



Call for Expression of Interest
Marie Skłodowska-Curie Postdoctoral Fellowship
(HORIZON-MSCA-2024-PF-01-01)

The University of Malta (UM) is interested in hosting Marie Skłodowska-Curie Action fellows to work in its research teams and welcomes expressions of interest from excellent post-doctoral researchers to apply for the Postdoctoral Fellowship call.

University of Malta (UM) is the sole public and highest teaching institution in Malta, with its structures being in line with the Bologna Process and the European Higher Education area. UM has a 400-year history and there are over 11,500 students including 1,000 foreign/exchange students from nearly 92 different countries, following fulltime or part-time degree and diploma courses. Around 3,500 students graduate each year. UM is comprised of 14 Faculties and several other campuses: at Valletta, Marsaxlokk and Gozo. As of 2020, the UM employed a total of 2,848 employees including academics, administrative, technical and industrial staff (1,885 on a full-time basis and 963 on a part-time basis). Over the past ten years, the UM has been involved as coordinator and partner in numerous EU-funded projects under various Programmes including Horizon Europe, Horizon 2020, FP7, Erasmus+, Lifelong Learning Programme, INTERREG, National Funding and various other international and national programmes and initiatives. The UM is also represented in a number of European and International University networks and groups.

[Faculty of Media and Knowledge Sciences](#)

[Department of Cognitive Science](#)

The Department of Cognitive Science at the University of Malta is a small, research-focused academic group with access to a range of dedicated facilities, including eye-tracking, EEG and a VR/AR lab. Active research areas include vision, attention, psycholinguistics, speech & language processing, memory and decision making. The University of Malta provides a friendly, campus-based environment where inter-departmental collaborations are encouraged. Malta itself, is a safe, easily accessible island offering the quality of life and climate to be expected from one of EU's most southerly states.

The Department of Cognitive Science at the University of Malta is seeking a creative, behavioural scientist with experience in vision and attention research. The intended project will focus on multiple-target visual search. In addition to experience in designing and conducting human behavioural studies, programming skills, experience with EEG techniques, computational modelling and/or eye tracking designs would be welcome. The primary investigator for the intended project will be Professor Ian Thornton (<https://ianthornton.com>). Over the last two decades Professor Thornton has pioneered the development of multiple-target search paradigms, first with the Multiple-Item Localisation Task (MILO; Thornton & Horowitz, 2004;2020) and subsequently by helping to popularise human foraging studies (Kristjánsson et al., 2014; Thornton et al., 2021). While classic, single-target visual search (Treisman & Gelade, 1984; Wolfe & Horowitz, 2017) has taught us much about vision and attention, extending this paradigm to include within-trial temporal context (MILO) and target-category switching (Foraging) has also helped us better understand the constraints humans face when searching in more complex environments. The ideal candidate will have experience with conducting traditional behavioural studies involving visual search – or a closely related field – and a keen interest in helping



to develop and test new variants of multiple-target search displays. The precise plan for the direction of the research is open to discussion and will depend on the past experience and interests of both the PI and the candidate.

References

Kristjánsson, Á., Jóhannesson, Ó. I., & Thornton, I. M. (2014). Common Attentional Constraints in Visual Foraging. *PLoS ONE*, 9(6), e100752. <https://doi.org/10.1371/journal.pone.0100752>

Thornton, I. M., & Horowitz, T. S. (2004). The multi-item localization (MILO) task: Measuring the spatiotemporal context of vision for action. *Perception & Psychophysics*, 66(1), 38–50. <https://doi.org/10.3758/BF03194859>

Thornton, I. M., & Horowitz, T. S. (2020). Searching Through Alternating Sequences: Working Memory and Inhibitory Tagging Mechanisms Revealed Using the MILO Task. *i-Perception*, 11(5), 204166952095801. <https://doi.org/10.1177/2041669520958018>

Thornton, I. M., Nguyen, T. T., & Kristjánsson, Á. (2022). Foraging tempo: Human run patterns in multiple-target search are constrained by the rate of successive responses. *Quarterly Journal of Experimental Psychology*, 75(2), 297-312. <https://doi.org/10.1177/1747021820961640>

Treisman, A., & Gelade, G. (1980). A Feature-Integration Theory of Attention. *Cognitive Psychology*, 12(1), 97–136. [https://doi.org/doi:10.1016/0010-0285\(80\)90005-5](https://doi.org/doi:10.1016/0010-0285(80)90005-5)

Wolfe, J. M., & Horowitz, T. S. (2017). Five factors that guide attention in visual search. *Nature Human Behaviour*, 1(3), 0058. <https://doi.org/10.1038/s41562-017-0058>

Research Field: Social Sciences and Humanities (SOC)
Life Sciences (LIF)

Keywords: Cognitive Science

The selected candidates will receive dedicated support from the supervisor [Prof. Ian M Thornton](#), and the Research Support Services Directorate to write a successful proposal and submission.

Interested candidates must be in possession of a doctoral degree with not more than 8 years post PhD research experience and must not have resided in Malta for more than 12 the past during the past 3 years. Furthermore, their research interests should be relevant to the above project. Kindly send a covering letter and CV to the corresponding supervisor, [Prof. Ian M Thornton](#), keeping in copy funding.rssd@um.edu.mt with 'MSCA-PF-2024 'candidate name'' as the email subject by **24 May 2024**.