Dear Mr Smith

I am writing, as promised in our telephone call today, to outline the Academy’s response to the Triennial Review of the research councils that you are leading.

The Academy believes that the research councils make a major contribution to the UK’s status as a leading research nation and as the clear world leader in scientific productivity. The Medical Research Council (MRC), with which the Academy has most interaction, celebrates its centenary this year and has been an internationally renowned funder over this period. Successes include funding 29 Nobel Prize winners, the development of monoclonal antibodies in the 1970s that now account for a third of new treatments worldwide and supporting research that has influenced over 200 clinical guidelines worldwide.

A central plank of the research council’s success has been their independence from government and the integral role scientists play in their decision making. Often described as ‘the Haldane Principle’, this allows funding to be directed toward areas that offer greatest scientific opportunity. This is essential when the average time lag between discovery and application in some fields is around 17 years and the future rewards of research cannot easily be predicted. While politicians do have a role in setting the overall broad strategic direction of science funding, the Haldane principle should be maintained.

We believe that the current number of research councils strikes an appropriate balance between diversity and centralisation. Each research council is small enough to develop sufficient specialist knowledge of their fields. There are strong relationships between funders and their communities, the distance between researchers and Council leaderships is relatively short, and there is space for novel thinking and opportunities for ideas that provide paradigm shifts to receive support. However, each research council is large enough to benefit from economies of scale, to support larger programmes, to take a portfolio approach to funding and to support a diverse array of funding mechanisms. The Academy believes that, with Research Councils UK (RCUK) to ensure co-ordination of cross-cutting themes, the current number of research councils is fit for purpose.

To ensure that the MRC continues to deliver world class research for the health and wealth of the nation the Academy strongly believes that it should remain as a separate entity. Medical research in the UK is funded by a complex ecosystem involving the public, private and charitable sectors. The MRC sits at a crucial node in this network of funders that allows it to interact with its key stakeholders including other disciplines through its sister research councils, engage with the National Institute of Health Research (NIHR) and NHS, the medical research charities that provide £1bn of medical research funding annually, the Technology Strategy Board (TSB) through joint activity such as the Biomedical Catalyst Fund, and our vibrant medical science industries. The Office for the Strategic Funding of Health Research (OSCHR) also provides an important role in coordinating such activity.
The Academy’s mission is to promote medical science and its translation into benefits for society and we have previously called for government to increase the financial support available to translational academic research and innovative businesses through the TSB and initiatives such as the Biomedical Catalyst Fund. We do think that better links between TSB and the research councils (including MRC) will be crucial to delivering the translational agenda. We welcome the fact that TSB has a position on the OSCHR Board where discussions took place about the development of the TSB/MRC Biomedical Catalyst Fund.

It is vital that Research Councils engage effectively with universities if they are to deliver their mission. In the negotiations of the transfer of MRC research units to universities, which represents a major shift in its operations and mode of funding, MRC has demonstrated its ability to work constructively with universities.

RCUK has proved to be an effective mechanism for coordination across Councils, but we do believe that more attention should be paid by RCUK and the research councils to facilitating interdisciplinary research. Truly trans-disciplinary projects bring together researchers with diverse skills and expertise to solve complex problems. They are essential to address major public health challenges and to translate research into health and wealth benefits. We highlight some of the opportunities and challenges for the Research Councils in assessing these trans-disciplinary projects and supporting the researchers that are engaged in them (e.g. through training) in our recent report on team science.1

In our telephone call, we discussed the three objectives outlined in the Royal Charter and whether constraints on funding have resulted in research councils focusing simply on their first objective to promote and support research. We have seen no evidence to suggest that this approach is being taken by MRC. On the contrary, under its second objective, MRC last year launched its Confidence in Concept scheme aimed at accelerating the transition from discovery research to translational development by supporting feasibility studies. It has also increased its number of CASE PhD students (which are collaborative awards between industry and academia). Under the third objective, it has three major public participation projects planned. You mentioned the issue of metrics for the second and third objectives. We know that MRC is collecting metrics on all its objectives from its grant holders via Research Fish.

The national academies have previously called for government to develop a long-term investment framework for research. This would help to provide clarity about government’s expectations of the research councils (while of course respecting the Haldane principle). Science and innovation must be at the heart of the government’s emerging industrial strategy and its plans for growth. The investment framework and the industrial strategy should be developed together and with the input of all stakeholders.

Finally, we believe that the medical sciences offer models that would be of value to other disciplines and these could be promoted via the research councils. These include integrated university schools for practitioners, controlled experimental approaches to determine the value of interventions and models of health technology assessment to help ensure quality and value for money of interventions. For example, it has been suggested that a field trials unit could be developed by the Economic and Social Research Council, similar to the Clinical Trials Units supported by MRC.

Yours sincerely

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1 The report can be downloaded from: http://www.acmedsci.ac.uk/p47prid117.html