



At its Board meeting in Göteborg, Sweden, on 12 November 2004, the CPME endorsed the following policy : PWG Policy Statement on the Importance of Research in PGT (CPME 2004/138 Final EN)

**PWG Policy Statement on the Importance of Research in  
Postgraduate Medical Training (PGT)**

**Adopted by the PWG Plenary Assembly in Madrid 25 October 2003**

*“The progress of medicine is a scientific activity, rooted in both basic and clinical science; medical practice derives its sounder part from a scientific basis, and the terms in which a practitioner reasons about a patient are taken directly from science. In such a context, medical training, from undergraduate to postgraduate, must serve two purposes. First there is transmission of the tools of the trade. This is usually done very conservatively: only “proven” clinical knowledge is taught. However, since medicine is in constant evolution, a future doctor should always be educated to understand clinical advances [...]. This presupposes that every physician has sufficient scientific background to understand and recognise sound scientific arguments for changing a medical practice”*

Does research make for better doctors? Editorial, The Lancet, 342, 1063-64, 1993.

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## 1. Abstract

PWG has in past and recent years put a major effort in proclaiming high standards of postgraduate training (PGT) in her previous policy statements. Education in research is important in the medical profession, since it offers a tool to participate and/or stay in contact with the rapidly expanding medical possibilities and technological developments in the profession, along with evidence-based medicine leading to standards and guidelines.

Research forms the basis for medical practice and training. PWG believes that it is essential for evidence-based patient care to learn to understand, critically evaluate, and employ scientific results. PGT should provide a scientific environment, a culture which encourages skills in the field of research. PWG does not believe that junior doctors should be forced into a research career or be obliged to publish results of research.

Active participation in research should be encouraged and offered as an optional part of PGT. Research should be of high quality, adequately funded and ensured salary and appointment conditions equal to those for junior doctors engaged in clinical work. PWG believes that research should take place within regular working hours, preferably integrated in PGT.

## 2. Background

One of the most important aims of European medical organisations is to share national and European high standards, which will eventually lead to harmonisation of the quality of care in Europe, at the highest possible level.

PWG has always made a major effort to proclaim high standards of training, improve and optimise standards for medical training and medical care in Europe. The Policy statements on Post Graduate Training (1994) 1, on Future Medical Work (1997) 2, and on Continuing Medical Education & Continuous Professional Development (CME/CPD) (1999) 3 are the fruit of these efforts.

PWG meetings unite national specialists in the field of PGT, which guarantees the exchange of up to date national expertise, and feeds PWG with important background knowledge.

Research forms a basis for evidence-based medicine, thus medical practice and training. Therefore insight and basis knowledge of the principles of research is important for all junior doctors during PGT. Evidence-based medicine forms the basis for optimal patient care.

PWG discerns two types of involvement in research activities during PGT: 1) research education as part of continuing medical education, which should be integrated in PGT, 2) participation of junior doctors in research activities, alongside, after, or before (clinical) PGT training. The first applies to all junior doctors, and is obligatory. The second may lead to a more extensive involvement in research, as an addition to PGT.

Clinical training is intensive, time consuming, and a life long process. If one is not made familiar with principles of (clinical or basic) research as an integral part of PGT, junior doctors may be reluctant to add research experience to their already demanding clinical training programmes, and this may create or sustain a possible reticence of junior doctors towards research. If research is however considered of essential value to (future) clinical practice, then this will have to be reflected in PGT programmes.

Taking into account the aim of harmonisation of PGT<sup>4</sup> and free movement of doctors in Europe<sup>5</sup>, European medical associations may find an additional advantage in stimulating education in research methodology, and research during PGT, and research. Stimulating and financing exchange projects in the field of research on a European level could be a suitable way of

reaching free movement, fruitful contacts and harmonisation of standards. Moreover, in general, research is less hampered by language problems than is clinical work. In the light of the previous work done by the PWG on improving the quality of PGT in Europe, the importance of harmonisation of the quality of care in European countries, and in the light of stimulating contacts between countries and hospital of research departments, the PWG considers research in PGT an essential point of attention.

The Commission, in its proposal to Council (com(2001) 94/2 final, PWG 2001/067) towards the creation of a European Research Area (ERA)<sup>6</sup> as a reference framework for research policy in Europe, states that “the issues at stake [i.e. major threats to public health and food safety, information and communication sciences and technologies, and advances in life science] and the challenges associated, generally speaking and with the prospects opened up by technologies of the future, require future European research efforts and capacities that are integrated to a far greater extent than at present”.

In order to evaluate the current situation concerning research opportunities and policies in the 23 European countries represented in PWG, and to support a PWG policy statement on research, a questionnaire was sent to all PWG members in October 2001. It was decided to analyse the existing possibilities for junior doctors to be involved in research work in the different European countries. The results of the questionnaire are presented in addendum 1 7. On the basis of the results of the questionnaire, this policy statement was drafted.

### **3. Definition of research**

“Research is a thorough investigation of a specific subject in order to discover new knowledge. The research methodology employs a strict method in which decisive weight is placed upon ensuring that the understanding arrived at can be supported by reasons or proof. The researcher sets up a number of assumptions or theories which he or she then attempts to confirm or disprove”<sup>8</sup>.

PWG believes that junior doctors should undergo their PGT in a scientific environment based on evidence medicine. Junior doctors should be trained in basic research methodology as an integral part of their PGT programme. PWG does not believe that junior doctors should be forced into a research career, or have a responsibility to engage in independent research.

### **4. Aims**

#### **Aims of research for doctors in general**

The basic aim of scientific research is to increase the quality of the health sector services and efforts. Research, quality development and medical technological evaluation must be viewed in relation and considered as joint means to obtain a scientifically based health system.

Health research provides new knowledge which performs a basis for prevention, diagnosis and treatment of diseases and in this way an improvement of health, the length and quality of life for the present and future population.

The PWG believes that research advances medicine’s body of knowledge for the future, and secures the existence of a large class of doctors, both inside and outside academia, who are able to follow the course of medicine critically, thereby enhancing all aspects of medical practice.

The PWG recognises, in its ongoing efforts to advocate the highest standards of medical PGT, that research provides an essential tool for staying in contact with the exponentially expanding

medical possibilities and technological developments in our profession. Scientific developments, and the concomitant development of evidence-based medical guidelines and standards, are the basis of optimal medical care.

Research offers the opportunity to develop special knowledge and expertise in a chosen field of (bio) medicine and stimulates doctors to transform knowledge into hypothesis-driven research.

Research offers the opportunity acquiring skills of collaboration with other professionals in the (bio)medical field.

### **Aims of research education during PGT**

Research education is needed for current and future doctors in order to provide evidence-based medical decisions, resulting in high standards of patient care.

Research forms the basis of medical practice and training. The PWG believes that every doctor should be able to understand, critically evaluate, and employ scientific results.

Doctors should be in contact with and up to date throughout their entire careers in relationship to the scientific development within the profession.

PWG believes that the main goals of education in research are the learning of critical appraisal of literature, principles of evidence-based medicine, and comparing practice with existing standards (medical audit). Active participation in an ongoing research programme, including analysing data, presenting the data at research meetings and or congresses, and publishing results in (a) peer reviewed journal(s), should be stimulated.

PWG believes that benefits of education in research methodology are:

- training in critical appraisal of literature and evidence-based medicine
- Gaining insight in techniques and assays commonly used in (diagnostic) clinical practice
- Becoming competent in transferring “state of the art” to colleagues and other experts
- That knowledge of research methodology stimulates a more analytical approach to clinical problems
- That knowledge of research methodology offers tools/stimuli to keep up to date with scientific developments.

## **5. Ethical Principles**

The PWG emphasises that the scientific autonomy and integrity of the researcher must be guaranteed at all times.

The PWG stresses the responsibility of each researcher to conduct his/her research and to publish the research results in accordance with National Ethical Regulations, and in accordance with the recommendations by the World Medical Association in its Declaration of Helsinki, including its amendments<sup>9,10</sup>. A doctor should make the design and results of medical research studies publicly available.

## 6. Funding of research

The PWG stresses that the funding for research activities during PGT should be primarily provided for within or alongside PGT. Hospitals, universities, and foundations or trusts are equally welcomed to support research financially.

The direct involvement of pharmaceutical companies in sponsoring research activities is not favoured by PWG. Should pharmaceutical companies however fund research, then the professional and scientific autonomy and integrity of the researcher must be guaranteed at all times, all data should be analysed independently by the researcher, remain in his/her hands, and design and data must be made publicly available on request.

Should pharmaceutical or other profit organisations fund research, this should be reported in each publication of the result of this research.

## 7. Recommendations

### Recommendations for research education in PGT

PWG considers the following *elements of a PGT curriculum to be essential*:

- training in basic research methodology
- training in critical appraisal of literature
- learning principles of evidence-based medicine
- comparing practice with existing standards (medical audit)

PWG considers the following *elements of a PGT curriculum to be optional*:

- active participation in an ongoing research programme, including analysing data, presenting the data at research meetings and or congresses, and publishing one or more articles in (a) peer reviewed journal(s).
- carrying out a concise research programme (preferably clinically applicable, e.g. epidemiological or disease-oriented), within an existing line of research under supervision of an acknowledged research team, writing a report on the results and presenting them at a research meeting and/or congress
- writing a PhD thesis

### Recommendations for research in general

Doctors at all career levels should be encouraged to participate in research.

In all parts of the health care system, the importance of research should be acknowledged and sufficient resources should be ensured.

The PWG pleads to ensure that all doctors can practice evidence-based medicine and that those doctors who are interested in conducting research have the possibility to do so throughout their careers.

Junior Doctors should have the opportunity to participate in research activities in agreement with their interest and conditions, but should not be forced into a research career.

Research must be of a quality that will facilitate a research career on the international level.

Research should never be an absolute requirement to obtain clinical training posts.

Research should be given weight just as other competencies such as clinical medicine, medical audit, participation in CME/CPD, administration, management participation, leadership, teaching skills, in relationship to the individual position.

Research should be undertaken as part of the regular working hours and must be integrated into the PGT programme.

Junior doctors who engage in research must be ensured salary and appointment conditions equal to those for junior doctors engaged in clinical work, including paid illness, maternity / paternity leave, holidays, and the possibility for a part-time contract.

## **8. Action plan**

PWG recommends to its member countries that they not only adopt a policy on research in PGT, but that they also stimulate the development of formally recognised PGT structures which allow the combination of research and PGT.

European Medical Associations (including UEMS Sections and Boards and European Scientific Societies), should pay special attention to the importance of research in PGT programmes. Research exchange programmes between European country are generally less hampered by language problems. Therefore, centralised information on acknowledged research centres in European countries may facilitate the movement of research fellows between countries in Europe. This may establish contacts between (junior) doctors, hospitals and research centres, and ultimately stimulate free movement and harmonisation of the quality of health care.

## **9. Conclusion**

Research forms the basis for best medical practice and training. PWG considers it essential that the PGT curriculum provides for training in research methodology, critical appraisal of literature, principles of evidence-based medicine and medical audit. PGT should provide a scientific environment, in which active participation in research should be encouraged and offered as an optional part of PGT. Junior doctors engaged in research should be ensured working conditions equal to those for junior doctors engaged in clinical work.

PWG recommends that CPME and other European Medical Associations pay special attention to the importance of research in PGT programmes, recognising that harmonisation of PGT and free movement of doctors within Europe may be an ideal stimulus for contacts between countries, hospitals and research departments.

## References to Literature

1. PWG Policy Statement on PostGraduate Medical Training (1994).
2. PWG Policy Statement on Future Medical Work (1997).
3. PWG Policy Statement on Continuing Medical Education & Continuous Professional Development (CME/CPD) (1999).
4. UEMS mission statement (updated September 2002).
5. EU Directives 1993/16/EC and 2001/019/EC on recognition of professional qualifications, i.e. the “Doctors Directive”.
6. Proposal for a decision of the European Parliament and of the Council concerning a new programme on research, ((com 2001) 94 final/2), Brussels, 1 March 2001. PWG 2001/067
7. The Importance of Research in Paediatric Postgraduate Training (PGT). PWG 2001/050 rev 1, and PWG 2000/026.
8. Research Policy of the Assembly of Representatives of the Danish Association of Junior Doctors (2000). PWG 2001/101.
9. World Medical Association, Declaration of Helsinki: Recommendations for conduct of Clinical Research.
10. A fifth Amendment for the Declaration of Helsinki. The lancet, 356, 1123, 2000.

## Results of the Questionnaire on Research in PGT (PWG 2000/026)

In the PWG meeting in October 2000 in Utrecht, it was decided that the PGT subcommittee would start working on a PWG policy statement on the importance of research in PGT based on document PWG 2000/026. It was decided to analyse the existing possibilities for junior doctors to be involved in research work in the different European countries. For that purpose a questionnaire was developed. The results of the questionnaire are presented here. On the basis of these results a policy statement on the importance of research in PGT was drafted.

Of 23 countries member of PWG, 16 countries (70%) responded to the questionnaire. No response was obtained from France, Spain, Hungary, Poland, Slovenia, Luxemburg, and Belgium. The answers were obtained between October 2001 and May 2002.

### 1. Current opportunities

**Research in undergraduate training (UGT)** (answered by 16 countries):

*Educational goal:* research skills are set as an educational goal in 9 countries during UGT (56%).

*Part of UGT:* in 8 countries a separate period of research is currently part of UGT (50%).

*Report:* 7 of the 8 countries in which a separate period of research is actually part of UGT demand a written report on the research activities (87%).

*Length:* the average period of time spent on research within UGT is 3 months, but this question was only answered by 5 countries.

*Title:* in Switzerland and the Netherlands the research activity within UGT leads to an MD title. In Austria it leads to the title of Dr. in Medicine, or Dr. in Dentistry.

**Research in Postgraduate training (PGT)** (answered by 16 countries):

*Policy:* 6 countries have a policy on research within PGT (38%).

*Recognised structure for research activities integrated in PGT:* In the Netherlands, Sweden, Finland and the UK a formally recognised structure exists for combining research and clinical PGT (see examples below).



*Skills related to research demanded in PGT:*

Skills	compulsory	Optional	Not included
Research methodology	Se, Pt, It, NL	N, Fi, A, Ir, Est	DK, G, Li
Review of medical literature	Se, G, It, Fi, A, NL, Ir, Li, Est	Pt, N	DK
Critical appraisal	It, Fi, A, Ir	Se, Pt, N, Li	DK
Evidence based medicine	Pt, Fi, Ir, Li	Se, N, A, NL, Est	DK, G, It
Other	Se: ethics/statistics	Se: many different course	DK

*Research optional:* in 10 countries research is an optional part of PGT(63%), done both in part-time (50%) as in fulltime (40%).

*Research obligatory:* in 4 countries research is an obligatory part of PGT (25%), mostly done in part-time (if specified).

4 countries state that “research experience is *greatly appreciated* for future employment” (25%).

*Length:* the minimum length of time spent on research within PGT was 3 months, but this question was only answered by 2 countries.

*Title:* the titles granted for a (completed) research activity range between MD and PhD in most countries, MSc (Pt), and University Professor (A).

*Report:* 3 of the 4 countries in which research is a obligatory part of PGT demand a written report of the research activities, and only 1 country demands a presentation at a (national) meeting. 2 countries out of 10 in which research is an optional part of PGT require a report (NL and Se). NB: In the Netherlands this report may be a case report. Only the Netherlands requires a presentation at a (national) meeting.

***Optional comments:***

*UK:* Research is optional and takes place in addition to normal training. It is not funded as part of training and therefore requires the doctor to apply for funding from various government and charitable sources. These applications are frequently unsuccessful.

*Ireland:* Research is encouraged in undergraduate training; summer projects may be funded by the national health Research Board (HRB), and presented at national meetings. In PGT trainees are expected to take part in audit, and in practice to take part in research and write papers, normally outside of normal working hours. Up to one year of credit will be given to higher specialist training for a period of research. In practice trainees find it difficult to complete training and certification without having completed a period of research leading to a higher degree (MD or PhD).

*Lithuania:* Research is an encouraged voluntary activity carried out at the university outside of PGT. The consecutive PhD title makes a significant input into the carrier of trainees.

*Denmark:* in Denmark the Assembly of Representatives of the Danish Association of Junior Doctors adopted a Research Policy in the Fall of 2000 8. In summary, it recommends a greater degree the integration between clinical and scientific work, and facilitating conditions for students, junior doctors and medical specialists to follow medical research. This should be done at a high professional level, which is a starting point for the possibility for continuing with a research career on the international level.

The Danish Association of Junior Doctors wishes to have a formalized research education on various levels: the Basic level of study, research training in medical specialist education, cf. the Danish Specialists' Report, as well as an actual research education on the doctoral PhD level. One carries qualifications from the one level to the next, and this can be viewed as a continuum of medical scientific education. It emphasizes the importance of an active research environment with possibility to learn from experiences of both older PhD students, and post doctoral individuals, and senior researchers. It is the opinion of the Danish Association of Junior Doctors that a sufficient number of post-doctoral positions must be established to stimulate gifted researchers to follow a research career after obtaining a PhD degree.

There must be a possibility to take leave from postgraduate medical training positions to conduct research projects, and/or to appoint for posts which combine clinical training, research training, and research. It is important to emphasize that postgraduate training secures high quality and that the researcher is not reduced to permanently taking weekend on-calls to secure time in the daily schedule for research.

The Danish Specialist Commission, in agreement with The Danish Association of Junior Doctors, has recommended that postgraduate training should be expanded with a 12 week module in research training.

**Funding** (answered by 14 countries):

**PGT:** The state funds PGT in 12 countries (86%), the medical departments / hospitals fund PGT in 10 countries (71%), and the universities fund PGT in 6 countries (43%). Combinations thus occur.

**Research in PGT:** In 7 countries (50%) research is funded in the same way as / alongside / within PGT.

The universities fund PGT in 11 countries (79%). Pharmaceutical companies fund PGT in 8 countries (57%), foundations / trusts fund research in 11 countries (79%). Combinations also occur.

## 2. Policy and Opinions

Within PGT, should research be *obligatory or optional*?  
(answered by 15 countries)

- Obligatory: 10 countries (67%)
- Optional: 13 countries (87%)  
(8 countries replied positively to both)
- Strictly optional: 5 countries (33%).
- Strictly obligatory: 2 countries (DK and I)

<b>Direct benefits</b> of research experience:	scored in order of importance 1 (not important) to 5 (very important)
- Training in critical appraisal of literature, evidence based medicine:	4,6
- Develop special knowledge and expertise in a chosen field of (bio) medicine:	4,0
- Being competent in transforming knowledge into hypothesis-driven research:	3,9
- Having insight in techniques and assays commonly used in (diagnostic) clinical practice:	3,7
- Being competent in transferring “state of the art” to colleagues and other experts:	3,6
- Having skills of research collaboration with other professionals in the (bio)medical field:	3,5

<b>Indirect benefits</b> of research experience:	scored in order of importance 1 (not important) to 5 (very important)
- Research stimulates a more analytical approach to clinical problems:	4,3
- Research offers tools/stimuli to keep up to date with scientific developments:	4,1

<b>Goals and aims</b> of research activity during PGT:	scored % in favour
(answered by 16 countries)	
- Critical appraisal of the literature, teaching evidence based medicine:	75%
- Comparing practice with existing standards (medical audit):	63%
- Active participation in a ongoing research program, analysing data and learning to transform raw data into a comprehensive text or article, presenting the data at research meetings and (a) congress(es), publishing one or more articles in (a) peer reviewed journal(s):	56%
- carrying out a concise research program (preferably clinically applicable, e.g. epidemiological or disease-oriented), within an existing line of research under supervision of an acknowledged research team, writing a report on the results and presenting them at a research meeting and/or congress:	31%
- Writing a PhD thesis	0%

### **Funding**

Research within PGT should be funded by:

- Within PGT: 13 countries:	81%
- Universities: 10 countries	63%
- Foundations or trusts: 8 countries	50%
- Pharmaceutical companies: 4 countries	25%

### **3. examples of formalised PGT schemes integrating clinical training and research in European countries**

#### **The Netherlands**

The “AGIKO” model was developed to stimulate (junior) doctors to do (clinical) biomedical research in an early phase of their carrier, and to create more academically (PhD) skilled (specialist) doctors. It is based on an earmarked scholarship granted by any foundation or university to a junior doctor. This scholarship provides the additional salary necessary to upgrade the salary of the researcher to that of a clinical junior doctors, during the research

period (normally 3 years).

*Requirements:*

- 1) the "clinical professor" + the "research professor" (which can be one person) both formally agree on the program. The Medical Specialist's Registration Committee (MSRC), following the formal requirements, approves with the training scheme;
- 2) the aim is a PhD thesis;
- 3) at least 1 year of the 3 years of research is done after completion of 1 year of (full-time) clinical training.

*AGIKO-structure:*

3 years of research (leading to a PhD thesis) + normal length of training (4 or 5 or 6 years) can be combined in a formally recognised structure/puzzle (AGIKO-construction):

e.g.:

2 years research + 2 years clinical work + 1 year of research + remaining years of PGT  
 2 years clinical work + 2 years research + PGT, integrating 1 year of research (cont. or interrupted)

*NB:* All combinations are allowed as long as the first year of PGT training is not interrupted by research, and at least 1 year of research is done between the starting and ending of PGT training.

*Funding:*

During the total length (3+5=8 or 3+6=9 years) of the AGIKO-construction, the researcher/trainee is salaried as a clinical trainee/junior doctor.

Funding during research periods: by university + (non-profit) trusts/foundations

Funding during clinical PGT: by the hospital/department (as all clinical trainees)

***United Kingdom***

A new scheme is being introduced of "clinical" scientist" at the present time, along the Dutch AGIKO lines. However there will only be 50 of these at the present time. This is funded centrally.

***Sweden***

Special combinations of research and clinical training are available prior to PhD. During internship (mostly 18 months) 6 months of research can be added. In some parts an additional 4h/week can be used for research during the clinical months. During a Residency of 5 years 2 additional years can be added. It is not available all throughout the country but always funded with regular doctor salary.

***Finland***

In the UGT studies we have 10 credits (out of 250) of studies that are in most cases completed by a research project leading to a written report or article. Many students continue to a PhD degree in the same laboratory. Few students complete the 10 credits by attending some specific courses (instead of research) that usually include a written report. PGT: Some months of research can optionally included in most specialist curricula. A model similar to AGIKO has been developed also in Finland. The funding for the research part has however not yet been

solved. PGT: Funding for "medical education and research". Med. Faculties decide which hospitals get money, and are allowed to educate doctors.

### ***Ireland***

There is no formalised structure but many training schemes will allow up to one year's credit for research. If one is lucky, one will receive a grant from the Health Research Board, paid at a fixed point of the trainee salary scale.

### ***Denmark***

In Denmark, today, very few combination positions have been established for staff specialists. Neither is there any formal access to combination positions in training posts as the establishment of such posts requires a concrete compensation with regard to the training regulations.

The Danish Association of Junior Doctors, in its Research Policy expresses the wish that combination posts (clinical and research) must be established with regard to the involved doctors, the project, and the local conditions. The positions must be established at all levels. The aim is to create possibilities for individual education and research courses, which can lead to both a career with possibilities and an engaging research project. Appointment conditions under research training as well as senior research posts must be improved with regard to duration, security and economy in such a way that the posts can be equivalent to clinical appointments.

## **Conclusions**

The aim of this questionnaire was to obtain an overview of currently offered opportunities for research activities in undergraduate- and postgraduate training, and explore opinions in view of a policy statement on the importance of research in postgraduate medical training.

The questionnaire was filled in by 16 member countries of the PWG. Apart from France and Spain, all larger European countries are included.

For UGT, half of the responding countries report that research is one of the educational goals. Consequently, these countries, all but Estonia, actually integrate a period of research into undergraduate medical training. Usually the title which may be obtained through this research activity is an MD title.

For postgraduate training (PGT), only one third of the countries have a policy on research in PGT, and only four countries have a formally recognised structure which allows integration of research activities into PGT.

In a majority of the countries, research is an optional part of PGT (63%), which can eventually be done as a part-time activity, alongside (part-time) PGT. In 4 of these countries research experience is said to favour the chances for future employment. Research is obligatory in 4 countries.

Research in PGT is financed in various ways, but mostly through universities and/or trust or foundations (in 80% of countries). In half of the countries, research is financed within (or alongside) PGT. Pharmaceutical companies play an important role in financing research (in 57% of countries).

Most countries (87%) feel that research should be an optional part of PGT, of which 5 countries (33%) state that it should be strictly optional. Although all offered options for "direct benefits"

of research scored highly ( $\geq 3,5$  on a scale of 1 to 5), training in critical appraisal and evidence based medicine, and developing special expertise in a chosen field received most support (score  $\geq 4$ ). As indirect benefits, both the opinions that research stimulates a more analytical approach to clinical problems, and that research offers tools and stimuli to keep up to date with scientific developments, were strongly supported (score  $> 4$ ).

According to the responders, the most important goals of research are the learning of critical appraisal of literature and principles of evidence based medicine (75%), and comparing practice with existing standards (medical audit) (63%). Half of the responders feel that active participation in a ongoing research program, including analysing data, presenting the data at research meetings and or congresses, and publishing one or more articles in (a) peer reviewed journal(s), is an important goal too. None of the responders feel that writing a PhD thesis should be the aim of research experience during PGT.

As to funding of research within PGT, 80% feel that funding should be provided within or alongside PGT. Universities and foundations or trusts are equally expected to support research financially; only 25% of the responders believe that pharmaceutical co