

# Job Description and Person Specification

Last updated: November 2016

## JOB DESCRIPTION

Post title:	<b>Senior Research Fellow in Micro-NMR Systems</b>		
Academic Unit/Service:	Chemistry		
Faculty:	FNES		
Career Pathway:	Education, Research and Enterprise (ERE)	Level:	5
*ERE category:	Research pathway		
Posts responsible to:	Professor of Magnetic Resonance		
Posts responsible for:			
Post base:	Office-based/Non Office-based (see job hazard analysis)		

Job purpose
To lead the design, fabrication, and application of micro-NMR systems in accordance with the TISuMR FETOPEN H2020 project under the supervision of the project Director. To undertake leadership, management and engagement activities associated with the TISuMR project. To pursue opportunities for research funding, in particular in the form of personal fellowship grants.

Key accountabilities/primary responsibilities	% Time
1. Lead the design, fabrication, optimisation, and application of micro-scale NMR systems within the remit of the TISuMR project, sustaining a personal research plan, and supervising and taking responsibility for the research team.	50 %
2. Establish a national reputation by sustaining the regular dissemination of findings through leading peer-reviewed publications, presenting results at conferences, or exhibiting work at other appropriate events.	15 %
3. Carry out management and administrative tasks associated with the TISuMR project, including risk assessment of project activities, organisation of project meetings and documentation and preparation of scientific reports.	5 %
4. Identify and pursue research funding opportunities, in particular personal fellowship grants	10 %
5. Carry out occasional student supervision, demonstrating or lecturing duties within own area of expertise.	5 %

Key accountabilities/primary responsibilities	% Time
6. Any other duties as allocated by the line manager following consultation with the post holder.	15 %

Internal and external relationships
<p>Responsibility to TISuMR research award holder/project director (Prof. Marcel Utz).</p> <p>As a senior member of the project team, will coordinate the day-to-day activities of research and technician staff under the guidance of the project director.</p> <p>Collaborators and colleagues in other work areas and institutions.</p>

Special Requirements
<p>To attend national and international conferences for the purpose of disseminating research results.</p>

## PERSON SPECIFICATION

Criteria	Essential	Desirable	How to be assessed
Qualifications, knowledge and experience	<p>PhD or equivalent professional qualifications and experience in Electrical Engineering, Experimental Physics, Physical chemistry, or a related field</p> <p>Growing and consistent national reputation in electrical engineering, experimental physics, physical chemistry, or a related field</p> <p>Working knowledge of CAD tools (SolidWorks, EAGLE CAD, COMSOL, or equivalent packages)</p> <p>Experience in providing engineering solutions towards research in physical chemistry, experimental physics or a related field</p> <p>Capable of leadership in the design and fabrication of advanced research apparatus</p>	<p>PhD in the field Nuclear Magnetic Resonance method development and/or hardware design</p> <p>Growing and consistent national reputation in design and operation of advanced magnetic resonance equipment</p> <p>Experience in providing engineering solutions towards research in advanced magnetic resonance</p> <p>Experience in leading the design and fabrication of advanced research apparatus</p> <p>Experience with advanced NMR spectroscopy</p> <p>Knowledge of microfabrication techniques and clean room procedures</p> <p>Experience in the design and operation of microfluidic systems</p>	<p>CV, interview, references</p> <p>CV, Publications</p> <p>CV, interview, references</p> <p>CV, interview, references</p> <p>CV, interview, references</p> <p>CV, interview, references</p> <p>CV, interview, references</p> <p>CV, interview, references</p>
Planning and organising	Proven ability to organise a range of high quality research activities to deadline and quality standards, ensuring plans complement broader research strategy	Able to build and lead a research team	CV, References, Interview
Problem solving and initiative	Able to apply originality in modifying existing approaches to solve problems		interview, references
Management and teamwork	<p>Able to manage, motivate and coordinate research team, delegating effectively.</p> <p>Able to undertake coordinating role within MagRes section</p> <p>Able to monitor and manage resources and budgets</p> <p>Work effectively in a team, understanding the strengths and weaknesses of others to help teamwork development</p>		Interview, references
Communicating and influencing	Communicate new and complex information effectively, both verbally and in writing, engaging the interest		Interview, references

	<p>and enthusiasm of the target audience</p> <p>Track record of presenting research results at group meetings and conferences</p> <p>Able to persuade and influence at all levels in order to foster and maintain relationships</p> <p>Able to resolve tensions/difficulties as they arise</p> <p>Able to provide expert guidance to colleagues in own team, other work areas and institutions to develop understanding and resolve complex problems</p>		
Other skills and behaviours	<p>Compliance relevant Health &amp; Safety issues</p> <p>Positive attitude to colleagues and students</p>		Interview, references
Special requirements	Able to attend national and international conferences to present research results		Interview, references

## JOB HAZARD ANALYSIS

### Is this an office-based post?

<input type="checkbox"/> Yes	If this post is an office-based job with routine office hazards (eg: use of VDU), no further information needs to be supplied. Do not complete the section below.
<input checked="" type="checkbox"/> No	If this post is not office-based or has some hazards other than routine office (eg: more than use of VDU) please complete the analysis below.  Hiring managers are asked to complete this section as accurately as possible to ensure the safety of the post-holder.

## - HR will send a full PEHQ to all applicants for this position. Please note, if full health clearance is required for a role, this will apply to all individuals, including existing members of staff.

ENVIRONMENTAL EXPOSURES	Occasionally (<30% of time)	Frequently (30-60% of time)	Constantly (> 60% of time)
Outside work			
Extremes of temperature (eg: fridge/ furnace)			
## Potential for exposure to body fluids			
## Noise (greater than 80 dba - 8 hrs twa)			
## Exposure to hazardous substances (eg: solvents, liquids, dust, fumes, biohazards). Specify below:			
Frequent hand washing			
Ionising radiation			
Strong magnetic fields (>5G)	X		
EQUIPMENT/TOOLS/MACHINES USED			
## Food handling			
## Driving university vehicles(eg: car/van/LGV/PCV)			
## Use of latex gloves (prohibited unless specific clinical necessity)			
## Vibrating tools (eg: strimmers, hammer drill, lawnmowers)			
PHYSICAL ABILITIES			
Load manual handling			
Repetitive crouching/kneeling/stooping			
Repetitive pulling/pushing			
Repetitive lifting			
Standing for prolonged periods			
Repetitive climbing (ie: steps, stools, ladders, stairs)			
Fine motor grips (eg: pipetting)			
Gross motor grips			
Repetitive reaching below shoulder height			
Repetitive reaching at shoulder height			
Repetitive reaching above shoulder height			
PSYCHOSOCIAL ISSUES			
Face to face contact with public			
Lone working			
## Shift work/night work/on call duties			