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Sir David Cooksey  
Consultation Response  
Cooksey Review Secretariat  
HM Treasury  
1 Horse Guards Road  
London SW1A 2HQ

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Dear Sir David

### **BMA Response to Review of UK Health Research**

I am pleased to enclose the British Medical Association's response to the Review of UK Health Research. This response has been prepared by the Medical Academic Staff secretariat following extensive consultation with the Association's Medical Academic Staff Committee (which includes representation from Wales and Northern Ireland), the Scottish Medical Academic Staff Committee and the Board of Medical Education.

We welcome the review and the merger of the two funding streams as the next step in implementation of the *Best Research for Best Health – a new national health strategy*. The review is a good opportunity to introduce coherent central funding to protect research time, to support clinical academic training and applied clinical research, and in doing so, recognise and protect the level of research activity that is carried out. It is also a very valuable opportunity to increase transparency in funding flows and to reduce bureaucracy in access to research funds. We very much hope this is reflected in the governance arrangements for the merged fund and that the governance arrangements protect the new fund from being raided for purposes unrelated to research.

We do however have reservations about what appears to be an overall drop in the level of research funding available. The Review states that the new single fund to support the health research currently funded by the Medical Research Council (MRC) and the NHS R&D programme will be at least £1 billion per annum. We note that the review also states that the combined spend of the MRC and NHS R&D in 2007–2008 is expected to be £1.3 billion. In no way should the funding of health research be diminished, particularly not by £0.3 billion, as a result of creating a single, ring-fenced budget. We ask for this to be clarified and for the benefits of health research to be recognised as providing a significant economic advantage, as demonstrated in the Academy of Medical Sciences, MRC and Wellcome Trust report *Medical Research: Assessing the Benefits to Society*. Indeed more, not less money should be available.

In the long term, one of the most important determinants whether or not the new funding approach will succeed is whether it nurtures and supports the careers of the highly talented young clinical academic workforce. For this reason the BMA strongly supports the recent introduction of integrated training pathways for clinical academic trainees. There has already been a missed opportunity to integrate Department of Health salary funding with NHS R&D support for the research component of these posts. The new NHS posts provide 25% ('academic clinical fellow') or 50% ('clinical lecturer') protected time

for research, but Department of Health funding covers only the salary component of that protected research time and not any 'on costs' for the research period. Thus there is a significant competitive disadvantage, particularly for the most junior trainees ('academic clinical fellow') who will require core support from host laboratories to pursue the earliest stages of their research. This introduces disincentives for such fellows to pursue career pathways in translational and applied research or in the smaller academic specialities (where such host support will be less readily available).

A further problem has recently emerged, as it now assumed that most junior trainees will step out of the career ladder after the 'academic clinical fellow' period to complete a PhD before competing for a 'clinical lecturer' post. Trainees coming from specialities that are not ordinarily supported by the major funding organisations are likely to find it difficult to secure funding and there is a real chance they will be lost to the system unless clear lines of funding are made available to this group.

Provision of appropriate support costs for both sets of trainees described above, potentially by the new fund, would be a highly significant investment that could have an impact far beyond the unit cost.

Other areas where simple initiatives might be of benefit are:

- facilitating the nascent MB-PhD programmes that aim to train some future clinical academics at an early stage
- taking the opportunity to embed UK Health Services Research in these training schemes; and
- by ensuring that adequate provision is made for the increasing cohort of female medical graduates to participate in these schemes.

We trust that adequate thought will be given as to how these young doctors will be supported as the new funding system is introduced and very much hope the unique opportunity to embed UK Health Research in the training schemes is taken up.

Our detailed comments on the review questions follow. In summary, we believe the proposed merger must not be to the detriment of what has been achieved separately by the MRC and the NHS R&D. Rather, the merger should:

1. preserve and build on current strengths, such as the use of peer review
2. have strong, effective leadership
3. become an integrated part of the new NIHR structure in England and other complementary structures in the devolved nations
4. involve Charities and other NGO's in setting the research priorities
5. take into account likely health and economic benefits
6. ensure that UK funding does not drop overall and that clarity in funding to devolved nations is achieved
7. acknowledge that governance will be key to success, review carefully the options available and consider a role for the Audit Commission in local accountability
8. embrace the principle of investment in the training of people, rather than investment in over-expensive infrastructure
9. acknowledge that clinical research, despite having benefits to patients sooner has traditionally be undervalued and should be given greater support in future
10. consider the impact of the review on other major key reforms such as academic training pathways and the need to ensure medical academics are supported at all stages of their career
11. consider the impact of the wider reforms in R&D which encourage collaboration, against other initiatives such as the RAE which are based on competition

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Yours sincerely

Professor Vivienne Nathanson  
Director of Professional Activities  
British Medical Association

## Responses to review questions

### **Question 1: What are the strengths and weakness of the MRC and NHS R&D programmes at present? How do each of these support the research training and needs of the NHS, social care, industry and academia? Does more need to be done?**

The UK's world-leading position in producing outstanding biomedical research has come about through a highly competitive funding system that rewards excellence, is flexible enough to sustain innovation, is investigator initiated and led, and is largely transparent. In contrast, NHS R&D has been largely allocated on the basis of perceived top-down strategic priorities in a non-competitive system that is less than transparent. Any amalgamation of the systems should preserve the best of the former approach while eliminating the latter. There is clear opportunity, but also a strong risk of disruption and damage.

The strengths of the MRC are well documented and are in considerable measure responsible for the high standing of British biomedical science. Not only is this evident in the 'basic sciences' but also in the introduction and subsequent pursuit of randomised clinical trials which have had profound benefits to society. Work outside the UK, e.g. in Africa, has had important benefits for tackling diseases with a global impact. In addition, the funding at the MRC's National Institute for Medical Research and in UK Universities, have had long-term advantages at all levels, including developing and maintaining the careers of some of the world's leading scientists.

While politicians set overall goals, it is important there is no political interference with research funding. We therefore strongly recommend that the peer review element of MRC grants is continued in the new funding arrangements. This is recommended because:

- the peer review hierarchy implements on the basis of merit
- proper peer review evaluates on merit
- grant funding via peer review has a track record of driving success (unlike block grants e.g. NHS R &D)
- peer review is meritocratic
- peer review is largely transparent (acknowledging there are some difficulties)

The research capacity development function of NHS R&D programmes has been essential in developing the quantity and quality of applied research. This includes the NHS R&D fellowship programmes at doctoral, post-doctoral, and career scientist levels, and Department of Health infrastructure contracts with Universities and NHS institutions for research networks, R&D support units, and clinical trials units. These elements of funding must not be lost, or applied research will suffer.

We note that applied research that has a more immediate clinical application has received relatively little funding from the MRC and from medical research charities, in comparison to basic research. Important areas of applied research include prevention, screening and diagnosis, development of intervention, evaluation of interventions, management of diseases and conditions, and health and social care services research. The MRC has traditionally invested limited research funding within these more applied clinical research areas with only 2.9%, 4.5%, 5.6%, 4.5%, 1.2%, and 1.6% of the overall MRC budget going into these six areas respectively during 2004/5.

In contrast the NHS R&D programme has invested significantly in applied clinical research. During 2004/5, 31.4% of the NHS R&D budget was committed to support evaluation of treatment, and 29% to health services research, with only 12% of the budget funding basic clinical research. This NHS R&D funding has been a crucial investment in translational research from the laboratory to patient setting, and back again. If merging the budgets were to reduce the investment in applied research it would therefore be disastrous for UK clinical research.

The last few years have seen the development of many important research networks and greater cooperation among both government funded and NGO funded researchers. Much of the impetus

behind this has come from the Departments of Health and the recently published strategies for research and development provide the opportunity for greater improvements in the future. Nevertheless, only recently has the money which was originally identified as the research component of SIFTR (ACTR & STAR) been better accounted for. At a time when many NHS Trusts are under significant financial pressure, it is vital that the accountability for this resource is strengthened, in order that the stated aim of a 'single ring fenced budget to support health research' is actually achieved.

**Question 2: What do you believe are the key scientific and organisational challenges facing health research, and underpinning training in the UK over the next decade? How might the UK Government best help address those challenges? What do you believe should be the Government's objectives for health research, and why?**

We believe these are

- increasing fragmentation of the NHS service across multiple providers, thus making coherent clinical research more difficult
- increasing cost pressures on the service side, leading to a temptation to raid research budgets
- the concern that large scale 'modernisation' of training schemes could cause unpredictable demographic shifts in training patterns leading to fragmentation of academic careers
- the continued underinvestment in medical schools, leading to further declines in staff numbers
- increasing pressure on research from teaching requirements in the larger medical school cohorts
- increasing emphasis on interdisciplinary and large-scale research, at the possible cost of disadvantaging small-scale but valuable NHS research
- the RAE further disadvantaging medical research
- the risk of skewing investment towards biomedical/commercial rather than health services/translational research, more bench and RCT, and tertiary/secondary care focussed

**Question 3: What should be the Government's priorities for health research? Is there anything it should stop doing or funding? What is it not doing or funding that it should do, and, in the absence of further sources of support, what can it lower in order to release the necessary funds?**

It is entirely appropriate to set general strategic goals, and to support particular initiatives in focal areas. Historically, a greater proportion of health research spending has been directed towards basic research and less on applied research. We hope that this balance is addressed by the Review and that greater emphasis will be placed on applied research, where the benefits to patients are realised sooner.

Politicisation of research goals and targets should be resisted as it would lead to a short-term approach and a proliferation of 'new' initiatives that will confuse and demoralise the workforce. Funding should generally be awarded on scientific excellence and a common standard of assessment should apply across all funded areas. Obviously an appropriate assessment is required as, for example, a clinical trial may take many years to produce a result while other forms of research give quicker return on investment. It would not be appropriate to prioritise the former over the latter any more than the other way around. However, in general R&D should not be funded nationally unless it is internationally competitive.

Consistent, predictable, long term lines of (competitive) funding are required for individuals and institutions to plan strategically and innovate.

**Question 4: How should decisions be taken on the balance between the long term economic and social benefits of a high quality biomedical research base? What is the appropriate balance between public funding for investigator-led and priorities-led research? How do we balance funding for basic science, translational science and applied science? Is this something that**

**should vary over time? What mechanisms should be used to make judgements about this balance?**

Bottom-up investigator initiated research has in general led to excellent outcomes for basic research underpinning the characterisation of normal functions and the aetiology of disease, although it has worked less well for some areas of applied clinical research and in supporting research trainees in the NHS. Mechanisms that appear to promote the quality of science, such as the RAE, can have perverse and detrimental effects on these areas and on junior academic clinicians at early stages of their career. Redirecting substantial chunks of the NHS R&D budget into specifically supporting clinical academic training and applied clinical research respectively would therefore be appropriate. Our covering letter also highlights the specific points at which a medical academic career could stall, in the hope that this is addressed by the review.

We note that insufficient attention has been paid to research into health promotion and disease prevention and there appears to be a mismatch between the level of funding for certain diseases and their burden on society. Organisations such as the Academy of Medical Sciences and the Royal Society have formulated detailed responses to this series of questions.

**Question 5: In your experience, how have the results of publicly-funded health research in the UK been used, both in the development of new treatments and to influence/change wider policy and healthcare practices?**

We believe that it is very difficult, if not impossible to 'ensure' that health R&D generates improvements in health outcomes. Attempts to impose artificial top-down goals on this basis should therefore be approached with caution. Many important medical advances (e.g. the invention of CT & MRI) have depended on research seemingly entirely unrelated to health outcomes. Many extremely effective applied clinical researchers have training in basic science. Support for basic science underpinning applied clinical research should continue, while support for expanding clinical research should come from redeployment of the NHS R&D budget which is currently used for delivering service work.

In addition, until recently, there has been too much emphasis on the outputs of research (e.g. publications) rather than the outcomes. The Academy of Medical Sciences, MRC and Wellcome Trust publication *Medical Research: Assessing the Benefits to Society*, considers this issue, although it is important this issue is addressed by all entities that fund research, and for them to give greater thought to how the results of research could be translated into clinical and/or economic benefit. We note that the report demonstrates clearly the lack of funding for clinical research by government. The report also shows that poor study design and recruitment can significantly reduce the cost effectiveness of investment in research, for example in gender medicine where outcomes affect approximately 50% of the population and must therefore be factored into evidence based medicine. A relevant example here is in the US, where 8 drugs had to be withdrawn recently because they caused too many side effects in women.

**Question 6: How might better links be forged between 'basic', translational and applied researchers, working across the whole field of health research, from the laboratory bench to the front line of the NHS? How might better links be forged across disciplines, e.g. with engineers, physicists, and social scientists?**

Much highly competitive and internationally outstanding biomedical research is intrinsically interdisciplinary, and this includes many disciplines outside medical schools and NHS Trusts e.g. physics, computer science and statistics. One of the possible negative outcomes of the proposed consolidation of NHS R&D and MRC research funding is that it may discourage such research, or provide a barrier to effective peer review assessment. Similarly, an overly strong focus on health

outcomes may lead to perverse incentives not to pursue interdisciplinary research that should be resisted.

However the main responsibility for 'multi-disciplinary research' and its encouragement will normally reside with institutions, especially the Universities (hence the importance of the medical schools being located therein and the move of the National Institute for Medical Research to University College London). Joint funding initiatives can stimulate such cooperation both within and between institutions.

The lack of recognition in previous RAE's had a significant negative influence in the value of applied research. Although this may well be due to a lack of direct funding and as such, may in principle be being addressed, a cultural shift may be required.

The importance of formal stakeholder arrangements such as the UKCRC should not be underestimated, bringing together as it does a wide range of stakeholders in a UK wide environment to facilitate and promote high quality clinical research for the benefit of patients.

Government has a role to play in encouraging and promoting public involvement through regularly, by pointing out the benefits and citizen's vital role in participating in NHS research agenda. In addition, patients themselves have a key role to play in prioritisation, in looking at outcomes and in dissemination and lobbying.

**Question 7: How can government encourage translation, entrepreneurship and innovation in health research to improve public services in the UK?**

In general supporting excellence wherever it is found, training people rather than over-expensive infrastructure and by encouraging investigator-led creativity and innovation. These are all essential to world-class research and need to be fully taken on board within structure of the new NIHR structure in England and its equivalents in the devolved nations.

The development of further clinical research facilities is especially welcome. Specifically, the initiative by the Wellcome Trust to fund an initial five Clinical Research Facilities has been of great importance with additional funding for running costs coming from the NHS. Equally, the second joint initiative to create an Academic Health Sciences Centre at St Mary's and Hammersmith hospitals should carry major benefit.

See also our response to question 4.

**Question 8: How can UK health research funding be most effectively used to provide the appropriate infrastructure for basic, translational and applied research, whether funded by the UK public sectors? How can the UK health research funding be most effectively used to support the work of NICE, facilitate innovation and collaboration with industry, and address market failures in the application of healthcare?**

It may be that other organisations are better placed to answer this complex series of questions since many have already addressed them in their strategic planning. However, a close examination of the relationships between the pharmaceutical industry and a consortium of Scottish medical schools would be worthwhile.

'Market failures' clearly exist in some specialities where the critical mass of academics has fallen below the level needed to generate and sustain innovative research and train the next generation of researchers. This is particularly acute in some areas where there are strong service pressures (for example pathology, radiology) and is not helped by a culture that favours high-volume publication. These shortages will require specific action, which considers the impact of the RAE and addresses the disincentives to career progression in smaller specialities as outlined in our covering letter.

**Question 9: What lessons should the UK learn from other countries in making the proposed changes to the institutional arrangements for the funding of health research?**

The UK should fully embrace a principle of investing in training people rather than investing in over expensive infrastructure. There has been strong support for training in the US system for example MB-PhD programmes and innovative approaches to training researchers later in their careers. In general, in the US, this has been very successful with a large proportion of such trainees becoming research leaders. However we recognise that until now, this approach has been less successful in the UK and we would recommend that the reasons for this should be investigated.

Other countries also have developed a strategic process in supporting health research. In Holland for example, strategic research funding has resulted in large scale prospective studies which are enthusiastically embraced by institutions and the public. Major advances in imaging and cardiology have taken place as a result which have also boosted the development of industry (e.g. Phillips Medical Systems).

**Question 10: In implementing the single fund for health research, to what extent should the MRC and DH/NHS R & D be brought together? And to whom should the single ring-fenced fund be accountable?**

It is absolutely critical to ensure that the money is in the system and that this is protected and used for the purpose to which it is intended. R& D funding in the NHS has historically been distributed in an opaque and unresponsive manner and there has been the sense that it is difficult to influence cash flow or the spending of available funds and further, that SIFT(R) had been spent on clinical services rather than research. In addition, the history of NHS R&D funding was very complex, with some bias towards certain institutions over others.

The new fund is an opportunity to bring about more responsive funding and we recommend that, should R&D monies be used for anything other than their intended purpose, the Audit Commission should investigate the corporate governance and cash flow arrangements in place in organisations/trusts.

Governance and accountability for the new fund is critical to the success of the new arrangements. We would be especially concerned if money for infrastructure funds disappeared in recalculated space charges and was used for example to shore up large scale deficits due to small patient bases, a multiplicity of sites and/or expensive costs related to PFI builds.

We would recommend that monitoring of the delivery of funds (e.g. by speciality and gender) takes place to encourage gender balance and research take places across all areas of clinical need. Monitoring should also consider diversity in terms of who administers the fund (e.g. are they a diverse group), who gets the funds, who does the research and who the research is done on.

Furthermore, as we have stated elsewhere in the document a holistic approach to career support is key. To achieve their best, good researchers need continued, stable forms of support for both their research and their salary.

We note that other organisations (e.g. the Academy of Medical Sciences and the Royal Society) are developing proposals for the governance arrangements of the new fund. These detailed suggestions need to be studied very carefully.

**Question 11: To what extent does the success of recent innovations in health research (e.g. Clinical Research Networks) and the proposed structures rely on the new Connecting for Health NHS IT system, and to what extent should it do so?**

Connecting for health has the potential to contribute greatly to health research. The existence of accurate, well coded and linked up (non-identifiable) data can potentially revolutionise activities such as population needs assessment, public health surveillance, drug monitoring and epidemiological research. However, the success (or otherwise) is predicated on resolution of issues relating to confidentiality and on the quality and reliability of the data which are inputted. The clinical research networks have the potential to be a powerful influence to develop co-ordinated clinical research and should therefore be cross-referenced through the IT system.

**Question 12: Given that NHS R&D is currently devolved, but that the work of Research Councils is not, how can these functions work best together to maximise the health and economic benefits to the UK?**

There is no easy solution here as devolution is having an ever increasing effect on the ways in which work, including research, is being organised in the four countries. However, in general excellence should be supported wherever it is found; funding the training of people rather than spending on ancillary costs, and encouraging investigator-led creativity and innovation are all essential to world-class research. This will require devolving budgets and decision making appropriately rather than centralised command-and-control.

For example, Scotland has high medical academic productivity which has been highlighted by the Scottish Stem Cell Network, who, in their contribution to the *Scotland Development International Report on the Life Sciences in Industry*, state that there is "more medical research conducted per capita in Scotland than anywhere else in Europe". This was also acknowledged in the Kerr report, *Building a Health Service Fit for the Future*, which highlighted the excellent research base which Scotland has in life and biomedical sciences and its potential to improve health and create wealth.

These changes together with the development of the NIHR have a potential impact on clinical research in Wales and co-ordination with WORD in the development of a research strategy is essential. The possibility of differential funding and support for the devolved nations must be avoided

As the distribution of funds for health research in the devolved nations is not covered by the review, but MRC funding is UK wide, there is a potential for destabilisation. We would therefore recommend that the Department of Health meet with its counterparts in the devolved nations and note that regular dialogue among the four Chief Medical Officers will be crucial. In addition, it is very important that the MRC and most members of the AMRC continue to fund research throughout the UK.