


POSITION DESCRIPTION

Senior Diagnostic Imaging Medical Physicist (Nuclear Medicine)

Our CORE Values	Collaboration Openness Respect Empowerment	
Organisation	NSW Health	
Local Health District /Agency	Illawarra Shoalhaven Local Health District	
Position Number	110679	
Cost Centre	175150	
Position Classification	Senior Medical Physics Specialist (Nuclear Medicine)	
State Award	Public Hospital Medical Physicist (State) Award 2024	
Does this role manage or supervise others?	No	
Vaccination Category	B	
Website	http://www.islhd.health.nsw.gov.au/	

PRIMARY PURPOSE (max 3,800 characters with spaces)

The Senior Diagnostic Imaging Medical Physicist (Senior DIMP) in Nuclear Medicine will lead and manage all medical physics related activities in the ISLHD Nuclear Medicine service. They will have a leading role in implementation of new clinical techniques and technologies as well as relevant research and clinical trial support. The Senior DIMP will provide education and training for hospital staff and participate in education of patients and carers as required. The Senior DIMP will ensure the highest possible standards are achieved in collaboration with the physicians, medical radiation scientists (MRS's) and other scientific staff. The Senior DIMP will also provide general physics support and collaborate with the ISLHD Radiation Safety Officer to ensure radiation safety within the diagnostic imaging (radiology) service of Illawarra Shoalhaven Medical Imaging (ISMI) as required.

KEY ACCOUNTABILITIES (max 3,800 characters with spaces)

- The development and implementation of Quality Control procedures for all nuclear medicine related equipment, including gamma cameras, dose calibrators and counting equipment.
- The development and maintenance of software programs and/or implementation of software packages to provide quantitative analysis of images obtained from nuclear medicine imaging equipment.
- Calibration and quality control of radiation safety equipment such as area monitors, survey meters and radionuclide calibrators as required by legislation and relevant guidelines.
- Provide physics leadership in imaging, dosimetry and radiation safety related to theranostic nuclear medicine at ISLHD.
- Provide physics and radiation safety assessments (including site initiation and equipment qualification requirements) for nuclear medicine clinical trials and research projects within ISLHD.

- Provision of radiation protection services to the Nuclear Medicine Department including:
 - Education and advice to staff, patients, carers and hospital management
 - Regulatory compliance with NSW legislation, national guidelines and relevant accreditation standards
 - Monitoring of staff and patient doses according to Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) and other relevant guidelines including patient and fetal dosimetry calculations when necessary
 - Management of radiation safety for radioisotope imaging and therapy, including any radioactive contamination and waste disposal.
 - Radiation incident reporting consistent with regulatory obligations
 - Assessment and verification of radiation shielding for medical imaging facilities within ISLHD.
- Membership of ISLHD Radiation Safety Committee and collaboration with the ISLHD Radiation Safety Officer (RSO) to ensure radiation safety across the ISLHD medical imaging service.
- Participate in medical imaging equipment purchasing processes (in conjunction with the ISLHD Managed Equipment Service) including tender development and review, product selection, oversight of installation and acceptance testing.
- Education and training of Advanced Medical trainees including tutoring and supervision of trainees undertaking the Australasian Association of Nuclear Medicine Specialists (AANMS) Basic Clinical Sciences course.
- Education and training of clinicians and medical radiation scientists in the use of new equipment (hardware and software) fostering an ability to detect abnormalities and malfunctions.
- Participation in, and organisation of, departmental continuing education program, research and journal meetings.
- Supervision and training of any Nuclear Medicine DIMP trainee physicist positions established within ISLHD.

SELECTION CRITERIA (max 8 selection criteria)

1. ACPSEM Registration and Certification as a Medical Physics Specialist - Nuclear Medicine.
2. MSc or PhD in physics or medical physics as recognised by ACPSEM.
3. Eligible to hold a NSW Environmental Protection Authority (EPA) Radiation Use Licence in categories IA17 and S1.
4. At least 5 years post certification experience and ability to work unsupervised in all areas of medical imaging physics, with demonstrated experience in acceptance, commissioning and quality assurance (QA) of Nuclear Medicine imaging equipment.
5. High level of clinical medical physics skills relevant to imaging and theranostics with evidence of key contributions to the development of clinical techniques and procedures.
6. Relevant experience in computing and its application to medical imaging, theranostics and medical research.
7. Commitment to professional development and a track record of research and publications appropriate to opportunity.
8. Demonstrated ability to work and provide medical physics leadership in a multidisciplinary team to provide an excellent clinical service.

KEY CHALLENGES (max 3 key challenges – 1,000 character limit **with spaces** in each field)

1. Ability to work as the sole Nuclear Medicine Physicist for ISMI to efficiently manage the clinical medical physics responsibilities across all sites as needed.
2. The provision of radiation safety support for ISMI whilst balancing clinical workload, education, professional development and research projects.
3. Effective and meaningful communication with a wide range of ISLHD staff, including medical physicists, clinical directors, staff specialists (in radiology, nuclear medicine and other disciplines using imaging services), nuclear medicine technologists, radiographers and other staff working with ISMI.

KEY RELATIONSHIPS (max 3 internal and 2 external key relationships – 200 character limit **with spaces** in each field)

WHO	WHY
Clinical Director – Nuclear Medicine (in conjunction with the service chief NM technologist)	Direct reporting line manager.
ISLHD Radiation Safety Officer	Collaboration with ISLHD RSO as the RSO delegate responsible for Radiation Safety within Nuclear Medicine and Medical Imaging
Equipment vendors	Equipment purchase and servicing related issues

DRAFT

JOB DEMANDS CHECKLIST

Definitions

* Denotes a critical requirement of the job

Frequency

I	Infrequent – intermittent activity exists for a short time on a very infrequent basis	C	Constant – activity exists for more than 2/3 of the time when performing the job
O	Occasional - activity exists up to 1/3 of the time when performing the job	R	Repetitive – activity involves repetitive movements
F	Frequent – activity exists between 1/3 and 2/3 of the time when performing the job	N/A	Not applicable – activity is not required to perform the job

CRITICAL *	PHYSICAL DEMANDS - DESCRIPTION (comment)	FREQUENCY					
		I	O	F	C	R	N/A
	Respirator use - Wearing of a respirator, to ensure protection against exposure to respiratory pathogens/ hazardous materials			X			
	Sitting Remaining in a seated position to perform tasks			X			
	Standing Remaining standing without moving about to perform tasks			X			
	Walking Floor type: even/uneven/slippery, indoors/outdoors, slopes			X			
	Running Floor type: even/uneven/slippery, indoors/outdoors, slopes	X					
	Bend/ Lean Forward from Waist Forward bending from the waist to perform tasks	X					
	Trunk Twisting Turning from the waist while sitting or standing to perform tasks	X					
	Kneeling Remaining in a kneeling posture to perform tasks	X					
	Squatting/ Crouching Adopting a squatting or crouching posture to perform tasks	X					
	Leg/ Foot Movement Use of leg and or foot to operate machinery	X					
	Climbing (stairs/ladders) Ascend/ descend stairs, ladders, steps, scaffolding	X					
	Lifting/ Carrying	Light lifting & carrying – 0 – 9kg	X				
		Moderate lifting & carrying – 10 – 15kg	X				
		Heavy lifting & carrying – 16kg and above	X				
	Reaching Arms fully extended forward or raised above shoulder	X					
	Pushing/ Pulling/ Restraining Using force to hold/restrain or move objects toward or away from body	X					
	Head/ Neck Postures Holding head in a position other than neutral (facing forward)	X					
	Hand & Arm Movements Repetitive movements of hands & arms			X			
	Grasping/ Fine Manipulation Gripping, holding, clasping with fingers or hands			X			
	Work at Heights Using ladders, footstools, scaffolding, or other objects to perform work	X					
	Driving Operating any motor powered vehicle	X					

CRITICAL *	SENSORY DEMANDS - DESCRIPTION (comment)	FREQUENCY					
		I	O	F	C	R	N/A
	Sight Use of sight is an integral part of work performance eg viewing of X-rays, computer screen				X		
	Hearing Use of hearing is an integral part of work performance eg telephone enquiries				X		
	Smell Use of smell is an integral part of work performance eg working with chemicals	X					
	Taste Use of taste is an integral part of work performance eg food preparation	X					

	Touch Use of touch is an integral part of work performance				X		
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CRITICAL *	PSYCHOSOCIAL DEMANDS – DESCRIPTION (comment) Assisting ↓	FREQUENCY					
		I	O	F	C	R	N/A
	Distressed people eg. emergency or grief situations	X					
	Aggressive & uncooperative people eg. drug/alcohol, dementia, mental illness	X					
	Unpredictable people eg. dementia, mental illness, head injuries	X					
	Restraining Involvement in physical containment of patients/clients	X					
	Exposure to distressing situations eg child abuse, viewing dead/mutilated bodies						X

CRITICAL *	ENVIRONMENTAL HAZARDS – DESCRIPTION (comment)	FREQUENCY					
		I	O	F	C	R	N/A
	Dust Exposure to atmospheric dust	X					
	Gases Working with explosive or flammable gases requiring precautionary measures	X					
	Fumes Exposure to noxious or toxic fumes	X					
	Liquids Working with corrosive, toxic or poisonous liquids or chemicals requiring PPE			X			
	Hazardous substances eg. dry chemicals, glues	X					
	Noise Environmental/background noise necessitates people to raise their voice to be heard	X					
	Inadequate lighting Risk of trips, falls or eyestrain	X					
	Sunlight Risk of sunburn exists from spending more than 10 minutes per work day in sunlight	X					
	Extreme temperatures Environmental temperatures are < 15°C or > 35°C	X					
	Confined spaces Areas where only one egress (escape route) exists	X					
	Slippery or uneven surfaces Greasy or wet floor surfaces, ramps, uneven ground	X					
	Inadequate housekeeping Obstructions to walkways and work areas cause trips & falls	X					
	Working at heights Ladders/stepladders/ scaffolding are required to perform tasks	X					
	Biological hazards eg. exposure to body fluids, bacteria, infectious diseases	X					