

# The European way of training and research in obstetrics and gynecology

W. Künzel, L. Kovacs\*, C. F. Oliviera†, Lord N. Patel‡ and J. W. Wladimiroff\*\*

Chairman of the Department of Obstetrics and Gynecology, University Giessen, President of the European Board and College of Obstetrics and Gynecology, Secretary General of the European Association of Gynecologists and Obstetricians; \*President of the European Association of Gynecologists and Obstetricians, Director of the Collaborating Centre for Research in Human Reproduction of WHO, University Szeged, Hungary; †Director of the Department of Gynecologic Oncology, University Coimbra, Portugal, Past President of the European Society of Gynecological Oncology, Chairman of the Board of Obstetrics and Gynecology, Portugal Order; ‡Past President of the Royal College of Obstetricians and Gynecologists, Chairman of Specialist Training Authority of UK, Council Member of the Medical Council UK, President Elect of the European Association of Gynecologists and Obstetricians; \*\*Head of the Division of Obstetrics and Prenatal Diagnosis, Academisch Ziekenhuis, University Rotterdam, Vice President of EBCOG and Chair of the Hospital Recognition Committee

## 1. INTRODUCTION: OBSTETRICS AND GYNECOLOGY WITHIN THE EUROPEAN UNION OF MEDICAL SPECIALIST SOCIETIES (UEMS)

W. Künzel

One year after the Common Market/European Economic Community (EEC) was established, a number of medical specialists from the founding six member states met in Brussels and founded the Union Européenne des Médecins Spécialistes (UEMS) or European Union of Medical Specialists. This was on 20th July 1958. Following later expansion of the EEC to 15 countries, membership of UEMS was also expanded to include the European Free Trade Association (EFTA) countries. Other European countries are in associate membership of the UEMS. At present, the UEMS comprises 36 specialist sections, including the Section of Obstetrics and Gynecology. UEMS is the European representative organization of the various national associations of medical specialists in the member countries.

The UEMS works through the Advisory Committee on Medical Training (ACMT), one of two health-related committees, with the European Commission. The new Directorate of Health and Consumer Protection headed by Commissioner David Byrne (IRL) will play a leading role in ensuring quality health care for all European citizens in the future.

EBCOG is the Board of the Obstetrics and Gynecology Section of the UEMS. EBCOG began in 1996 as a fusion between the European Board of Gynecology and Obstetrics (EBGO) and the European College of Obstetrics and Gynecology (ECOG). Based in Brussels, Belgium, EBCOG is an organization made up of 25 countries. Its objective is to improve the health of women and their babies by promoting the highest possible standards of care in all European countries. It brings together high-level professionals in the fields of obstetrics and gynecology from all its member countries. EBCOG and its members are committed to raising the standard of practice in obstetrics and gynecology throughout Europe.

In order to achieve these objectives, EBCOG:

- Recommends the standards required for the training of specialists and also the means of maintaining these standards;
- Examines the content and quality of training in all countries in Europe;
- Recommends the criteria to which specialist training centers should conform;
- Makes proposals for unifying the training programs to achieve specialist status;
- Ensures that the knowledge and skills of obstetrics and gynecology specialists are maintained and updated;

- Develops, with the sub-specialties in obstetrics and gynecology, a system to assess and recognize the quality of training and practice;
- Promotes research relevant to the health of women and their babies;
- Facilitates the exchange of specialist trainees between training centers throughout Europe.

The organization of EBCOG is based on the work of the Executive Committee, consisting of four officers and five executive members. It meets at least three times a year. The Council gathers twice a year, one of these meetings being held at the European Congress jointly organized with the European Association of Gynecologists and Obstetricians (EAGO) in a major European city. The congress is organized by a joint Scientific Committee.

Working parties and Standing Committees are the driving force of EBCOG. These are:

- Standing Committee on Training and Assessment;
- Hospital Recognition Committee (visitation of training centers);
- Working Party on Examination and Diploma;
- Standing Committee on Continuous Medical Education (CME) and Continuous Professional Development (CPD).

The Standing Committee on Visitation of Training Centers is the most important, since it is the basis for harmonization of training and health care in our profession in Europe.

## 2. QUALITY ASSURANCE BY VISITATION OF TRAINING CENTERS

### 2.1. Basic requirements for European training centers

*Lord N. Patel*

The purpose of having criteria that a training center should meet for training in obstetrics and gynecology is to facilitate the department in setting up a structure and plan that are required to deliver high-quality training. It therefore helps the department to set up this structure and then allows external monitoring of both the structure and the process of delivery of training. Hopefully this will then produce consistency of

training throughout all the centers in Europe, which is the main aim of EBCOG, through its development of the training curriculum and hospital visiting.

The basic requirements for the training center fall into several key categories.

- *A culture within the department recognizing that training is important* The senior staff from both the university and the health service recognize that they have to work together to train the junior doctors in their department. This requires that there be a process through regular meetings and discussions to assess how the training programs are progressing. The trainers themselves are trained in the methodologies to be recognized as trainers, and these skills are updated at regular intervals.
- *Structure of the department* The structure of the department and the size (in terms of delivery) and the number of different sub-specialty interests (in terms of maternity deliveries and sub-specialty interests in cancer, infertility, colposcopy, ultrasound, etc.) are sufficient to meet the needs of trainees, so that they can be trained in both theoretical knowledge and practical skills. If the department itself does not have enough volume of such patients, then there should be a possibility that the trainees can acquire these skills and expertise by rotating to other units.
- *Structured training program* The department should follow a training program that is devised nationally or ideally reflects the training program as described by the training committee of EBCOG. Eventually EBCOG would like to see that all training departments in Europe adopt the training programs as defined by EBCOG.
- *Support for trainees* The organization in the department should support trainees by identifying an individual training supervisor or mentor. There should be regular meetings with the trainees to hear their views and also to make sure that the training for individual trainees is progressing satisfactorily. The trainees should have the opportunities they need for acquiring competencies and skills in all aspects of obstetrics and gynecology. The trainees should have an opportunity to voice their concerns about the whole training program and individual training programs.

- *Opportunities for research training and research*  
The department should recognize that training and research facilities and opportunities for some trainees to do more focused research should be available. This might be part of their training program or be provided in extra time. There should be a demonstration of this through both publications and higher degrees particularly related to academic progress. The curriculum should reflect the research training that every trainee would be expected to go through.
- *Liaison with other departments* There should be recognition that the training of obstetricians and gynecologists requires that they understand and have some experience of other closely allied specialties such as neonatal pediatrics, anesthesia, critical care, general medicine, surgery, genetics and oncology. The curriculum and training should reflect these needs. Joint liaison meetings with the department are important.
- *Supporting structure* Apart from joint meetings with other departments, regular departmental meetings related to all the sub-specialty interests should be held. Training in assessment methodologies so that trainees know how they will be assessed for their competencies, formal examinations if they exist, facilities for self-learning with both a library and electronic media should be readily available to the trainees. Evidence of progression through the training by the development of log-books or a similar portfolio is important.

Apart from the key areas described above that any training center to be recognized as a training center should have, of course there are important issues of the whole culture of training and service and the relationship of the two in the hospital. Therefore, it is important that the chief of the medical school and the chief of the hospital are both involved and understand the requirements of training. This should include the need for both senior staff and junior staff to have a study period away from their hospitals to maintain their continuous professional development.

During hospital visits, the department is asked to submit the evidence related to the above topics. During the process of hospital visiting, this is further explored through meetings with senior staff, trainees, other heads of department and hospital and university chiefs.

## 2.2. Experience in visiting European training centers

*J. W. Wladimiroff*

The European visiting system was started in 1995. Visiting is an effective means of determining the quality of specialist training in a hospital department.

Essential during a hospital visit are the following questions:

- Is training a high priority?
- Is the training program appropriate?
- Are the conditions suitable for teaching and learning?

The hospital recognition committee that carries out the visits looks specifically at:

- The master–apprentice system;
- The structured training program;
- The place and time of the rotation;
- The number of working hours;
- Protected teaching time for tutors;
- Basic training, areas of special interest and sub-specialist training.

In the end, the objective is to identify the weak and also the strong points of the training program, to share these with the department and to assist individual departments to improve their training program.

To date, 17 visits have been carried out, notably in Norway, Slovenia, Germany, France, Portugal, Spain, Hungary, Italy and The Netherlands. Hospital visiting exists in countries such as Great Britain, Ireland, The Netherlands, Sweden, Norway and Portugal. It is hoped that in this way, the appropriate national authority of European countries without a visiting system in place will adopt hospital visiting as a means of assessing quality of training in obstetrics and gynecology.

### 2.3. The appreciation of being visited: fears, goals and conclusions

*C. F. de Oliveira*

Three departments of gynecology and obstetrics have been visited in Portugal by the Hospital Recognition Committee: two in Porto and one in Coimbra. All these departments are recognized by the Portuguese College of the Medical Order as being liable for residents' training.

In Portugal, the College of the Speciality of the Medical Order is responsible for recognizing the liability for residents' training, and the Health Ministry has to accept the Medical Order's recommendations.

In the scope of gynecology and obstetrics, site visits are regularly performed by three regional committees – North, Center and South – to all departments of gynecology and obstetrics. The site visits made by the EBCOG Hospital Recognition Committee allowed:

- A comparison between the methodology used at site visits by the national and international committees;
- The active participation of the members of the Portuguese committee and the exchange of opinions;
- The stimulation of the departments to implement changes;
- The opportunity to communicate the Portuguese reality to the international committee.

In the near future, the EBCOG Hospital Recognition Committee will not be able to visit all the European departments of gynecology and obstetrics interested in recognition, but the European College and Board should elaborate the guidelines for site visits and for the recognition of the liable entities at a national level, which would carry out those site visits on their behalf.

### 2.4. Recommendations to Eastern European countries

*L. Kovacs*

The basic recommendation to Eastern European countries is to take advantage of the visiting system and to request visits from EBCOG. The expenses incurred by Eastern European hospitals in connection with such visits are very moderate: only the local costs of the stay of the visitors are to be covered, the

expenses of their travel to the country being offered by EBCOG.

To date, only two Eastern European countries have been visited: Slovenia (Ljubljana University department) and Hungary (four university departments). Such visits can be regarded as high-standard quality controls; in a successful case, the accreditation is proof of good quality.

The discussions with the visitors generate numerous good ideas for the senior staff of the departments, and the criticisms can serve to highlight the need for amendments. The standards of training can be improved, new ideas can be introduced, and the training program elaborated and recommended by EBCOG can be achieved more easily. The statements and recommendations formulated by the visitors in the reports on the visits can be useful arguments for the directors of the departments in their negotiations with the local authorities.

Another recommendation for these countries is that their national societies of obstetrics and gynecology should establish their own visiting systems on the basis of the experience gained during the first visits. Of course, for the introduction they will need and should request the assistance of EBCOG, but this will certainly be provided.

## 3. TRAINING IN OBSTETRICS AND GYNECOLOGY IN FIVE EUROPEAN COUNTRIES: TRAINING TIME AND ORGANIZATION, PROFESSIONAL CAREER DEVELOPMENT AND TRAINING POSITIONS

### 3.1. The United Kingdom

*Lord N. Patel*

In the United Kingdom, the authority responsible for specialist training in all specialties is the Specialist Training Authority of the Royal Medical Colleges of the United Kingdom. This body is set up by Parliament and is responsible to the Chief Minister of Health and to Parliament through him. The Specialist Training Authority's membership is mainly derived from the Royal College and Faculties but also has representation from the lay public nominated by the Minister of Health and the General Medical Council, which is the authority responsible for registration of doctors. The

Specialist Training Authority delegates most of this work to the colleges but monitors their work.

The number of training positions in each specialty, including obstetrics and gynecology, is defined by a Government Committee on a yearly basis.

The Royal College of Obstetricians and Gynaecologists of the United Kingdom is responsible for defining the training curriculum and the assessments. The British training program lasts a minimum of 7 years. In the initial 2 years there is an entry program that requires that one of the years is spent in obstetrics and gynecology but another year could be in any other specialty. Trainees are expected to pass the first part examination of the Membership of the Royal College.

Entry to the next phase of training, known as the specialist training, is on a competitive basis and the program lasts for a further 5 years. Within that program it is possible to spend about a year acquiring a special interest in different sub-specialty interests within the specialty. For those wanting to undertake sub-specialty training, further training is required above this in oncology, maternal-fetal medicine, reproductive medicine and community gynecology.

The training is carried out in both university and non-university hospitals. The majority of the trainees are on rotational training programs which often includes rotation from university to non-university hospitals. All the trainees are expected to pass the second part of the Membership examination prior to completion of their training.

Currently there is a move towards the working week for the trainees to meet the European requirements. However, this is not possible for most of the trainees and therefore most trainees have to work more hours per week. It is expected that all the trainees will be allowed study leave every year. There is no guarantee that on completion of the training a hospital position at a senior level will be available. It is hoped that the training numbers would match the availability of senior positions, but this is not currently achieved.

### 3.2. The Dutch training program

*J. W. Wladimiroff*

The Dutch training program lasts 6 years. There are eight training clusters of three to five hospitals

each. Training takes place in university and non-university hospitals. The possibility of 1–2 years of training in a particular area of interest before completion of the 6-year training period is currently subject to debate.

In Rotterdam, for instance, the first 2 years of training take place in a recognized community hospital. This is followed by 2 years of training in the university hospital (years 3–4). Year 5 is again spent in a community hospital. The final year (year 6) may serve as another year in general training in obstetrics and gynecology or during which work is undertaken in one of the areas of special interest (fetomaternal medicine/reproductive endocrinology/gynecological oncology).

For each trainee there will be 10 h/week of theoretical training and 10 days/year of study leave. The working week is limited to 46 h. After completion of training, a hospital position will be taken up in every instance.

### 3.3. Training in obstetrics and gynecology in Germany

*W. Künzel*

Training in obstetrics and gynecology in Germany is based on recommendations by the Medical Board of Germany (Bundesärztekammer, Köln) and put into action by the medical boards of the States of Germany. Training in obstetrics and gynecology is performed in training centers, accredited by the State Medical Board (Landesärztekammer). Full recognition is given to only those hospitals having sufficient numbers of cases for training in obstetrics and gynecology. In many institutions ambulatory day care is not available.

Training takes place according to the guidelines and syllabus issued by the State Medical Board.

The duration of training comprises 5 years: 2 years in gynecology, 2 years in obstetrics and 1 year of free choice. Training is extended if the number of diagnostic and therapeutic procedures could not be achieved within the minimum time of 5 years. Training takes place preferentially in the same hospital. It is concluded by an examination with two examiners and one independent observer (chairperson) at the State Medical Board.

At present, there is no limitation of training posts, since many doctors, having completed their training, leave the hospital and go into private practice as a general practitioner in obstetrics and gynecology without performing any operations (Office Ob/Gyn). Only a minority of doctors stay after basic training in the hospital for further training in a sub-specialty in combination with research. This will facilitate further career development.

### 3.4. Hungary

*L. Kovacs*

The duration of training in obstetrics and gynecology in Hungary is 5 years. The number of residents is limited: approximately 30 new trainees are admitted annually. They are supervised by one of the five university departments. Each resident has his or her own tutor who directs the training. The first year comprises 6 months of emergency health care (in an intensive-care department and in ambulance services) and 6 months of general surgical training.

In later years the trainees spend 18 months training in obstetrics (delivery room, antenatal care, antenatal and puerperal wards, and neonatology), 16 months in gynecology, 5 months in gynecological oncology, 3 months in endocrinology and reproductive medicine, 3 months in ultrasonography, 2 months in obstetric anesthesia and 1 month in urology. Participation in training courses (in colposcopy, gynecological endoscopy, neonatology and resuscitation, and psychosomatics in obstetrics and gynecology) is obligatory. At the end of the training period, if the residents have fulfilled all the training criteria and have participated in the necessary number of operative cases, they take their final examinations before a committee of three experts (university professors).

The hospital departments of obstetrics and gynecology are accredited as training centers in four categories. Only the university departments have full accreditation (category A). The residents can spend about 4 years of the training time in several tertiary level hospital departments (category B), where there is a large patient turnover, units in sub-specialties and significant research activity. Two years can be spent

in the category C and D hospitals in basic training in obstetrics and gynecology.

### 3.5. Portugal

*C. F. de Oliveira*

In Portugal, residency in gynecology and obstetrics occurs at State Hospitals and it is the Health Ministry's responsibility. Residency is well scheduled, has its own legislation and was started 30 years ago, at the end of the 1960s. The colleges of speciality of the Medical Order are responsible for the settlement of the number of years for minimum training and for the appropriate theoretical and teaching programs.

Residency in gynecology and obstetrics has been changed considerably. Initially, the training was for 4 years. The program is now constituted by a training of 6 years, divided into the first 2 years in gynecology, the subsequent 2 years in obstetrics, the 5th year in gynecology and obstetrics and the 6th year as an optional program of the resident's choice. This includes a training of 3–12 months in the medicine of reproduction, gynecological oncology and materno-fetal medicine, as well as in general surgery, internal medicine, sexology, urology, dermatology, anesthesiology, pathology and genetics. There are 15 available options. It is compulsory that the first 4 years be passed at a university hospital with recognized liability and the 5th year at a non-university hospital (a smaller one) so that the resident can train in the practice of gynecology and obstetrics as a daily routine, mainly in obstetric emergencies and gynecological surgery. The training in the 6th year can be undertaken in any department with recognized liability.

In Portugal, there are 56 departments of gynecology and obstetrics distributed throughout the country. Among these, only nine (four in Porto, two in Coimbra and three in Lisbon) are recognized for the first 4 years. For the 5th year there are more than 15 departments recognized for training and distributed in different regions of the country. Thus, only 43% of the departments of gynecology and obstetrics are recognized for residents' training, although the rest have satisfactory conditions, and are good for medical care. The resident has to leave the university hospital and train for a year at a district hospital.

#### 4. EUROPEAN EXAMINATION AND DIPLOMA IN OBSTETRICS AND GYNECOLOGY

W. Künzel

The free exchange of persons and services within the medical sector has been achieved by the mutual recognition of basic and specialist medical qualification brought into effect by the commission of the European Community (EC) in 1975. The directives have been consolidated in the Directive 93/16/EEC of 5th April 1993. On this basis the Charter on Training of Medical Specialists in the European Community was adopted by the Management Council of the UEMS in its Berlin meeting on 28–29 October 1993. It states in 2.5 Article 5, Quality Assurance: 'The National Authority . . . should implement a policy of quality assurance of the training. This may include visits to training institutions, assessment of the training, monitoring of the logbook or other means'. Under 'The policy of UEMS guarantee of the quality of training', it is written: 'Other methods of ensuring the quality of training could include . . . a national examination at the end of the postgraduate training'.

Examinations for excellency in gynecology and obstetrics in Europe, as previously performed by UPIGO/EBGO, E-EBGO, have no official justification. There are already some European countries which fulfil the recommendations of an examination. In the United Kingdom, for example, the examination after training is performed by the Royal College of Obstetricians and Gynecologists. An oral examination is held in Germany by the Landesärztekammer. Examinations after sub-specialty training have also been performed. Examinations should therefore be carried out by the national authorities, but be recognized by the EBCOG under well-defined conditions. These are:

- Training in obstetrics and gynecology should follow the recommendations (guidelines and syllabus) issued by EBCOG/UEMS-OB/GYN section.
- A log book should be available.
- Training should have taken place in an EBCOG-recognized training center.
- The examination should be conducted by officially authorized teachers.

It will be proposed to the EBCOG Council that doctors specialized in obstetrics and gynecology at a

recognized training center could then become Fellows of the European Board and College of Obstetrics and Gynecology (FEBCOG). This, however, has still to be decided by the Council of EBCOG.

#### 5. SUB-SPECIALTY TRAINING IN OBSTETRICS AND GYNECOLOGY: OBSTETRICS AND MATERNAL-FETAL MEDICINE, GYNECOLOGY AND GYNECOLOGICAL ONCOLOGY, REPRODUCTIVE MEDICINE

##### 5.1. Training in sub-specialties: selection criteria for careers

J. W. Wladimiroff

With the tremendous developments in our profession, there is an increasing need for training in sub-specialist areas, notably fetomaternal medicine, reproductive endocrinology, gynecological oncology and lately urogynecology. When I am asked whether it is desirable for one person to be sub-specialized in all these areas, my answer is negative. I would accept a doctor with only one of the sub-specialties. This is based on the absolute need of:

- In-depth practical expertise and theoretical knowledge in a particular sub-specialty. In my view it is impossible to remain fully focused on all developments pertinent to more than one sub-specialty;
- High-quality research;
- Adequate teaching/training.

##### 5.2. How many training positions are necessary?

C. F. de Oliveira

Based on the data in Table 1, it is proposed to the European Union countries, with the exception of the United Kingdom and The Netherlands (which have different health-care systems), that there be 2.5–3 new residents per year per 1 000 000 inhabitants.

Concerning the three sub-specialties, our proposal is an annual rate of 25–30%. That is, for a population of 10 000 000 inhabitants, eight to ten new candidates per year should enter the three sub-specialties. This should be four for maternal-fetal medicine, two for medicine of reproduction and two for gynecological

**Table 1** Calculation of number of trainees in the first year

	Number
Population	10 000 000
Females	5 200 000
Females > 20 years old (75%)	4 000 000
Consultations/year	4 000 000
Consultations/day	20 000
Live births/year	110 000
Live births/day	300
Consultations/day/gynecologist	20
Live births/day/gynecologist	0.3
Number of gynecologists (35–65 years)	1 000
Number of gynecologists retiring/year	30
Number of new trainees in the first year	30

oncology (in the countries where diagnosis and treatment of breast cancer is in the scope of gynecological oncology, four new candidates per year should enter this sub-specialty).

It is estimated that, in a population of 10 000 000 inhabitants, the number of sub-specialists should be 50 in the sub-specialty of maternal–fetal medicine, 25 in the subspecialty of medicine of reproduction and 25 (or 50 for the countries where breast cancer is in the scope of this sub-specialty) in the sub-specialty of gynecological oncology.

## 6. RESEARCH IN EUROPE: EXPECTATIONS AND VISIONS

### 6.1. The 'European research intranet'

*W. Künzel*

Research in obstetrics and gynecology is not only a European but also a worldwide commitment. There are some hindrances to worldwide operations. First, there is often a mental barrier. Second, worldwide orientation is time consuming and expensive. Communication is usually restricted to specific topics. It should therefore be possible to build up a 'European research intranet' which could facilitate the exchange of information from one research center to the other. Steps have already been taken in this direction:

- The EBCOG and EAGO are working together in a joint Scientific Committee that is involved in organizing an annual European Congress.
- The European societies of the sub-specialties in obstetrics and gynecology represent research conducted in the respective fields:
  - The European Association of Perinatal Medicine (EAPM).
  - The European Society of Gynecological Oncology (ESGO).
  - The European Society of Human Reproduction and Embryology (ESHRE).

These societies meet on a regular basis, and scientific achievements are discussed and transferred into medical practice.

Other European societies concentrate on specific topics in our profession:

- European Society of Infectious Diseases in Obstetrics and Gynecology (ESiDOG);
- European Society of Pelvic Surgery (ESPS);
- European Society of Hypertension in Pregnancy (ESHPI);
- European Diabetic Pregnancy Study Group (EDPSG);
- European Society of Ultrasound (ESUS);
- European Society of Gynecologic Investigation (ESGI).

It would be sensible if the information collected by the various research groups were gathered together by a central organization and made available to all.

In 26 European countries more than 400 universities are performing research at various levels. Especially for those countries having had no access to advanced research in the past, a European research intranet would be of great benefit. This would not only accelerate communication in Europe but also contribute to further research development in the eastern European countries.

How should the 'research intranet' look? In connection with the homepage of EBCOG, [www.ebcog.org](http://www.ebcog.org), links will be established to give information about:

- National academic and professional societies;

- European societies of obstetrics and gynecology, including the sub-specialties;
- European universities and their research facilities;
- Research topics;
- Announcements of research training;
- *The European Journal of Obstetrics and Gynecology*
- The European Congress of Obstetrics and Gynecology

The potential of research in obstetrics and gynecology in Europe, compared with other regions in the world, is tremendous. However, it has to be developed and, finally, used.

## 6.2. Research or research education as an important component in training

Lord N. Patel

In the United Kingdom, training and research methodologies and research are regarded as an important component of training in all specialties. Most specialties will have training and research methodology as part of the curriculum that all trainees should undertake. In obstetrics and gynecology, the curriculum defines clearly the research methodologies that all trainees are taught and with which they should be familiar and how this is assessed. These include training in drug trials, statistics for analyzing data, epidemiology, evaluation of statistics in published papers and population studies.

All trainees are encouraged to take part in clinical research or basic science research during their training. It is hoped that most of this research and even audits that are carried out will result in publications. Those trainees who show a particular interest in undertaking research, as opposed to learning about research methodologies, often have to spend a further period of time, often pursuing a higher degree of Doctor of Medicine or Doctor of Philosophy. Most medical schools now also provide opportunities to study towards either intercolated science degrees as part of the medical course or, in some instances, a full basic science course prior to undertaking a medical course.

In an attempt to improve recruitment to academic medicine and to academic obstetrics and gynecology, there are scholarships and training programs available

for clinical scientists. The Royal College of Obstetricians and Gynaecologists, through its own charity and in collaboration with the Medical Research Council of the United Kingdom, promotes and awards some of these scholarships. Others undertake formal research leading to higher degrees from funds from other research organizations. There are also positions in universities at junior level for those trainees with a particular interest in academic medicine to pursue their research interests.

In all specialties in the United Kingdom, it is now accepted that training and research methodologies should be undertaken by all trainees in all specialties, but in every specialty there should be an opportunity to carry out formal research and training and opportunities to develop further interests in academic medicine. There is also now recognition that, for those who train and teach, there should be opportunities to develop in this area to meet the increasing needs in academic departments of high-caliber teachers and trainers.

## 6.3. The European language of research

L. Kovacs

The European language of research in medicine is English. It was realized in recent decades that a common language was needed for practical communication and, step by step, English became established as the *lingua franca* of medicine. At almost all European congresses involving international participation, the presentations and discussions are in English without translation.

This, of course, is beneficial for those whose mother tongue is English, whereas the non-English speakers are somewhat handicapped. Experience has proved, however, that, in general, the discussion partners are tolerant and the language is regarded as a common tool for communication and for understanding each other.

The publication of research results is more advantageous in English than in any local language, because it provides much broader publicity. Scientific aspects also support the common language: English periodicals have higher impact factors and, understandably, publications in English are cited more often. Scientific research is supported mostly by grants. In the preparation of international grant applications, the English language is indispensable.

#### 6.4. The requirements for performing basic and clinical research

*J. W. Wladimiroff*

I believe that research should be an integrated part of the training program. Trainees should preferably be involved in so-called translatory research, bridging fundamental and clinical research.

Experience in research contributes to the quality of clinical performance, i.e. our understanding of:

- Etiology, pathogenesis, diagnosis, prognosis and management of disorders;
- Evidence-based medicine;
- Cost-effectiveness of diagnostic and treatment modalities.

Training in research should focus on basic science, methodology and statistics of research. Time, infrastructure and facilities should be provided. A scientific supervisor should be appointed and research output (the publication of papers or the obtaining of a higher degree) should be ensured.

#### 7. A EUROPEAN VIEW

*W. Künzel*

Europe, in its diversity and structure, is one of the most interesting regions of the world. The variety of the

countries should be maintained, and the federalistic principle be developed. It is the basis for reciprocal acceptance and recognition and adds flavor to its diversity. There are, however, variations in expense for the European citizen. A major concern is the provision of health care. Harmonization is strongly needed. Harmonization does not necessarily mean equalization. The way to better health-care provision may be different, but the aim should be the same. Subsidiarity and individualism in this context will dilute our achievements and will be a disadvantage to those for whom we have to care.

The best training and practice should be applied. This can be achieved only if we agree to the same protocol. With this provision, the obstetrician and gynecologist in Europe will have a promising future.

#### WEB SITES

European Board and College of Obstetrics and Gynecology (EBCOG): [www.ebcog.org](http://www.ebcog.org)

European Union of Medical Specialists (UEMS): [www.uems.be](http://www.uems.be)

European Association of Gynecologists and Obstetricians (EAGO): [www.eago.org](http://www.eago.org)