

Curriculum Vitae

Mai-Carmen Requena-Komuro, Ph.D.

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Research Experience

17.02.2025 – Present: Postdoctoral researcher

Institute of Systems Neuroscience, University Medical Center Hamburg-Eppendorf

Primary Supervisor: Prof. Katja Wiech

Secondary Supervisor: Prof. Helen Blank

Treatment Expectation (CRC/TRR 289) – Project A19: Warmth, competence and more: what practitioners can do with their communication

01.05.2024 – 31.01.2025: Postdoctoral researcher

Interdisciplinary Trauma and Stress Research Group, Department of Psychology, Medical School Hamburg

Primary Supervisor: Prof. Annett Lotzin

Effectiveness of psychological interventions in patients with post-traumatic stress disorder (PTSD) and comorbid substance use disorder in comparison to patients with PTSD – a meta-analysis and meta-regression

01.11.2017 – 28.05.2022: Ph.D. researcher

Dementia Research Centre, University College London

4-year Wellcome Trust PhD programme in Neuroscience

Primary Supervisor: Prof. Jason Warren

Subjective time perception in healthy ageing and dementia

1st year: 3 rotations in the research groups of Prof. Nilli Lavie, Prof. Andrew MacAskill, and Prof. Jason Warren

Increased perceptual capacity in autistic adults / Automated vs manual training to study ventral hippocampus circuitry in mice / Time awareness and dementia

01.01.2017 – 31.07.2017: M.Sc. researcher

Department of Psychology, Anatomy, and Genetics / Department of Psychiatry, University of Oxford

2 rotations in the research groups of Prof. Zoltan Molnar and Prof. Morten Kringelbach

Activity-dependent myelination of Layer V projection neurons in a Snap-25 conditional knock-out mouse model / Investigating the neural basis of vocal pitch control

02.05.2016 – 02.09.2016: Research Intern

RIKEN, Brain Science Institute, Molecular Membrane Neuroscience Lab, Wako, Japan

Primary Supervisor: Prof. Yoshio Hirabayashi

The effects of β -Sitosteryl Glucoside on Purkinje Cells Development

01.06.2015 – 31.07.2015: Research Intern

Neuroscience Institute of Montpellier, Department of Plasticity, Montpellier, France

Primary Supervisor: Prof. Norbert Bakalara

To understand the effects of a new drug against glioblastomas

Additional Research Management Experience

03.10.2022 – 30.11.2023: Director of Research Administration, Assistant Professor

Kidney Cancer Program (KCP), UT Southwestern Medical Center, USA

- Managed \$13.2M research grant portfolio by optimizing the yearly budget and preparing annual progress reports on 10 active grants from federal agencies and foundations.
- Actively participated in the development of 5 tailored grant applications to key third-party funding agencies, including a successful postdoctoral fellowship submitted to the Department of Defense, to support innovative translational research projects.
- Led the KCP administration team in daily administrative, financial and communication tasks, notably by implementing weekly meetings, streamlining administrative operations through the development of bespoke Standard Operating Procedures, and driving research staff recruitment efforts by exploring recruitment platforms not previously used.
- Supported the establishment of material/data sharing agreements and confidential disclosure agreements with 3 pharmaceutical companies and 12 academic institutions.
- Evaluated 2 patent application drafts for scope and scientific accuracy together with patent attorneys.
- Encouraged networking and relationship building by organizing a scientific meeting in celebration of the KCP's 10th anniversary and attended by 100 professors, doctors, directors from 40 divisions at UT Southwestern and the Vice Provost and Dean of Basic Science Research, with an average rating of 4.87/5.

01.10.2018 – 28.05.2022: Clinical Study Coordinator

Dementia Research Centre, University College London, UK

- Recruited close to 70 dementia patients and 30 healthy older adults into the observational clinical study “Brain signatures of auditory information processing in neurodegenerative diseases”
- Organised face-to-face and online clinical research visits, administered neuropsychological and neurolinguistic tests, and maintained shared research databases
- Drove efforts to continue dementia research during the COVID-19 pandemic by obtaining ethical approval to collect data from patients remotely using a videoconferencing software and from healthy subjects online using a cloud-based research platform

Academic Publications

First author peer-reviewed original articles

2024

Requena-Komuro M-C⁺, Jiang J, Benhamou E, Sivasathiseelan H, Johnson JCS, Chokesuwattanaskul A, Nelson A, Hardy CJD, Warren JD. Subjective time perception in dementia: a behavioural and neuroanatomical analysis. (submitted)

+ Corresponding author

2022

Requena-Komuro M-C^{*}, Jiang J^{*}, Dobson L, Benhamou E, Russell LL, Bond, RL, Brotherhood EV, Greaves C, Barker S, Rohrer JD, Crutch SJ, Warren JD, Hardy CJD. Remote versus face-to-face neuropsychological testing for dementia research: a comparative study in people with Alzheimer's disease, frontotemporal dementia and healthy older individuals. *BMJ Open*. doi: 10.1136/bmjopen-2022-064576. **Citations: 23**

2020

Requena-Komuro M-C⁺, Marshall CR^{*}, Bond RL, Russell LL, Greaves C, Moore KM, Agustus JL, Benhamou E, Sivasathiseelan H, Hardy CJD, Rohrer JD, Warren JD. Altered time awareness in dementia. *Front. Neurol*. doi: 10.3389/fneur.2020.00291. **Citations: 18**

+ Corresponding author

Selected by Frontiers in Neurology Chief Editor Prof. Miller to be featured in Dementia and Neurodegenerative Diseases Editor's Pick 2021 collection.

Co-author peer-reviewed original articles

2024

Jiang J, Johnson JCS, **Requena-Komuro M-C**, Benhamou E, Sivasathiseelan H, Chokesuwattanaskul A, Nelson A, Nortley R, Weil RS, Volkmer A, Marshall CR, Bamio D-E, Warren JD, Hardy CJD. Comprehension of acoustically degraded emotional prosody in Alzheimer's disease and primary progressive aphasia. *Sci Rep*. doi: 10.1038/s41598-024-82694-z. **Citations: 1**

Prakasam G, Mishra A, Christie A, Miyata J, Carrillo D, Tcheuyap Toffessi V, Ye H, Do QN, Wang Y, Reig Torras O, Butti R, Zhong H, Gagan J, Jones KB, Carroll TJ, Modrusan Z, Durinck S, **Requena-Komuro M-C**, Williams NS, Pedrosa I, Wang T, Rakheja D, Kapur P, Brugarolas J. Comparative genomics incorporating translocation renal cell carcinoma mouse model reveals molecular mechanisms of tumorigenesis. *JCI*. doi: 10.1172/JCI170559. **Citations: 11**

van't Hooft JJ, Benhamou E, Alberro Herreros C, Jiang J, Levett B, Core L, **Requena-Komuro M-C**, Hardy CJD, Tijms BM, Pijnenburg YA, Warren JD. Musical experience influences socio-emotional functioning in behavioural variant frontotemporal dementia. *Front Neurol*. doi: 10.3389/fneur.2024.1341661. **Citations: 4**

2023

Jiang J, Johnson JCS, **Requena-Komuro M-C**, Benhamou E, Sivasathiseelan H, Chokesuwattanaskul A, Nelson A, Nortley R, Weil RS, Volkmer A, Marshall CR, Bamio D-E, Warren JD, Hardy CJD. Comprehension of acoustically degraded speech in Alzheimer's disease and primary progressive aphasia. *Brain*. doi: 10.1093/brain/awad163. **Citations: 10**

2022

Jiang J, Johnson JCS, **Requena-Komuro M-C**, Benhamou E, Sivasathiseelan H, Sheppard DL, Volkmer A, Crutch SJ, Hardy CJD, Warren JD. Phonemic restoration in Alzheimer's disease and semantic dementia: a preliminary investigation. *Brain commun*. doi: 10.1093/braincomms/fcac118. **Citations: 10**

2021

Benhamou E, Zhao S, Sivasathiaselan H, Johnson JCS, Requena-Komuro M-C, Bond RL, van Leeuwen JEP, Russell LL, Greaves C, Nelson A, Nicholas JM, Hardy CJD, Rohrer JD, Warren JD. Decoding expectation and surprise in dementia: the paradigm of music. *Brain commun.* doi: 10.1093/braincomms/fcab173. **Citations: 10**

2020

Jimenez DA, Bond RL, **Requena-Komuro M-C**, Sivasathiaselan H, Marshall CR, Russell LL, Greaves C, Moore KM, Woollacott IOC, Shafei R, Hardy CJD, Rohrer JD, Warren JD. Altered phobic reactions in frontotemporal dementia: A behavioural and neuroanatomical analysis. *Cortex.* doi: 10.1016/j.cortex.2020.05.016. **Citations: 4**

Johnson JCS, Jiang J, Bond RL, Benhamou E, **Requena-Komuro M-C**, Lucy LL, Greaves C, Nelson A, Sivasathiaselan H, Marshall CR, Volkmer AP, Rohrer JD, Warren JD, Hardy CJD. Impaired phonemic discrimination in logopenic variant primary progressive aphasia. *Ann Clin Transl Neurol.* doi: 10.1002/acn3.51101. **Citations: 32**

2019

Korrell KV, Disser J, Parley K, Vadasiute A, Requena-Komuro M-C, Fodder H, Pollart C, Knott G, Molnár Z, Hoerder-Suabedissen A. Differential effect on myelination through abolition of activity-dependent synaptic vesicle release or reduction of overall electrical activity of selected cortical projections in the mouse. *J Anat.* doi: 10.1111/joa.12974. **Citations: 30**

Academic Presentations

Invited presentations

Nov 2021: **British Neuropsychological Society Autumn Meeting**, online
Delivering Neuropsychological Tests Online for Dementia Research in the COVID Era

Jun 2019: **European Neuroscience Conference by Doctoral Students**, London, UK
Altered time awareness in frontotemporal dementia syndromes and Alzheimer's disease

Selected Poster Presentations

Nov 2021: **Society for Neuroscience**, online
Hedonic and semantic modulation of subjective temporal duration in healthy ageing

Jul 2021: **Japan Neuroscience Society**, online
Hedonic and semantic modulation of subjective temporal duration in healthy ageing

Oct 2019: **Society for Neuroscience**, Chicago, USA
Structural neuroanatomy of temporal experience in frontotemporal dementia

Oct 2018: **Institut du Cerveau et de la Moelle Épineuse/Institute of Neurology conference**, Paris, France
Altered time awareness in frontotemporal dementia syndromes and Alzheimer's disease

Mar 2017: **Oxford Neuroscience Symposium**, Oxford, UK
Role of neural activity in myelination

Third-party Funding

2024: Marie Skłodowska-Curie Postdoctoral Fellowship (202,125 EUR) – *declined for administrative purposes*

2022 – 2023: National Institutes of Health/National Cancer Institute
The University of Texas Southwestern Kidney Cancer Specialized Program Of Research Excellence (SPORE)
Co-Director of the Administrative Core; Annual amount (direct costs only): Core A - \$100,066

Higher Education

2017 – 2022: Ph.D. in Neuroscience
4-year Wellcome Trust PhD programme in Neuroscience
Dementia Research Centre, University College London, UK

2016 – 2017: M.Sc. in Neuroscience
University of Oxford, UK

2015 – 2017: Diplôme d'Ingénieur Chimiste
Equivalent to a Master's degree in Chemistry and Chemical Engineering
Minor in Biochemistry and Biology for Health
École Nationale Supérieure de Chimie de Montpellier, France

2014 – 2015: B.Sc. in Chemistry

École Nationale Supérieure de Chimie de Montpellier, France

2011 – 2014: Classes Préparatoires in Mathematics, Physics, and Chemistry

A highly selective three-year intensive undergraduate course preparing for the very competitive national entrance examination to French 'Grandes Écoles'

Lycée Privé Sainte Geneviève, France

Scholarships & Awards

2017 – 2022: Wellcome Trust Four-year PhD studentship in Science (177,000 GBP)

2015 – 2016: Erasmus mobility grant to support my studies at the University of Oxford (3,000 EUR)

Technical skills & experience

Ethic approval applications: Preparing applications to obtain ethical approval to conduct minimal risk studies in human subjects

Recruitment of human study subjects: Dementia patients, caregivers, young and older adults; both online (third-party recruitment platform Prolific) and in-person

Psychological task design: Temporal bisection task, detection task, auditory and visual perceptual load task, auditory discrimination task, go/no-go task

Data collection types and modes: Online (Labvanced) and in-person: neuropsychological and neurolinguistic assessments; psychophysical data; in-person only: audiometry, pupillometry

Neuroimaging: Voxel-based morphometry analysis in Statistical Parametric Mapping (SPM)

Programming: MATLAB: psychophysics, custom functions for automated analysis of datasets; **Python:** hierarchical drift-diffusion modelling, data visualization

Statistical analysis: Inferential and Bayesian statistics, multilinear and logistic regression models, linear mixed models, ROC curves, meta-analysis and meta-regression using JASP, SPSS, STATA, and R

Scientific writing & reviewing: research grant applications to major US third-party funders and progress reports; manuscripts published in peer-reviewed journals (see list of academic publications); ad-hoc reviewer for scientific journals (Current Psychology, BMJOpen)

Science management: Budget development and management for research grants; processing requests for material transfer and confidential disclosure agreements; maintaining and expanding network of collaborators; organizing seminars and symposiums; reviewing draft patent applications

Teaching

2021: Developed and taught a 10-week remote practical course on MATLAB programming for the analysis of psychophysical data for psychology students

2019: Taught random field theory to incoming PhD students on the Methods for Dummies program of the UCL Wellcome Centre for Human Neuroimaging

2017 – 2022: Developed course material for the UCL MSc Clinical Neuroscience

2017 – 2022: Trained incoming PhD and MSc students on the administration of neuropsychological and neurolinguistic tests to dementia patients

Supervising and mentoring

Secondary Supervisor

2020: 1 Master Student, UCL M.Sc. Clinical Neuroscience

Thesis title: “Development of a new scoring system to assess written sentence construction in primary progressive aphasia”; student passed with Distinction

Mentor

2022 – 2023: 4 Postdoctoral Researchers, Kidney Cancer Program, UT Southwestern Medical Center, USA

Provided extensive feedback on science and advice for effective written, spoken, and visual communication for one fellowship application to the Department of Defense which was successful, one progress report, two manuscripts and six talks

2021: 3 Undergraduate Students, UCL Connect.ed Society mentorship programme, UK
Initiated students to MATLAB programming for the analysis of psychophysical data on time perception

Public engagement

07.2023: Patient Annual Event, Kidney Cancer Program

Participated in the organization of the 2023 Patient Annual Event after 3 years of absence, featuring a review of a decade of kidney research and clinical achievements, a case study, multiple panel discussions with experts, and a talk by patient advocates. The event was attended by +250 kidney cancer patients and their families and was well appreciated.

04.2023: “Do we have a sense of time”, CrowdScience, BBC World Service

Presented my PhD research in this interview by Anand Jagatia on the topic of time perception alongside world experts including Dr. Marc Wittmann and Professor György Buzási. Podcast available online.

05.2022: “Let’s Go Fly a Kite”, London Chinese Community Center

Co-organized a one-day event aimed at reducing stigma associated to dementia diagnosis within London-based Chinese communities, by securing funding from the UCL Train and Engage public engagement program (400 GBP), preparing presentation materials in 3 languages (English, Mandarin, Cantonese), incorporating a craft-making activity, and inviting neurologists and psychology researchers for a Q&A session. The event was very well received.

02.2021: Primary Progressive Aphasia Support Group, Rare Dementia Support

Presented (virtually) a research update with opportunities for participating in remote research for primary progressive aphasia patients and their caregivers at this quarterly support group.

02.2020: “Brain Banks, Expand Minds”, MindTorch

Participated in a panel discussion to share insights about my journey through science and academia to a group of 40 A-level students from Lilian Baylis School.

07.2019: UCL Queen Square Institute of Neurology

Engaged in 1h long conversation on the topic “How did I get to where I am now?” to 7 A-level students interested in a career in medicine or science.

06.2019: #Brain Power, UCL

Submitted a successful proposal to present the lab’s diverse research at this public event celebrating the 10th anniversary of UCL Neuroscience Domain, coordinated the preparation of fun and interactive activities accessible to both children and senior adults using original media (music, laughter and other speech clips, audio-visual illusions), and oversaw the lab presence at the exhibit stand which attracted +30 people at any given time and received positive feedback.