Imperial College London

Kennedy Institute of Rheumatology Division
Imperial College London

The Charing Cross Hospital Campus
Arthritis Research Campaign Building
1 Aspenlea Road, London W6 8LH
Tel: +44 (0)20-8383-4400 Fax: +44 (0)20-8563-0399

email: m.feldmann@imperial.ac.uk
www.imperial.ac.uk

Professor Marc Feldmann, FRS
MB BS, BSc, PhD, FRCPath, FRCP, FMedSci
Head of Kennedy Institute of Rheumatology Division

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

21st July, 2006.

Dear Sir David,

I am writing in my capacity as the scientist at the head of the largest research centre in Europe focused on musculoskeletal diseases and rheumatology, which covers basic, translational and clinical research.

Our work has been successful and is hailed as a model for translational medicine. My colleague Sir Ravinder Maini and I get the credit for inventing and developing anti-TNF therapy (this is now 3 drugs: etanercept/Enbrel®, infliximab/Remicade® and adalimumab/Humira®) and for this we received the Crafoord Prize of the Royal Swedish Academy in 2000, and the Albert Lasker Award for Clinical Medicine in 2003. This treatment is approved by NICE. So I trust my comments re. funding etc. will not be dismissed as the usual academic gripe.

First, let me welcome the proposed merger, which should benefit medical research as more funds will be available for direct research, provided that MRC type peer review is sustained. In response to review questions in your list (Annex B, May 4th 2006):

1. UK biomedical research is successful, and by most performance indications (citations, publications, etc.) is second only to US. But it is a long way behind. It is important to point out that while extra funding may be forthcoming following this review, it will still be far less than NIH in US, even if adjusted per head of population. The NIH receives $29 billion, this is about $100 per head, MRC-NIH £1 billion for UK is about $30 per head. Charity expenditure does nothing to bridge this gap, as US also has large charities – Howard Hughes etc.

2. A key problem for translational medicine is clinical trial regulation and costs. The European directive is very costly for small proof of principle academic trials and any further augmentation of regulation and consequent costs will kill off this vital part of medical research. It will leave all trials for pharmaceutical companies, who often lack expertise in depth in the field.

2…./…….

6. Better links between basic, translational and applied science are vital but very difficult to fund. We are trying to use our leadership position in rheumatology to create a 'National Bone & Joint Centre' to include orthopaedic and related bioengineering research at Imperial, closely linked to clinical service and research. It will be interesting to see whether it can be pulled off. If so there may be considerable benefits for the patients.

7. The US Biotech Sector is booming, the UK is not. Key differences are the attitude to failure, going bankrupt in any UK company is seen as a dismal failure or worse, in US biotech it is a learning experience. Furthermore, there are huge US specialist investment funds, in UK the Venture Capitalists, can make for better returns on management buy-outs. The cost of capital is a major disincentive to inventors, we have personal experience of this. What's the point of working for VCs if there is minimal return, except to VCs?

9. Academic Medical Centres in US and Europe, where the University controls the hospital are the engines of progress at Harvard, Stanford, Leiden, etc. The proper integration of health care and research is vital for major progress in clinical medical research. At present the NHS budget pressures on academic hospitals are crippling research capacity, management finds it difficult to deliver the whole mission with endless targets to meet, research is the first to be cut.

   A solution is to consider integrating the management of major research hospitals as Academic Medical Centres, with academic leadership in planning health delivery and research.

The NHS has been a valuable research resource. It should see research more as an **investment** rather than an expenditure. The cost reductions triggered by good research have long been established, from penicillin onwards. In my own field in rheumatoid arthritis it is now clear (2 trials) that anti-TNF treatment in very early disease can be very effective and benefit can persist for at least a year after stopping anti TNF, while this is not true in late stage disease (Refs. 1,2). Effective therapy can reduce surgery costs (joint replacement etc.) and keep people at work. These benefits are difficult to quantitate in the short term. If the NHS is seen as an integrated organization spending £70 billion, its spending on research to improve health and reduce costs is actually very low. Should you not consider raising it for the benefit of future generations?

Yours sincerely,

Professor Marc Feldmann, FRS

References

1. Quinn MA, Conaghan PG, O'Connor PJ, Karim Z, Greenstein A, Brown C, Fraser A, Jarret S, Emery P. Very early treatment with infliximab in addition to methotrexate in early, poor-prognosis rheumatoid arthritis reduces magnetic resonance imaging evidence of synovitis and damage, with sustained benefit after infliximab withdrawal: results from a twelve-month randomized, double-blind, placebo-controlled trial. Arthritis Rheum. 2005 Jan;52 (1):27-35.

2. Goekoop-Ruiterman YP, de Vries-Bouwstra JK, Allaart CF, van Zeben D, Kerstens PJ, Hazes JM, Zwinderman AH, Ronday HK, Han KH, Westedt ML, Gerards AH, van Groenendael JH, Lems WF, van Krugten MV, Breedveld FC, Dijkmans BA. Clinical and radiographic outcomes of four different treatment strategies in patients with early rheumatoid arthritis (the BeSt study): a randomized, controlled trial. Arthritis Rheum. 2005 Nov;52 (11):3381-90.