

Research activities

Studies of normal and special populations, including neurological patients with damage to the brain or the peripheral nervous system, contribute to understanding the underlying neural representations of the static and dynamic properties of the environment and the effect or system that allow people to perceive and act effectively on objects.



(<http://www.adobe.com/go/getflashplayer>)

Some of the research being carried out in the Posture and Balance Laboratory.

Many everyday tasks require cooperative actions between people. Recently we have been studying control of interpersonal collaboration in tasks including handing over objects between people, walking and talking together in a corridor and playing in a musical ensemble. In these examples we are using quantitative models to characterise sensory and motor factors in reactive and predictive adjustments in space and time.

Current projects

UK RC funding

- 2011-2014 BBSRC "Probing light touch contributions to elderly balance" International partnering award AM Wing with Mark Redfern, Pittsburgh) £21k
- 2012-2015 Building structure and group synchronisation. EPSRC project grant. AM Wing, MT Elliott. £500k (FEC) over 3 years. Twin grant with J Brownjohn, Sheffield Mech Eng

- 2012-2014 Clinical efficacy of functional strength training for upper limb motor recovery early after stroke: neural correlates and prognostic indicators. NIHR EME. V Pomeroy, NS Ward, H Johansson Berg, P van Vliet, J Burridge, S Hunter, R Lemon, J Rothwell, C J Weir, J Norrie, A Wing, GR Barton (£129k to UB out of total cost of £1,369k
- 2012-2017 Centre for Musculoskeletal Ageing Research MRC AR UK J Lord, A Wagenmakers, P Greenhaff, G Kitas, P Stewart, J Gladman, J Tomlinson, C Buckley, M Grey, J Duda, F Falciani, A Wing. £3544k (4/5 to UB).
- 2012-2014 Performance-based selective training for robot-mediated upper limb motor learning and stroke rehabilitation. RC Miall, AM Wing, J.Wyatt, O Rosenthal. MRC project £500k

Charity funding

- 2010-2014 Phase shifts in metronome-cued training of hemiparetic gait. (Stroke Association Ref: TSA 2009/06. £150k Wing AM, Sackley C, Pratt D).

EU funding

- 2009-2013 NANOBIO TOUCH: EU FP7 Nanotechnologies TBA STREP. AM Wing chair of technical committee with coordinator Prof M Adams and others: 450 k€ to UOB Psych out of a total 3745 k€
- 2011-2013 NWO, Netherlands "Localisation errors during movements" Rubicon fellowship for Femke Maij with AM Wing. 147 k€
- 2011-2014 CogLaboration: Successful Real World Human-Robot Collaboration: From the Cognition of Human-Human Collaboration to the Cognition of Fluent Human-Robot Collaboration. Challenge 2: Cognitive Systems and Robotics Objective ICT-2011-7-2.1.a: Robotic systems operating in real-world environments. EU FP7 STREP AM Wing, RC Miall, C Giachristis with S Martinez (coordinator), Treelogic, Spain. 500k€ to UOB Psych out of Total 2,520 k€.
- 2011-2014 CogWatch: Cognitive Rehabilitation of Apraxia and Action Disorganisation Syndrome. Challenge 5: ICT for Health, Ageing Well, Inclusion and Governance Objective ICT-2011.5.1.a2: Rehabilitation of stroke and neurological conditions. EU FP7 STREP AM Wing (coordinator), GW Humphreys, MJ Riddoch, C Giachristis. 1206 k€ to UOB Psych out of a total 3.650 k€.

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