A joint statement of policy for biomedical research: gastroenterology

MEDICAL RESEARCH COUNCIL AND HEALTH DEPARTMENTS

We print below a statement of policy for biomedical research in gastroenterology that has been issued jointly by the MRC and the Health Departments.

1. Introduction

1.1 This statement, prepared in accordance with the spirit of the White Paper *Framework for Government Research and Development* (Cmnd 5046), summarises a policy for biomedical research in the field of gastroenterology which is acceptable both to the Medical Research Council and to the Health Departments. The purpose of preparing a joint policy of this kind is to ensure that research commissioned by the Health Departments and research supported by the Council's own funds will be complementary.

1.2 The policy is based on the report of a Council subcommittee (the 'Kay/Gregory Report') which took extensive evidence from research workers in the gastroenterological field. The report was published in 1975 in order that individuals or groups within the scientific community should have an opportunity to comment, and their responses have been taken into account in preparing this statement.

1.3 The policy is intended to lay down guidelines about the priority to be attached to different aspects of work in the field over the next five years or so. It is not intended to be a static policy, since it will need to be updated from time to time in the light of the altering potential of various areas of work, and of new scientific developments and therapeutic advances. Neither is it intended to be a rigid policy; it should recognise excellence and originality, and it should not deter applications for support by outstanding workers or those with new ideas in areas regarded on the whole as of low priority. Nor does it ensure support for proposals of a mediocre quality in areas highlighted as being in need of investigation.

1.4 In the past the advice of independent scientists has been sought on objectives and priorities for research and development, and the White Paper envisaged that these arrangements would be strengthened within Departments. There is no intention that in implementing this policy there should be a departure from the normal 'peer review' system as it is operated at the present time by the Council.

1.5 The availability of funds, both for biomedical research as a whole and for gastroenterology in relation to other fields, will determine to what extent the policy can be implemented.

2. General policy

2.1 There is no doubt about the considerable social and economic import-

ance of disorders of the gastrointestinal tract as judged by such criteria as mortality, hospital admissions, and sickness absence from work. Patients suffering from these disorders make large demands on NHS resources both at hospital and at family practitioner levels. There is every reason for maintaining an active research effort in this country, supported both by the Council and by the Health Departments through the commissioning arrangements.

2.2 A broad range of research in gastroenterology, much of it of good quality, is being undertaken in clinical departments, and since many of the investigators are clinicians the work in general shows a strong orientation toward clinical problems. But the lack of basic research in gastroenterology, on which future advances may well depend, gives rise to concern, and there is a disturbing lack of interest in gastrointestinal problems in preclinical departments. Moreover many clinical investigators have not received the research training which is essential for the solution of defined practical problems or in the pursuit of more fundamental knowledge. Opportunities should be taken to promote basic work and to encourage collaboration between basic scientists in such disciplines as biochemistry, physiology, pharmacology and immunology and their clinical counterparts with a view to elucidating clinical problems.

2.3 In order to bring expertise in basic disciplines into research in gastroenterology, an appropriate degree of priority (which will need to be assessed in relation to priorities accorded to other biomedical fields) will be given to (1) applicants for MRC Training Fellowships intending to undertake basic studies in the gastroenterological field and (2) applicants for MRC Travelling Fellowships where suitable centres for training do not exist in this country.

The possibility of establishing a limited number of reimbursed tenure posts for basic scientists to provide additional skills in established centres of excellence may also be considered in the furtherance of this policy. A limited number of MRC programme grants will be available for work in areas of gastroenterology considered to be of high priority and to demand a multidisciplinary approach, and special consideration will be given to the needs of those trained basic workers supported under them. Firm links with parent departments in the relevant basic disciplines will need to be demonstrated for the non-clinical workers concerned.

An appropriate degree of priority will also be given to applications for project grants from workers in preclinical departments wishing to investigate gastrointestinal problems.

2.4 In a number of areas advances are more likely to result from concentration on specific problems by research teams adopting a coordinated multidisciplinary approach than from the research teams of the past in which individual workers carried out their own projects. This is not to imply that the lone individual investigator no longer merits support; this will depend on the ideas behind the proposals put forward, and the competence of the individual to carry them through. Similarly there is no intention to provide support only to a few major centres to the exclusion of the rest.

2.5 At a time when funds for the support of research are limited, the possibility of access to, or sharing, expensive or sophisticated techniques or facilities should be explored by those requiring them; careful scrutiny will be made of requests for funds for the separate setting up or duplication of such facilities.

3. Priorities for research

3.1 While accepting that there may be certain differences in emphasis between them, the Council and the Health Departments are nevertheless in broad agreement about those areas in which research is likely to be profitable and which merit priority for support at the present time, and those in which prospects for research appear limited and in which support should be provided only on a very selective basis.

3.2 The extensive and diverse nature of the gastroenterological field precludes a comprehensive coverage of all topics in this statement. The fact that a certain area is not specifically mentioned does not mean either that it has not been reviewed or that it is not worthy or unworthy of support.

4. Areas meriting priority support

The Kay/Gregory report specifically excluded the general area of nutrition, including parenteral nutrition; this statement does the same. Studies on the liver, gall bladder, and pancreas are, however, considered to fall within the field of gastroenterology and are here assessed for research priority.

4.1 The most important clinical problems requiring attack are peptic ulcer, inflammatory bowel disease, infective hepatitis, cancer of the gastrointestinal tract (especially carcinoma of the colon), and gallstones.

4.2 Paediatric gastroenterology affords many opportunities for fruitful research, and is an underdeveloped area in this country; on these grounds it deserves special attention and priority for support, especially if work of a multidisciplinary type is proposed.

4.3 High priority should be given to new approaches to the peptic ulcer problem. These include the use of H_2 -receptor antagonists, whether alone or in combination with other therapeutic measures (e.g. antacids, anticholinergic drugs, prostaglandins). Work should continue on the role of mucus and the experimental production and healing of ulcers, and should include studies at cellular level. Epidemiological enquiries directed towards the elucidation of causative factors (environmental factors, smoking, alcohol) would be useful.

4.4 Work on the aetiology and treatment of inflammatory bowel disease, which includes ulcerative colitis and Crohn's disease, merits high priority, especially when undertaken in collaboration with immunologists and virologists.

4.5 Research on cancer of the gastrointestinal tract is an area for high priority support. Research on carcinoma of the colon is particularly opportune; the role of dietary fibre and of bile salt degradation by bacteria requires further investigation, and reliable methods for early diagnosis, whether by tests of greater specificity than the carcinoembryonic antigen test or by the use of colonoscopy, are urgently needed.

4.6 Dietary fibre studies are needed in relation to normal and abnormal functioning of the gastrointestinal tract, as well as in colonic cancer, e.g. in relation to lipid absorption. The value of high residue diets in the prevention and management of diverticulitis needs to be established.

4.7 The problem of the aetiology, prevention, and conservative treatment of gallstones requires further and more vigorous attack and multidisciplinary studies are to be encouraged.

4.8 Much work is currently under way on infective hepatitis and this has rightly been given a high priority. Work on the treatment of acute liver failure also merits support. More knowledge is needed about enzyme induction in relation to drug clearance and about the aetiology of cirrhosis.

4.9 The area of gastrointestinal hormones is still an expanding one of much interest and promise. At fundamental level, work on production, release, mode of action and degradation of hormones will continue to be funded. Development of new radiimmunoassays by expert workers is an essential preliminary step towards assessing the relevance and value of these hormones in clinical practice, and this needs to be done as each of the new hormones is identified.

4.10 It is estimated that in more than 50% of patients presenting with gastrointestinal symptoms no organic cause is found. More information is needed about the patterns of disease in this group, and the kinds of treatment they receive, generally at family practitioner level. Some syndromes are well defined, for example the irritable bowel syndrome, and here work is needed to elucidate the aetiological factors. There is scope for collaborative work between gastroenterologists and psychiatrists in this ill-defined area of symptomatology, in children as well as in adults.

4.11 Knowledge is lacking about the central and peripheral nervous control of the gut, and work is needed in both health and disease. This should be a fruitful area for cooperation between surgeons and physiologists.

4.12 In relation to the pancreas, there is a need for developing tests for earlier diagnosis of pancreatic carcinoma. Acute pancreatitis has a high mortality rate and chronic pancreatitis, although not a large problem, is often intractable; opportunities are sought to support work designed to improve their treatment and prognosis. Physiological studies on pancreatic secretion need development both in animals and in man, where fiberoptic instruments now enable direct collection of secretion.

4.13 Work on fundamental mechanisms and transport, especially the development of new techniques, still commands support of high priority in relation to intestinal absorption. Support in the clinical field will now be provided on a more selective basis.

5. Areas which merit support only on a very selective basis

5.1 Research support is no longer required for the development or application of additional gastric secretion tests, although consideration might be given to funding proposals for work on the maintenance of mucosal resistance to gastric juice.

5.2 In view of the high success rate of most surgical procedures, research support for further controlled trials should be provided more selectively and should generally be restricted to areas where appreciable innovations require testing against standard procedures.

5.3 Motility studies merit support now only if measurement of motility is linked to investigations using other techniques, for example electrophysiological methods.

5.4 The current liver function tests, although of diagnostic value, no longer merit research funding; there may however be scope for the development of tests relating to enzyme induction, membrane transport and carrier proteins.

Consideration will also be given to proposals for developing simple quantitative tests for use in clinical trials and practice.

5.5 Support for work using blood-perfused isolated organs should now be restricted to problems which cannot be investigated by other methods (see 2.5).