



Cardiff
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JOB DESCRIPTION

Job Title: _____ **Clinical Researcher in Paediatric Audiology**

School: **Cardiff School of Sport & Health Sciences**

Location: **Llandaff Campus**

Grade: **6 (SCP 33)**

Salary: **£37,467 per annum (pro-rata)**

Tenure: **6 months fixed-term**

Hours: **18.5 hours per week (0.5 FTE)**

Accountable to: **Principal Investigator**

Introduction:

The Speech, Hearing and Communication research group at the Cardiff Metropolitan University involves interdisciplinary research and national and international collaborations. One of the research activities is the development of innovative approaches to understanding the dynamic characteristics of sound energy transmission in the human middle ear through analysis of energy absorbance configurations, and 3D middle ear computer modelling (<https://www.nature.com/articles/s41598-021-89588-4>).

Currently we are seeking to appoint a part-time clinical researcher in Paediatric Audiology for the NIHR funded project: *Development of an Artificial Intelligence System for the Automated Diagnosis of Otitis Media with Effusion in Children* (<https://www.nhsx.nhs.uk/ai-lab/ai-lab-programmes/ai-health-and-care-award/ai-health-and-care-award-winners/>). The project aims to develop Artificial Intelligence (AI) models for the automatic diagnosis of otitis media with effusion (OME). According to the study design, we plan to conduct clinical trials for AI model verification by collecting audiological data from children living with OME.

Role Summary:

The post holder will be expected to perform a middle ear measurement using a commercialised device called Wideband Absorbance Immitance (WAI), working closely with paediatric audiology services led by a Consultant Audiovestibular Physician and a Paediatric Consultant in at the Noah's Ark Children's Hospital for Wales and the Child Health Centre in St David's Hospital, Cardiff and Vale University Health Board. The post holder will be also participate in data analysis, feedback on

model cross evaluation and verification, manuscript preparation, and dissemination activities.

Principal Duties and Responsibilities:

1. To liaise with the clinical collaborators and schedule the data collection activities;
2. To set up the WAI measurement system and conduct the clinical data collection safely and accurately;
3. To work collaboratively in providing feedback on cross evaluation and verification of the deep learning tools;
4. To analyse the data and summarise results of experiments in a timely fashion;
5. To search the scientific literature relating to the project and to monitor new developments in the field of study;
6. To prepare and present work at research seminars and other departmental meetings as required;
7. To contribute to progress reports on the research from time to time as required by the funder for the review purposes;
8. To contribute to the drafting and submission of papers to appropriate peer reviewed journals.

Additional Information:

A full range of audiological facilities will be available for this project, including Wideband Absorbance Immittance system, B&K acoustic measuring system, video otoscope, clinical audiometers, otoacoustic emissions, hearing aid analysers and auditory brainstem response recording system. The latest version of SPSS and MATLAB software are available for data analysis.

Standard Notification

These guidelines are provided to assist you in the performance of your contract. The university is a dynamic organisation; therefore changes may be required from time to time. Any changes will be made in consultation with the post-holder. The Summary of Duties and Responsibilities is not intended to be an exhaustive list of tasks performed. Other associated technical tasks are likely to be performed as directed by the line manager.

It is accepted that individual staff will have a specialist skills and knowledge base in relation to the role they have been appointed to. In addition to this, Cardiff Metropolitan University expects that all staff will contribute to the vision and ethos of the university and conduct themselves in a professional, courteous and student/customer focused manner at all times. All staff should have particular regard for their responsibilities under Cardiff Metropolitan University's Equalities, Financial, Environmental and Sustainability, Human Resources and Health and Safety policies and procedures.



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PERSON SPECIFICATION

Post: Clinical Researcher in Paediatric Audiology

Unit/School: Cardiff School of Sport and Health Sciences

***Key**

A - Application form

I - Interview

T/P - Test/Presentation

FACTORS	ESSENTIAL AND DESIRABLE CRITERIA	ASSESSED BY		
		A*	I*	T/P*
Education & Qualifications (Essential)	A good UG or PG degree in Audiology	X		
Education & Qualifications (Desirable)	PhD in applied healthcare professions or or AuD degree	X		
	RCCP or HCPC registration	X		
	Membership of a relevant professional body.	X		
Knowledge (Essential)	Knowledge of middle ear anatomy and physiology	X	X	
	Knowledge of paediatric audiological assessment techniques	X	X	
Knowledge (Desirable)	Knowledge of multiple frequency tympanometry (e.g., WAI)	X		
	Knowledge of bio-engineering modelling and AI techniques	X		
Skills & Abilities (Essential)	Ability to perform paediatric hearing assessments safely and accurately	X	X	
	Ability to analyse the data independently and summarise the results of experiments in a timely fashion	X	X	
	Ability to demonstrate effective written and verbal communication skills	X	X	
Skills & Abilities (Desirable)	Ability to understand or develop Matlab codes for WAI data analysis	X	X	
	Applied statistical analysis	X	X	

FACTORS	ESSENTIAL AND DESIRABLE CRITERIA	ASSESSED BY		
		A*	I*	T/P*
Experience Paid/Unpaid (Essential)	Research experience in the field of hearing and speech pathology sciences	X	X	
	Substantial working experience of paediatric hearing assessments	X	X	
	Experience of presenting findings (orally and in report format)	X		
Experience Paid/Unpaid (Desirable)	Experience of working on a research project within a multidisciplinary research environment	X	X	
	Experience of conducting clinical trials and data management	X	X	
	A publication record in professional journals	X		
	Experience of grant formulation and submission.			
Other Requirements (Essential)	Excellent record keeping skills and attention to detail	X		
	Flexible attitude towards working patterns		X	
	Able to work both autonomously and as part of a team		X	✗
	The appointment of the successful applicant will be subject to a Disclosure and Barring Service check (DBS, previously CRB).			X
Other Requirements (Desirable)	Willingness to travel and operate between campuses as required		X	
	Willingness to undertake further training		X	

*Please note that a criminal record may not necessarily be a bar to obtaining employment in Cardiff Metropolitan University. For further information on Disclosure and Barring Service (DBS, previously CRB) please go to <https://www.gov.uk/crb-criminal-records-bureau-check>