International Council of Ophthalmology Foundation

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Baltimore, Maryland

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Treasurer, International Council of Ophthalmology
President, Asia-Pacific Academy of Ophthalmology
Professor and Chairman
Department of Ophthalmology
Osaka University
Osaka, Japan

ICO Foundation Board of Directors Meeting
at Las Vegas, Nevada on November 12, 2006. Left to right: Alfred Sommer, M.D., M.H.S.; James V. Mazzo; Bruce E. Spivey, M.D.; Paul R. Lichter, M.D.; Akef El-Maghraby, M.D.; Rubens Belfort, M.D., Ph.D.; Prince AbdulAziz Ahmad AbdulAziz Al Saud; Timothy R. G. Sear; David E. I. Pyott; Hilel Lewis, M.D.; Bradley R. Straatsma, M.D., J.D.; Jean-Jacques C. De Laey, M.D., Ph.D.; Yasuo Tano, M.D.; and Paul A. Sieving, M.D., Ph.D.
The Challenge: Worldwide Visual Impairment

Nearly one-third of the cerebral cortex—the thin layer of 20 billion neurons on the surface of the brain responsible for human language, consciousness and reasoning—is devoted to vision. Cortical cells joined through neural paths to the intricacies of the eye form the visual system that is the primary sense we rely on in our daily lives. Vision contributes to perception, learning, mobility, and the joy of life. Yet, millions of people in all regions of the globe are visually impaired or blind.

Throughout the world, 161 million people are severely visually impaired due to eye disease and of these 37 million people are blind. World Health Organization data document that the burden of visual impairment and blindness is greatest in the least developed regions of the globe and the burden is greater, in all regions, among women than men. More than 1.4 million children are blind, but visual impairment and blindness are most prevalent in adults 50 years of age and older. Significantly, as much as 75% of disease-related vision loss is avoidable—either preventable or treatable—with currently available knowledge and biotechnology.

Adding to this burden, the World Health Organization estimates that 153 million people have severe impairment of distance vision, including 5 million who are blind, due to uncorrected refractive error. With appropriate optical correction, the vast majority of this impairment can be eliminated.

The world today presents extraordinary challenges in the context of extraordinary global connectedness. More than at any time in the history of human civilization, the well being of each individual is inextricably linked to that of every other. The stark reality of extensive and avoidable visual impairment and blindness throughout the world compels a global initiative to promote best possible vision for every person.

2006 International Council of Ophthalmology and ICOFoundation Activities Include:

- 2006 World Ophthalmology Congress, São Paulo, Brazil. Attended by more than 12,000 participants from 120 countries
  - President, Bruce E. Spivey, M.D. (United States)
  - Vice President, Akef El-Maghraby, M.D. (Saudi Arabia)
  - Secretary-General: Jean-Jacques C. DeLaey, M.D., Ph.D. (Belgium)
  - Treasurer: Yasuo Tano, M.D. (Japan)
- Worldwide Curricula for Ophthalmology Education. Published in November 2006 and posted on the Internet.
- Ophthalmology Program Directors Courses. Presented in Lima, Peru and Cairo, Egypt.
- Ophthalmology Knowledge Assessments. Conducted for more than 1500 registrants at 92 test centers in 61 countries.
- Ophthalmology Fellowships. Awarded to 57 ophthalmologists from developing countries.

International Council of Ophthalmology Foundation

The International Council of Ophthalmology Foundation (ICOFoundation, www.icofoundation.org), established in 2002, acts to support ophthalmic education, advocate quality eye care, and advance scientific ophthalmology. In 2006, the ICOFoundation augmented its governing body by election of four new Directors:

HRH Prince
AbdulAziz Ahmad AbdulAziz AlSaud
President, Impact: Eastern Mediterranean Region
International Agency for the Prevention of Blindness
Riyadh, Saudi Arabia

Jean-Jacques C. De Laey, M.D., Ph.D.
Secretary-General, International Council of Ophthalmology
Professor & Chairman, Department of Ophthalmology
University of Ghent
Ghent, Belgium

Alice R. McPherson, M.D.
President, Retina Research Foundation
Professor of Ophthalmology
Baylor Eye Physicians & Surgeons
Baylor College of Medicine
Houston, Texas

Takakazu Morita
Chairman & CEO
Santen Pharmaceutical Co., Ltd.
Osaka, Japan

Functioning throughout the globe as the World Ophthalmology Foundation®, programs of the ICOFoundation are coordinated with the International Council of Ophthalmology and the International Federation of Ophthalmological Societies.

International Council of Ophthalmology and International Federation of Ophthalmological Societies

The International Council of Ophthalmology (Council, www.icoph.org) traces its origin to 1857 when 150 ophthalmologists from 24 countries convened in Brussels for the first International Congress of Ophthalmology. Since then, the Council has been responsible for organizing the periodic International Congress of Ophthalmology and for conducting global programs to advance ophthalmology education, patient care and research.

The International Council of Ophthalmology is the executive body of the International Federation of Ophthalmological Societies. As such, the Council is composed of members elected by Delegates of the International Federation of Ophthalmological Societies; members representing the Academia Ophthalmologica Internationalis, International Federation of Ophthalmological Societies:

International Federation of Ophthalmological Societies:

Ophthalmologists Worldwide5

<table>
<thead>
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<th>Region</th>
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<td>Africa</td>
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<td>38,914</td>
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<tr>
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<td>1,003</td>
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<tr>
<td>Europe</td>
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<td>29,186</td>
</tr>
<tr>
<td>South America</td>
<td>8,434</td>
</tr>
<tr>
<td>Total</td>
<td>124,348</td>
</tr>
</tbody>
</table>

Agency for Prevention of Blindness, ICCOFoundation, and the major supranational ophthalmology societies; and members who are coordinators of the principal Council programs. The Council also gains substantial leadership from members of the Advisory Committee representing the ophthalmology subspecialties.

Uniquely representative of world ophthalmology, the International Federation of Ophthalmological Societies, registered as a nonprofit organization in Switzerland, is made up of the national ophthalmology societies of over 100 countries in Africa, Asia, Australia-Oceania, Europe, North America and South America.

Subspecialty ophthalmology organizations are increasingly important in the advance of ophthalmology, ophthalmic education and eye care worldwide. Accordingly, the International Federation of Ophthalmological Societies expanded membership in 2004 to include multinational subspecialty societies that fulfill specific criteria. Since then, more than 20 multinational subspecialty ophthalmology societies have become members of the International Federation of Ophthalmological Societies.

2006 World Ophthalmology Congress®

Organized by the International Council of Ophthalmology, the 2006 World Ophthalmology Congress® in São Paulo, Brazil, combined the XXX International Congress of Ophthalmology; the XXVI Pan-American Congress of Ophthalmology; and the XVII Brazilian Blindness Prevention and Visual Rehabilitation Congress. All components of the 2006 World Ophthalmology Congress® were united for the purpose of transmitting knowledge, stimulating discovery through research, and decreasing avoidable visual impairment and blindness.

With Dr. Rubens Belfort (Brazil) as President, the 2006 World Ophthalmology Congress® included an outstanding scientific and cultural program as well as the seminal Global Forum of Non-governmental Organizations working to preserve and restore vision. The Congress was attended by more than 12,000 participants from 120 countries. This underscores how our professional community has become global.

The 2008 World Ophthalmology Congress® in Hong Kong, China, will be led by Dr. Dennis S. C. Lam (China) as President. The Congress will combine the XXXI International Congress of Ophthalmology; the XXIII Congress of the Asia-Pacific Academy of Ophthalmology; the XIII Congress of the Chinese Ophthalmological Society, and the XX Hong Kong Ophthalmological Symposium. In 2010, the World Ophthalmology Congress® will convene in Berlin, Germany, with Dr. Gerhard K. Lang (Germany) as President.
International Council of Ophthalmology Foundation Programs

As the World Ophthalmology Foundation®, the ICOFoundation enhances eye and vision care for people throughout the globe through support of the International Ophthalmology Strategic Plan to Preserve and Restore Vision—Vision for the Future. Stemming from planning meetings in 1999—2001 conducted by the International Council of Ophthalmology, Academia Ophthalmologica Internationalis and consultants representing vision-related organizations, governmental agencies and the vision-care industry, Vision for the Future identified needs for ophthalmic education, guidelines for eye care, advocacy for preservation of vision and health-services research.

To review programs and plan future directions, the International Council of Ophthalmology conducted strategic planning with meetings in Zurich, Switzerland and Las Vegas, United States, as well as online reviews throughout 2006. Strategic planning re-affirmed the focus on ophthalmic education including knowledge assessments and fellowship training, emphasized the importance of eye and vision care guidelines, and refined actions in support of public advocacy and research for preservation of vision worldwide. The Council is committed to addressing the needs and opportunities identified in the 2006 Strategic Plan. With actions that are intertwined with programs of the Council, like two strands of DNA, the ICOFoundation supports:

- Ophthalmic Education and Training
- Ophthalmic Knowledge Assessment
- Ophthalmic Fellowship Training
- Eye and Vision Care Guidelines
- Advocacy for Preservation of Vision
- Research in Ophthalmology and Vision

Worldwide programs supported by the ICOFoundation.
Ophthalmic education and training are the fundamental building blocks of actions to preserve and restore vision worldwide. In 2006, education and training were advanced by:

- Ophthalmology Curricula
- Resident Program Directors Courses
- Resident-Specialist Training and Eye Care Centers

**Ophthalmology Curricula.** Addressing the question of “What to teach?”, a multinational committee, appointed by the International Council of Ophthalmology and chaired by Dr. Mark O. M. Tso (United States) and specific task forces focused on curricula for Ophthalmology Medical Student Education, Ophthalmology Resident-Specialist Education, Ophthalmology Continuing Education, and Para-Ophthalmic Vision Specialist Education. In November 2006, the related curricula were published in Klinische Monatsblätter für Augenheilkunde and posted on the Internet.

**Ophthalmology Medical Student Education.** With the growth of world population, increasing longevity of human life, and eye diseases such as cataract, glaucoma and age-related macular degeneration associated with aging, eye care is increasingly important in the general scope of medical practice. Consequently, the Council and the ICOFoundation are promoting ophthalmology education for all medical students through development of a universally applicable ophthalmology curriculum for medical students.

A multinational committee of educator-scientists, formed by the Council and chaired by Dr. Richard K. Parrish II (United States), formulated a curriculum for ophthalmology medical student education. For adaptation to different systems of medical education, the “Principles and Guidelines of a Curriculum for Ophthalmic Education of Medical Students” presents a core of essential knowledge and additional content appropriate for the geographic region and national health service system. The curriculum includes measures for objective assessment of the student’s knowledge and skills at the conclusion of the ophthalmic curriculum. This curriculum for Ophthalmology Medical Student Education is published in English in Klinische Monatsblätter für Augenheilkunde.
To advance the education and training of ophthalmology resident-specialists, the Council established a multinational committee with Dr. Morton F. Goldberg (United States) as chair and Dr. Andrew G. Lee (United States) as co-chair. The committee of educator-scientists developed a broadly applicable curriculum for ophthalmology resident-specialist training. The curriculum and guidelines recognize that general principles must be augmented by special training adapted to diverse cultures, population groups and regional disease prevalence. Skills, techniques and competencies must be further adapted to be compatible with cultures, health care facilities and health care systems of nations throughout the world.

Culminating nearly six years of work to determine the “need to know” for ophthalmologists throughout the world, the multilevel “Principles and Guidelines of a Curriculum for Education of the Ophthalmic Specialist” was published in Klinische Monatsblätter für Augenheilkunde, November 2006, and presented on the Internet at www.icoph.org/pdf/icocurricres.pdf.

Ophthalmology Continuing Education. The ophthalmologist requires continuing enhancement of knowledge, refinement of professional skills, and training for utilization of advanced technology. Continuing professional development necessitates lifelong learning.

Dr. Zbigniew Zagorski (Poland) chairs the Council committee coordinating information regarding ophthalmology continuing education programs. This compendium presents principles of continuing medical education and topic-specific sections focused on areas such as a cornea, external diseases, refractive surgery, cataract, neuro-ophthalmology, pediatric ophthalmology and strabismus, vitreoretinal diseases, uveitis and glaucoma. Information is published as “Principles and Guidelines of a Curriculum for Continuing Medical Education in Ophthalmology” in the November 2006 issue of Klinische Monatsblätter für Augenheilkunde and posted on the Internet at www.icoph.org/pdf/icocurriccme.pdf.

Para-Ophthalmic Vision Specialist Education. Ophthalmic patient care services are provided within a broad range of eye and healthcare programs in urban and rural centers throughout the globe. For efficacy and efficiency, the ophthalmologist is in continuous communication with para-ophthalmic vision specialists and
with physicians in related medical specialties. The needs and requirements for para-ophthalmic vision specialists vary greatly by geographic region, economic development and national health system.

Recognizing the great importance of para-ophthalmic vision specialists, Dr. Sivaguru Selvarajah (Malaysia) leads a multinational committee of ophthalmologists, para-ophthalmic personnel and consultants committed to the education of community based para-ophthalmic personnel, hospital based para-ophthalmic personnel, as well as orthoptists and ophthalmic technicians. The program developed by this team of educators is published in the Klinische Monatsblätter für Augenheilkunde, November 2006, and presented on the Internet at www.icoph.org/pdf/icocurricpara.pdf.

Ophthalmology Resident Program Directors Courses.

The Resident Program Director is responsible for organizing the instruction, monitoring clinical experience and assessing the progress of ophthalmology residents throughout the multiyear training. To address the question “How to teach?” and aid the Program Director, courses that deal specifically with directing a residency program, methods for quality education, changing resident behavior when indicated, assessing skills and measuring competence are conducted by the Council and the ICOFoundation.

Reflecting coordination among ophthalmology organizations, the Program Directors Courses are endorsed by the American Academy of Ophthalmology, Association of University Professors of Ophthalmology (United States), regional multinational ophthalmology organizations and national ophthalmology organizations in the host country.

Ophthalmology Resident Program Directors Courses

2004  Mexico City, Mexico
June 2004
Chair: Dr. Enrique Graue Wiechers (Mexico)
Co-Chair: Dr. Karl C. Golnik (United States)
Participants: Program Directors of all 23 ophthalmology residency programs in Mexico

2006  Lima, Peru
March, 2006
Chair: Dr. Jose Antonio Roca (Peru)
Co-Chair: Dr. Karl C. Golnik (United States)
Participants: Program Directors of Peru, Bolivia and Ecuador.

Cairo, Egypt
June, 2006
Chair: Dr. Fathi El-Sahm (Egypt)
Program Chair: Dr. Akef El-Maghhabby (Egypt)
Program Co-Chair: Dr. Andrew G. Lee (United States)
Participants: Program Directors of Egypt, Algeria, Bahrain, Iraq, Jordan, Kuwait, Lebanon, Libya, Pakistan, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, Yemen and United Arab Emirates.

2007  Lahore, Pakistan
February 2007
Chair: Dr. M. Daud Kahn (Pakistan)
Co-Chair: Dr. Karl C. Golnik (United States)
Participants: Program Directors of Pakistan, Afghanistan, Bangladesh, China, India, Indonesia, and Maldives.

Buenos Aires, Argentina
July 2007
Chair: Dr. Ricardo A. Dodds (Argentina)
Co-Chairs: Dr. Anthony C. Arnold (United States) & Dr. Karl C. Golnik (United States)
Participants: Program Directors of Argentina, Chile, Paraguay, Uruguay and regional countries.

Brasilia, Brazil
September 2007
Chair: Dr. Paula A. Mello (Brazil)
Co-Chair: Dr. Karl C. Golnik (United States)
Participants: Resident Program Directors of Brazil.
**Peru.** The Council and **ICOFoundation** conducted an Ophthalmology Resident Program Directors Course in Lima, Peru on March 23–24, 2006. With Dr. Jose Antonio Roca (Peru) Chair, and Dr. Karl C. Golnik (United States), Co-Chair, the course was attended by Resident Program Directors of Peru, Bolivia and Ecuador. To enhance the value of the Course, the Council, **ICOFoundation**, Pan-American Association of Ophthalmology, Pan-American Ophthalmological Foundation and the American Academy of Ophthalmology combined to distribute a copy of the Academy’s Basic and Clinical Science Course to every ophthalmology resident training program in Peru and Bolivia.

**Egypt:** The Council and **ICOFoundation** conducted a Resident Program Directors Course in Cairo, Egypt, on June 15–16, 2006. Led by Dr. Fathi El-Sahn (Egypt), Chair; Dr. Akef El-Maghraby (Egypt), Program Chair; and Dr. Andrew G. Lee (United States), Program Co-Chair; the Course was attended by Resident Program Directors of Egypt, Algeria, Bahrain, Iraq, Jordan, Kuwait, Lebanon, Libya, Pakistan, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, Yemen and United Arab Emirates. A follow-up meeting of the Resident Program Directors took place during the IX Congress of the Middle-East African Council of Ophthalmology in Dubai, United Arab Emirates in March 2007.

**Resident-Specialist Training and Eye Care Centers.**

The International Council of Ophthalmology and the **ICOFoundation** are working in collaboration with other ophthalmic and public service organizations to develop demonstration centers for ophthalmology resident-specialist education in Nigeria and for prevention as well as management of diabetic eye disease in China.

**Nigeria.** Following assessment of ophthalmology Resident Training Centers in Nigeria by Council members and leaders of the Ophthalmological Society of Nigeria in 2004, agreements were reached on a multiyear program to develop ophthalmology resident-specialist education in conjunction with sustainable eye care systems in Nigeria. As an initial step, educational support is being provided by the Council and **ICOFoundation** in the form of electronic equipment for broadband Internet access to current medical texts and journals at six training centers identified by the Ophthalmological Society of Nigeria. The National Eye Institute (United States) and the World Health Organization are instituting a program to measure utilization of Internet access and to assess the impact of access to current medical information on the quality of care.
Prior to the end of 2006, equipment for broadband Internet access was installed at all six centers and broadband access to current medical education commenced at two of the six centers. With encouragement of the Ophthalmological Society of Nigeria, all six centers expect to have regular broadband Internet access to medical information by March 2007.

The significance of broadband Internet access cannot be overestimated. With over 100 million websites in 2007 and over one billion Internet users worldwide, less than 4% of the population in Africa has access to the Internet. Internet access at training facilities opens the path for a wealth of current biomedical information and technology.

Planning Team for Internet access at Resident-Specialist Training Centers in Nigeria. Left to right: Dr. R. Pararajasegaram (World Health Organization); Mr. Francis Sanya (Executive Secretary, Ophthalmological Society of Nigeria); Dr. Kunle Hassan (Nigeria); Dr. BGK Ajayi (Nigeria); Dr. Hannah Faal (The Gambia); Dr. Daniel Etya’ale (World Health Organization); Dr. Bruce E. Spivey (United States); Dr. Adenike Abiose (Nigeria) and Dr. S.N.N. Nwosu (Nigeria).

Building of the University College Hospital as a multinational regional center for training of ophthalmologists is progressing with support of Vision2020, the Carl Zeiss Project and the ICOFoundation. Ophthalmologists have received specialized training, cataract surgery has increased in volume and distinct progress is being made on development of University College Hospital as a resource for Nigeria and the West African Region.

China. Responding to the global epidemic of diabetes mellitus throughout the world, the International Council of Ophthalmology and ICOFoundation are working in partnership with Peking University Eye Center and Eli Lilly and Company to establish the Peking University Eli Lilly Diabetic Eye Disease Center in Beijing, China. With formal approval of Peking University, direction by Dr. Zhizhong Ma, Executive Vice President of the Peking University Eye Center, and leadership by Dr. Mark O. M. Tso (United States), the Diabetic Eye Disease Center is designed to prevent and treat diabetic eye disease by coordinated diabetic medical care and ophthalmic care, community outreach and diabetes-

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related education. Recognizing the challenge of diabetic eye disease, multiyear consultation with Lions Aravind Institute of Community Ophthalmology and leading diabetic eye disease centers is planned. In addition, an ICO Diabetes Education Task Force is providing recommendations.

Peking University officially established the Eli Lilly Diabetic Eye Disease Center. The document shown above inaugurates the Diabetic Eye disease Center in partnership with the International Council of Ophthalmology.

The Peking University Eli Lilly Diabetic Eye Disease Center, in partnership with the International Council of Ophthalmology, was announced to television and news media in China on March 20, 2007. With the President of Peking University presiding, Mr. Sidney Taurel, CEO of Eli Lilly and Company, and Dr. Zhizhong Ma, Director of the Diabetic Eye Disease Center, emphasized the importance of diabetes education and eye care.

**ICOFoundation Support for Ophthalmic Education and Training.**

In 2006, the ICOFoundation provided support funds for the:

- Ophthalmology Medical Student Curriculum
- Ophthalmology Resident-Specialist Curriculum
- Ophthalmology Continuing Education Curriculum
- Para-ophthalmic Vision Specialist Curriculum
- Ophthalmology Program Directors Courses
- Resident-Specialist Education and Eye Care Centers

**Ophthalmic Knowledge Assessments**

The International Council of Ophthalmology conducts annual Ophthalmic Knowledge Assessments in Basic Science, including Optics and Refraction, and in the Clinical Sciences to address the question “What has been learned?” by ophthalmologists in training. The Assessments are the only worldwide medical specialty examinations and present questions prepared by a multinational committee of examiners chaired by Dr. Peter G. Watson (United Kingdom). Examinations are set at the same standard of the highest board, college and qualifying examinations in the world.

The Assessments are free of any outside influence and can be taken in the candidate’s own country. Assessment questions are translated from English into French, German, Portuguese, Spanish, Turkish and other languages corresponding to need. At the time of examination, the English version is presented along with the alternate language so that comparisons can be made by the candidate (www.icoph.org).
Successful passage of the Assessments is recognized by a certificate that is universally acknowledged to show that the holder has achieved a high standard of theoretical knowledge. In Turkey and a number of other countries, the Basic Science and Clinical Sciences Assessments are part of the national examination for ophthalmology certification.

Since the Basic Science Assessment was inaugurated in 1995 and the Clinical Sciences Assessment was initiated in 1998, more than 15,000 candidates have voluntarily applied for and taken the Assessments. This extensive participation documents the importance of an objective and internationally identified standard of knowledge, particularly for candidates in countries without any formal written evaluation procedures and for candidates in countries that use the Assessments as part of the formal certification process. In recent years, the annual Assessments took place on April 3, 2003, April 1, 2004, April 7, 2005 and April 6, 2006 in countries that range alphabetically from Argentina to Yugoslavia.

**ICOFoundation Support for Ophthalmic Knowledge Assessments.** With outstanding management by Dr. Peter G. Watson, the Assessments are well established and self-supporting. In addition, the ICOFoundation provides support funds to extend the Assessments to candidates unable to compete for the certificate because of economic factors and to encourage regional initiative for use of the Ophthalmic Knowledge Assessments in geographic sectors without formal written evaluations.

### Ophthalmic Knowledge Assessments

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<th>Year</th>
<th>Candidates</th>
<th>Test Centers</th>
<th>Countries</th>
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<td>1097</td>
<td>75</td>
<td>53</td>
</tr>
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<td>2004</td>
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<td>84</td>
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<td>2005</td>
<td>1472</td>
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<tr>
<td>2006</td>
<td>1537</td>
<td>92</td>
<td>61</td>
</tr>
<tr>
<td>2007*</td>
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</table>

* Scheduled for April 12, 2007

### Ophthalmic Fellowship Training

The Fellowship of the International Federation of Ophthalmological Societies (IFOS) and the International Council of Ophthalmology (ICO), was inaugurated in 2001 and conducted by a multinational committee chaired by Dr. Balder P. Gloor (Switzerland) from 2001 through 2006. In recognition of Dr. Gloor’s initiative, creativity and leadership of the fellowship program, one IFOS/ICO fellowship per year in 2007 and thereafter is being named the Balder P. Gloor Fellowship. When informed of this recognition, Dr. Gloor graciously stated that “contact with so many young ophthalmologists in all parts of the world enriched my life.”

In 2007, Dr. Veit-Peter Gabel (Germany) commenced as chair of the multinational committee synchronizing the IFOS/ICO Fellowship Program. Fellowships are offered to candidates from developing countries who have completed basic residency training in ophthalmology, are preferably in or aspiring to a teaching position, preferably hold the Ophthalmic Knowledge Assessment Certificate, and are committed to return to their country of origin subsequent to completing the fellowship.
Generally of three months duration, fellowships are offered in Comprehensive Ophthalmology and in subspecialty areas. Institutions that have agreed to accept IFOS/ICO Fellows identify the characteristics and strengths of their programs on the Internet. Candidates apply to a host institution via the Internet, specific goals of the fellowship are established and language issues affecting communication with staff and patients are considered. Following evaluation of all information, IFOS/ICO Fellowships are awarded by the committee led by Dr. Gabel and further administered by Dr. Jean-Jacques C. De Laey (Belgium). To control costs, all parts of the IFOS/ICO Fellowship application, review, award process and follow-up report are conducted online (www.icoph.org/fellow).

The program began in 2001 with award of 9 IFOS/ICO Fellowships. With an enthusiastic response by qualified applicants and a positive response by training institutions, awards were increased thereafter. From 2001 through 2006, 235 IFOS/ICO Fellowships were awarded.

Fellows from 60 countries benefited greatly from efforts and resources contributed by training institutions in 27 countries. These advanced centers voluntarily provided the training environment as well as supervision and, in many instances, arranged follow-up activities and training. Reports filed at the conclusion of each fellowship attest to the cordiality of international relationships and the extraordinary value of the knowledge and skills acquired during the fellowship.

**IFOS/ICO Fellowship Support.** Funds to enable IFOS/ICO Fellowships were contributed by the IFOS/ICO and provided through donations to the ICO and ICOFoundation.

To sustain this extremely worthwhile program of education and training, substantial donations to the ICOFoundation are needed in 2007 and thereafter.
From Nigeria to Erlangen-Nürnberg University Ophthalmology Department, Erlangen-Nürnberg, Germany

Dr. Oluremi Olateju, shown in the surgery training laboratory, received Cornea—External Disease Fellowship under supervision of Prof. Kruse.

From Libya to the Medical University of Lublin, Poland.

Dr. Abdrahaman F. M. BenZaglam studied microsurgery and applied for an advanced doctoral degree while receiving Fellowship supervised by Prof. Zbigniew Zagorski.

From Ukraine to Ludwig Maxmillian University Eye Hospital, Munich, Germany.

Dr. Maryana Kovalska (left) received Pediatric Ophthalmology Fellowship training supervised by Prof. K-P Boergen.
Eye and Vision Care Guidelines

Because medical knowledge is derived from thousands of sources and technology is advancing continuously, assimilation of knowledge and technology into best medical practice is a continuing challenge. To aid ophthalmologists in providing best medical practice, Eye and Vision Care Guidelines are needed to define what constitutes appropriate eye care and to promote a universal high standard of quality. “Appropriate eye care” is, however, resource dependent and related to the culture, economic circumstances and health services system of a region or country. Thus, Eye Care Guidelines must identify principles, recognize the importance of geographic and cultural modifications, and encourage a progressively high standard of evidence-based ophthalmic care worldwide.

A multinational committee appointed by the International Council of Ophthalmology with Dr. Richard L. Abbott (United States) as chair is responsible for development of guidelines and recommendations for eye and vision care. This committee reviewed and adapted for international use the Preferred Practice Patterns® of the American Academy of Ophthalmology, the Clinical Practice Guidelines for Specialists of the Royal Australian and New Zealand College of Ophthalmologists and similar practice recommendations by other professional organizations.

Eye care guidelines for management of 20 major ophthalmic entities have been developed and presented on the Internet (www.icoph.org/guide).

Chinese Ophthalmological Society Adopts Clinical Practice Guidelines. Leaders of the Chinese Ophthalmological Society reviewed Eye and Vision Guidelines with Dr. Abbott and representatives of the American Academy of Ophthalmology, International Council of Ophthalmology, National Eye Institute (United States) and World Health Organization during special meetings. Thereafter, with adaptations appropriate for use in China, the Clinical Practice Guidelines initiative was formally introduced at the Congress of the Chinese Ophthalmological Society at Tianjin, China in September 2005 and presented in agreed upon format at the 3rd Global Eye Congress at Beijing, China in August 2006. Currently, the Clinical Practice Guidelines are being disseminated to teaching hospitals and regional eye care centers throughout China for evaluation and use in the delivery of eye care.
ICOFoundation Support for Eye and Vision Care Guidelines. Continuous activities related to development, review and evaluation of Eye and Vision Care Guidelines are conducted as volunteer activities by ophthalmologists and health care professionals. The ICOFoundation support is used for review and dissemination of Eye Care Guidelines as well as development of guidelines for additional eye diseases such as onchocerciasis. Experience with the Clinical Practice Guidelines initiative in China demonstrates the need for extensive communication, direct discussion and extended professional interaction.

Advocacy for Preservation of Vision

Preservation of vision and blindness prevention advanced in the World Health Organization Strategic Plan: 2008–2013 with adoption by the World Health Assembly of Resolution WHA 59.25 in 2006. This instructed the WHO Director-General to give priority to elimination of avoidable blindness, provide technical support for collaboration among countries engaged in prevention of avoidable blindness and monitor progress in the Global Initiative for the Elimination of Avoidable Blindness.

The International Council of Ophthalmology, representing the International Federation of Ophthalmological Societies and the more than 120,000 ophthalmologists worldwide combined with Vision 2020, the International Agency for Prevention of Blindness and a number of other professional and nongovernmental organizations to advance prevention of avoidable blindness as a substantial goal of the World Health Organization.

Led by Dr. Hugh R. Taylor (Australia) advocacy for preservation of vision supports programs to provide quality eye care that is accessible and affordable by people throughout the globe.

Worldwide Advocacy. The Global population of more than 6 billion people is distributed unevenly. Even more striking, data note the uneven distribution of disease-related blindness, low vision and visual impairment.

In 2002, disease-related severe visual impairment was reported in 124 million people worldwide and an additional 37 million people were blind.1,7 Global causes of blindness as a percentage of total blindness vary by region and country. However, cataract continues to be the leading cause of worldwide blindness.

### Causes of Worldwide Blindness

<table>
<thead>
<tr>
<th>Percent of total blindness</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cataract</td>
<td>47.8</td>
</tr>
<tr>
<td>Glaucoma</td>
<td>12.3</td>
</tr>
<tr>
<td>Age-related Macular Degeneration</td>
<td>8.7</td>
</tr>
<tr>
<td>Corneal Opacities</td>
<td>5.1</td>
</tr>
<tr>
<td>Diabetic Retinopathy</td>
<td>4.8</td>
</tr>
<tr>
<td>Childhood Blindness</td>
<td>3.9</td>
</tr>
<tr>
<td>Trachoma</td>
<td>3.6</td>
</tr>
<tr>
<td>Onchocerciasis</td>
<td>0.8</td>
</tr>
<tr>
<td>Other Causes</td>
<td>13.0</td>
</tr>
</tbody>
</table>
Advocacy for preservation and restoration of vision requires communication and coordination with governments and the general public. In addition, coordination of actions with the World Health Organization, International Agency for the Prevention of Blindness and Vision2020 is essential. The Council espouses cooperation with the international entities promoting blindness prevention as well as the multinational and national ophthalmology organizations committed to promote eye and vision care that is effective, accessible and affordable.

**ICOFoundation Support for Advocacy.**

Advocacy promoted and encouraged by the **ICOFoundation** includes support for participation of ophthalmology representatives in public forums, scientific meetings, governmental conferences and related interactions that promote quality eye care for all people.

---

### Global estimate of visual impairment, by WHO region (millions), 2002:7

<table>
<thead>
<tr>
<th>Region</th>
<th>Population</th>
<th># of blind people</th>
<th>% of total blind</th>
<th># with low vision</th>
<th># with visual impairment</th>
</tr>
</thead>
<tbody>
<tr>
<td>African Region</td>
<td>672.2</td>
<td>6.8</td>
<td>18%</td>
<td>20</td>
<td>26.8</td>
</tr>
<tr>
<td>Region of the Americas</td>
<td>852.6</td>
<td>2.4</td>
<td>7%</td>
<td>13.1</td>
<td>15.5</td>
</tr>
<tr>
<td>Eastern Mediterranean Region</td>
<td>502.8</td>
<td>4</td>
<td>11%</td>
<td>12.4</td>
<td>16.5</td>
</tr>
<tr>
<td>European Region</td>
<td>877.9</td>
<td>2.7</td>
<td>7%</td>
<td>12.8</td>
<td>15.5</td>
</tr>
<tr>
<td>South-East Asia Region</td>
<td>1,590.80</td>
<td>11.6</td>
<td>32%</td>
<td>33.5</td>
<td>45.1</td>
</tr>
<tr>
<td>Western Pacific Region</td>
<td>1,717.50</td>
<td>9.3</td>
<td>25%</td>
<td>32.5</td>
<td>41.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>6,213.90</td>
<td>36.9</td>
<td>100%</td>
<td>124.3</td>
<td>161.2</td>
</tr>
</tbody>
</table>


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**Research in Ophthalmology and Vision**

With Dr. Alfred Sommer (United States) as chair, a multinational committee critically assessed research in ophthalmology and vision to determine investigations of highest priority for global preservation of vision based on need, feasibility and resources required. The committee report entitled “A Research Agenda for Global Blindness Prevention” recognized the importance of biomedical and translational research. The committee focused, however, on operational studies to enhance quality, availability and affordability of eye care worldwide. This plan for applied vision research has been officially endorsed by the Blindness and Disabilities Prevention Program of the World Health Organization and may be viewed in its entirety at [www.icoph.org/research](http://www.icoph.org/research).

**ICOFoundation Support for Research.**

Research warrants support and high priority. However, the **ICOFoundation** support for research endeavors to influence nongovernmental and governmental organizations to perform studies identified by the committee representing the International Council of Ophthalmology. As resources become available, the **ICOFoundation** anticipates support for selected operational research.
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Advocacy for Preservation of Vision

Research in Ophthalmology and Vision

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“Only when the whole world combine(s) resources to address the toll of avoidable blindness shall all of mankind be blessed with the right to see.”

Helen Keller
International Council of Ophthalmology Foundation

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