



MND Association Response to the Cooksey Review of UK Health Research

1. Introduction

The Motor Neurone Disease Association welcomes the opportunity to submit comments to this important review. The Association, in principle, supports moves by the Government to provide greater clarity and cohesion to UK medical research funding through the creation of an integrated fund for health research.

The Motor Neurone Disease (MND) Association funds and promotes research into the disease, while providing support and advice to people affected by MND in England, Wales and Northern Ireland. Following a recent strategic review, we aim to raise our research spend from £1 million to £3 million *per annum* within the next five years. Our Care and Information Services include a national telephone Helpline, a range of literature, free loan of specialist equipment, financial support for people with MND and core funding for 14 specialist MND clinics.

As members of the Association of Medical Research Charities (AMRC) we have contributed to and support the collective response submitted to the Cooksey Review by that organisation on behalf of its member charities. Nevertheless, we feel that there are some additional points that should be addressed from the perspective of those supporting research into lesser-known and little researched 'orphan' diseases, whose patient representative bodies provide a significant component of basic research funding. Indeed, for some orphan diseases, the charities can represent the major UK funder¹.

In this response we aim to concentrate on three specific issues that we believe need to be addressed when considering the financial and organisational arrangements for developing and enhancing UK medical research activity, specifically:

- The need to ensure that orphan diseases are given due consideration and resource allocation in research programmes;
- The need for concerted efforts to identify the causes of multifactorial diseases
- The need to ensure adequate resource is made available for career development of clinician-scientists

In line with the request for evidence, we have attempted to provide pertinent examples to illustrate our views.

2. Resource provision for orphan diseases

The Department of Health Strategy paper '*Best Research for Best Health*' offers an opportunity to establish a more comprehensive research-focused culture throughout the

¹ A bibliometric review of UK MND research outputs, conducted by the Wellcome Trust PRISM Unit, demonstrated that the MND Association contributed to over a third of UK research output into the disease between 1985 and 1995: more than the Wellcome Trust or the MRC.

NHS. We are impressed by the Government's commitment to provide more patients with the opportunity to participate in health research and to facilitate access to novel therapeutic interventions at the earliest opportunity. The establishment of Clinical Research Networks is an essential component of translational research and we support the activities of UK Clinical Research Collaboration in their efforts to establish the relevant organisational frameworks.

The US Government's trials database (www.clinicaltrials.gov) lists nine MND drug trials currently in progress in the USA. In the UK, there are none. This stark figure reflects the fact that several collaborative clinical networks exist within North America, not only able to attract greater interest from industry, but also to access funds from Government and Charitable Foundations to conduct academic trials.

In this country, the recently established UK Dementia and Neurodegenerative Diseases Research Network (DeNDRoN) should facilitate more UK-based trials in MND, replacing the *ad hoc* approach that has been the norm to date. The history behind the creation of DeNDRoN, however, does illustrate one of our concerns – that orphan diseases may become marginalised in the drive to engage larger numbers of patients in trials. DeNDRoN was originally planned as an Alzheimer's/dementia network and it was only through timely campaigning by ourselves and others that rarer neurodegenerative diseases such as MND and Huntington's disease, were incorporated.

We therefore consider that a success measure of funding for translational research activity must be not only numbers of patients enrolled in clinical studies, but the breadth of conditions featured. Orphan diseases must not become marginalised by such activities.

In our view, the collaboration of basic researchers and clinicians in networks covering broader themes, such as neurodegeneration, should be encouraged, as it will improve cross-fertilisation of ideas on both basic mechanisms of disease and clinical research methodologies. With regard to the latter, it may help to improve the 'silo mentality' that can exist within clinical neuroscience.

It is also important not to 'cut corners' when funding research that successfully spans the clinical-basic science interface. A recent MRC funding decision illustrates one such missed opportunity. We were recently informed that the MRC has agreed to support the UK arm of a pan-European Phase III study of the drug minocycline. Whilst it is heartening that, for the first time, such support has been made available for an academic-led drug trial in MND, the MRC decided not to support associated laboratory studies on CSF proteomics and inflammatory markers in the cohort of patients under investigation. In addition to valuable information on biomarkers, with potential use in the future diagnosis and monitoring of the disease, an opportunity to engage clinicians in basic research studies of direct clinical relevance has been lost. In this case, the need to economise will considerably reduce the range and quality of data arising from the trial.

3. A concerted effort to identify the causes of multifactorial diseases

Knowing the cause of a disease is invariably the cornerstone to developing effective treatment strategies. In the drive to establish translational programmes, it may be tempting to focus energies on conditions where the pathway is clear because the causes are known and appropriate disease models for preclinical screening are available.

Unravelling the complex interplay of genetic and environmental factors that underpin multifactorial disease requires considerable effort, plus the fundamental resource of tissue (and/or DNA) samples and phenotypic data. Whilst considerable emphasis is placed on

biomedical collections for multifactorial conditions such as Alzheimer's disease or Parkinson's disease, orphan diseases can be marginalised because their low prevalence makes them a lower priority and makes the creation of a research resource more difficult. The MND Association supports a National DNA Bank, which recently collected its 1000th sample. The creation of this resource by a Patient Association came about because the disease was not considered of sufficient priority by statutory funders.

We therefore believe that an integrated research fund must not neglect fundamental basic research on the causes of disease. The inclusion of new conditions at the earliest stages of the translational research pipeline is a pertinent, measurable and achievable outcome

4. Resource provision for development of clinician-scientists

Good researchers are the *sine qua non* of good research. If the *Best Research for Best Health* strategy is to be realised, considerable effort will need to be made in engaging, training and retaining a new generation of clinician-scientists, able to facilitate the translation of new scientific knowledge through to demonstrable clinical and social benefits.

Compared with those in clinical practice, the career pathway for clinician-scientists can be a tortuous process, with less security and financial reward. The DoH has begun to appreciate the woeful shortage of clinician-scientists and so the initiative to support some stages of development through the Integrated Academic Training Awards scheme is to be welcomed. However, significantly more resource must be allocated at all stages in career development, both in terms of providing security to develop the research credentials of clinicians and also in ensuring that they are given sufficient time from their clinical duties to establish and develop world-class research programmes.

To illustrate the predicament, the MRC recently shortlisted for a senior Clinical Research Fellowship. According to our information, there was only one such Fellowship available. Whilst a degree of competition is obviously desirable, insufficient funding at a critical level damages both career development and associated research. Without delving into too much detail, the failure of an extremely dedicated and capable clinician to win this one available position could have led to the closure of a specialised MND clinic, the departure of two additional junior neurologists and a significant setback in translational research activity that is beginning to show considerable promise. The MND Association has been forced to underwrite a proportion of the financial resource required to ensure the individual can continue their research activities without interruption. In our view, such activity should not be reliant on piecemeal funding from charities and other sources.

5. Conclusion

A single, integrated health research fund will help ensure strategic focus and 'joined up thinking' between basic science, clinical research and clinical practice. It should also provide greater transparency and accountability, which we feel has been lacking, particularly with regard to the NHS R&D Budget. Greater transparency will assist medical research charities, particularly those representing rarer diseases, in designing strategies that maximise the impact of their research investment and achieve positive benefits for their members.

We look forward to receiving details of the outcomes of the review and its subsequent impact on medical research activities in this country.