



Institute of Physics and  
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Ms Karen Reid FRSA  
Chief Executive Officer  
NHS Education for Scotland  
102 West Port  
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15 November 2022

Dear Ms Reid,

I am writing as President of the Institute of Physics and Engineering in Medicine (IPEM) to express our concern about the funding of Clinical Scientist training places in Scotland and the negative impact this will have on patient safety.

We understand NHS Education for Scotland (NES) are proposing funding that equates to less than a single training post in medical physics and clinical engineering in 2023. This is despite the Scottish Government Chief Healthcare Science Officer's public acknowledgment of the importance of training.

Scotland currently has a 10% clinical scientist vacancy rate across the Medical Physics specialisms. This equates to seven vacancies in radiotherapy, three in nuclear medicine, four in diagnostic radiology and radiation protection and 0.5 in Magnetic Resonance Physics (all FTE). These posts are critical to supporting diagnostics and cancer treatments.

An additional 34 FTE are required to meet best practice recommendations in diagnostic radiology and radiation protection set out by the European Federation of Medical Physics Organisations (EFOMP)<sup>i</sup>. An additional 8 in Magnetic Resonance are required to meet IPEM recommendations<sup>ii</sup>. In Nuclear Medicine, an additional 24 certified Medical Physics Experts (MPEs) are required to satisfy IPEM recommendations on adequate staffing levels to assure full compliance with the Ionising Radiation (Medical Exposure) Regulations 2017 (IRMER). Clinical Engineering specialisms are also affected and, although in smaller numbers, there are known Clinical Scientist workforce shortages in specific areas such as Rehabilitation Engineering.

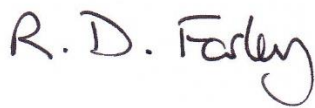
The long-term effect of this lack of funding will be to worsen an already acute workforce shortage, with too few early-career professionals available in three years' time to adequately cover roles such as treatment planning, clinical reporting, and quality assurance for cancer treatments involving radiotherapy. This means more and longer delays in treatment, greater risks to patient safety and potentially poorer patient outcomes.

As well as severely restricting funding for early career stage roles in Medical Physics and Clinical Engineering, we understand NES has made no provision for Higher Specialist Scientist Training (HSST) required to fill the leadership

roles that will become vacant in the near future. This not only increases the risk that healthcare scientists will leave their jobs in Scotland's NHS for funded training posts in England and Wales, cutting off Scotland's supply of applicants for senior and leadership roles, but it will also mean that those who do accept such roles may be ill-equipped to undertake them.

We are seeking an immediate assurance that the shortfall in funding for training will be rectified, and request that funding for at least 10 early career Clinical Scientist training posts in Medical Physics and Engineering be made available next year and a sustainable funding programme for Higher Specialist Scientists put in place. We would be very pleased to meet you and your team to make the case in person and to understand your rationale for the current funding proposal.

Yours Sincerely,

A handwritten signature in black ink that reads "R. D. Farley". The letters are cursive and slightly slanted to the right.

Dr Robert Farley FIPEM  
President - IPEM

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<sup>i</sup> Evans, S., Christofides, S. and Brambilla, M. (2016). The European Federation of Organisations for Medical Physics. Policy Statement No. 7.1: The roles, responsibilities and status of the medical physicist including the criteria for the staffing levels in a Medical Physics Department approved by EFOMP Council on 5th February 2016. *Physica Medica*, 32(4), pp.533–540.

<sup>ii</sup> Data from IPEM MR Physics Workforce Survey 2022, to be published 2023.