

THE UNIVERSITY OF NOTTINGHAM

Recruitment Role Profile Form

- Job Title:** Marie Skłodowska-Curie Early Stage Researcher
- School/Department:** MRC/CSO Institute of Hearing Research – Scottish Section, Division of Clinical Neuroscience, School of Medicine
- Job Family and Level:** Research and Teaching Offscale
- Contract Status:** This post will be offered on a fixed-term contract for a period of 36 months
- Hours of Work:** Full time – 36.25 per week
- Location:** MRC/CSO Institute of Hearing Research – Scottish Section, Glasgow Royal Infirmary, Glasgow
- Reporting to:** Dr Graham Naylor

Purpose of the New Role

The role is to conduct research and data analysis and to participate in a European network and training programme. HEAR-ECO will assess how task demands, motivation, and invested effort modulate speech understanding and hearing-aid benefit in daily life. The Early Stage Researchers (ESRs) will work together to creatively combine three established measures of listening effort, and to develop innovative conditions for testing hearing aids. Moreover, this research will develop bold new tests, analysis techniques, and technologies that will create more realistic listening conditions. As an Early Stage Researcher in this project, you will receive extensive training throughout the project. You will become capable of spanning the relevant disciplines and translating your knowledge into innovative hearing-aid evaluation and development.

Background

In today's aging European population, hearing impairment is an increasing concern for public health and social participation, affecting one in three older adults. The H2020 EC Marie-Curie ITN project 'Innovative Hearing Aid Research – Ecological Conditions and Outcome Measures' (HEAR-ECO) addresses this concern by developing and combining new tools and outcome measures for realistic communication, and translating these tools into innovative developments and evaluations of new technology for those with hearing loss. At its core, HEAR-ECO will train a new team of researchers working at the nexus of technology, psychology, physiology and audiology.

Objectives

The main objective of this post is to develop innovative measures of motivation and fatigue in realistic listening situations. The study will develop assessments of the influence of motivation and fatigue on pupillometry measures of listening effort. Motivation and fatigue will be influenced by the systematic manipulation of stimulus complexity, reward, and feedback in communication settings. The student will also examine the interaction between motivation, fatigue, and hearing aid settings on listening effort (measured by pupillometry and possibly by EEG indices).

Training context

The six ESRs at the core of HEAR-ECO will work as an international multi-site, multi-disciplinary team. Three ESRs will primarily train in Amsterdam, Netherlands (VU University Medical Center);

the three other ESRs will primarily train in Glasgow, UK (University of Nottingham in Glasgow). All six ESRs will also have an extended secondment together in Denmark at one of the largest hearing-aid manufacturers in the world (Oticon Eriksholm Research Centre, Snekkersten). This particular post will be looking at innovative integrations of listening effort measures, but will also be involved in

- Explorative studies in new biomarkers of effort and motivation
- Pupillometry,
- Brain activity (e.g. EEG),
- Heart activity (including training with associated partner at Liverpool John Moores University)
- Ambulatory measurements of physiological measures,
- Developments of realistic communication scenarios,
- Novel hearing-aid technologies and evaluations.

	Main Responsibilities	% time per year
1.	Joint experimental research project at the Institute of Hearing Research and in secondments	60%
2.	Preparation of scientific publications and possible research proposals	15%
3.	Writing reports, managing tools for collaborative research and being in charge of meeting agenda and minutes	10%
4.	Meetings (HEAR-ECO, national & international conferences)	10%
5.	General tasks in the research group	5%

Knowledge, Skills, Qualifications & Experience

	Essential	Desirable
Qualifications/ Education	<p>Excellent degree (qualifying the candidate for PhD studies) in Social, experimental or cognitive psychology, Neuroscience or neuropsychology, Biomedical or Health Sciences, Audiology, Psychophysics, Engineering, or related fields.</p> <p>At the time of recruitment, candidates must be in the first four years of their research careers (full-time equivalent research experience after qualifying degree) and have not yet been awarded a doctoral degree</p>	
Skills/Training	<p>Ability to adapt to a multi-disciplinary context</p> <p>Experimental psychology methods, including statistics</p>	<p>Basic understanding of psychology & physiology of hearing</p> <p>Signal processing and/or programming languages</p>
Experience	<p>Behavioural research</p> <p>Experience with presenting scientific work in oral and/or written formats</p>	<p>Already worked within a research team</p> <p>Experience with pupillometry, EEG, and/or hearing aids</p>
Personal Qualities	<p>Ability to work efficiently in a team</p> <p>Pro-active</p> <p>Excellent communication skills</p>	

	Ability to spend extended periods in different locales	
Other	Fluent in oral and written English.	
Statutory/Legal	Eligibility criteria for Early Stage Researchers in Marie Skłodowska-Curie ETN Programmes http://ec.europa.eu/research/participants/data/ref/h2020/wp/2016_2017/main/h2020-wp1617-msca_en.pdf	

Additional Information

<p>Apply for this position via the following link: https://tinyurl.com/HearEcoESR</p> <p>All applicants will be considered for all six posts within the HEAR-ECO project.</p> <p>Enquiries on this specific post may be addressed to Dr Graham Naylor: graham.naylor@nottingham.ac.uk. For enquiries about the HEAR-ECO project, contact Dr Adriana Zekveld at VUmc, Amsterdam: aa.zekveld@vumc.nl. Please note that applications sent directly to these email addresses will not be accepted.</p> <p>Permission to work in the UK Please note that applicants for this post will be considered on an equal basis, subject to the relevant permission to work in the UK as defined by the requirements set out by UK Visas & Immigration. Please visit: https://www.gov.uk/government/organisations/uk-visas-and-immigration for more information.</p> <p>The successful applicant will be required to satisfy the eligibility criteria for Marie Skłodowska-Curie Early Stage Researchers. That is:</p> <ul style="list-style-type: none"> - All applicants for all posts must be within the first four years (full-time equivalent) of their research career, and - Applicants for this post must not have resided or carried out their main activity (work, studies, etc.) within the UK for more than 12 months in the three years immediately prior to their recruitment.
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Further information is available at <http://ec.europa.eu/research/mariecurieactions/>

Appendix 1

The University of Nottingham has a reputation for world-class research, which has yielded major scientific breakthroughs such as Nobel-winning MRI techniques, drug discovery, food technologies and engineering solutions for future economic, social and cultural progress. We are now ranked 8th in the UK on a measure of 'research power' which takes into account both the quality of research and the number of research-active staff, confirming Nottingham's place in the top tier of the world's elite higher education institutions.

University of Nottingham School of Medicine has as its mission to improve human health and quality of life locally, nationally and internationally through outstanding education, research and patient care. The School comprises eleven Divisions, covering a diverse range of medical and surgical disciplines. In the 2014 Research Excellence Framework (REF) exercise, 80% of our research was graded as world-leading or internationally excellent. We work closely with industry and the NHS. For more information, see <http://www.nottingham.ac.uk/medicine>

Ethos and principles:

1. **Having people and patients at the heart of all we do:** our teaching and learning, our research and our patient care
2. **Contribution within the School of Medicine and to society** beyond our immediate roles; helpfulness and service
3. **Openness and fairness**, with particular emphasis on communication (both internal and external) and on equality and diversity among students and staff
4. **Personal and group responsibility** for all aspects of our work, within a culture of opportunity and reward

The MRC Institute of Hearing Research is organized within the Division of Clinical Neuroscience, where we also have close links to the hearing theme of the NIHR Nottingham Biomedical Research Centre. See <http://www.nottingham.ac.uk/mrcihr/index.aspx> .

The **Scottish Section** of the Institute of Hearing Research is housed within self-contained state-of-the-art facilities in the Glasgow Royal Infirmary, in central Glasgow. Our group comprises eight full-time research and support staff, along with several PhD students and postdoctoral fellows. The Scottish Section is jointly funded by the UK Medical Research Council and the Chief Scientist Office of the Scottish Government.

Glasgow

Scotland's largest city, Glasgow is a vibrant and cosmopolitan place with something for everyone. It is one of the UK's leading retail centres and has a huge variety of restaurants, bars and nightclubs which attract people from all over the UK. Culturally, it has excellent theatres, multiple arenas attracting national and international talent along with a vast array of smaller venues catering to all tastes, and is a bastion of British modern art. Glasgow is also steeped in history, from the Antonine Wall in Roman times, to the Scottish Enlightenment with its blossoming of intellectual progress in the 18th and 19th centuries, and Shipbuilding on the River Clyde in the 20th. Impressive works by architects such as Charles Rennie Mackintosh dominate the city centre and surrounds. Glasgow is also known for sport, being the home of four Scottish Premier League clubs, and hosting national fixtures at Hampden Park.

Glasgow is a great base for lovers of the outdoors. Within the city is one of Europe's largest greenspaces, Pollok Country Park. The hills of the Campsies and mountains of the Loch Lomond and Trossachs National Park lie just north of the city, and the Highlands and Western Isles are easily reached by bus, car or train. The countryside around is dotted with numerous places of historical, cultural and natural interest.

There is a good network of roads with easy access to motorways, and frequent rail and air services to other major UK cities. Housing is relatively inexpensive and there are excellent schools and colleges available.

To find out more about Glasgow, use the following links:

Attractions & events in Glasgow <https://peoplemakeglasgow.com/>

Glasgow City Council www.glasgow.gov.uk

The world's friendliest city <https://www.roughguides.com/gallery/the-worlds-friendliest-cities-as-voted-by-you/>

Scotland – tourism www.visitscotland.com/