



Hanna Vila Merkle

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Hanna Vila Merkle

Surname(s): **Vila Merkle**
Name: **Hanna**

Current professional situation

Employing entity: Danish Research Centre for Magnetic Resonance (DRCMR) **Type of entity:** University Centres and Structures and Associated Bodies
Department: Centre for Functional and Diagnostic Imaging and Research Copenhagen University Hospital - Amager and Hvidovre
Professional category: Postdoc
City employing entity: Hvidovre, Danmark, Denmark
Start date: 01/12/2022
Type of contract: Temporary employment contract **Dedication regime:** Full time

Previous positions and activities

	Employing entity	Professional category	Start date
	Universitat de València	Predoctoral researcher	01/02/2018

Employing entity: Universitat de València **Type of entity:** University
Department: Anatomía y Embriología Humana, Universitat de València
City employing entity: Valencia, Valencian Community, Spain
Professional category: Predoctoral researcher **Educational Management (Yes/No):** Yes
Start-End date: 01/02/2018 - 11/05/2021 **Duration:** 3 years - 3 months - 11 days
Type of contract: Grant-assisted student (pre or post-doctoral, others)
Dedication regime: Full time
Field of management activity: University



Education

University education

1st and 2nd cycle studies and pre-Bologna degrees

1 University degree: Máster

Name of qualification: Neurociencias Básicas y Aplicadas

City degree awarding entity: Valencia, Valencian Community, Spain

Date of qualification: 20/09/2016

Average mark: Good

Date of homologation: 15/09/2016

2 Name of qualification: Graduado o Graduada en Psicología

City degree awarding entity: Valencia, Valencian Community, Spain

Date of qualification: 20/06/2015

Average mark: Good

Date of homologation: 13/07/2015

Doctorates

Doctorate programme: Programa Oficial de Doctorado en Neurociencias

Degree awarding entity: Universitat de València **Type of entity:** University

City degree awarding entity: Valencia, Valencian Community, Spain

Date of degree: 23/06/2022

Thesis title: Influencia de la estimulación cerebral de la corteza infralímbica en un modelo farmacológico de ansiedad en rata. Estudio anatomofuncional de las diferencias debidas al sexo

Thesis director: Ana Cervera Ferri

Obtained qualification: Cum Laude

Language skills

Language	Listening skills	Reading skills	Spoken interaction	Speaking skills	Writing skills
English	B2	B2	B2	B2	B2
German	C1	C1	C1	C1	C1
Catalan	C2	C2	C2	C2	C2



Teaching experience

Experience supervising doctoral thesis and/or final year projects

Project title: Influencia sobre la glía de la estimulación cerebral profunda de la corteza prefrontal medial: relevancia en trastornos neuropsiquiátricos.

Type of project: End of course project

Entity: Universitat de València

Type of entity: University

City of entity: Burjassot, Valencian Community, Spain

Student: Verónica Prieto Valero

Obtained qualification: Excellent

Date of reading: 20/07/2022

Scientific and technological experience

Scientific or technological activities

R&D projects funded through competitive calls of public or private entities

Name of the project: Modulación de circuitos cortico-mesencefálicos y cortico-limbicos por nuevas terapias antidepressivas

Entity where project took place: Instituto de Salud Carlos III **Type of entity:** Public Research Body

Name principal investigator (PI, Co-PI....): Pau Celada; Ana Cervera Ferri; M^a Teresa Vilaro Comas; Hanna Vila Merkle

Nº of researchers: 4

Start-End date: 2016 - 2020

Total amount: 80.265 €



Scientific and technological activities

Scientific production

Publications, scientific and technical documents

- 1** Hanna Vila Merkle; Alicia Gonzalez Martinez; Rut Campos Jiménez; Joana Martinez Ricos; Vicent Teruel Marti; Ana Lloret; Arantxa Blasco Serra; Ana Cervera Ferri. Sex differences in amygdalohippocampal oscillations and neuronal activation in a rodent anxiety model and in response to infralimbic deep brain stimulation. *Frontiers in Behavioral Neuroscience Emotion Regulation and Processing*. 17 - 43, 23/02/2023.

Type of production: Scientific paper **Format:** Journal

Position of signature: 1

Total no. authors: 8 **Corresponding author:** No

Relevant publication: Yes
- 2** Hanna Vila Merkle; Alicia Gonzalez Martinez; Rut Campos Jiménez; Joana Martinez Ricos; Vicent Teruel Marti; Arantxa Blasco Serra; Ana Lloret; Pau Celada; Ana Cervera Ferri. The Oscillatory Profile Induced by the Anxiogenic Drug FG-7142 in the Amygdala–Hippocampal Network Is Reversed by Infralimbic Deep Brain Stimulation: Relevance for Mood Disorders. *Biomedicines*. 9(7): - 783, 10.3390/biomedicines9070783, 20/07/2021. ISSN 2227-9059

Type of production: Scientific paper **Format:** Journal

Position of signature: 1

Total no. authors: 9 **Corresponding author:** No

Impact source: SCOPUS **Category:** Science Edition - NEUROSCIENCES

Impact index in year of publication: 6.225 **Journal in the top 25%:** Yes

Relevant publication: Yes

Works submitted to national or international conferences

- 1** **Title of the work:** The correlation between in-vitro conduction velocities and myelination provide insights into the role of myelin in nerve signal transmission

Name of the conference: Neuroscience 2023

City of event: Washington, United States of America

Date of event: 11/11/2023

End date: 15/11/2023

Organising entity: Society for Neuroscience

Hanna Vila Merkle; Nikolaj Winther Hansen; Jean-François Perrier; Tim Bjorn Dyrby.
- 2** **Title of the work:** DEMYELINATION OF THE HIPPOCAMPAL COMMISSURE IN ALZHEIMER'S DISEASE

Name of the conference: International Congress of Psychobiology

City of event: Valencia, Valencian Community, Spain

Date of event: 20/07/2022

End date: 22/07/2022

Organising entity: Spanish Society of Psychobiology

City organizing entity: Asturias, Principality of Asturias, Spain



Ana Cervera Ferri; Rut Campos Jiménez; Artemis Tara; Jose Luis Leon; Mari Angeles Lloret; Natalia Castillo; Alicia González Martínez; Hanna Vila Merkle; Ana Lloret.

- 3 Title of the work:** Sexually differentiated response to the antigenic drug FG-7142 and to the infra limbic deep brain stimulation in rats

Name of the conference: International Congress of Psychobiology

City of event: Valencia, Valencian Community, Spain

Date of event: 20/07/2022

End date: 22/07/2022

Organising entity: Spanish Society of Psychobiology

City organizing entity: Asturias, Principality of Asturias, Spain

Ana Cervera Ferri; Hanna Vila Merkle; Alicia González Martínez; Rut Campos Jiménez; Esteban Merino; María Villafranca Faus; Joana Martínez Ricos; Vicent Teruel Martí.

- 4 Title of the work:** Hiperactividad del circuito amígdalo-hipocámpico durante la ansiedad. Reversión por estimulación cerebral profunda

Name of the conference: Congreso de Investigación Biomédica (CIB)

City of event: Valencia, Valencian Community, Spain

Date of event: 10/03/2021

End date: 12/03/2021

Organising entity: Universitat de València

Type of entity: University

City organizing entity: Valencia, Valencian Community, Spain

Ana Cervera Ferri; Hanna Vila Merkle; Alicia González Martínez; Rut Campos Jiménez; Esteban Merino; María Villafranca Faus; Joana Martínez Ricos; Vicent Teruel Martí.

- 5 Title of the work:** STUDY OF THE ANTIDEPRESSANT EFFECT OF NEW GENERATION DRUGS BASED ON GLUTAMATERGIC TRANSMISSION INTRODUCTION & OBJECTIVES METHODS

Name of the conference: 19º Congreso de la Sociedad Española de Neurociencia

City of event: Gerona, Catalonia, Spain

Date of event: 2021

Organising entity: SENC

Esteban Merino; Vicent Teruel Martí; Ana Cervera Ferri; Anna Teruel Sanchis; Sergio Martinez Bellver; Hanna Vila Merkle; Manel Vila Martí; Albert Adell; Joana Martinez Ricos.

- 6 Title of the work:** Disrupted cross frequency coupling related to cognitive impairments in chronic pain

Name of the conference: 12º Congreso de la Federación Europea de Neurociencias (FENS)

City of event: Virtual, United Kingdom

Date of event: 2020

Organising entity: FENS

Gloria Alfosea Cuadrado; Arantxa Blasco Serra; Ana Cervera Ferri; Eva Gonzalez Soler; Marta Igual Lopez; Hanna Vila Merkle; Alicia Gonzalez Martinez; Joana Martinez Ricos; Alfonso Valverde Navarro.

- 7 Title of the work:** Activity of the hippocampus-amygdala-prefrontal networks following electrical stimulation of the Nucleus Incertus

Name of the conference: 18º Congreso de la Sociedad Española de Neurociencia

City of event: Santiago de Compostela, Galicia, Spain

Date of event: 2019

Organising entity: SENC

Alicia Gonzalez Martinez; Hanna Vila Merkle; Maria Villafranca Faus; Esteban Merino; Gloria Alfosea Cuadrado; Arantxa Blasco Serra; Joana Martinez Ricos; Vicent Teruel Martí; Ana Cervera Ferri.



- 8** **Title of the work:** Disrupted cross-frequency coupling biochemical changes related to cognitive impairments in chronic pain
Name of the conference: 18º Congreso de la Sociedad Española de Neurociencia
City of event: Santiago de Compostela, Galicia, Spain
Date of event: 2019
Organising entity: SENC
Gloria Alfosea Cuadrado; Arantxa Blasco Serra; Ana Cervera Ferri; Eva Gonzalez Soler; Marta Igual Lopez; Hanna Vila Merkle; Alicia Gonzalez Martinez; Joana Martinez Ricos; Alfonso Valverde Navarro.
- 9** **Title of the work:** KETAMINE, PSYCHOSIS AND DEPRESSION: WHERE IS THE BOUNDARY?
Name of the conference: 18º Congreso de la Sociedad Española de Neurociencia
City of event: Santiago de Compostela, Galicia, Spain
Date of event: 2019
Organising entity: SENC
Esteban Merino; Danae Raya Salom; N. Massar Vilchis; C. Barber; Vicent Teruel Marti; Albert Adell; Maria Villafranca Fáusticas; Alicia Gonzalez Martinez; Hanna Vila Merkle; Joana Martinez Ricos.
- 10** **Title of the work:** Ketamine modifies the oscillatory effects of dorsal raphe stimulation in the infra limbic and prelimbic cortex in anesthetised rats
Name of the conference: 18º Congreso de la Sociedad Española de Neurociencia
City of event: Santiago de Compostela, Galicia, Spain
Date of event: 2019
Organising entity: SENC
Ana Cervera Ferri; Desiree Otero Bertola; Hanna Vila Merkle; Alicia Gonzalez Martinez; Arantxa Blasco Serra; Joana Martinez Ricos; Vicent Teruel Marti; Pau Celada; Francesc Artigas.
- 11** **Title of the work:** SEX MATTERS: EFFECTS OF ANXIOGENIC DRUG FG-7142 AND DEEP BRAIN STIMULATION OF THE INFRALIMBIC CORTEX ELICITS DIFFERENT PATTERNS BETWEEN MALE AND FEMALE
Name of the conference: 18º Congreso de la Sociedad Española de Neurociencia
Type of participation: Participatory - oral
Reasons for participation: Upon invitation communication
City of event: Santiago de Compostela, Galicia, Spain
Date of event: 2019
Organising entity: SENC
Hanna Vila Merkle; Alicia Gonzalez Martinez; Maria Villafranca Fáusticas; Gloria Alfosea Cuadrado; Arantxa Blasco Serra; Pau Celada; Joana Martinez Ricos; Vicent Teruel Marti; Ana Cervera Ferri.
- 12** **Title of the work:** SEX MATTERS: EFFECTS OF ANXIOGENIC DRUG FG-7142 AND DEEP BRAIN STIMULATION OF THE INFRALIMBIC CORTEX ELICITS DIFFERENT PATTERNS BETWEEN MALE AND FEMALE
Name of the conference: 18º Congreso de la Sociedad Española de Neurociencia
City of event: Santiago de Compostela, Galicia, Spain
Date of event: 2019
Organising entity: SENC
Hanna Vila Merkle; Alicia Gonzalez Martinez; Maria Villafranca Fáusticas; Gloria Alfosea Cuadrado; Arantxa Blasco Serra; Pau Celada; Joana Martinez Ricos; Vicent Teruel Marti; Ana Cervera Ferri.
- 13** **Title of the work:** The stimulation of vomeronasal system elicits longterm potentiation in hippocampus: a component of the social memory
Name of the conference: 18º Congreso de la Sociedad Española de Neurociencia
Reasons for participation: Upon invitation



Type of participation: Participatory - oral communication

City of event: Santiago de Compostela, Galicia, Spain

Date of event: 2019

Organising entity: SENC

Maria Villafranca Faus; Alicia Gonzalez Martinez; Hanna Vila Merkle; Esteban Merino; Ana Cervera Ferri; Joana Martinez Ricos; Quique Lanuza; Vicent Teruel Marti.

14 Title of the work: Activity of the amygdalo-hippocampal circuit under the effect of the anxiety drug FG-7142

Name of the conference: 11º Congreso de la Federacion Europea de Neurociencias (FENS)

City of event: Berlin, Berlin, Germany

Date of event: 2018

Organising entity: FENS

Hanna Vila Merkle; Alicia Gonzalez Martinez; Ana Cervera Ferri; Danae Raya Salom; Joana Martinez Ricos; Maria Villafranca Fáusticas; Pau Celada; Francesc Artigas; Vicent Teruel Marti.

15 Title of the work: Activity of the hippocampus-amygdala-prefrontal networks following electrical stimulation of the Nucleus Incertus

Name of the conference: 11º Congreso de la Federacion Europea de Neurociencias (FENS)

City of event: Berlin, Berlin, Germany

Date of event: 2018

Organising entity: FENS

Alicia Gonzalez Martinez; Hanna Vila Merkle; Ana Cervera Ferri; Danae Raya Salom; Joana Martinez Ricos; Maria Villafranca Fáusticas; Pau Celada; Francesc Artigas; Vicent Teruel Marti.

16 Title of the work: Effect of the application of deep brain stimulation on aberrant cortical beta activity in an animal model of Parkinson's disease

Name of the conference: 11º Congreso de la Federacion Europea de Neurociencias (FENS)

City of event: Berlin, Berlin, Germany

Date of event: 2018

Organising entity: FENS

Maria Villafranca Fáusticas; Alicia Gonzalez Martinez; Hanna Vila Merkle; Danae Raya Salom; Sergio Martinez Bellver; Joana Martinez Ricos; Ana Cervera Ferri; Antonio Gutierrez; Juan Guerrero; Vicent Teruel Marti.

17 Title of the work: CROSS-FREQUENCY COUPLING IN THE HIPPOCAMPO-AMYGDALA-PREFRONTAL NETWORK FOLLOWING STIMULATION OF THE NUCLEUS INCERTUS

Name of the conference: 17º Congreso de la Sociedad Española de Neurociencias (SENC)

Corresponding author: No

City of event: Alicante, Valencian Community, Spain

Date of event: 2017

Organising entity: SOCIEDAD ESPAÑOLA DE NEUROCIENCIA

Hanna Vila Merkle; Alicia Gonzalez Martinez; Ana Cervera Ferri; Sergio Martinez Bellver; Arantxa Blasco Serra; Joana Martinez Ricos; Eva Gonzalez Soler; Pau Celada.

R&D management and participation in scientific committees

Organization of R&D activities

- 1** **Title of the activity:** Jornadas Mujeres en Neurociencia
Type of activity: Scientific activity **Geographical area:** European Union
Convening entity: Universitat de València **Type of entity:** University
City convening entity: Valencia, Valencian Community, Spain
Start-End date: 12/02/2019 - 12/02/2019 **Duration:** 1 day
- 2** **Title of the activity:** Jornadas Mujeres en Neurociencia
Type of activity: Scientific activity **Geographical area:** European Union
Convening entity: Universitat de València **Type of entity:** University
City convening entity: Valencia, Valencian Community, Spain
Start-End date: 12/02/2018 - 12/02/2018 **Duration:** 1 day

Other achievements

Stays in public or private R&D centres

Entity: Ruhr-Universität Bochum **Type of entity:** University Research Institute
Faculty, institute or centre: Institute of Cognitive Neuroscience, Nikolai Axmacher's Lab
City of entity: Bochum, Germany
Primary (UNESCO code): 249000 - Neurosciences
Start-End date: 06/01/2020 - 18/03/2020 **Duration:** 3 months - 12 days
Funding entity: Generalitat Valenciana **Type of entity:** Fondo Social Europeo
Name of programme: Subvenciones para estancias de contratados predoctorales en centros de investigación fuera de la Comunitat Valenciana. BEFPI
Goals of the stay: Research stay
Acquired skills developed: Human EEG, intracranial electrophysiological recordings, Human fMRI and CT analysis