



INTERNATIONAL COUNCIL
of OPHTHALMOLOGY

ICO Examinations and Assessments

Simon Keightley, Director for Examinations

What is the ICO?



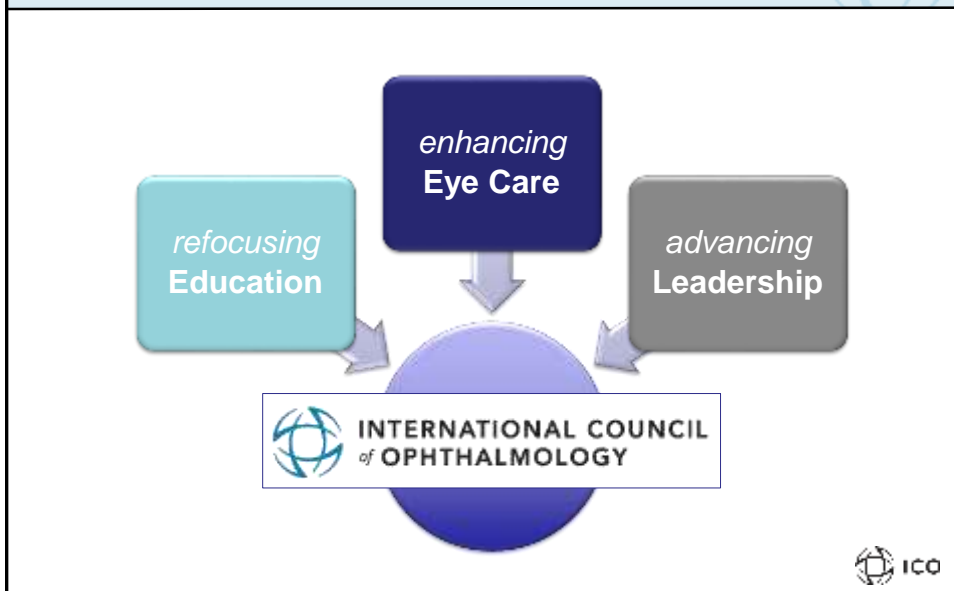
- Represents and serves professional associations for ophthalmologists throughout the world.
- “World Alliance for Sight”: - Working towards enhancing ophthalmic education and eye care.
- Swiss Not for Profit Organisation
- International Standard of education in Ophthalmology



Harmonizing Global Ophthalmology



Commitments of the ICO



ICO Programs - Education



- World Ophthalmology Congress® of the ICO

WOC2018 – Barcelona, Spain

WOC2020 – Cape Town, South Africa

WOC2022 – Will be held in Asia-Pacific

- Hundreds of cutting-edge sessions led by renowned experts
- Network with more than 10,000 attendees from over 120 countries
- Discount registration for ICO Member societies



ICO Programs - Education



ICO Fellowships

- Over 900 awarded since 2001
- For young ophthalmologists to gain greater knowledge and improve their practical skills to better serve eye care programs in their home nations
- Applicants from ICO Member society countries are awarded additional points on their application
- Fellowship Alumni Group formed in 2015



ICO Programs - Education



Magrabi-ICO Cameroon Eye Institute

- Yaoundé, Cameroon
- Construction is now complete and became fully operational in 2017
- Regional Training Center under construction to educate the next generation of ophthalmic leaders in Francophone Africa



Education – Teaching the Teachers



- International Curricula
- Courses for residency program directors
- World Ophthalmic Education Colloquium
- OSCAR and other assessment tools
- Conferences for ophthalmic educators
- Center for Ophthalmic Educators & *NEW* Ophthalmic Educators Group (OEG)



ICO Programs – Eye Care



- ICO working with WHO on:
 - Implementation of Global Action Plan
 - Definition of future disease classification, ICD-11
 - Essential Medicines Lists
- Partnering in Eye Care Initiatives:
 - Diabetic Eye Care
 - Glaucoma Eye Care
 - Advocacy
 - Clinical Guidelines & Standards
- Data on number of ophthalmologists worldwide



ICO Programs - Leadership



- CME/CPD
- Support for ICO Member societies
- WORLD Roundtable
 - Brings together society leaders to exchange information and ideas to improve the effectiveness of their organizations and programs
- ICO Committees
- Publish *ICO Insight* and *Ophthalmic Educators Letter*



ICO Examinations



ICO Examinations

- The only worldwide medical specialty examinations
- Over 53,000 exams administered since 1995 in over 80 countries
- Candidates from ICO Member societies receive:
 - Free Foundation Assessment
 - Discount on Exam registration fees



Peter Watson 1931 - 2017



ICO Examinations and Assessments



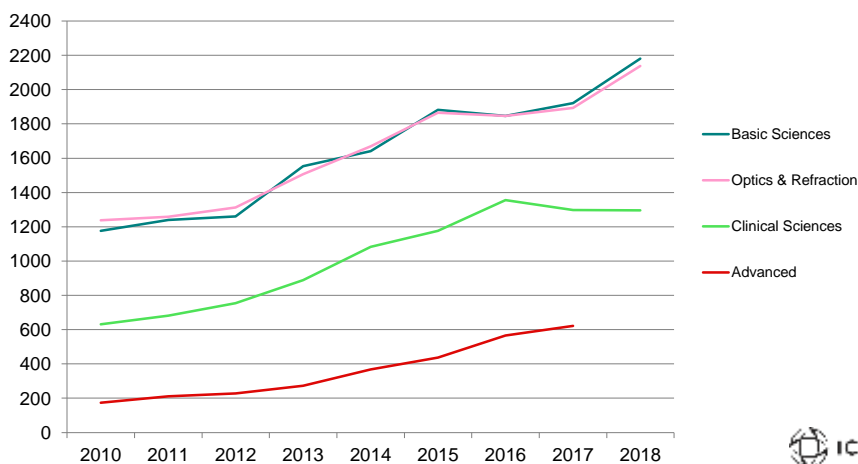
Examination/Assessment	Year
Basic Science	1994
Theoretical Optics & Refraction	1994
Clinical Sciences	1997
Advanced	2010
Foundation Assessments	2013
Sub-specialty Examinations	2016



ICO Examinations and Assessments



- 137 Examination Centres
- 80 Countries



Egypt



2018 moved from Magrabi Hospital to the Egyptian Ophthalmological Society

- Dalal Shawky
- Mervat Mourad



- 1 centre – Cairo
- 640 candidates booked for April exams (509 last year)



ICO Residency Curriculum



- Offers an international consensus on what residents in ophthalmology should be taught.
- Provides a standardised content outline for ophthalmic training.
- Used in widely different regions regardless of nationality, culture, medical maturity or socioeconomic status.
- ICO question writers use the ICO Residency Curriculum.
- Free to download from ICO website.

www.icoph.org/refocusin_education/curricula.html



ICO Sub-specialty curricula



- Cornea and External Eye Diseases
- Glaucoma
- Neuro-ophthalmology
- Oculoplastic Surgery

All written

- Paediatric Ophthalmology and Strabismus
- Ocular Oncology
- Vitreoretinal Surgery

In process



Standard Setting ICO Examinations and Assessments



- **Educationalist**
 - Foundation Assessment, John Faulkes
 - Standard Examinations, Raymond Tongue
 - Advanced Examination, Tony Green
- **ICO Examinations Team**
 - Director of Examinations
 - International Examinations Executive Committee
 - International Standard Setting Committee
 - International Question writers



Criterion Referenced

ICO Examinations and Assessments



An examination/assessment where an individual's performance is compared to a specific learning objective or performance.

Criterion-referenced exams/assessments tells us how well the candidates are performing on specific goals or standards.

In criterion-referenced exams/assessments, it is possible that none, or all, of the examinees will reach a particular goal or performance (standard).



ICO Examinations and Assessments



Foundation Assessment		Online preparation for Examinations
Standard Examinations	<ol style="list-style-type: none"> 1. Basic Science 2. Optics and Refraction 3. Clinical Sciences 	Year 2-4 of ophthalmology training
Advanced Examination		Year 4 +
Sub-speciality Examinations		After 1 year of subspeciality training



Fee structure

ICO Examinations and Assessments



- Set in Swiss Francs
- 3-4 Tiers for each examination and assessment
- Gross National Income per Capita (GNIPc)

- Group bookings
- Introductory discounts
- Bursary applications

- Online credit/debit card payments
- Directly into ICO account



Why should I take the ICO examinations?



- International recognition - (Not a licence to practise!)
- Compare your own standards
- Highest standards of other comparable exams
- Advanced exam - FICO
- Reciprocity with RCSG/RCSE
- Fellowship points



Examination Points



Fellowships

- Foundation Assessment: Up to 5
- Standard Examination, Optics & Refraction: 3
- Standard Examination, Basic Science: 4
- Standard Examination, Clinical Sciences: 5

- Merit, Basic Science, O&R, Clinical Sciences: 2
- Distinction, Basic Science, O&R, Clinical Sciences: 3

- FICO Advanced Examination: 7
- Sub-specialty Examination: 7



ICO Examinations – All MCQs



A multiple choice item consists of a problem, known as the stem, and a list of suggested solutions, known as options. The options consist of one correct or best alternative, which is the answer, and 3 incorrect or less likely options, known as distractors.

One stem – Statement or statements plus diagram, picture or video (FFA)

One correct/best option

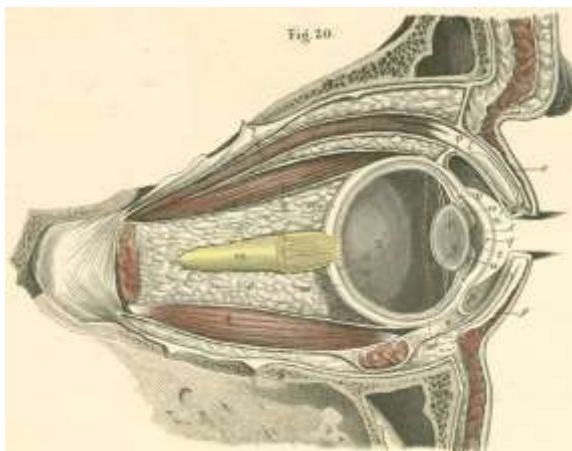
Four incorrect or less likely options



Basic Science



- 80 Questions
- Single Best Answer
- Four options
- 2 hour paper



Basic Science question



Regarding the blood retinal barrier, which ONE of the following statements is MOST likely to be TRUE?

- Retinal vascular endothelium passively transports fluid from the extra cellular space of the retina.
- The basement membrane of the retinal capillaries contributes to the outer barrier.
- The inner blood-retina barrier is fenestrated.
- The outer blood retina barrier is formed by the RPE cells and their tight junctions.



Basic Science question



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Optics and Refraction



- 40 Questions
- Single Best Answer
- Four options
- 1 hour paper

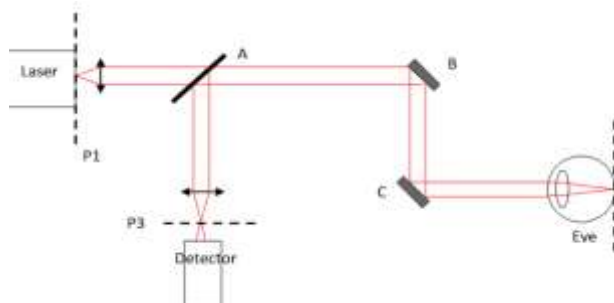


Figure 3. Diagrams showing the formation of the retinal image from Kircher (1645) (left) and Des Cartes (1677) (right) from Polyak, 1957

Optics and Refraction question



The Figure below represents a confocal scanning laser ophthalmoscope. Which ONE of the following statements is the MOST likely to be TRUE?



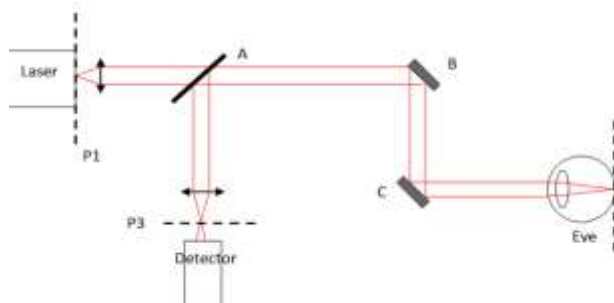
- A pinhole placed in the plane P3 decreases the axial resolution of the system.
- Element A is a Dove prism.
- Planes P1, P3 and the retina are conjugated.
- The detector is usually a CCD camera.



Optics and Refraction question



The Figure below represents a confocal scanning laser ophthalmoscope. Which ONE of the following statements is the MOST likely to be TRUE?



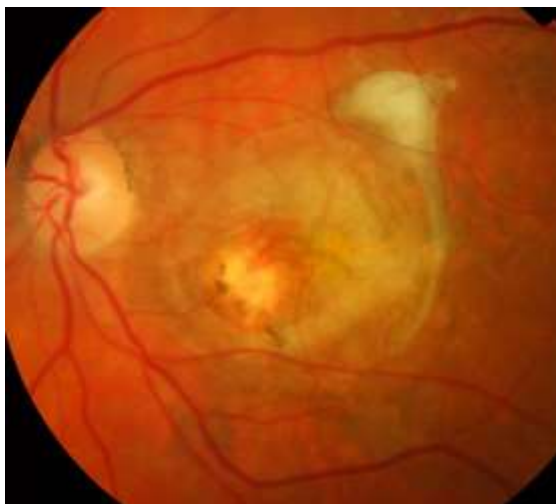
- A pinhole placed in the plane P3 decreases the axial resolution of the system.
- Element A is a Dove prism.
- Planes P1, P3 and the retina are conjugated.
- The detector is usually a CCD camera.



Clinical Sciences



- 200 Questions
- Single Best Answer
- Four options
- 4 hour paper



Clinical Sciences question



The photograph illustrates a patient with acute anisocoria and ptosis; Instillation of 5% topical cocaine fails to dilate the left eye, but installation of hydroxyamphetamine hydrobromide results in dilation. The MOST appropriate area to evaluate on MRI scanning is the:



- Brainstem.
- Cavernous sinus.
- Chest.
- Orbit.



Clinical Sciences question



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- a. Brainstem.
- b. Cavernous sinus.
- c. Chest.
- d. Orbit.



Languages Examinations, Standard



Basic Science, Optics & Refraction and Clinical Sciences

Chinese, English, French, Portuguese and Spanish



Advanced Examination



- 85 Questions
- Single Best Answer
- Four options
- Extended Matching Type questions 10
- Statement, Scenario or picture-based questions 75
- 3 hour paper



In the clinical history below, some words or parts of sentences A, B, C & D are missing. In the table below, match the missing words or sentences with the most appropriate (likely to be correct) word, phrase or short sentence in the columns 1, 2 or 3 below. It is recommended that you read the whole question before answering.

This A year old patient presented B. Ultrasound revealed a smooth, dome-shaped mass with high internal reflectivity. Fluorescein angiography revealed C. Optimal treatment is D.



	1	2	3
A	10	28	70
B	With blurred vision	With photopsia	Following a routine optometrist visit
C	Very early hyperfluorescence	Late hyperfluorescence	A feeder vessel
D	Enucleation	Plaque radiotherapy	Photodynamic therapy



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The 46 year old Asian women in the Figure below lives in a rural village. She has had a sore irritable eye for may months and relatives have tried to remove a lash with forceps bought at a the local market. Regarding this lady, which ONE of the following statements is MOST LIKELY to be TRUE?



- A single dose of azithromycin should be given after any surgery.
- She needs no medical follow-up for the possibility of recurrence.
- She should best continue with lash removal alone.
- The most likely diagnosis is active trachoma.



The 46 year old Asian women in the Figure below lives in a rural village. She has had a sore irritable eye for may months and relatives have tried to remove a lash with forceps bought at a the local market. Regarding this lady, which ONE of the following statements is MOST LIKELY to be TRUE?



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Advanced Examination



Once candidates have passed the ICO Advanced Examination *and* a local face-to-face examination or have a licence to practise independently from their MoH, they are able to use the post-nominal

FICO



Foundation Assessment (FA)



- Introduced June 2013
- Online Assessment
- Open Access
- Preparation for ICO Standard Examinations and others

A unique learning and assessment tool for ophthalmologists
at the start of their career



Free tool for Examinations – Society Members



- Foundation Assessment (Basic Science)
50 SBA Questions
- Foundation Assessment (O&R)
20 SBA Questions
- Foundation Assessment (Clinical Sciences)
50 SBA Questions

20 minutes per Question

Confidence Indicator

Individual application directly via website to ICO – charged at 50 Swiss Francs



Foundation Assessment



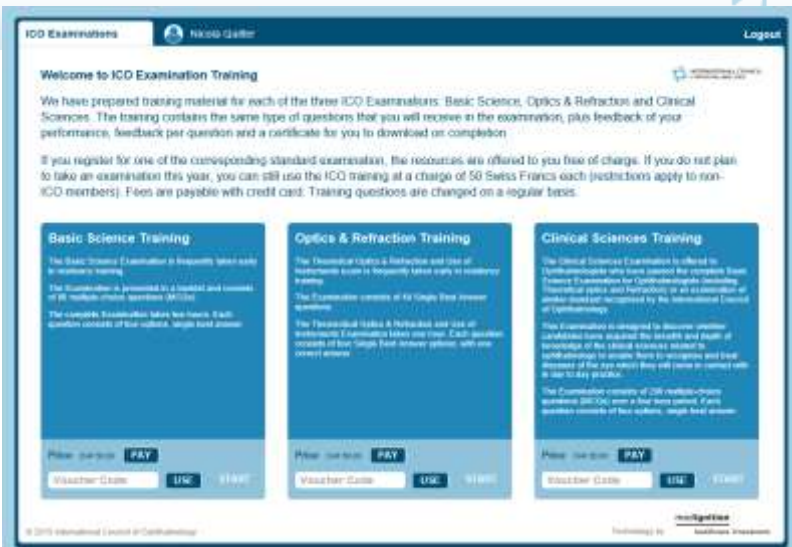
Can be taken: -

- In conjunction with ICO Examinations
- Only online

Essentials

- Blueprinted to ICO Curriculum
- Open access
- No monitoring
- Security features
- Instant results on completion
- Downloadable Certificate





ICO Examinations Home Logout

Welcome to ICO Examination Training

We have prepared training material for each of the three ICO Examinations: Basic Science, Optics & Refraction and Clinical Sciences. The training contains the same type of questions that you will receive in the examination, plus feedback of your performance, feedback per question and a certificate for you to download on completion.

If you register for one of the corresponding standard examination, the resources are offered to you free of charge. If you do not plan to take an examination this year, you can still use the ICO training at a charge of 50 Swiss Francs each (restrictions apply to non-ICO members). Fees are payable with credit card. Training questions are changed on a regular basis.

Basic Science Training

The Basic Science Examination is frequently taken early in residency training.

The Examination is presented in a booklet and consists of 80 multiple-choice questions (MCQs).

The complete Examination takes two hours. Each question consists of four options, single best answer.

Price (incl. tax): **PAY**

Voucher Code: **USE** 51400

Optics & Refraction Training

The Theoretical Optics & Refraction and use of Instruments Exam is frequently taken early in residency training.

The Examination consists of 40 Single Best Answer questions.

The Theoretical Optics & Refraction and use of Instruments Examination takes one hour. Each question consists of four Single Best Answer options, with one correct answer.

Price (incl. tax): **PAY**

Voucher Code: **USE** 91400

Clinical Sciences Training

The Clinical Sciences Examination is offered to Ophthalmologists who want to attend the European Board Training Examination for Ophthalmologists (European Board in Ophthalmology) or an extension of another board recognised by the International Council of Ophthalmology.

This Examination is designed to measure whether candidates have achieved the breadth and depth of knowledge of the Clinical Sciences related to ophthalmology to enable them to recognise and best manage all the eye-related topics that may be covered with the daily practice.


The Examination consists of 200 multiple-choice questions (MCQs) over a four-hour period. Fees members currently of five nations, single best answer.

Price (incl. tax): **PAY**

Voucher Code: **USE** 61400

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ICO Examinations Home Logout

Basic Science Training

Topic	Exam Details	Status of Topic
A	Anatomy of the Eye, Orbit and Related Structures	NOT AVAILABLE
B	Embryology and Development	NOT AVAILABLE
C	Epidemiology and Statistics	NOT AVAILABLE
D	Immunology	NOT AVAILABLE
E	Neuro-Anatomy	NOT AVAILABLE
F	Pathology and Microbiology	NOT AVAILABLE

Examinations Overview **About the Examinations** **Pay**

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About the Examination

The Basic Science Examination is frequently taken early in residency training.

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ICD Examinations Edward Sample Logout

STDP

Lens and Cataract: 26/50

The right eye shows in the photograph, is of an aphakic, astigmatic pupil. The left eye shows a similar picture. The complains of diminished vision for a few weeks. Which ONE of the following statements is MOST likely to be TRUE?

a. His posterior capsule is liable to rupture during surgery.

b. His symptoms are worse when looking at near objects.

c. He is likely to have been on corticosteroid treatment.


d. Most of the symptoms are due to the anterior cortical opacity.

How certain are you about your answer?

not certain reasonably certain very certain

Next

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The Confidence Indicator

For each question, the candidate has to decide how sure they are that their answer is correct.

- **Very certain**
Correct = +3
Incorrect = -3
- **Reasonably certain**
Correct = +2
Incorrect = -2
- **Not certain**
Correct = +1
Incorrect = 0



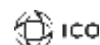


The Confidence Indicator does NOT impact on candidates final score.

Candidates will receive feedback on each question, along with the correct answer.

Successful candidates will be issued grades A*-D

Candidates will be able to download a certificate



ICO Examinations Edward Service Logout

BACK TO RESULTS

Lens and Cataract - Question 3

The right eye shown in the photograph, is of an arthritic, astigmatic patient. The left eye shows a similar picture. The symptoms of diminished vision for a few weeks. Which ONE of the following statements is MOST likely to be TRUE?

- His posterior capsule is liable to rupture during surgery.
- His symptoms are worse when looking at near objects.
- He is likely to have been on corticosteroid treatment.
- Most of the symptoms are due to the anterior cortical opacity.

How certain are you about your answer? Not certain Moderately certain Very certain

Feedback

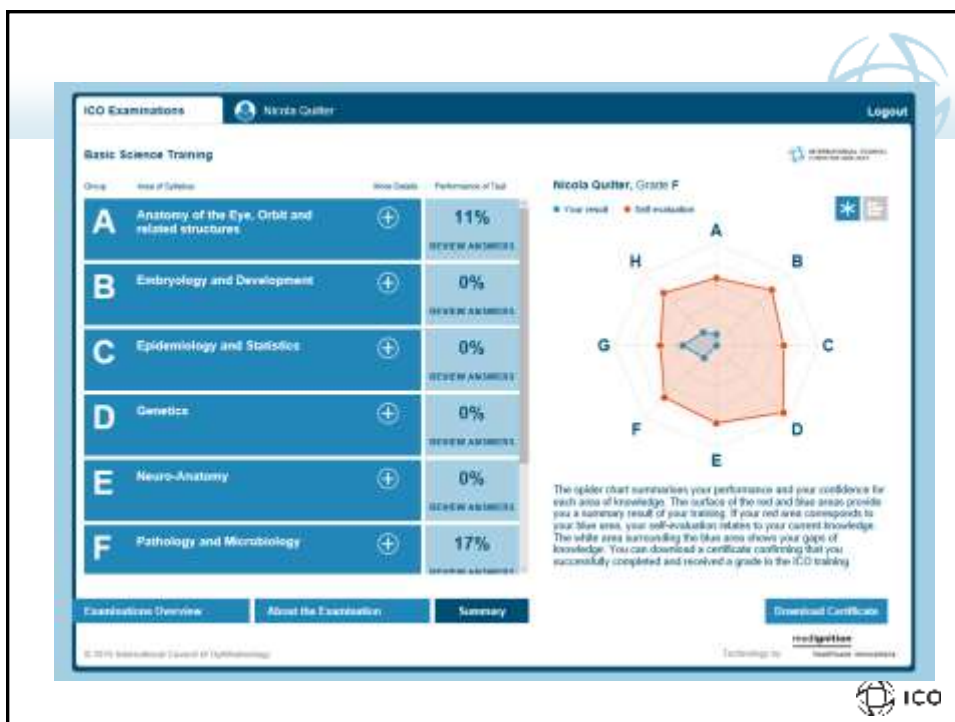
This illustrates a posterior subcapsular cataract. There are a few less significant anterior cortical changes. Posterior subcapsular cataracts are associated with diabetes, corticosteroids, uvula and radiation exposure. They are commoner in younger patients and often rapidly progress. Posterior capsule rupture rates are no lower compared with this type of cataract.

PREVIOUS NEXT

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ICOG







ICO App

free of charge


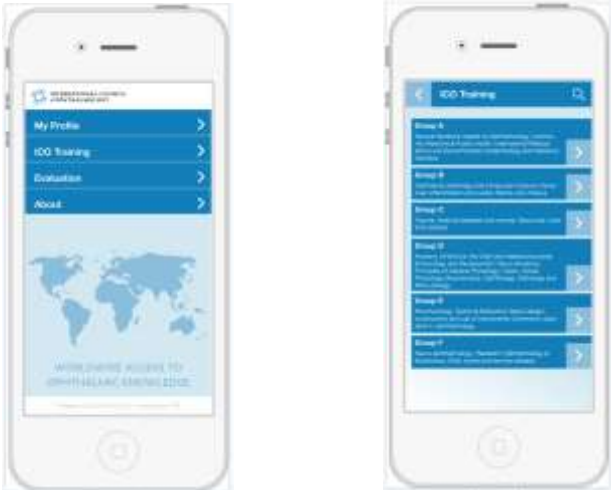



Download it now on App Store or Google Play

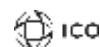
icoexams



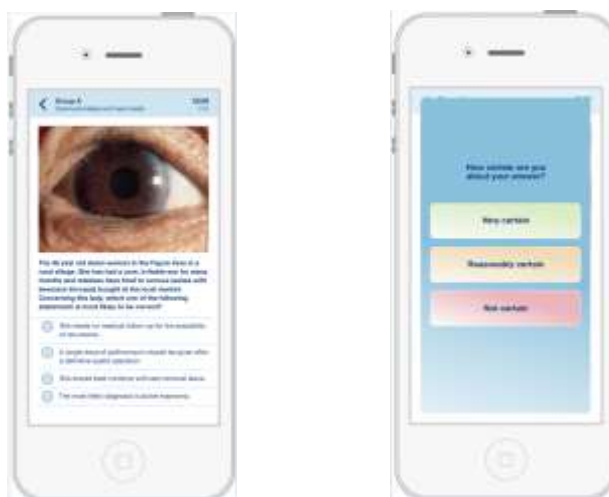
ICO App



ICO App



ICO App



ICO App



← Quiz A - Question 7/13
 22 questions | Medicine & Public Health | Feedback



The 48 year old Asian woman in the figure lives in a rural village. She has had a sore, irritable eye for many months and relatives have tried to remove lashes with tweezers (surge) bought at the local market. Concerning this lady, which one of the following statements is most likely to be correct?

- She needs no medical follow-up for the possibility of recurrence.
- A single dose of azithromycin should be given after a definitive eyelid operation.
- She should been continue with lash removal alone.
- The most likely diagnosis is active trachoma.

Feedback

The picture shows thickening and entropion of both lids most likely due to chronic (not active) trachoma. The best management is surgical to prevent recurrence, irritation and corneal scarring. A single dose of azithromycin is effective after the procedure to prevent recurrence. The patient would ideally need follow-up.



ICO App



The future



- Subspecialty examinations
- On-line only examinations



Subspecialty Examinations



Subspecialty exams run in 2017 (India)

- Cornea and anterior segment
- Uveitis
- Paediatric ophthalmology
- Glaucoma
- Medical Retina
- Neuro-ophthalmology (Egypt and India)

60 MCQs
90 minutes

2018 Oculoplastics in addition

Eligibility

- 3-4 year general ophthalmology training
- ICO Clinical Sciences examination
- One year training in subspecialty in a university/academic setting



On-line Examinations



The goal is to have all ICO examinations on-line within 10 years

- Single venue
 - Invigilator/Coordinator
- At home
 - Security
 - Virtual proctor



INTERNATIONAL COUNCIL
of OPHTHALMOLOGY

ICO Fellowships



Team ICO, Fellowships



Cordula Obermeyer,
Fellowship Executive

Bertholde Seitz,
Director of
Fellowships



ICO Fellowships Program



- Program started in 2001
- Initiated by Balder Gloor, MD, Switzerland
- > 920 Three Months Fellows
- 30 One Year Fellows (since 2010)
- 111 Training Centers around the world
- 19 subspecialities



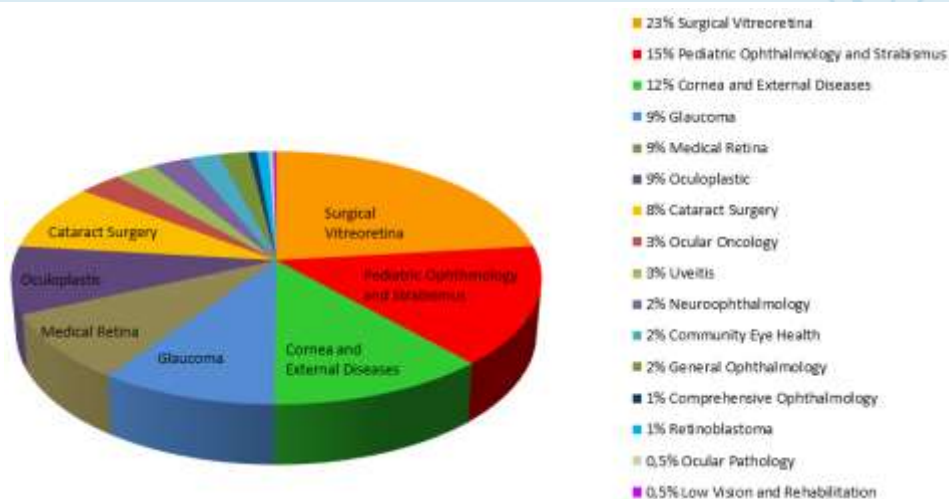
ICO Fellowship-Opportunities



ICO 3-months Fellowship	60-80 awards/year max. US\$ 6000
ICO ECF6-m. FS in Retinoblastoma	6 awards/year max. US\$ 8000
ICO RRF Helmerich FS	2 awards/year
ICO Fred Hollows Foundation FS	1 award/year US\$ 25000



Subspecialties offered (2001 – 2016)



Requirements/Eligibility

Fellowships



- Residency training must be completed
- Specialist exam in ophthalmology must be passed
- Applicants must be under 40 years of age
- Applicants must return home after the training, and apply the knowledge gained.

- Applications who have passed the ICO examinations will receive special consideration

- Applicants from countries with ophthalmologic societies that are Members of the ICO will receive special consideration.



Selection Criteria

Fellowships



- Application performance.
- Candidates qualification, research and teaching activity.
- International work experience, charity work.
- Relevance to the candidate's home institution and country.
- Balanced geographical representation.



Examination Points

Fellowships

- Foundation Formative Assessment grades D to A*: 1-5
- Standard Examination, Optics & Refraction: 3
- Standard Examination, Basic Science: 4
- Standard Examination, Clinical Sciences: 5

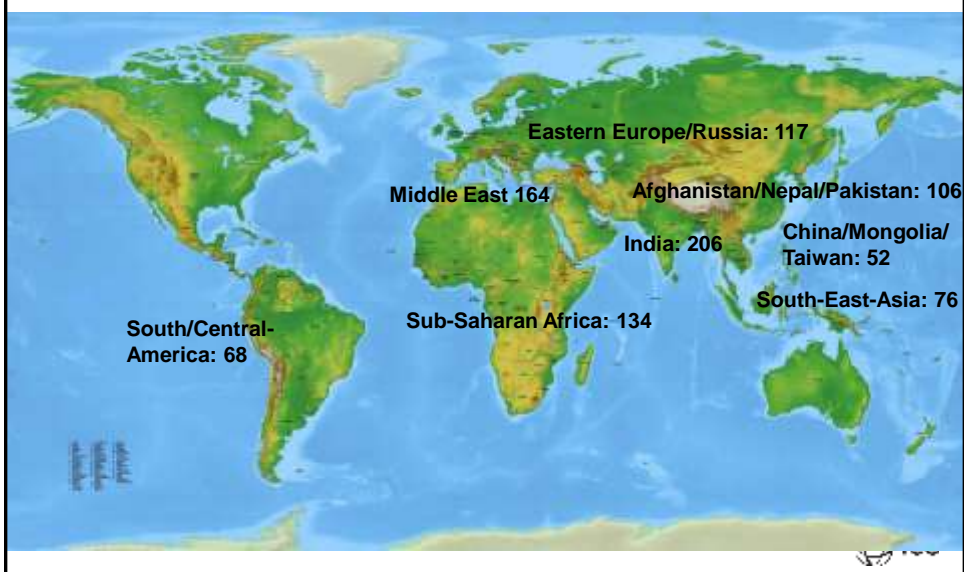
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- Distinction, Basic Science or Clinical Sciences: 3

- FICO Advanced Examination: 7

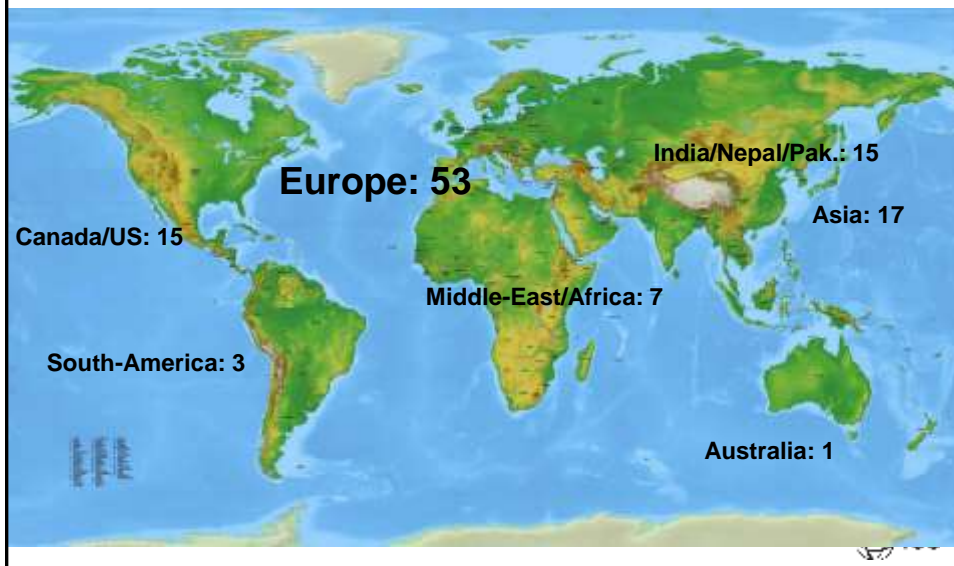
42% of points can be achieved by passing the ICO Examinations



920 Fellows came from 83 countries



111 ICO Training Centers



Possible Benefits for Hosts and their team



- Cultural exchange
- Improving teaching skills
- Improving language skills
- Making friends
- Networking



Fellowships



Independence Day in India



.....performing surgery



Fellowships



Dr. Ahmed Azzam Abdulkader with his patients



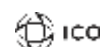
Dr. Ahmed Azzam Abdulkader with his host Dr. Vikas Mahanna



Planned new cooperations with



- National Eye Institute, Bethesda, USA → ophtho-genetic
→ 4 weeks
→ add-on to RBL
- Allergan Pharma, USA → research
→ 12 months
- World Glaucoma Association, NL → travel grant WGAC
→ clinical attachment



Activities 2016: ICO Fellowship Reunion at WOC in Guadalajara, Mexico



More information on...



www.icoph.org/fellows
and
fellowship@icoph.org



JOIN US! BARCELONA, SPAIN
JUNE 16-19, 2018

WWW.ICOPH.ORG/WOC2018



INTERNATIONAL COUNCIL OF OPHTHALMOLOGY

WOC  **2018**

WORLD OPHTHALMOLOGY CONGRESS™

HOST: SPANISH SOCIETY OF OPHTHALMOLOGY
CO-HOSTS: EUROPEAN SOCIETY OF OPHTHALMOLOGY AND
JAPANESE SOCIETY OF REFRACTIVE SURGERY

ATTEND

hundreds of scientific
sessions led by
renowned experts.

PARTICIPATE

in cutting-edge
continuing education
opportunities.

NETWORK

with more than 15,000
attendees from over
120 countries.

VISIT

more than 200
exhibiting companies.





Thank you for listening

