NKRF Research Funding Advisory Committee

Report to the Trustees – September 2002

Introduction

The Research Funding Advisory Committee has completed its review of NKRF's research funding activities. The following report is offered to the Trustees for their consideration and action.
John Feehally on behalf of his RFAC colleagues will attend the Trustees meeting on 11th September 2002 to present and discuss the report.

Charles van Ypersele [chair]
Neil Turner
Christopher Winearls
John Feehally

2 September 2002

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BACKGROUND, MEMBERSHIP & PROCESS

Background & Terms of Reference

The Research Funding Advisory Committee [RFAC] was established in December 2001 by the Trustees of NKRF. The Committee had the following terms of reference and was asked to report to the Trustees by September 2002.

- To assess the effectiveness and esteem of the current funding processes for project grants and research fellowships and studentships
- To review the present composition and processes of the Research Grants Committee
- To assess the need to modify the range of research supported by the Fund – particularly in the fields of clinical research, health services research and epidemiology
- To propose an approach to the funding of clinical trials research
- To propose mechanisms by which any change in funding emphasis might be achieved, for example the ring fencing of funds for particular types of research, or the establishment of a second Research Grants Committee
- To propose principles and a framework for collaborative research funding between NKRF and MRC and also between NKRF and relevant medical charities, including Wellcome Trust and "disease specific" charities – for example Diabetes UK and British Heart Foundation.
- To propose a framework to underpin collaborative approaches between NKRF and industry

Membership

- Professor Charles van Ypersele, Brussels [Chair]
- Professor Neil Turner, Professor of Nephrology, Edinburgh
- Dr Christopher Winearls, Consultant Nephrologist, Oxford
- Professor John Feehally, Professor of Renal Medicine, Leicester; Honorary Senior Medical Adviser to NKRF

Process

The Committee met twice at NKRF offices in Peterborough – 14th May 2002, 6th August 2002. The following information was made available to the Committee:

Bibliometry
A commissioned bibliometric report on publication records in UK renal research – prepared by Professor Grant Lewison, City University, London, presented to RFAC by the author for discussion on 6th August 2002.

Documents submitted as appendices to this report:

- *NKRF Project Grants* An analysis prepared by John Feehally and Elaine Davies (NKRF Grants Manager) which provided information on the professional group and institution of supported principal investigators, the areas of research undertaken and research methodologies involved [Appendix 1]. The review covered the period 1991 to 2001. In addition limited comparative information on unsuccessful project grant applications was available for 2000 to 2001.
- *NKRF Fellowships and Studentships* Similar comparative information was made available for Fellowships [Appendices 2 & 3] and Studentships [Appendix 4] for the period 1991 to 2001. Feedback was sought from those who had completed senior and training fellowships asking for a summary CV, evidence of research output relevant to the Fellowship, and opinion on the value of the Fellowship to career development. Supervisors of studentships were also asked for their opinion of the value of the scheme.

Additional working documents *[provided to RFAC during preparation of this report and which are available for the Trustees to review if they so wish]:*

1. *External opinion* Written opinion was obtained from the following UK renal professional groups through their senior officers:
   Renal Association
   British Renal Society
   British Transplantation Society
   British Association for Paediatric Nephrology
   Society of DGH Nephrologists

2. *Research Grants Committee Process* Detailed summaries of the operational processes of the Research Grants Committee in reviewing both Project Grants, Fellowships and Studentships.

3. *Written submissions from NKRF staff and advisers* Written submissions were obtained from the following individuals in response to specific questions prepared by the Committee
   - Mr. Bertie Pinchera, Chief Executive
   - Professor David Kerr, Chairman
   - Professor Andrew Rees, Vice President and former Chairman, Research Grants Committee
   - Professor Peter Ratcliffe, Chairman, Research Grants Committee
   - Members of the Research Grants Committee – written opinion was obtained from eight other members
   - Professor Graham Badley, Chairman, National Patient Advisory Group

PRINCIPLES AND GOALS OF NKRF RESEARCH FUNDING SUPPORT

RFAC recognises and endorses a number of principles which have underpinned NKRF's use of research funding over the last 40 years, as well as a number of unavoidable truths about the UK research community which provide the context for NKRF's funding. These include:

- The priority given by NKRF to research and scientific excellence as the core principle by which funding is decided
- Recognition that NKRF remains an organisation with relatively small funding which cannot provide long term core support for tenured researchers. Such successful

investigators will look to MRC or Wellcome Trust for programme support. NKRF should rather be a pump-primer and facilitator ensuring that due priority is given to renal research.

- The responsibility to enhance renal research capacity in the UK by investing in people in the right environment. In particular to train full time researchers as well as clinician scientists who will be among the future academic nephrology leaders in the UK. This is achieved directly through the fellowship schemes but also indirectly through project grant funding. RFAC emphasises the need, whenever possible, to have full time research staff at the core of research groups supported by NKRF. This concept can be expressed in an aphorism as recognition of the importance of the synergy of "person, project and place".
- The importance of directing funding strategically to help develop critical mass, recognising the special benefits of strong science working within or closely integrated with a clinical renal unit
- The fact that NKRF operates in an environment where universities are resource-poor, and struggle to provide the necessary infrastructure to support burgeoning academic careers.

It is within these contexts that NKRF operates, and it is within this framework that RFAC has asked:

Has NKRF spent wisely?
Has NKRF invested well?

In general RFAC believes that the answer to both these questions is a clear affirmative. We have therefore also asked:

How best NKRF can position itself to maintain and enhance its reputation and role as a major funder of renal research in the UK?

THE ROLE OF RESEARCH FUNDING WITHIN THE BROADER REMIT OF NKRF

The members of RFAC were in general unaware of the broader remit of NKRF now embraced in its Mission Statement and Stated Aims. They were unaware that the substantial changes in NKRF in 1998, including incorporation of the Kidney Foundation, had led to a broadening of the Fund's aims. Although NKRF has worked hard to project this changing role and image, it is clear that this message has not penetrated strongly in the renal community, which may explain why some concerns had been raised that the NKRF's traditional role of funding research is perhaps being "diluted" by other issues.

PRESENT AND FUTURE RESEARCH FUNDING

Current position

RFAC was interested, and somewhat surprised, to note that expenditure on research support in the year 2001 was only 40% of the Fund's overall expenditure.
RFAC understands that 2001 was in some ways an exceptional year, given that changing circumstances in the NKRF trading company had required significant input of resources but had not yet shown benefit in increasing turnover.
Nevertheless examination of the financial reports for 1998-2001 indicates a substantial rise in fundraising expenditures [from £201k in 1998 to £1,422k in 2001] and in patient education expenditures [from £301k in 1998 to £1,291k in 2001], contrasting with only modest growth in income [from £2,448k in 1998 to £3,050k in 2001]. Research spending was only sustained at £2,552k in 2001 by use of significant reserves.

Future intentions

RFAC was encouraged to hear from the Director of Finance that NKRF's goal over the next few years is to move to a position where 70% of turnover is charitable expenditure, of which the great majority would support research. Nevertheless it notes the caution that research expenditure may fall over the next one or two years before any such growth takes grip, given the prevailing market forces. During such difficult times, RFAC was anxious to emphasise to the Trustees concern that the budget for new research expenditure might be the easiest target for restriction when so much of the remaining turnover of NKRF is in salaries.
The decision of NKRF in summer 2002 to cancel the autumn 2002 project grant round is indicative of these pressures at work. RFAC recognises the financial necessity of that decision but would emphasise that NKRF should work hard on 'public relations' to ensure that the reasons behind that decision are understood by the renal research community in the context of a longer strategy.
A five year projection of research expenditure and income would help shape the priorities of NKRF in the near future.
RFAC also recognises that the improving public image of NKRF generated by high quality publicity and information increasing public awareness in kidney disease should of itself bear fruit in increasing donation funding for research in due course. RFAC were concerned to understand whether the majority of donations to the Fund were given with the explicit aim of supporting renal research, and whether therefore it might be perceived that the Fund was not entirely fulfilling the donors' wishes in some circumstances.

Research fundraising initiatives
RFAC noted positively the active and wide reaching approaches being taken by the Fundraising Director to increase both restricted and unrestricted research funds.
Unrestricted funds continue to support the project grant and fellowship schemes. There has been no reduction in the allocations for these programmes other than those imposed by outside influences on the investment income of NKRF, such as stock market fluctuations, although reserves have been used. The unrestricted fund continues to depend on legacy income plus other general donations.
As well as profit from its trading company and other fundraising operations, the fund is actively seeking to maximise opportunities for legacy income.
Restricted Funds
RFAC was impressed by the energy and creativity of the Fundraising Director in seeking new funding streams to support NKRF's activity. This approach does however raise important issues about the mechanisms for deciding how such restricted funds should be allocated which are considered in further detail below.

Success of renal research as a positive public message
RFAC noted concerns from within NKRF that it was difficult to show direct patient benefit from much of the research funded through the 40 years of the Fund's history, thus making it difficult to support positive public communication to encourage increasing donations. RFAC felt however that this was unnecessarily cautious. Improvements in patient survival and quality of life on renal replacement therapy have been enormous over the last 20-30 years and this can be clearly supported by evidence on patient survival on dialysis and transplant outcome data. NKRF has undoubtedly contributed strongly to this progress, not only through individual project grants but by its contribution through its fellowship scheme and other activities to the broad base of academic nephrology in the UK. This is a very positive message which should not be underplayed [see below – Public Relations, page 16].

PRESENT ESTEEM OF NKRF RESEARCH FUNDING

Project Grants
An almost universal view was presented to RFAC from outside agencies that NKRF had provided a consistently positive influence on renal research funding in the UK and that this was sustained. The range of research supported is shown in Appendix 1 and is further considered below.

Fellowships & Studentships
The fellowship schemes have also been extremely successful and the cadre of clinical nephrologists and renal scientists supported by the fellowship schemes is impressive [Appendix 2 & 3].
In particular the *Senior Fellowships* have clearly supported high class individuals, the majority of whom are still active in academic nephrology in the UK or abroad [Appendix 2]. Senior Fellows were uniformly highly appreciative of the crucial role NKRF funding had played in their career development.
The *Career Development and Training Fellowships* have also been a very successful scheme. A proportion of those who held such fellowships are now in clinical nephrology practice with relatively little continuing research activity, but the majority remain research active. In the great majority of cases former Fellows saw the NKRF's funding as crucial to their career development [Appendix 3]. There were very few exceptions to this positive response; and in these cases there was evidence to suggest that good quality candidates with strong projects had been placed in an environment which was less supportive than was apparent at the time the application was assessed.
By contrast *Studentships* are less well regarded, as reflected in the paucity of feedback obtained from former students or their supervisors [Appendix 4]

Bibliometry Study
As well as these relatively subjective assessments of the success of NKRF's funding schemes, additional objective evidence is available from the bibliometric analysis carried out by Professor Grant Lewison [City University, London].
RFAC recognises the potential limitations of such analyses, but acknowledges that Professor Lewison's report represents the best analysis that can be done with the available tools.
RFAC views the key points of the analysis to be:

- The overall output of renal research in the UK is in line with other OECD countries with similar resources
- The proportion of UK biomedical research output which is in the renal field is low compared to other countries. It is however difficult to interpret this trend in the absence of data on the overall biomedical output in the other countries.
- The proportion of government funding [including MRC and Department of Health] committed to renal disease is low and is continuing to fall
- NKRF funds research of higher quality, compared to other funders of renal research in the UK, as judged by 'potential impact category' of journal and citation scores
- One third of all papers acknowledging NKRF support were designated 'non-renal' by this analysis. The 'filter' used to trawl the information was designed to identify papers clearly linked to renal disease, suggesting that the papers designated 'non-renal' have a bias towards more basic science. Further review by RFAC of a sample of these 'non-renal papers' indicates they are predominantly coming from clinical academic departments not primarily associated with the treatment of patients with renal disease [for example genetics and immunology] and reflect the more basic aspects of their research, published in high impact journals.
- 'Activity maps' indicate renal research output associated with most parts of the UK with the expected concentrations of output in academic centres. The equivalent map for renal research supported by NKRF suggests a further restrictive concentration of output in a smaller number of centres. To establish whether this indeed represents a

concentration of high quality output, Professor Lewison will produce a further map in which renal research output is weighted for 'potential impact factor' of journal.

Other assessments of esteem

The Fellowship and Studentship reviews and the Bibliometry review have provided objective evidence of esteem. There is also some evidence available from final reports on Project Grants. These have not yet been reviewed in detail. RFAC propose to undertake a final piece of work in which a random selection of project grants completed during 2000 and 2001 will be reviewed by RFAC members comparing the original proposal and the final report to make a judgment on 'value for money'. This will be available to the Trustees by the end of October 2002.

REVIEW OF PROJECT GRANTS

The project grant scheme remains a major element of the Fund's support for UK renal research. Typically ~60% of the unrestricted funds available for research have supported project grants. This scheme continues to be 'responsive' , that is the Research Grants Committee reviews applications from a wide range of researchers investigating a broad range of questions across a spectrum including basic science research investigating fundamental issues relating to kidney structure and function on the one hand, and clinical research or epidemiology at the other [Appendix 1]. The Call for Submissions emphasises the broad range of interest that will be supported.

The Range of Research Supported by the Fund

There is however no doubt that the majority of research supported by the Fund over the last 10 years has continued to be laboratory based. In the period 1991-2001 only 10 funded projects were clinical research, 190 were laboratory research [Appendix 1, Table 3]. This disparity broadly reflects the range of project grant applications the Fund receives. There is some evidence that the proportion of clinical research being funded is beginning to increase – 5 clinical projects were funded in the three years, 1999-2001, compared to 5 in the eight years 1991-1998 [Appendix 1, Table 3].

"Success" rates [proportion of applications receiving funding] have typically between 20-25%. More precise information is only available for 2000 & 2001 for which full information on unsuccessful as well as successful applications is available. During these two years success rate for clinical research applications was 8%, and for laboratory research applications was 22%.

The perceived need for NKRF to enhance its support of clinical research was one of the common views expressed to RFAC by those outside NKRF. The comments of the Chairman of the National Patients Advisory Group exemplified some of the tensions in this debate. He gave support to the range of research being covered, indicating the view that the majority of patients accept that significant tranches of renal research will not necessarily have immediate clinical applicability but should still be supported recognising the potential long term gain for future patients. On the other hand he also pointed out that patients welcomed some research having immediate clinical applicability and influencing changed and better practice. He raised the concept that such research was not necessarily doctor led but that the potential role of nurses and other health practitioners should be considered for research support. [The issue of multiprofessional 'near patient' research is discussed further below – Enhancement of Clinical Research, page 12].

Among the more basic laboratory science offered for funding, it is clear that there are applications whose relevance to kidney disease is very remote or may even, in the shaping of the application, be somewhat contrived. Possible examples might include projects on basic T-cell immunology which are rendered applicable to kidney disease by introductory

paragraphs discussing the importance of T-cells in kidney transplantation, whereas in truth such an application could go to other disease-specific research funds with a little deft editing. Likewise, physiology or genetics undertaken in animals or cell culture systems very remote from the human may arguably be beyond the remit of NKRF.
Another example is that the complexity of cell biology means that there are always questions which can be asked but nevertheless do not drive towards answers which will significantly progress understanding of kidney disease.
In assessing the funding of basic research, NKRF should also consider its Stated Aims, as well as the expectations of donors to its unrestricted funds, in reviewing the extent to which basic research remote to kidney disease should be funded.

An additional issue is the nature of the institution undertaking the proposed work. NKRF has a clear goal to foster the development of renal research capacity in the UK. The fellowship schemes clearly play a major role in this regard, but RFAC believes that project grant funding also plays a role. The integration of laboratory and other medical science with clinical renal units through the strengthening of academic clinical renal units has been one of NKRF's major achievements. While research excellence remains a core principle behind all funding decisions, the relative gains from project grant investment in research groups working closely with clinical renal units should be borne in mind in comparison to funding a research groups in a basic science department remote from a clinical renal unit.
It is important to ensure that applicability and relevance as well as feasibility and risk are criteria applied by the Research Grants Committee. It is recognised that to impose such restrictions may seem artificial and may not always be straightforward. Nevertheless given the relative paucity of the Fund's resources and its important commitment to supporting work for the benefit of patients with kidney disease as well as its role in supporting academic nephrology in the UK, consideration should be given to some limitations of this kind. Applications should therefore meet one or more criteria formed from the core goals of NKRF:

- Does this project contribute to the understanding of kidney disease?
- Does this project contribute to the care of patients with kidney disease?
- Does this project foster renal research in an institution connected to a clinical renal unit?

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Assessment of success
At present the NKRF's final assessment of the success of a project grant is made on the basis of a report received within 3-6 months of completion. This is too early to judge outputs, it may take up to 2 years to complete publication from such a project, and longer to judge the impact of the work.
RFAC therefore recommend that an additional report be obtained from principal investigators 2 years after completion. Such a delay may make reporting a low priority for the investigator, and the mandatory nature of this late report may need to be endorsed with an indication that those who fail to deliver such reports will not have future applications viewed favourably.

REVIEW OF FELLOWSHIP AND STUDENTSHIP PROGRAMMES

Presently ~40% of the total research funding is spent on the Fellowship and Studentship programmes. There is no doubt that the fellowship scheme has played a key role in

promoting academic nephrology in the UK over the last decade, see above and Appendices 2 & 3.

Training & Career Development Fellowships

[a] Clinical

The NKRF clinical training and career development fellowships dovetail well with clinical training fellowships supported by MRC and Wellcome Trust. They support 'entry level' research training for young clinical nephrologists, who may already have embarked on clinical training in the Specialist Registrar [SpR] grade, or increasingly wish to undertake research training before gaining an SpR post.

The fellowships are increasingly competitive [24 applications in 2002, of which 4 were funded] and there is strong evidence of excellence of output as well as esteem.

The fellowships are most successful when there is synergy between ***person*** [an excellent candidate], ***project*** [an appropriate and relevant project for training as well as an important research question], and ***place*** [a strong research training environment with excellent supervision. In the very few examples RFAC identified where a fellow had not flourished, the evidence was that a very good candidate had been selected, but an overambitious project or an environment less supportive than was perceived at appointment, had substantially weakened the situation.

[b] Non-clinical

Although assessed in direct competition with clinical fellows and the applicants are usually of similar age, the non-clinical fellows are at a rather different stage of their research careers. Typically they have already completed a PhD and had one post-doctoral research position. RFAC strongly endorses this scheme. The uncertain career structure for young non-clinical scientists means that they are at a vulnerable stage of their careers, and are often attracted away from academic research positions to industry or to non-research work. This scheme gives an opportunity to excellent candidates to remain in research at a stage where they may well cement an interest in the kidney and therefore contribute in the longer term to renal research. Such non-clinical scientists might well provide the core full time researchers whose presence should fortify renal research in the long term.

Awards of training and career development fellowships over recent years have been almost exclusively dominated by laboratory research, supporting either clinical or non-clinical awardees. RFAC strongly endorse the importance of offering training opportunities in clinical research, epidemiology and clinical trials work. Such opportunities exist within the present scheme and indeed are specifically identified and encouraged in the Information for Applicants. Nevertheless no such candidates have come forward. There are particular difficulties in offering training and career development opportunities for clinical trialists. The time scale of any substantial clinical trial means it is inevitable that completed work will not be achieved during the tenure of a three-year training fellowship. More imaginative training programmes should be considered acceptable in these circumstances – one possible scheme which would produce a sound programme for a Training & Career Development Fellowship might include one year spent attending an MSc in Clinical Epidemiology (for example at the London School of Tropical Hygiene and Medicine) coupled with training opportunities in systematic review, as well as the design and execution of an appropriate clinical pilot study.

Senior Fellows

[a] Clinical

Although the Senior Fellowship programme is very successful, its precise position is somewhat more problematic. Successful candidates for Senior Fellowships are in effect being appointed at intermediate fellowship level by MRC and Wellcome criteria if they are clinicians. In other words these are individuals who have completed a training fellowship and a PhD, are now committed to a career in academic nephrology, and require a further

period when they can combine the development of a research programme working towards a position as an independent investigator, while also completing clinical training. A number of these individuals will reach a CCST (Certificate of Completed Specialist Training) date during their Fellowship, and be ready for promotion to consultant.
The term Senior Fellow is used rather differently by MRC and the Wellcome Trust- for more senior posts which are career development awards offering an independent investigator 5 years funding, often renewable for a further 5 years; these posts are held at consultant level. NKRF does not at present have the resources to fund such posts.
The NKRF should therefore consider altering the name of the clinical senior fellows to avoid confusion with these other schemes. Strong consideration should be given to use of the term Clinician Scientist, since this fits well with the new cadre of academic track research training positions envisaged in the Savill Report. The latter are however five year posts in which two years to complete clinical training are linked to three years post-doctoral research training. It is envisaged that the two years clinical training will be supported locally by postgraduate deans, and that national approved training numbers would be allocated giving greater flexibility. It is also hoped that there will be the opportunity to move on to consultant level during the latter stages of such a five year programme.
RFAC recognises that NKRF should not be expected to support financially the clinical training element in these posts; however NKRF should ensure that its senior fellowship /clinician scientist scheme is reconfigured in line with the Savill recommendations. NKRF should also where appropriate participate in local discussions with postgraduate deans on an individual basis if required. Integration of the scheme in this way will undoubtedly strengthen the position of NKRF within mainstream academic training. Consideration should also be given to discussion with host universities and NHS trusts to gain support for some elements of work during the later phase of a senior fellowship/clinician scientist award, for example dovetailing clinical or teaching commitments into the work programme, so that the fellowship can be extended, and a move made into the consultant grade at an appropriate stage to minimise the financial disadvantage often endured by the committed academic whose move into the consultant grade is delayed.

[b] Non-clinical Senior fellows
Four of 13 senior fellows appointed from 1990-2001 have been non-clinicians. The term Senior Fellow is again not ideal here, since MRC and Wellcome both use that term when 5-10 year support is given to experienced independent investigators.
NKRF has used these fellowships to support researchers close to establishing independence, who are at a stage in their career where they are candidates for university lectureships. The scheme is successful and RFAC gives strong support to its continuation. Consideration should however be given to working with host universities to gain commitment to ongoing support for these individuals at the end of their fellowships if their research success continues. These are individuals very likely to make a long term contribution to renal research in the UK, and they should be strongly supported.

Studentships
Feedback on NKRF Studentships was much more limited than for the Fellowships [Appendix 4]. Only one of the 19 NKRF students who were approached made a reply. Only five of 14 supervisors responded; these were in general very supportive of the scheme. Approximately half of studentships are placed in academic nephrology units, the remainder in basic science departments.
By comparison with the success of the fellowship schemes and their overt contribution to capacity building in academic nephrology, the achievements of the studentship scheme are much less clear. There is little evidence that they are contributing significantly to the training of a cadre of young renal scientists, although they are undoubtedly offering good training opportunities for young graduates to undertake a PhD in a strong laboratory. They are providing these opportunities in both academic nephrology units and basic science departments. Although a minority of enthusiastic supervisors wrote in support of the

Studentship Programme, indeed quoting impressive output from such students, nevertheless RFAC is doubtful that they represent a strong investment return. The amount of money made available if the studentship scheme was stopped could, for example, fund a further fellowship which would bring greater strategic gain.
In this time of tight financial limitation, RFAC recommends NKRF consider suspending the Studentship scheme to help maintain project grant and fellowship funding.

RESEARCH GRANTS COMMITTEE

Range of expertise and operational processes

The Committee is impressed by the sound, transparent and robust process of review undertaken by the Research Grants Committee for both Project Grants and Fellowships. The organisation is efficient, professional and thorough. The process for identification of external reviewers is well established and in the majority of circumstances adequate external review is obtained. External review comments are made available to all committee members [unless there is a conflict of interest] – this is a new procedure from 2002. Final reports are now obtained on all project grants within 3-6 months of completion. These processes have substantially improved in all aspects in the last 2-3 years.

It is important to recognise the very substantial burden of work placed on the committee, particular the chairman. This workload will increase if additional funding calls based on restricted funds, and requiring peer review, are introduced.

The Committee membership has recently been expanded and now covers an impressive range of clinical and scientific expertise. This expansion has followed discussion at the Research Grants Committee initiated by the Chairman. While RFAC generally has confidence in the range of expertise presently on the Research Grants Committee, the Trustees should consider recommending that the range of expertise, as well as the names of the committee members, be in the public domain.

One external opinion raised concern that transplantation expertise is not adequately represented. However, the Research Grants Committee has on it one transplant surgeon, a number of nephrologists with substantial transplant experience, and also immunologists with expertise relevant to transplantation. Coverage of this area therefore seems very adequate.

The NKRF Research Grants Committee, in common with others of its kind, increasingly relies on external review to assists its deliberations. This external advice is interpreted in the context of the expert opinion of the Designated Member, thus enabling other committee members, who have strong research expertise but less specialist expertise, to come to a sound common view. One reason this process is effective is because of the common principles of research method, which are relevant regardless of the detail of the project. RFAC is concerned that this process may become less robust when the conceptual framework of a research project is very distinct from that familiar to the majority of committee members. For example, this could be the case when the Research Grants Committee is assessing qualitative research, or health services research. The Research Grants Committee has been enlarged to 'cover' such a range of research, but the membership should again be reviewed with this problem in mind. For example a committee with only <u>one</u> individual with expertise in qualitative research may not necessarily be able to come to a balanced informed view on an application in this field.

Perceived advantages for Committee members

It is often stated that membership of the Research Grants Committee may give individuals applying for grants an unfair advantage. The present arrangement is that the Chairman may not apply for a grant whereas all other Research Grants Committee members may apply as principal investigators.

At first sight, available information might be thought to support such an advantage with a significantly higher success rate for applications from Research Grants Committee members:

In 1999-2001, 12 project grant and fellowship applications were received from Research Grants Committee members, of which 8 were funded [66%].

During the same period 341 such applications were received from non-members of which 69 were funded [20%].

However RFAC is satisfied that these findings do not represent inappropriate bias, since

- The number of funded projects for RGC members remains a small proportion of the whole – 8/69 [11%]
- It is not unexpected that individuals with the expertise to sit on the Research Grants Committee are those with strong research experience and a proven record of successful research funding. Given the quality and experience of Research Grants Committee members, it is to be expected that their success rate with applications would be above average
- Appropriate mechanisms are in place to ensure that these grants are considered on an equal footing with other applications – in particular written external reviews and designated member comments are not seen by applicants who are Grants Committee members, and they leave the room during all discussion of their application. Likewise Grants Committee members working in the same Institution, even if not in the same department, recuse themselves from committee discussions.

Recruitment of new Committee members

The mechanism for replacement of Grants Committee members when they reach the end of the usual seven year period of service is similar to that used by other equivalent research review committees. Retiring members are invited to recommend individuals with a similar range of expertise and these are considered by the Committee in open discussion with the retiring member present.

To allow freer discussion and opinion giving, it is however recommended that final decisions should not be taken in this forum, but rather subsequent to the meeting by another method, for example a ballot conducted by e-mail.

ENHANCEMENT OF CLINICAL RESEARCH

Concerns have been expressed both within NKRF and from outside opinion that there is insufficient support for clinical research. There is no doubt that support presently given reflects in general the range of applications received. The Fund has worked hard over recent years to emphasise that clinical projects are equally welcome and this is reflected in a gradual increase of such applications.

RFAC considered whether such a change might be favoured either by “ring fencing” a certain proportion of the available annual allocation for project grants or fellowships in clinical research. This proposal did not find favour since there was significant concern that different standards might be applied. Rather, it was felt that the widest possible range of applications to the Research Grants Committee should continue to be considered whilst at the same time ensuring that the breadth and range of Grants Committee member expertise and the quality of the external review process ensured that applications received equivalent review, and that quality, feasibility and risk remain the main criteria for funding decisions.

On the other hand, some have expressed the view that NKRF should not make it a priority to fund clinical and health services research, which should rather be seen as the responsibility of the NHS R&D funding stream. RFAC does not support this view, but sees NHS R&D as an alternative complementary source of funds for renal research. It is important to appreciate the Department of Health’s policy that NHS R&D funds will increasingly be directed at government-designated priorities, which do not at present include renal disease.

Collaboration with British Renal Society

However, the Committee did note the possibility of collaboration with the British Renal Society [BRS] to support the particular area of multidisciplinary clinical research and practice development. BRS has just introduced an annual research grant round (£200,000 made available through commercial support), has established a peer review process, and has sought to fund projects which will develop research capacity among health professionals other than doctors, as well as supporting strong projects likely to bring substantial changes in clinical practice. Preliminary discussions with BRS indicate that they would warmly welcome the opportunity to work closely with NKRF in this development, in particular valuing the peer review expertise and grants administration skills of NKRF.
RFAC recommends that NKRF should consider developing collaboration in this area with BRS, not only by providing peer review expertise and managerial skills, but also by committing a modest sum to integrate with the BRS funds. Such a development would provide firm evidence of NKRF's commitment to the value of "near patient" research alongside more traditional funding areas, would enhance NKRF's reputation and would be welcomed by patients and the renal health community.
A possible framework for such collaboration could be:

- A single call for proposals in this field goes out under joint NKRF/BRS badges
- The terms of the call will be agreed, but will not differ substantially from those used in 2002 by BRS
- The call is administered by the NKRF Grants management team
- A revised grants committee is agreed – based on the BRS committee for their 2002 round with additional nominees of NKRF
- NKRF commits funds, say £50,000 annually for 3 years, on the assumption that BRS will continue to attract £200,000 annually for the same period, at the end of which the scheme is reviewed
- All outputs from successful applications will acknowledge both NKRF and BRS

FUNDING OF SPECIAL RESEARCH PROJECTS OUTWITH THE PROJECT GRANT AND FELLOWSHIPS SCHEMES

By contrast to the transparent and highly respected processes in place for project grants and fellowships, the Committee have significant concerns about the processes which have developed, apparently ad hoc on a project-by-project basis, to fund additional substantial projects.
It is recognised that the development of these new approaches is evolutionary, and in each case the sequence of events was logical, and the processes have resulted in the NKRF contributing to the funding of important research programmes. Nevertheless there is concern that lack of transparency may weaken the Fund's reputation with researchers in the renal community.
Four examples define some of the issues:

- MRC/NKRF Glomerulonephritis DNA Bank. This programme now funded and under way, was originally developed as a National Lottery bid by a group of senior investigators independent of the Fund. When that bid was unsuccessful the application was refined and submitted to the MRC in response to a call for the establishment of DNA banks. The application scored highly in a very competitive field. However, the MRC would not fund in its entirety and NKRF committed substantial funds (£375,000) to support matched MRC funding of £375,000. The decision was made by the Trustees of NKRF and the process did not include review by the Research Grants Committee. Thus the application was peer reviewed at MRC but not at NKRF.

- DNA Bank, Polycystic Kidney Disease This proposal is still under development. The Committee's understanding of the process is that NKRF approached a senior investigator in the field encouraging him to develop an application in this area of work. That application has been developed with support from NKRF and will now be peer reviewed by MRC. It has not been discussed by the Research Grants Committee. If MRC offer part funding, it is possible that NKRF may be asked to contribute substantially, as in the case of the Glomerulonephritis programme.

- DNA Bank, Vesico-ureteric reflux This programme also began with an approach from NKRF approaching a senior investigator[s] suggesting a proposal be developed in this area. Subsequently the Research Grants Committee expressed the view that such a restrictive initiation process denied others the chance to bid, and an open call followed. This call led to a consortium application to the Wellcome Trust which has now been fully funded

- ASTRAL Funding of this major multi-centre intervention trial in the management of renovascular disease exemplifies a more complex multi-funding process. The trial, now under way, is funded both by MRC, NKRF and the pharmaceutical industry. The application was peer reviewed at MRC but not by the NKRF Research Grants Committee.

RFAC has significant concerns about these processes. It is recognised that this is a new venture for NKRF and that the development of appropriate processes can take time. It is also recognised that these projects will only succeed if they are peer reviewed at MRC. Nevertheless the process by which that peer review satisfies NKRF and triggers very substantial commitment of funds raises some concern. In the opinion of RFAC, the Research Grants Committee should continue to review all applications received by the Fund. It is recognised that this potentially creates a "double jeopardy" where such special research proposals are made to succeed in peer review not only at MRC and NKRF. However, given the scale of these projects and the size of funds being committed, this seems an entirely reasonable requirement. Furthermore the Fund should recognise that processes by which projects are developed through personal involvement of the Fund with individual investigators put the Fund's reputation for openness at risk.

Partnership with MRC, Wellcome and other medical charities

RFAC strongly recommends that the Fund undertakes pro-active discussions with MRC, Wellcome and other relevant AMRC members (for example, Diabetes UK and British Heart Foundation) to explore appropriate arrangements for projects suitable for joint collaborative funding. Such a concordat should ideally establish principles whereby substantial projects exceeding the project grant limit at NKRF could immediately be considered for joint funding. Such a process would require a separate call from NKRF, and an appropriate limited review process to identify projects worthy of consideration for such joint funding.

Such a concordat could also possibly be extended to identify projects within the project grant limit (presently £100,000 annually) which would by their field of interest be suitable for joint funding. If such a project reached the funding threshold at the NKRF Research Grants Committee, NKRF would commit to fund in its entirety if necessary but would then be in a position to seek part funding through another agency with an appropriate peer review process. This mechanism would only work with short turn round times and might be approached through parallel review at NKRF and the other organisations.

RFAC recognises the potential for taking a highly focussed project (for example on polycystic kidney disease) to another research trust or other external funder to seek restricted funds for specific support. However, such approaches must be secondary to the requirement for a robust peer review process within NKRF.

ABLE and the development of a research programme on renal disease in ethnic minority populations

RFAC viewed favourably the process by which this area of research had been brought forward and regarded it as a secure model with all appropriate safeguards in place. In this model the initial move was a decision by the Trustees to commit funds to a public information and awareness campaign about the importance of renal disease in ethnic minority populations. This has been followed by success in obtaining additional restricted funds from the Department of Health, the Community Fund, and the pharmaceutical industry. This has then positioned the Fund to make an open call for research proposals supported by the restricted fund with an appropriate peer review process.

GENZYME collaboration and research call on vascular calcification in end stage renal disease

The process for the development of this work also is sound and clear. Discussions with the pharmaceutical company led to new restricted funds being made available for research in this area. Appropriate safeguards are in place to ensure scientific independence and a strong peer review process.

However, for these additional calls using restricted funds for a specific area of research, RFAC has some additional recommendations.

- Peer review should be undertaken by a panel including some members of the Research Grants Committee with appropriate expertise supported by additional members brought in for a single Committee only, along with the usual strong external review process.
- Consideration must be given to the appropriate strategy if the applications against a restricted call are of inadequate standard for funding. It is important to ensure that only research of high quality is funded. Where a number of applications are good but not of the highest standard, NKRF should consider working with such applicants and appropriate external expertise to strengthen applications to the point where funding can be given with confidence (by analogy with the process by which an editor works with a journal article submission to improve it to publishable standard).
- There must also be prior plans to withhold all funding if no applications of adequate quality are received and the necessity to carry money forward for a second call must be agreed with the donor.

FUNDING CLINICAL TRIALS

Despite the successful involvement of NKRF in ASTRAL, the funding of clinical trials in renal disease remains a major concern for the renal community.

At present there are no fully defined pathways for such funding which of necessity must differ from conventional project grant funding. Eventual establishment of a major [and high cost] clinical trial will follow a long period of gestation including systematic review, protocol agreement requiring the broad support of the renal community, planning and delivery of a pilot study usually focussing on feasibility and tolerability.

The size of NKRF's unrestricted funds does not at present allow it to commit substantial funding to definitive multicentre clinical trials.

RFAC views positively the recent MRC-led consultation on the development of clinical trials, to which NKRF has contributed.
RFAC proposes the following arrangements:

- NKRF should welcome applications for pilot studies which are a prelude to a major clinical trial. These will be considered as project grant applications in open competition with the same ceiling of £100,000.
- The Research Grants Committee will always include at least one clinical trialist among its membership, as well as sufficient statistical expertise
- Applicants seeking advice from NKRF in advance of submission of a pilot project grant will always be strongly advised to discuss their proposal with the Renal Association [RA] Clinical Trials Subcommittee to gain their expert advice about study design, and to assist in the process of gaining peer support for their study proposal from the Renal Association membership
- There will be no formal relationship between the NKRF and the RA Clinical Trials Subcommittee, whose role will be as independent advisors to the investigator. The support of the RA Clinical Trials Subcommittee will be welcomed by the Research Grants Committee but will not imply any commitment to funding without the usual full independent peer review process. Investigators will always be free to submit an NKRF project grant application even if they choose not to involve the RA Clinical Trials Subcommittee in their planning.
- If a pilot study is supported by a Project Grant and successfully completed, the investigator will need to apply for definitive funding from MRC with other appropriate partnership, for example from industry. NKRF will not commit additional unrestricted funds to part fund a large trial. In special circumstances NKRF may prioritise such a trial for fundraising to obtain specific restricted funds.

In addition RFAC recommends that NKRF should aim to strengthen further its working relationship with MRC in the field of clinical trials. Discussions with MRC should seek to establish a partnership whereby the specialist expertise of NKRF in reviewing and prioritising trials in the renal field could have some impact on the funding decisions of MRC. Thus, NKRF sponsorship of a trial, as shown by positive peer review and funding of the development or pilot phase, would be taken into account by MRC and would carry some weight in the MRC review process and final funding decision.

PUBLIC RELATIONS

The issues raised by this report offer a number of PR threats and opportunities to NKRF.

Negative messages might include:

- An apparent focus of NKRF on ‘elitist’ laboratory based research remote from patient care and undertaken by scientists driven by their own curiosity rather than the needs of patients with renal disease
- Concentration of NKRF resources in a coterie of academic departments whose members carry much of the funding influence
- Reluctance to NKRF even to consider research with immediate clinical relevance
- An expectation that current research will only influence clinical practice a long time in the future if ever
- The consequent difficulty of convincing local fundraisers that local needs are being met

All of these can and should be countered:

- There has been a huge impact of renal research on the care of patients with renal disease, which should be emphasised, and in which NKRF has played its part with other organisations. Positive examples to quote include EPO, radical improvements in transplant outcome, and the efficacy of ACE inhibitors.
- NKRF is actively seeking to support clinical research, which is taking a small but increasing proportion of the project grant allocations
- The very positive impact of the expanded role of NKRF should be emphasised, as evidence of its commitment to 'near patient' effectiveness. This includes for example the contribution to patient care through the Helpline, the patient support grant scheme, and the support of National Transplant Week.
- Local fundraisers can be encouraged to view a local approach in two ways. It can be pointed out that in every locality there are many people on dialysis because of common conditions, for example polycystic kidney disease, and that the best way to help those individuals and their families is to support the real experts in that field in other parts of the country. Secondly there can be an emphasis on the local research expertise whatever that might be.

NKRF should maximise opportunities to take advice from its Medical Advisors and other relevant professionals in shaping its PR approach to these issues, emphasising the expertise and achievements of researchers already funded, but also the broader achievements of renal research.

SETTING RESEARCH PRIORITIES

NKRF has until recently been a reactive organisation in its approach to research funding, responding to applications from curiosity-driven researchers for project and fellowship support. This approach has been broadly successful as this report indicates.
However over the last few years, NKRF has begun to be proactive in setting research priorities. While continuing to use its unrestricted funds to support curiosity driven projects and fellowships, it has started to use other processes to develop research initiatives. The processes it has used are not always clear to outside observers. For example, the research funding becoming available through the ABLE project is widely welcomed, but the process by which NKRF decided that ethnic renal disease should be a priority is not well known, but presumed to be a decision of the trustees and their advisors. Likewise the processes behind decision to promote the establishment of DNA banks and the choice of conditions to be the focus of those banks are unclear. Critics of NKRF have questioned the means by which the coterie of senior clinicians who have considerable influence with the NKRF in these matters, are selected.
The pragmatic necessities of fundraising are recognised by RFAC. It is appreciated that priorities mean nothing without funding, and that the Fundraising Director can only develop successfully areas of work if they are attractive to trusts, industry and other potential funding partners.
Nevertheless the position and reputation of NKRF within the renal community would be enhanced if some advice was taken from the community about the setting of research priorities from the perspective of front line clinicians and their patients. This would not need to be a complex, prolonged or expensive exercise. RFAC recommends a simple consultation process – for example a letter to all renal unit clinical directors asking each of them to consult among health professionals and other relevant individuals within their own units and provide three key priorities for research for the next five years. The NKRF can then be seen to be listening.