.; **Supèr, H**.; Aznar-Casanova, A. (2009) How does illusory surface inclination affect the accuracy of orientation judgements? 3rd Iberian Conference on Perception (CIP-2009) Fechas: 8-10-Julio-2009 Spanish Journal of Psychology, Guimaraes, Portugal
- Solé Puig, M.; Pérez Zapata, L.; Aznar Casanova, A.; **Supèr, H.** (2009) What fixations reveal about perceptual styles 3rd Iberian Conference on Perception (CIP-2009) Fechas: 8-10-Julio-2009, Spanish Journal of Psychology, Guimaraes, Portugal.
- L.P Zapata, A. Aznar-Casanova and **H. Supèr** (2010) Dissociation of eye movement signals and perception during fixation. 2010 VSS Annual Meeting in Naples, Florida. J Vis August 2, 2010 10(7): 549; doi:10.1167/10.7.549
- Maria Sole Puig, Laura Pérez Zapata, Sancho Moro, Antonio Aznar-Casanova & **Hans Supèr** (2010). Does eye vergence dissociate between covert and overt attention? 2010 VSS Annual Meeting in Naples, Florida. J Vis August 2, 2010 10(7): 157; doi:10.1167/10.7.157
- **Hans Supèr** & August Romeo Backward-masking of figure-ground signal by feed forward inhibition 2010 VSS Annual Meeting in Naples, Florida. J Vis August 2, 2010 10(7): 1212; doi:10.1167/10.7.1212
- Self, M. Supêr ; H and Roelfsema P (2008) Feedforward and feedback processing utilise different glutamate receptors. Soc. Neurosci. Abstr., 769.14.
- Aznar-Casanova, JA; Moreno-Sanchez, M; **Supèr, H** (2007) A role of optical declination in shape constancy. Spanish J. Psychology 10: 477-477.
- **Super, H** (2007) A role of V1 in perceptual decisions. Spanish J. Psychology 10:479-479
- Aznar-Casanova, JA, Miguel, S, **Super, H** (2006) Distortions of visual space in frontoparallel and saggital layouts Perception 35: 39-39, Suppl: S
- **Supèr, H**. and Lamme, V. A. F. (2005). Neural signals in monkey primary visual cortex that predicts direction and latency of saccades. J Vis September 23, 2005 5(8): 976; doi:10.1167/5.8.976
- van der Togt, C. **Super, H**. (2003) Correlated activity reflects target expectation in the monkey visual cortex. 33rd Annual Meeting of the Society of Neuroscience, November 08-12, 2003 New Orleans, LA, USA, Society for Neuroscience Abstracts, Abstract No. 767.9
- **Supèr, H**., Spekreijse, H., & Lamme, V. A. (2003) Transformation of perceptual activity into saccade-related activity in the monkey primary visual cortex. Vision Society for Science, Sarasota, USA, J Vis October 22, 2003 3(9): 23; doi:10.1167/3.9.23
- **Super, H**.; van der Togt, C.; Beldhuis, H. J. A. And Lamme VAF (2001) State of primary visual cortex in the monkey predicts figure-ground perception 31st Annual Meeting of the Society for Neuroscience, San Diego, California, USA, Society for Neuroscience Abstracts 27, 2:1906
- Van der Togt, C.; **Super, H**.; Spekreijse, H. (2001) State change in alert monkey visual cortex during response to visual stimulation: Two phases of visual transmission? 31st Annual Meeting of the Society for Neuroscience, San Diego, California, USA, Society for Neuroscience Abstracts 27, 2:2182
- **H. Supèr**, H. Spekreijse, and V. A. F. Lamme Contextual modulation in primary visual cortex as a neuronal substrate for working memory. J Vis December 12, 2001 1(3): 345; doi:10.1167/1.3.345
- Lamme, VA; **Super, H**; Spekreijse, H (2000) Two district modes of sensory processing revealed by modulations of activity in primary visual cortex of the monkey. Europ J Neurosci. 12:59-59, Suppl: S
- **Super, H;** Spekreijse, H; Lamme, VAF (2000) Neuronal activity in primary visual cortex (V1) of the monkey correlates with speed of behavioral response. EUROPEAN JOURNAL OF NEUROSCIENCE 12:73-73, Suppl: S

- Lamme, VAF; **Super, H**; Landman, R, and Spekreijse, H (2000) The role of primary visual cortex (V1) in visual awareness, Annual Meeting of the Association-for-Research-in-Vision-and-Ophthalmology, Luaderdal Fl,, Vis. Res. 40, 10-12:1507-1521
- **Super, H**; Lamme, VAF; Spekreijse, H (1999) Contextual modulation in monkey primary vision cortex (V1) matches figure-ground perception. Invest. Ophthal & Vis Sci. 40, 4:S357-S357 Meeting Abstract: 1894B802
- Del Rio, J. A.; Soriano, E.; **Supèr, H.,** et al. (1995) Characteristics and functions of Cajal-Retzius cells in organotypic slice cultures of hippocampus and neocortex 25th Annual Meeting of the Society for Neuroscience, San Diego, California, USA, Society for Neuroscience Abstracts 21, 1-3:1779
- **Supèr, H**., Soriano, E. Del Rio, J. A. (1992) Intrinsic and connective organization in the prenatal and early postnatal hippocampus of the mouse. European J Neurosci 182-182 Suppl: 5

10.6.4 Other publications

- **Supèr, H**, (1997) Cajal-Retzius cells and their role in cortical development. *Doctoral thesis*, Vrije Universiteit, Amsterdam, The Netherlands. ISBN 90-9009996-4

11. Present and past group members

- Natalia Pujol (M.Sc. student)
- Patricia Bustos(Ph.d. student)
- Tomas Amalio (M.Sc. student)
- Alba Garcia (M.Sc. student)
- Carolina Jimenez (Ph.d. student)
- Oleksii Leonovych (Ph.d. student)
- Imanol Morata (Ph.d. student)
- Flavia Esposita (Ph.d. student)
- Evi Kriag (M.Sc. student)
- Laura Puigverver(Ph.d. student)
- Alejandro Leher (Ph.d. student)
- Marina Arall (Ph.d. student)
- Antonio Aznar Casanova (Associate professor)
- Juan Lopez Moliner (Associate professor)
- Elisabet Tubau (Associate professor)
- Matthias Keil (Post doctoral student)
- Manual Moreno (Technician)
- Sancho Moro (Post doctoral student)
- Laura Perez Zapata (Ph.d. student)
- Maria Sole Puig (Ph.d. student)
- Borja Rodriquez (Ph.d. student)
- August Romo i Val (Post doctoral student)
- Pol Perez Sust (M.Sc. student)
- Nelson Torro-Alves (visiting Ph.D. student)
- Rob Brogan (visiting student)
- Marina Arall Estany (PhD student)
- Dilek Aslaner (M.Sc. student)
- Erik Corthout(Post doctoral student)
- Matthew Self (Post doctoral student)
- Chris van der Togt (Post doctoral student)

- Jeroen Vermeer (M.Sc. student)
- Nuria Estape Cot (Ph.d. student)

12. Patents

I am the inventor of 5 granted and licensed patents and of 1 submitted patent application

- Umbrella granted patent *PCT/*EP2012/076654. Title: “Method of Measuring Attention”– Priority date 24 April 2012; publication data: 8-11-2016. Nr publication: ES2589000 T3, Inventor: Hendrik Anne Supèr. Patent in: EU, USA, China, Japan, and Brazil
- Measuring and improving attention (EP20382992.4), 17 de November de 2020. Inventor: Hendrik Anne Supèr

13. Public relations

- 2022 Round table discussion. Jornada de Transferencia organized by Inst. Neuroscience UB, 28th April 2022, Start UB, Barcelona
- 2019 Interview http://mataroaudiovisual.cat/noticia/societat/l%E2%80%99empresa-mataronina-braingaze-desenvolupa-videojocs-tractar-tdah
- 2019 Mataro TV Live interview
- 2018 9 May 2018 Nationla Radio Interview, programa de Radio Kanal Barcelona..
- 2017 Interview by El Neuropediatra (https://www.youtube.com/watch?v=Z0oaKT_tavw)
- 2017 Press Paginemediche (https://www.paginemediche.it/benessere/salute-digitale/tecnologie-digitali-per-la-salute-mentale)
- 2017 Press Neurologia Barcelona (https://www.neurologiabarcelona.es/blog/eye-tracking-diagnostico-precoz-del-alzheimer/)
- 2017 Press (http://www.eu-startups.com/2014/10/braingaze-set-to-improve-adhd-diagnosis-with-three-year-collaboration-agreement/)
- 2017 press Adamedtv (http://www.adamedtv.com/tdah/un-videojuego-puede-diagnosticar-el-tdah-en-ninos-entre-7-y-14-anos-gracias-a-la-tecnologia-eye-tracking/)
- 2016 Interview BBC Radio and video by Dan Maunsel
- 2016 Interview TVE2 “Tinc una idea” Spanish National TV
- 2015-2016 Several press releases in international press (Parent Herald, BusinessCloud)
- 2016 CNBC commentary (https://www.cnbc.com/2016/02/18/what-to-expect-from-mobile-world-congress.html)
- 2016 First World Medtech (http://www.firstwordmedtech.com/node/984679?tsid=17)
- 2016 Fettle genie (http://fettlegenie.com/blog/mind-tracking-tech-may-tell-us-why-so-many-children-have-adhd/)
- 2015 Interview CNETT (https://www.cnet.com/news/mind-tracking-tech-may-tell-us-why-so-many-children-have-adhd/)
- 2014 Spanish national newspaper L´ Expansion
- 2013 Spanish national newspaper El Periodico
- 2013 Spanish national newspaper La Vanguardia
- 2013 Radio interview on visual attention with RTVE radio 4 program L’ observatory. El lema és: "L'Observatori: del laboratori a la ciutadania"
- 2011: TV interview (on March 24) about visual consciousness by the television program 314; a scientific divulgation program of the national television TV2, National Spanish television (RTVE). Broadcasted internationally by Channel 24.
- 2010: Jury member of the 2WAYs Brussel festival. The EUSCEA 2WAYS Science Festival took place at the Royal Belgian Institute of Natural Sciences - the Museum - Tuesday 30 November and Wednesday 1 December. The Festival included presentations of the 17 European projects.

- 2009: BrainFair Barcelona: Title of the Project: Mirar pero no ver: cuando la consciencia visual falla (translation: Look but don't see: when visual consciousness fails). An open day for students and general public interested in the brain. During this day I presented examples of conscious and unconscious processing of visual information.
- 2007: ASSOFIA Girona, Spain, ASSOFIA is a association for students to promote activities related to philosophy
- 2002: Live interview on National Dutch Radio (VPRO)
- 2002: Interview Hospital magazine (AMC Magazine)
- 2001: Neurons Fix Memories in the Mind's Eye (Science 293, 27a, comment on my paper in Science)
- 2001: Late responses and perceptual awareness (Nat Neurosci.3, 225-226, comment on my paper in Nature Neuroscience)

14. Technology Transfer

Braingaze
Co-founder and CTO of Braingaze SL, Spain
Braingaze, founded in 2013, develops next-generation Mind Tracking Solutions that predict and identify personal behavior for clinical and commercial applications. We have currently a team of 5 people working for Braingaze.

As a first commercial application Braingaze has clinically validated a unique solution to more objectively diagnose ADHD in children and adults.

Braingaze has licensing and distribution agreements with:
- Luca Healthcare (China, 2022)
- ADMC group (Middle East, 2022)
- TrisPharma (USA, 2023)

Braingaze is backed by investment from:
- SOSV Arthesian
- BP-across
- Capital cell

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