

## Curriculum Vitae – Wei Xu

### Basic information

Surname: Xu  
First name: Wei  
Gender: Male  
Date of birth: 7<sup>th</sup> Jan 1985  
Email: wei0xu@gmail.com; [wei.xu@ncl.ac.uk](mailto:wei.xu@ncl.ac.uk)

### Academic employment history

2022-present: Postdoctoral researcher, Edinburgh University, Ian Duguid lab  
2021-2022: Postdoctoral researcher, Edinburgh University, Jian Gan lab  
2015-2021: Postdoctoral researcher, Newcastle University, Andrew Jackson lab  
2014-2015: Postdoctoral researcher, Newcastle University, Stuart Baker lab

### Education and training

2012-2014: Trainee doctor, National Health Service Newcastle hospitals. No longer clinically active.  
2010-2012: MB/BChir (clinical medicine), Cambridge University  
2007-2010: PhD Neuroscience (intercalated MB/PhD programme), Cambridge University  
2003-2006: BA (preclinical medicine, physiology), Cambridge University

### Awards and grants

2019: British Sleep Society travel grant.  
2019: Physiological society travel grant.  
2019: Wellcome Institutional Strategic Support Fund 'Broadening Our Horizons scheme' grant to set up independent collaboration with laboratory of Professor Richard Apps at Bristol University.  
2011: Travel grant to visit laboratory, Physiological society.  
2010: Travel grant to attend Physiological society conference, Physiological society.  
2009: Travel grant to attend Society for Neuroscience conference, Guarantors of Brain.  
2009: Travel grant to attend Society for Neuroscience conference, Pembroke College, Cambridge University.  
2005: Vacation studentship, Pembroke College, Cambridge University.

### Invited talks

2019: Bristol University department of Biomedical Sciences.

### Teaching experience

2016-2021: Supervision of project and master students in the lab.  
2012-2013: Bedside teaching of clinical medical students.  
2006-2009: Teaching undergraduate physiology and neuroscience in small group settings.

### Collaborators

- Dr Fiona Le Beau, Newcastle University.
- Dr Mark Baker, Royal Victoria Infirmary, Newcastle.
- Dr Yi Ng, Royal Victoria Infirmary, Newcastle
- Professor Richard Apps, Bristol University.

*Peer-reviewed publications*

\*Indicates joint-first author.

***Papers from postdoc in Andrew Jackson's lab***

<b>Authors</b>	<b>Title</b>	<b>Year</b>	<b>Journal</b>
<b>Xu W*</b> , De Carvalho F*, Jackson A	Conserved Population Dynamics in the Cerebro-Cerebellar System between Waking and Sleep	2022	<i>J Neurosci</i> 2022, 9415-9425
<b>Xu W</b> , De Carvalho F, Clarke A K, Jackson A	Communication from the cerebellum to the neocortex during sleep spindles	2021	<i>Progress in Neurobiology</i> 2021, 199, 101940
Luo J, Firflionis D, Turnbull M, <b>Xu W</b> , Walsh D, Escobedo-Cousin E, Soltan A, Ramezani R, Liu Y, Bailey R, Idil A, O'Neil A, Donaldson N, Constandinou T, Jackson A, Degenaar P	The Neural Engine: A Reprogrammable Low Power Platform for Closed-loop Optogenetics	2020	<i>IEEE Transactions on Biomedical Engineering</i> 2020, 67(11), 3004-3015
<b>Xu W*</b> , De Carvalho F*, Jackson A	Sequential neural activity in primary motor cortex during sleep	2019	<i>J Neurosci</i> 2019, 1408-18
Susilaradeya D, <b>Xu W</b> , Hall TM, Galan F, Alter K, Jackson A	Extrinsic and Intrinsic Dynamics in Movement Intermittency	2019	eLife 2019;8:e40145

***Papers from postdoc in Stuart Baker's lab***

<b>Authors</b>	<b>Title</b>	<b>Year</b>	<b>Journal</b>
Kurz A*, <b>Xu W*</b> , Wiegel P, Leukel C, Baker, SN	Non-invasive assessment of superficial and deep layer circuits in human motor cortex	2019	<i>J Physiol</i> 2019, 597(12), 2975-2991
<b>Xu W</b> , Baker SN	In vitro characterization of intrinsic properties and local synaptic inputs to pyramidal neurons in macaque primary motor cortex	2018	<i>Eur J Neurosci</i> 2018, 48, 2071–2083
<b>Xu W</b> , Baker SN	Timing Intervals Using Population Synchrony and Spike Timing Dependent Plasticity	2016	<i>Frontiers in Computational Neuroscience</i> 2016, <b>10</b> , 123.

***Papers from PhD***

<b>Authors</b>	<b>Title</b>	<b>Year</b>	<b>Journal</b>
<b>Xu W</b> , Jones S, Edgley SA	Event time representation in cerebellar mossy fibres arising from the lateral reticular nucleus	2013	<i>J Physiol</i> 2013, 591(4), 1045-1062
<b>Xu W</b> , Edgley SA	Cerebellar Golgi cells in the rat receive convergent peripheral inputs via a lateral reticular nucleus relay	2010	<i>Eur J Neurosci</i> 2010, <b>32</b> (4), 591–597.

<b>Xu W</b> , Edgley SA	Climbing fibre-dependent changes in Golgi cell responses to peripheral stimulation	2008	<i>J Physiol</i> 2008, 586(20), 4951-4959.
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***Papers from undergraduate***

<b>Authors</b>	<b>Title</b>	<b>Year</b>	<b>Journal</b>
Chen Z, Hothi SS, <b>Xu W</b> , Huang CL	Conduction velocities in amphibian skeletal muscle fibres exposed to hyperosmotic extracellular solutions.	2007	<i>J Muscle Res Cell Motil</i> 2007, <b>28</b> (4), 195-202.
Usher-Smith JA*, <b>Xu W</b> *, Fraser JA, Huang CL	Alterations in calcium homeostasis reduce membrane excitability in amphibian skeletal muscle	2006	<i>Pflugers Arch</i> 2006, 453(2), 211-221.

***Conference presentations***

2019:	UK Sensorimotor Conference	Talk
2018:	Society for Neuroscience annual meeting	Poster
2017:	Society for Neuroscience annual meeting	Poster and talk
2017:	UK Sensorimotor Conference	Poster
2016:	UK Sensorimotor Conference	Talk
2013:	European Calcified Tissue Society Congress	Poster
2010:	Physiological society annual meeting	Talk
2009:	Society for Neuroscience annual meeting	Poster
2007:	Physiological society annual meeting	Poster

***Skills***

- MATLAB programming.
- Python programming.
- Arduino and Raspberry Pi programming.
- Computational modelling.
- In-vivo electrophysiological recording methods in anaesthetised and awake animals.
- In-vitro electrophysiological recording methods in rodent and primate brain tissue.