

Alastair S Macdonald AGSA FRSA FHEA FDRS
Professor, Senior Researcher School of Design
The Glasgow School of Art, 167 Renfrew Street, Glasgow G3 6RQ, Scotland

telephone ++ 44 (0) 141 353 4715
email a.macdonald@gsa.ac.uk
website <http://bit.ly/profalastairmacdonald>
outputs [http:// http://radar.gsa.ac.uk/profile/197](http://http://radar.gsa.ac.uk/profile/197)

Research Portfolio

Professor Alastair Macdonald is Senior Researcher School of Design at The Glasgow School of Art, heading a compact team of researchers and doctoral students with a focus on design-led research for age, health and care, operating at the interface between design, health and care practice, and people's experience of products and services, using evidence-based approaches.

In 2018, he won 'best research' category in the inaugural AHRC / Wellcome Health Humanities Medal awards. Alastair is the design research lead for a number of inter-disciplinary projects encompassing healthcare service design innovation. His portfolio encompasses work in spinal cord injury, stroke rehabilitation, hospital nutrition, end-of-life care for dementia, and hospital associated infections. This research is funded through UK research council grants (EPSRC, ESRC, AHRC and MRC), the National Institute for Healthcare Research and charitable trusts.

Recent research grants

AMR Sim: A Microbial Reality Simulator for Veterinary Training and Practice: AHRC AMR Theme 3b grant. PI 2017-2019. Grant Ref: AH/R002088/1 <http://www.gsa.ac.uk/research/health-wellbeing/amrsim/>
HAIVAIRN (Healthcare Associated Infection Visualisation and Ideation Research Network) project, AHRC Network grant, PI. 2016-2017. Grant Ref: AH/N006429/1 <http://visionon.org/haivairn/>. **visionOn:** staff training tool for the prevention of healthcare associated infections: AHRC Follow-on grant. PI, 2015-2016. Grant Ref: AH/M00628X/1 <http://visionon.org>. **seed:** supporting excellence in end of life care in dementia via an integrated care pathway (ICP) NIHR Programme Grant. Co-I (PI Robinson, Newcastle) (2013-2018). Grant Ref: RP-PG-0611-20005 <http://research.ncl.ac.uk/seed/>. **vis-invis:** visualising the invisible: developing innovative approaches to visualisation to help NHS staff prevent and control healthcare associated infections. AHRC/SFC, A Healthier Scotland initiative. (2011-2012) Partner (PI Macduff, Robert Gordon University). **mappmal:** multidisciplinary approach to develop a prototype for the prevention of malnutrition in older people: products, people, places and procedures ESRC New Dynamics of Ageing Programme (2008-2011). Co-I (PI Moynihan, Newcastle). Grant Ref: RES-354-25-0001. Leading to hospitalfoodie: a demonstration prototype for an innovative food and nutrition management system designed to address malnutrition issues in hospital patients. <https://vimeo.com/35915591> **envisage:** a means to promote independence by involving users in their physical rehabilitation through the use of visualisation methods, supported by the MRC's Lifelong Health and Wellbeing programmes. (2010-2013). Co-I. (PI Rowe, Strathclyde) Grant Ref: GO900583. **envision:** innovation in envisioning dynamic biomechanical data to inform healthcare and design guidelines and strategy ESRC New Dynamics of Ageing Programme (2007-2009). PI. Grant Ref: RES-352-25-0005 <http://www.newdynamics.group.shef.ac.uk/envision.html>
design+rehab: the use of design approaches to assist rehabilitation of spinal cord injuries patients conducted jointly with the Queen Elizabeth National Spinal Injuries Unit in Glasgow, part of a larger nationwide project supported by the Royal Society of Arts, PI. **InclusiveCAD:** Integration of biomechanical and psychological parameters of functional performance of older adults into a new CAD package for inclusive design. EPSRC EQUAL (Extending QUALity of Life) initiative. (2002-2005). Co-I. (PI Nicol, Strathclyde) Grant Ref: GR/R26856/01. **age+japan:** Great Britain Sasakawa Foundation (GBSF) award - research into inclusive approaches to housing (2014); GBSF Butterfield Awards - healthcare provision for ageing and disabled populations (2007-2010). Japan Foundation Research Fellowship (2004), Royal Academy of Engineering Global Research Award (2004).

Convivial workshop design

He has developed bespoke participative co-design workshops, involving key stakeholders, for: government architects (in Singapore); masters business and management students from developing and transitional regions (in Japan); consumer manufacturing companies (in Japan); and as a common element in the above projects.

Publications / outputs

Full list of publications available at: [http:// http://radar.gsa.ac.uk/profile/197](http://http://radar.gsa.ac.uk/profile/197)

Selected recent publications / outputs

- Macdonald, A. S. & Macduff, C. (2018).** *HAIVAIRN: Report on the HAIVAIRN network grant funded by the Arts and Humanities Research Council.*
http://visionon.org/sites/default/files/files/HAIVAIRN_Final_online.pdf
- Macdonald, A.S. (2018)** In: Walker, A. (ed.). Evaluating the visualisation of dynamic biomechanical data for healthcare and design, *New Dynamics of Ageing 1*. 12: 235-256. University of Bristol, Policy Press.
- Kjellgren, H., Tishelman, C., **Macdonald, A.**, Lindqvist, O., & Goliath, I. (2018). Not just things: The roles of objects at the end of life, *Sociology of Health and Illness*. <https://doi.org/10.1111/1467-9566.12719>
- Moynihan, P., Methven, L., Teal, G., Bamford, C. & **Macdonald, A.S.** (2018) In: Walker, A. (ed.). Combating malnutrition in hospitals, *New Dynamics of Ageing 2*. 10: 177-196. University of Bristol, Policy Press.
- Macdonald, A.S., Neves, S., McLellan, E., Poole, M., Harrison-Dening, K., Tucker, S., Bamford, C. & Robinson. (2018).** Co-designing new resources to support better quality end of life care with people with dementia and family carers. *Journal of Dementia Care*. 26(1) January/February; 28-31.
- Macdonald, A.S. (2017)** Negotiating design in sceptical territory: lessons from healthcare. In: R. Cooper and E. Tsekles (eds), *Design for Health*, 17: 319- 335. Farnham: Gower.
- Macdonald, A.S., Macduff, C., Loudon, D. & Wan, S. (2017).** Evaluation of a visual tool co-developed for training hospital staff on the prevention and control of the spread of healthcare associated infections. *Infection, Disease & Health*. DOI: 10.1016/j.idh.2017.06.002
- Robert, G. & **Macdonald, A.S. (2017)** Co-design, organisational creativity and quality improvement in the healthcare sector: 'designerly' or 'design-like'? In: D. Sangiorgi and A. Prendiville (eds), *Designing for service: contemporary issues and novel spaces*. London: Bloomsbury. 9: 117-130
- Ballinger, C., Loudon, D., Taylor, A. & **Macdonald, A.S. (2016).** Rehabilitation professionals' perceptions of the use of new visualisation software tools with people with stroke, *Disability and Rehabilitation: Assistive Technology*, 11(2): 139-149.
- Loudon, D., Taylor, A. & **Macdonald, A.S. (2014).** The use of qualitative design methods in the design, development and evaluation of virtual technologies for healthcare: stroke case study. In Ma, M., Jain, L., A. & Anderson, P. (eds.) *Virtual and Augmented Reality in Healthcare 1*. Springer-Verlag, Berlin Heidelberg. 371-390.
- Macdonald, A.S. (2013).** The inner resource: enabling the designer within us all - a case study. *The Design Journal*, 16(2): 175-196.
- Macdonald, A.S., Teal, G., Bamford, C., and Moynihan, P.J. (2012)** *Hospitalfoodie: an inter-professional case study of the redesign of the nutritional management and monitoring system for vulnerable older hospital patients.*

Research supervision SEDA qualified for Supervising Postgraduate Research

Primary Supervisor for a number of PhD students mainly researching and developing the application of design-led research approaches within the ageing, health and care fields including: Sondas M. Rawas: 'An Ethnographic Approach to a Design-led Enquiry into Cross Cultural Inhabitation' (*Commenced 2016*). Gemma Wheeler 'An investigation of the relevance and integration of contemporary design approaches into spinal cord injury rehabilitation' (*PhD, Awarded 2018, AHRC Collaborative Doctoral Award*). Gayle Rice: 'A practical exploration into the use and effect of visual communication tools in social work practice'. (*PhD, Awarded 2016*). Sandra Neves 'Enjoy your meal: design tools and strategies to improve the post-stroke mealtime experience in rehabilitation'. PhD (*Awarded 2015, funded by the Fundacao para a Ciencia e a Tecnologia, Portugal*). Ji-Wei Wu 'Improving the understanding of the innate abilities and coping strategies of visually impaired people (VIP): an analysis and modelling of the variables and their spatial navigational abilities'. (*PhD, Awarded 2014*). Andy McDonald: Craft customisation: an investigation into the use of generative systems and physical interfaces to develop co-design experiences that enhance the value of digitally printed textile products. (*PhD, Awarded 2014, AHRC doctoral award*). David Loudon: Towards a design tool for visualizing the functional demand placed on older adults by everyday living tasks (*PhD, Awarded 2010*). Chris Lim: Age and generation effects: handling complex user interfaces and implications for inclusive design (*PhD, Awarded 2008*)