Royal Free London NHS
NHS Foundation Trust

PERSON SPECIFICATION
POST TITLE: PRINCIPAL PHYSICIST

PRINCIPAL PHYSICIST		Essential (E) Desirable (D)	Assessed through: App Form (A) Interview (I)
Royal Free World Class Values	• Demonstrable ability to meet the Trust Values Positively welcoming Actively respectful Clearly communicating Visibly reassuring	• E	• A / I
Education & professional Qualifications	• Honours first degree (1st or 2nd) in physics or containing a major physics component. • Relevant MSc or higher degree or equivalent level of knowledge. • IPEM graduate diploma in medical physics (DipIPEM) or equivalent. • HCPC registration as a Clinical Scientist. • Corporate Membership of IPEM (MIPEM) or eligible for membership. • Chartered scientist (CSci) or eligible for the award. • Certified Medical Physics Expert on national register or application in progress.	• E • E • E • E • D • D • E	• A • A • A • A • A • A • A
Experience	• Highly developed specialist theoretical and practical knowledge of radiation dosimetry, treatment unit technology, treatment planning systems, and computer systems in radiotherapy, sufficient to act as a Medical Physics Expert in these areas. • Specialist training and practical experience of a wide range of radiotherapy equipment	• E • E	• A / I • A / I

	and computing equipment, including linear accelerators, treatment planning systems and dosimetry equipment.		
	• Advanced knowledge of patient and machine dosimetry and quality assurance in radiotherapy.	• E	• A / I
	• Broad knowledge of applied radiation physics and associated areas within medical physics.	• D	• A / I
	• Relevant clinical experience in radiotherapy physics post registration.	• D	• A / I
	• Broad knowledge of clinical procedures and practices in radiotherapy.	• E	• A / I
	• Highly developed knowledge of clinical issues and their implications for radiotherapy physics practice.	• E	• A / I
	• Broad understanding of patient and staff risks arising from equipment failure and staff error.	• E	• A / I
	• High level of understanding of patient and staff risks arising from treatment planning computer system errors, equipment failure, treatment errors and incorrect dosimetry.	• E	• A / I
	• Broad knowledge of radiotherapy techniques and clinical applications.	• E	• A / I
	• In depth knowledge of relevant legislation, national standards, professional and other guidelines, quality systems, local rules and safety practices (for example ISO 9001 2000, Health and Safety, COSHH).	• E	• A / I
	• Understanding of hazards posed by, and precautions	• E	• A / I

	needed with: ionising radiation, non-ionising radiation and electrical hazards.		
Skills and aptitudes	• Able to prioritise and manage own workload with effective time management skills. Flexible, able to adjust commitments when required and work to tight deadlines (checking complex treatment plans to a tight deadline for example).	• E	• A / I
	• Able to deal with complex and unpredictable situations (providing advice during equipment failure for example).	• E	• A / I
	• Able to project manage effectively, setting quality standards, timescales, performance targets and goals, monitoring progress, checking results, providing support to other team members when required and writing reports.	• D	• A / I
	• Ability to teach and train others, including other staff groups, on highly specialist subjects.	• D	• A / I
	• Analytical problem solving ability, able to resolve complex issues and situations that are often unpredictable and do not fit a standard pattern.	• E	• A / I
	• Able to use Excel, Access and Word to set up documents, record and extract information and write reports.	• E	• A / I
	• Able to perform independent applied research and development.	• D	• A / I
	• Able to prepare and present scientific papers at local, national and international meetings and conferences.	• D	• A / I

	• Able to develop systems and write software and scripts (Python for example) relevant to radiotherapy computer systems.	• D	• A / I
Personal Qualities & attributes	• Able to communicate highly complex information to other healthcare professionals and equipment manufacturers. • Able to exercise own initiative when dealing with issues within own specialist area of competence. • High degree of physical accuracy and dexterity, for making precision measurements and equipment adjustments using fine tools. • Ability to motivate a wide cross-section of healthcare professionals and lead a team approach to work. • Able to maintain frequent periods of prolonged concentration, with often unpredictable work patterns (when collecting or analysing beam data and providing clinical advice for example). • Able to lift and move medium/heavy weights (beam data acquisition equipment and phantoms for example). • Able to deal with occasional distressing circumstances when (working with terminally ill patients for example).	• E • E • E • E • E • D • E	• A / I • A / I • I • I • I • I • I