

**Van Biervliet, Auguste-Louis (1830-1869)** Belgian ophthalmologist. Van Biervliet was the son of Antoine-Louis Van Biervliet (b. 1802 d. 1868), professor of medicine at the Leuven University. Van Biervliet became Ph.D. in 1850 and M.D. in 1854. He was physician in the St.Jan Hospital in Bruges and secretary of the Société médico-chirurgicale de Bruges. He translated into French Ammon's book on the development of the human eye: *Histoire du Développement de l'Œil Humain* ( first in the *Annales d'Oculistique*, later as a monograph in Brussels 1860) and Heymann's paper on *auto-ophthalmoscopy* (1863). He wrote papers on *physiology and pathology of the iris* (1860), on *periodic ophthalmia of the horse* (1862), on *surgery and on otology*. He was member of the (French) Belgian academy of medicine. (Verriest) JPW

**Van Bogaert, Baron Ludo (1897- ?)** Belgian neurologist, born in Antwerp, who obtained at the Brussels University the M.D. degree in 1922 and a special doctorate in 1925. Meanwhile he specialized in neurology with Pierre Marie in Paris, Winkler in Utrecht, von Economo in Vienna and Spielmeyer in Munich. In 1924 he entered the Stuyvenberg hospital in Antwerp as assistant and he worked in the Bunge Institute since its foundation in 1934. He founded there a Laboratory of nervous pathology and was a renowned specialist in encephalitis (e.g. *Van Bogaert's subacute sclerosing leuco-encephalitis*, 1945), *myoclonias and degenerative hereditary diseases* (especially the metabolic ones). Of ophthalmological interest are his papers on *visual hallucinations* (1926), *optic agnosia* (1927), *Tay-Sachs disease* (with Léon Bauwens and Marcel Danis, 1928), *recurrent ophthalmoplegia* (1935), *ocular symptoms in dyslipidoses* (1935), *acute amaurotic epilepsy in the rhesus monkey* (1935, 1938), *Laurence Moon syndrome* (1936, 1937), *Behr's optic atrophy* (with Maria Van Leeuwen née André, 1942), *hereditary ataxia with retrobulbar neuritis* (also with Mrs. Van Leeuwen, 1949), *Friedreich's heredo-ataxia* (with W. Stadlin, 1949), *the Sturge-Weber syndrome* (with Pierre Danis, 1951), and *amaurotic idiocy* (1952, 1953). He was a founder and the secretary of the *Belgian Group for Oto-neuro-ophthalmological studies*. He founded in 1957 and was the first president of the *World federation of neurology*. He was a member of the (French) Belgian Academy of Medicine and was his president. He was made a baron by the king. (Verriest)

**Van Canneyt, Julien (1895-1948)** Belgian ophthalmologist. He was born in Waardamme and died in Arcos-de-Jalon, Spain. He obtained his M.D. degree in Ghent and the special doctorate in ophthalmology at the same University in 1934. He was assistant at the Department of Ophthalmology since 1925 and was thus the person who had to succeed to Marnix Van Duyse. From the scientific point of view his principal achievements have been the papers on *experimental syphilis and tuberculosis* which he wrote under the supervision of Marnix Van Duyse and of the professor of bacteriology Albert Bessemans. He wrote also on *corneal diseases* (as *traumatic keratitids and corneal dystrophies*) and, in the Van Duyse tradition, on *ocular malformations*. In 1947 he made a report on anesthesia for the Belgian Ophthalmological Society. (Verriest)

**van der Hoeve** *see* **Hoeve, J. van der**

**van Duyse** *see* **Duyse**

**Van Fleet, Frank (1860-1919)** American, New York ophthalmologist. Born in New York City on Mar. 31, 1860, son of Henry S. and Esther Flandreau Van Fleet, he received his medical degree at Bellevue Hospital, Medical College of New York City, in 1881. Settling in New York as an ophthalmologist, he soon had an extensive practice and a wide reputation. He was executive surgeon to the Manhattan Eye, Ear and Throat Hospital for seventeen years, and at the time of his death was president of the Board of Surgeons of the same institution. He was a Fellow of the New York Academy of Medicine and of the American College of Surgeons, and was once President of the New York County Medical Society. He was also Treasurer of the New York State Medical Society and chairman of the legislative committee of that body for many years. During the 2nd World War he gave much time to the examination and treatment of soldiers whose eyes had been injured by poisonous gas. He wrote many articles. *Am. Encyclop. of Ophthalm.* vol.17, p.13520; *AJO* 1919,2:705-706

**Van Leeuwen, Marie born Andre (1906- )** Belgian ophthalmologist. Van Leeuwen was born in Holland but obtained the M.D. in Ghent in 1932. She then entered the Centre

Neurologique de Bruxelles and specialized in neuro-ophthalmology under Pierre Gaudissart in this center, under De Vleeschauwer in the Etterbeek Civil Hospital, under Weve and Stenvers in Utrecht and under Ludo Van Bogaert in Antwerp. She published from 1940 to 1950 on *palsies of ocular muscles*, on *pupillar disturbances*, and on *hereditary optic atrophies of central origin*. (Verriest)



Auguste Van Lint

**Van Lint, Auguste (1877-1959)** Belgian ophthalmologist, inventor of the technique of akinesia of the orbicular muscles in cataract surgery. He graduated from University of Brussels at the age of 23. In the beginning of his career, he studied Neurology and frequently visited clinics in Paris. Subsequently, he was advised by Dr. J. B. Coppez to become an ophthalmologist and studied under Dr. Coppez. He served as Chief Ophthalmologist of Saint-Josse Hospital, Policlinique de Bruxelles and also at the Institut Provincial des Aveugles de Berchem. He became a member of the Société Belge d'Ophthalmologie in 1905 and his many lectures and discussions were accepted with keen attention. He published many original articles, e.g. on sympathetic Ophthalmia, ocular trauma by electricity (*Accidents oculaire provoqués par l'électricité*. Bull. Soc Belge d'Ophthalmol. 27: 84, 1909), *Optic neuritis* (Nevrite Optique Familiale (2 Frères, 1 Soeur) *Insuffisance Thyroïdienne*. Ann. Ocul. 77:1914) and many others. The most important of all of his works is on cataract surgery: he invented a technique of akinesia of the orbicular muscles in cataract surgery (*Paralysie palpébrale temporaire provoquée dans l'opération de la cataracte*. Ann. Ocul. 77: 420-424, 1914: one month prior to this communication, he reported the technique at the French Ophthalmological Society). Since introduction of this technique, it was exercised throughout the World and cataract surgery could be performed under stable condition, with significant improvement of its success rate. This technique of Akinesia was then used in most intraocular surgery including glaucoma filtering procedures. With H.Coppez, he wrote a little book for nurses : *Soins Oculaires a l'Usage des Infirmières*, Brussels 1916. His other articles on cataract embrace "Astigmatisme post-opératoire dans l'extraction de la cataracte avec glissement de la conjonctive. Ann. Ocul. 77: 418-420, 1914", "Il faut toujours paralyser les paupières dans l'opération de la cataracte. Bull. Soc. Belge 43: 23, 1921" and "Akinésie palpébrale, Bull. Soc. Belge 52: 64, 1926". In recognition of his outstanding contributions, the Belgian Ophthalmological Society elected him Honorary Member of the Society in 1953. (Bulletin Soc. Belge d'Ophthalmologie, 123: 474, 1959).JPW

**Van Oye, Raphael (1936- )** Belgian ophthalmologist. He is the son of Herman Van Oye (himself an ophthalmologist), the grandson of Raphael Van Oye (a generalist who was interested in ophthalmology and who died in the first World War), the greatgrandson of Eugene Van Oye (a well-known poet and generalist also with interests in ophthalmology) and the great-great-grandson of the physician Rend Van Oye from Torhout, who wrote in 1843 a study on the *choroidal pigment*. The present Raphael Van Oye obtained his M.D. in Ghent, is adjunct departmental head at the eye-clinic of the Ghent University and is a well known anterior segment surgeon. (Verriest)

**Van Roosbroeck, Jules see Roosbroeck, Jules van**

**Van Schevensteen Jr., Auguste (1882-1940)** Belgian ophthalmologist, son of Auguste Van Schevensteen Sr., who obtained the M.D. degree in Leuven and specialized in Leuven (under Venneman) and abroad. He published not only on ophthalmology (on *traumatic visual field defects by cerebral trauma* in 1907 and 1916, on *filariosis* in 1908, on *spirochetosis* in 1917, on *sympathetic ophthalmia* in 1917 and 1918) but much more on *ophthalmological folklore and history of ophthalmology*. (Verriest)

**Van Schevensteen, (Senior) Auguste (1848-1919)** Belgian ophthalmologist who obtained his MD degree in Leuven in 1875. He specialized in ophthalmology in Paris under Panas, de Wecker and Galezowski and in London. He was President of the Belgian Ophthalmological Society in 1900.(Verriest)

**Van Trigt, Adrien Christophe (1825-1864)** Dutch ophthalmologist born in Dordrecht, Holland. Van Trigt received his M.D. in 1853 at the University of Utrecht, with a classic dissertation on the ophthalmoscope: *De Speculo Oculi*. For the rest of his short life he practiced in Amsterdam, specializing in the treatment of venereal and skin diseases; his leisure was given over to zoological research. His dissertation was enlarged and published

the same year and same place in Dutch (*De Oogspiegel*) and the following year, translated and again enlarged by C.H.Schauenburg, into German: *Der Augenspiegel, seine Modificationen nebst Beiträgen zur Diagnostik innerer Augenkrankheiten*. Lahr 1854  
Albert. JPW

**Vanden Bergh, Christiaan (1851-1913)** Belgian ophthalmologist. Vanden Bergh was born in Susteren in the Netherlands but took out letters of Belgian naturalization in 1883. He became doctor in medicine (1875) and specialist in ophthalmology in Brussels. He founded the department of ophthalmology in the Clinique Générale St.-Jean and worked from 1895 in Molenbeek St.Jean. He published much, e.g. on *refractive errors* (1887), *treatment of squint and corneal ulcers* (1888), *ocular phototraumatism by gaslight* (1897), *theory of skiascopy* (1898, 1903), *photometry based on visual acuity* (1910) and *corporeal attitude during writing* (1911). (Verriest)

**Vannas, Mauno V. (1891-1964)** Finnish ophthalmologist from Helsinki. He was born and grew up in Uusikaupunki, a small town actively involved in shipping on the West Coast of Finland. Already at a young age he was determined to educate himself and thus entered the medical school at Helsinki University. He was active in student life and served as secretary and chairman of the student union when Finland became independent in 1917. During the Civil War in 1918 he ended up serving as a doctor on both fighting sides, as he was captured by the communist counterpart during the war. After his retirement he published a book based on his diary notes of those times called *An Eye for an Eye*. He graduated from medical school in 1923. He then devoted his time to ophthalmology, received his specialist degree in 1925 and published his doctoral thesis on the effects of adrenaline in glaucoma in 1927: "*Clinical studies about the effect of adrenalin in glaucoma*." It took about thirty years however, before large scale employment of adrenaline derivatives was started in the management of glaucoma. During the years 1923-37 he studied and lectured in many European centers of ophthalmology, especially Vienna and Prague, with Elschnig among his teachers. The combined time spent abroad was several years. In 1937 he became the Professor of Ophthalmology at the University of Helsinki. Finland had to fight strongly for its independence during the period from 1939-1945. He held several responsible posts during these war years as a colonel. He also served as the Dean of the Medical School and was active when the University was rebuilt and developed after the Second World War. One of the outstanding achievements of Professor Vannas was the new building for the Helsinki University Eye Hospital which was completed in 1951. As a prolific writer Professor Vannas contributed more than 200 scientific articles and reports. Quite a few of them involved in ophthalmic surgery. Already in the 1930's he performed round-pupil intracapsular cataract extractions, corneal grafting operations, corrected cases of ocular torticollis by surgery of the oblique muscles, and studied the effects of cyclodialysis by gonioscopy. He devised several modifications and improvements of various operations. Corneal transplantation especially interested him and this led to the development of new instruments; Vannas scissors being one of the first microsurgical instruments invented around 1950. He also contributed greatly to the Finnish, Scandinavian and European Ophthalmic Societies and was a honorary member in several European medical Associations. In 1948-49 he received a WHO stipend and travelled to England and USA to visit several centers. He also served in the WHO trachoma prevention program as an advisor. In business life he served as the Chairman of the board of Instrumentarium 1943-63. In 1952 he remarried one of his pupils Salme, who was to follow him as the Professor and Chairman of Ophthalmology in Helsinki in 1961. They both appreciated and loved each other greatly and many discussions also at home centred on professional matters. Gardening and landscape architecture was their main hobby and the summer home even today has plenty of roses and other flowers. His son Antti and daughter Kaarina are Ophthalmologists at work in Helsinki. [by Antti and Kaarina Vannas] see also: AJO 1965, 59:951-952

**Vannas, Salme F. (1918-1993)** Finnish female Ophthalmologist in Helsinki. She was born in western Finland, where she grew up on the home farm. At that time it was not common to send girls to high school for further education. However she was determined and as she also was of slender build, which meant she was not fit for heavy farm work, she was allowed to continue in the high school at the closest city 40 km away. She also had an excellent memory and her parents decided to support her education. First she was thinking

of a career in teaching handicrafts but her teacher and family thought that with her talents a more demanding profession such as medicine would suit her better. She entered the medical school at the University of Helsinki in 1936. During war time medical students with clinical experience had to practice and fill in posts when men were enlisted. She received her degree in medicine in 1946 with three young children. In 1948 she started ophthalmology at the Helsinki City hospital and one year later moved to the residency program at the University Ophthalmology Department. In 1951 she received her degree in ophthalmology and published her doctoral thesis in 1952. Her first husband died in 1950. She married Mauno→Vannas in 1952, and her fourth child was born in 1954. Her early scientific work centred on ocular blood flow. She studied the effects of heparin on the eye and also used fluorescein angiography in retinal disorders. Microsurgery was to become her favorite research area. She became Professor and Head of the Department at Helsinki University in 1961. The operating theaters were rebuilt and the use of operating microscopes at surgery was preferred. Corneal transplantation, corneal histocompatibility, corneal preservation and eye-banking were investigated under her guidance. Altogether she published more than 160 scientific articles in ophthalmic journals. She was a member of many national and international Societies. She was the Finnish representative on the International Council of Ophthalmology. She was the President of the European Congress of Ophthalmology which was held in Helsinki in 1984. She was the President of the Council of Foundation for Ophthalmic Research in Finland and was the key figure in collecting enough funds for the foundation to support ophthalmic research and projects. She also became a member of the Uppsala Academy of Sciences in 1979. She was a devoted teacher and was pleased that 25 University Theses were successfully defended while she acted the Head of Ophthalmology. She retired in 1984, but was delighted to see that three of her four children had decided to follow their parents and become ophthalmologists. Both Antti and Kaarina Vannas are Ophthalmologists at work in Helsinki. [by Antti and Kaarina Vannas]

**Vasavada, Abhaykumar R. (1950- )** Indian ophthalmologist, Director of Iladevi Cataract and intraocular lens Research Centre, Ahmedabad. He graduated from the University of Baroda in 1975, conducted postgraduate study in England and received his F.R.C.S. in 1980. He served as a Managing Committee Member of All India Ophthalmological Society (AIOS) (1987-1990) and as the Honorary Professor to N.H.L. Medical College of Gujarat University (1988-1990). He also served as Organizing Secretary of International Congress of Indian Intraocular Implant Society (1990), Scientific Committee Member of AIOS (1993-1996) and Organizing Secretary for the Vth Ophthalmological Congress of SAARC Countries (September 1998). His particular interest is lens physiology, cataract and intraocular lens implant: he holds courses and has trained more than 100 Ophthalmologists. He is a member of many National and International Professional Societies, e.g. International, American, European and Asia-Pacific Intraocular Implant Society, International Society for Eye Research and American Academy of Ophthalmology. He has been appointed the Chief Instructor of congenital cataract surgery of the courses held in U.S.A. He has published many scientific papers in National and International professional Journals, e.g. “*Primary posterior capsulorhexis with and without anterior vitrectomy in congenital cataracts*. J. Cataract Refract Surg. 23: 645, 1997” and “*Step-by-step chop in situ and separation of very dense cataracts*. Ibid. 24: 156, 1998”. He also serves to rural communities with Eye Camp activities. He is a recipient of “Best Researcher” Award in Ophthalmology by the A.P. Academy of Sciences, and Dr. B. C. Roy National Award for 1997. (Cataract and Intraocular Leens Research Centre, Gurukul Road, Memnagar, Ahmedabad-380052, India. phone: +91-79-7453303, fax: +91-79-7411200, e-mail: shail@ad1.vsnl.net.in ) (SM)

**Vater, Abraham (1684-1751)** German professor of anatomy at Tübingen, of some importance ophthalmologically. His father was Christian Vater (ordinary professor of medicine at Wittenburg and author of "*Physiologia Experimentalis*" and "*Semiotica Medica*"). The subject of this sketch was born at Wittenburg and received his philosophical degree in that city in 1706, and his medical degree four years later. He studied afterward in many lands, became professor of anatomy and botany in his native city, and established there a wonderful anatomical museum. In addition to important anatomical and botanical compositions, he wrote: 1. Abrahami Vater et J. Christiani Heinicke, *Diss.*,

*qua Visus Vitia duo Rarissima, Alterum Duplicati, Alterum Dimidiati Physiologicæ et Pathologicæ Exponuntur.* (Wittenburg, May 25, 1723.) Written, as the title shows, in conjunction with one Christian Heinecke, concerning whom nothing else is known. 2. *De Instrumento ad Determinandas Lucis Refractiones* (1751). Am. Encyclop. of Ophthalm. vol.17,p. 13528

**Veasey Jr., Clarence Archibald (1895-1960)** American ophthalmologist, born in Philadelphia, Pennsylvania. Veasey did his premedical work at Yale University and received the degree of Doctor of Medicine from the University of Pennsylvania in 1920. Dr. Veasey interned at Polyclinic and Presbyterian Hospital in Philadelphia and served his residency at the New York Eye and Ear Infirmary in 1920-1924. In 1924, following certification by the American Board of Ophthalmology and by the Board of Otolaryngology, he began practice in the office of his victorian father, who was the former associate Professor of Ophthalmology at the University of Pennsylvania. He devoted most of his time to ophthalmology, and was a member of the American Ophthalmological Society (1940). For a long time he was to be remembered by many of the members of the American Academy of Ophthalmology and Otolaryngology from his popular instruction course: "*On the dissatisfied refraction patient*". His 15 papers on various subjects in ophthalmology and otolaryngology attest that a physician, though not attached to a university centre, but with a keen mind, sharp observation and sacrifice of time that could be used for recreation, also can make fine contributions to science in addition to being a successful practitioner. As one of the incorporators of the Spokane Medical Service Bureau, he did much for the interest of the public and of his colleagues at the difficult period of the recession in the early 1930's. Artistic by nature, Veasey was more than an amateur in music and painting. He composed music for choirs and arranged Wagner's Parsifal for mixed chorus and orchestration. AJO 1960

**Velhagen, Karl (1897-1990)** German ophthalmologist born in Chemnitz, Germany. Velhagen studied medicine in Leipzig, Munich and Freiburg receiving his medical degree (1923) in Halle. He became assistant to Th. Axenfeld in Freiburg, remaining there until 1927. He then worked from 1928 to 1929 under Trendelenburg in the pharmacological institute in Freiburg and in Berlin. Velhagen then moved 1929 to Halle becoming first assistant (Oberarzt) under prof. Clausen and the next year, in the same institution lecturer of ophthalmology. In 1936 he became professor extraordinarius in Halle/Saale. During the year 1937 he was interim director of the eye clinic at the Cologne University and from 1938 to 1946 professor and director of the University Eye Clinic in Greifswald being during the war years also director of an eye lazaret. Velhagen became 1946 director of the city eye clinic of Chemnitz and from 1950 to 1958 professor and director of the Leipzig University Eye Clinic. From 1958 to 1967 Velhagen became Professor and Director of the Humboldt University Eye Clinic in Berlin. After a hard schooling under Axenfeld, having been at the institute for pharmacology afterwards, he focused all his scientific interest and research on ophthalmic pharmacology and endocrinology publishing his outstanding monograph *Sehorgan und innere Sekretion* (Munich, Berlin and Vienna 1943) which earned him the Albrecht von Graefe Prize in 1949. At the begin of his career in Leipzig he started the concept of his monumental treatise *Der Augenarzt* published simultaneously 1958 to 1966 by Thieme Leipzig (East Germany) and Thieme Stuttgart (West Germany) and comprising 7 volumes. A second edition was published a few years later in 9 volumes. Velhagen authored also *Unterrichtsbuch für das augenärztliche Hilfspersonal* Leipzig 1949 (2<sup>nd</sup> edition 1958); *Propädeutischen augenärztlichen Operationslehre* Leipzig 1964, and contributed a chapter in G.Albrecht and W. Hartwig *Ärzte. Erinnerungen, Erlebnisse, Bekenntnisse* (1972, 4th edition 1976). Very popular and extremely successful were also his *Tafeln zur Prüfung des Farbsinnes*, of which the 28<sup>th</sup> edition was published 1989. Velhagen was editor of *Abhandlungen aus dem Gebiet der Augenheilkunde* and on the editorial board of many ophthalmic journals. He translated Arruga's monograph about retinal detachment *Die Netzhautablösung* 1936. Ophthalmologen Verzeichnis 461-465. JPW

**Velpeau, Alfred Armand Louis Marie (1795-1867)** French surgeon, inventor of "Velpeau's bandage," and a man of some importance in ophthalmology. Born at Bruch (Inde-et-Loire) he studied at Tours and Paris, at the latter institution receiving his degree in 1823. In 1828 he became surgeon to Sainte-Antoine and in 1830 to La Pitié. In 1834 he

succeeded Boyer at the Surgical Clinic in the Charité—a place which he filled with the highest distinction for 33 years. As an operator, his fame became world-wide. Besides his books and articles (which were mostly of the highest character) on general surgery, he composed a number of ophthalmologic writings, of which the following are the more important: 1. *Du Strabisme*. (Paris, 1842.) 2. *Manuel Pratique des Maladies des Yeux, d'après les Leçons Clin. de M. le Prof. Velpeau*. (Paris, 1840.) 3. *Leçons Orales de Clinique Chirurg. Faites à l'Hôpital de la Charité*, p. par V. Pavillon et G. Jeanselme. (3 vols., Paris, 1840-41.) Am Encyclopedia of Ophthalmology, vol.17,p.13529

### Vengut *see* Grapheus

**Venkataswamy G. (1918- )** Indian ophthalmologist, President of the Govel Trust, Chairman of Aravind Eye Hospital and Lions Aravind Institute of Community Ophthalmology (LAICO), Professor Emeritus of Madurai Medical College. He graduated from Stanley Medical College, Madras in 1944 (MBBS) and studied Ophthalmology at Government Ophthalmic Hospital Madras (M.S. degree). He was appointed as Tutor in Ophthalmology at Stanley Medical College (1955-1956). He was then promoted as the Professor of Ophthalmology at Madurai Medical College with joint appointment as the Ophthalmic Surgeon at Government Erskine Hospital, Madurai and served from 1956 to 1976. Upon retirement from the Medical College, he founded the Govel Trust, a non-profit public charitable trust that established and maintains Aravind Eye Hospital: He has been the President of this Trust since 1976. He also serves as the Adjunct Professor of the University of Illinois, Chicago, U.S.A.: he received the Honorary Doctor of Science from the University in 1985. The Aravind Eye Hospital has a large charitable Eye Care Service with the outpatients of more than one million visits and performed more than 150,000 surgery in the year 1998. The Community Outreach Programmes are an integral part of Aravind's eye care service. Free eye camps, eye health screening for school children and educating the public on eye care are conducted through this programme. In 1998, Aravind conducted 1,346 eye camps where about 370,000 people were screened and about 66,000 underwent surgery. Dr. Venkataswamy established Aravind Postgraduate Institute of Ophthalmology where many students receive high quality training to receive various degrees, i.e. Diploma in Ophthalmology, M.S. in Ophthalmology, Diploma of the National Board and Fellow of the Royal College of Surgeons. The Institute has Specialty Training Course and gives Ophthalmologists higher skill of clinical practice. He also maintains Continuing Medical Education (CME) in various Subspecialties for updating practicing Ophthalmologists and holds Seminars and Symposia. To further bring down the cost of cataract surgery with IOL implants, Aurolab was started in 1991. Here intra-ocular lenses, suture needles and ophthalmic pharmaceuticals are manufactured. The Lions Aravind Institute of Community Ophthalmology (LAICO) was instituted to train eye care management professionals from India and around the World. The Aravind Centre for Women, Children and Community Health is active in community health care of children and education of the public, in collaboration with UNICEF. The Aravind Hospital conducts many research projects in collaboration with universities and institutes around the World. Dr. Venkataswamy wrote many books, e.g. "*Advice to pregnant women*", "*Diabetes*", "*Eye Diseases*", "*Anatomy of the Eye*" and "*The epidemiology of eye diseases*". He is recipient of many Awards, e.g. Padmashree Award from Government of India (1973), Alpaiwala Memorial Award from National Association for the Blind (1975), Honorary Doctor of Science at the University of Illinois at Chicago (1985), IAPB Award from the International Agency for the Prevention of Blindness (1982), HeIlen Keller Award (1987), WHO Award for Health for All (1988), Academy International Blindness Prevention Award from the American Academy of Ophthalmology (1992) and National Award for Best Individual from the Ministry of Health of the Government of India (1992), Lighthouse Pisart Vision Award by the Lighthouse Inc. USA (1992), "Doctor of Science" (Honoris Causa) Award by the Tamilnadu Dr. MGR.Medical University, Madras, India,(1995), Diwaliben Mohanlal Mehta Award from the Diwaliben Mohanlal Trust, Mumbai (1999), Mahaveer Award for Excellence in Human Endeavor in the sphere of medicine & Education (1999), IAPB Award for Life Time Dedication to the Prevention of Blindness (1999), Statesmanship Award from JCAHPO (joint Commission on Allied Health Personnel in Ophthalmology) USA (1999). (Aravind Eye Hospital 1 Anna Nagar,

Madurai-625 020, India, phone: +91-452-532653, fax: +91-452-530984, e-mail: aravind@aravind.org ) (SM)

**Vennemann, Emile (1851-1907)** Belgian ophthalmologist. Professor of ophthalmology at the Louvain (Leuven) University. He formerly occupied the Chair of Anatomy and the Chair of Histology at the same university. *The Ophthalmoscope*, London 1907, p.180-181.

**Verhoeff, Frederick Herman (1874-1968)** American ophthalmologist, born in Louisville, Kentucky. He came from Dutch-German stock, one of his ancestors having fought with Blücher at the battle of Waterloo. He was graduated from Yale University in 1895 and from Johns Hopkins Medical School in 1899. The next two years were spent in Baltimore at the Johns Hopkins Hospital and at the Baltimore Eye, Ear, Nose and Throat Hospital. Early in his career he became interested in ophthalmic pathology and in 1900 he moved to Boston to be in charge of pathology at the Massachusetts Eye and Ear Infirmary. After a year of study at Moorfields and other European ophthalmic centers, he returned to his work in Boston in 1903. This was a time when no one in America paid much attention to the pathology of the eye and credit must be given to Verhoeff for making American ophthalmologists conscious of this important phase of their specialty. He was advanced through all the grades at the Infirmary becoming a full surgeon in 1913. In 1915, he, was given the additional title of "chief of ophthalmic research." When the Howe Laboratory of Ophthalmology was established in 1931, Verhoeff was chosen as its first director, at the same time becoming consulting chief of ophthalmology at the Infirmary. He also had a long association with Harvard Medical School, being appointed professor of ophthalmic research in 1924. In World War I he was commissioned a Major in the Army Medical Corps serving most of the time as chief of ophthalmology at Fort Devens. After the war, he built up a large private practice in Boston and became a leading consultant in the New England area. Verhoeff was a prolific writer. His first paper appeared in the *Johns Hopkins Bulletin* in 1899, the year he was graduated from medical school; his last one in the *American Journal of Ophthalmology* in 1966. Altogether he published more than 200 papers on a wide variety of subjects. At first his interest centered on optics, muscle balance and refraction. Then came many papers on pathologic and clinical subjects. Later on, surgical procedures seemed to be his chief interest and, toward the end of his career, he reverted to physiologic optics and binocular vision. He was a regular attendant at medical meetings, always presenting something interesting, but his discussions of the papers of others were a real delight and did much to enhance the success of any meeting. Many honors came to Verhoeff. He was president of the New England Ophthalmological Society in 1920; chairman of the Section of Ophthalmology of the A.M.A. in 1932; and president of the American Ophthalmological Society in 1937. In 1921, the A.M.A. Section of ophthalmology presented him with the Herman Knapp medal for his original paper on "*Gliomas of the optic nerve.*" In 1930, he received the section's Ophthalmic Research Medal. In 1932, he was awarded the Lucien Howe medal of the American Ophthalmological Society in recognition of his distinguished service to ophthalmology. In 1947 he received the Leslie Dana medal from the St. Louis Society for the Blind and the National Society for the Prevention of Blindness. He was a member of all the major ophthalmic societies, but one of his favorites was the Ophthalmic Pathology Club whose meetings in Washington he attended yearly. In 1964 this organization was renamed the Verhoeff Society in his honor. As old age came on his interest in ophthalmology never failed. After retirement from the Infirmary and the Howe Laboratory, he continued to attend the weekly clinical and pathologic conferences, always contributing something worthwhile to the discussion. Finally at the age of 92 years he was forced to give this up because of failing hearing and eyesight. *AJO* 1969,67:600-602; *BJO* 1969,53:71-72

**Vermyne, J. J. B. (1835-1898)** American ophthalmologist of New Bedford, Mass. Born in Holland in 1835, he became a surgeon in the Dutch navy. While on duty at Surinam, he married the daughter of a merchant of New Bedford, Mass. Returning to Holland, the doctor entered upon general practice, but, the Franco-Prussian war breaking out, both he and his wife joined the Red Cross Society and served as members of that body throughout the war. Because of his merit as surgeon the French Government conferred on him the order of the Legion of Honor. Moving to New Bedford, Mass., he engaged at first in general practice. Turning his attention, however, to ophthalmology and otology, he soon had a wide reputation. In 1873 he became a member of the American Ophthalmological,

and in 1875, of the American Otolological Society. He was one of the founders of St. Luke's Hospital, New Bedford. Am. Encyclop. of Ophthalm. vol.17,p. 13533

**Vernon, Bowater J. (1837-1901)** British, London ophthalmologist. Born in 1837, he became assistant at Moorfields in 1864 and later curator of the Moorfields Museum. In 1867 he was made demonstrator for eye diseases at St. Bartholomew's Hospital, and two years thereafter surgeon at the Eye Division of this institution. The most of his writings appear in the *St. Bartholomew Hospital Reports*. Am. Encyclop. of Ophthalm. Vol.17,p.13543

**Verrey, Arnold (1883-1964)** Swiss ophthalmologist. Verrey was the son of an Swiss ophthalmologist, and established himself at Lausanne after studying in Paris under Victor Morax and Edmond Landolt and in Oxford. Verrey had an important number of private patients and a free-of-charges clinic. Despite his work, he took the time to publish from 1918 to 1926 important papers, of which were those about the perception of colours with the anomaloscope in cases of congenital and acquired dyschromatopsies. *Annales d'oculistique* 1964,197:1027. JPW

**Verriest, Guy (1927-1988)** Belgian ophthalmologist. Verriest was born in Ghent and died in Bali. He was the nephew of Marnix Van Duyse. He worked in the Department of Ophthalmology of the Ghent University since 1949. He obtained the M.D. degree in 1951 and the special doctorate in ophthalmology in 1960. By means of contacts with physicists and psychologists he specialized in visual physiopathology and studied the *central scotoma in darkness, congenital and acquired colour vision deficiencies*, new techniques for studying visual acuity, visual field, color vision, dark adaptation and the spectral function of relative luminous efficiency, *the influence of age on visual functions*, and problems in relation with *genetics, illuminating engineering, traffic safety*, professional orientation, standardization and *visual ergonomics*. From the clinical point of view he promoted ophthalmological diagnosis by means of functional examination, measurement of the rest potential of the eye by means of electro-oculography, differentiation of photopic and scotopic components in the electro-retinogram, assessment of acquired color vision defects by means of ranking tests and static achromatic increment threshold color perimetry. He described *vascular pseudopapillitis and juvenile macular degeneration with selective cone involvement*. He was secretary of the *International Research Group on Color vision Deficiencies*, chairman of the Group "*Functional visual field*" of the International Perimetric Society, chairman of a committee on *Lighting Needs for Partially Sighted*, secretary for Europe of the *Visual Functions Committee of the International Council of Ophthalmology*. He also wrote *Ophthalmology in Belgium since 1850*, published posthumously 1994 as No.251 of the *Bulletin de la Société Belge d'Ophthalmologie*. He was secretary of the Flemish section of the Belgian Society of Ophthalmology and member of the (French) Belgian Academy of Medicine. About 15 ophthalmologists, psychologists and engineers made their thesis under the (co)-promotion of Verriest. *AJO* 1989,107:314. JPW.

**Vetch, John (1783-1835)** Scottish ophthalmologist born in East Lothian, Scotland. He studied in Edinburgh, receiving his medical degree with the thesis *De partibus irritabilitate praeditis* in 1804. He served many years in the army as assistant surgeon to the ophthalmic detachments, later becoming Principal Medical Officer at the General Hospital for the Ophthalmic Cases in the Army. Vetch practiced later in London, where he settled, and was also physician to the dermatological Infirmary as well to the Asylum for Recovery of Health. He became (1821) Licenciate to the Royal College of Physicians. Vetch wrote: *An account of the ophthalmia which has appeared in England since the return of the British Army from Egypt*. London 1807 (Germ ed.Berlin 1817); *Observations on the treatment of opaque cornea* Chichester 1812. *Observations relative to the treatment by Sir William Adams of the ophthalmic cases of the army*. London 1818. *A letter to the Right Hon. Lord Viscount Palmerston ... on the subject of the ophthalmic institution for the cure of Chelsea pensioners*. London 1819; *A practical treatise on the diseases of the eye*. London 1820. Albert. JPW

**Victoria-Troncoso, Virgilio (1941- )** Argentinian ophthalmologist. Victoria-Troncoso was born in Tucuman (Argentina). He is the son of a professor of ophthalmology at the Tucuman University. He obtained the M.D. degree at this University in 1963. He studied

ophthalmology under Jules Francois in Ghent from 1964 to 1967 and already in this period he specialized in histochemistry, electron microscopy and histopathology (partly under Luc → Missotten in Leuven). From 1968 to 1971 he worked in Argentina for the National council for scientific research and created a Laboratory for fundamental research in Jorge Malbran's Ophthalmologic foundation. From 1972 to 1982 he worked again in Ghent in the department of ophthalmology; in 1978 he obtained Belgian nationality and the special doctorate in ophthalmology. Since 1983 he has been academic consultant at the Faculty of Medicine and has worked in the Central laboratory of electron microscopy. His principal scientific achievements were the study of the mechanism and the treatment of liginous conjunctivitis, the study of the lysosomal enzymatic failure in flecked corneal dystrophy, the study of the mechanisms of cortisonic glaucoma and the role of the mucopolysaccharides in the regulation of the intraocular pressure. Victoria-Troncoso works now (1988) on new lasers in experimental ophthalmology. (Verriest)

**Villard, Henri (1869-1959)** French ophthalmologist. Villard was born in a little village in the Departement du Gard, France. He studied medicine in Montpellier, became externe at the hospitals in 1889, and interne 1891, before becoming assistant to professor H.Truc. From 1894 to 1923 Villard practiced ophthalmology succesfully in Montpellier. With the medical faculty founding a new chair of ophthalmology in 1923, Villard presented himself there and was named lecturer of ophthalmology. In 1927, he succeeded the chair of clinical ophthalmology left by the departure of H.Truc. Ten years later, he was forced to vacate this position having reached the age limit imposed by the French government. Villard wrote *Anatomie pathologique de la conjonctivite granuleuse* Paris 1896 and many papers on different subjects, not only on ophthalmology. JPW

**Villards, Ch. Carron du** *see Carron du Villards, Ch.*

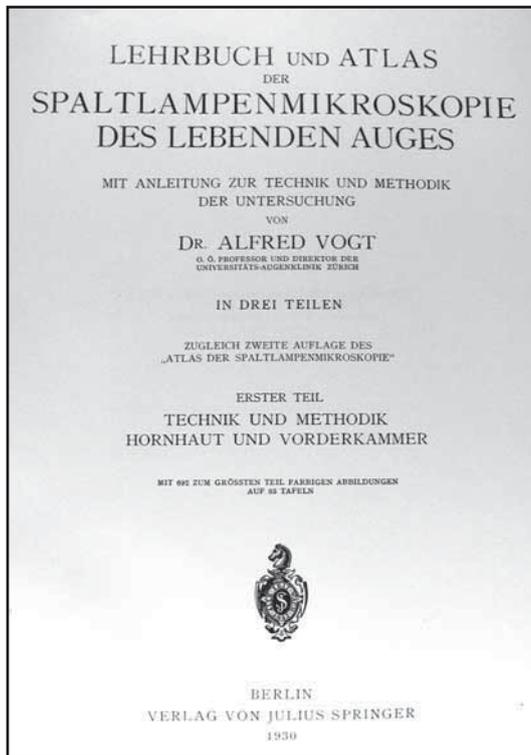
**Vincentiis** *see De Vincentiis*

**Vitellio** *see Witelo*

**Vitello** *see Witelo*

**Vithoune, Visonnavong (1945- )** Ophthalmologist of Lao People's Democratic Republic (PDR). Vithoune is Professor and Head of the Department of Ophthalmology, Faculty of Medical Science National University and Director of Ophthalmology at the Central Ministry of Health. After completing his premedical education in Lao, he studied medicine at the Medical school in Volgograd (former USSR) (1964-1971) and received his M.D degree. Subsequently, he extended his studies at the Institute of microsurgery in Moscow (1982-1968) and received his Ph.D Degree. In 1988 he joined the Prevention of Blindness (PBL) programme in Thailand under WHO fellowship. He also completed an eye care management Khorat course in Thailand in 1990 and a Community eye care and planning course in London (UK) in 1999. He served as Medical Doctor of the Department of Ophthalmology at Mahosot Hospital (1971-1975) and as Chief of the Department of Ophthalmology at Mahosot Hospital and Vice Director of Mahosot Hospital and chief of the Department of Ophthalmology (1975-1982). He has been in the present position as above since 1998. Vithoune initiated Eye care system development in Lao PDR and the program for Mass cataract intervention in Lao PDR. (Dr. Vithoune Visonnavong: Ministry of Health Ophthalmology Center, Louang Prabang Road Km 8, Vientiane, Lao P.D.R., Phone: +856-21-61-2079; Fax: +856-21-61-2079; e-mail: oph@laonet.net )(SM)

**Vleminckx, Jean-François (1800-1876)** Belgian ophthalmologist. Vleminckx obtained the M.D. degree at the Leuven University in 1822. Between 1824 and 1834 he wrote many papers on *military ophthalmia* (he was a *compressionist*). From the Belgian revolution in 1830 on, he was overloaded with public functions, especially concerning hygiene and the army. The Institut Ophtalmique in Brussels was created by the province of Brabant on his proposal of July 2, 1848. He presided over the second *International congress of ophthalmology* in Paris in 1867. He was a member of the (French) Belgian academy of Medicine and has been it's president a long time. He wrote: *Rapport a Monsieur le Ministre Directeur de la Guerre, Baron évain, sur l'Ophtalmie de l'Armée, etc.* Brussels 1834 and with Charles J. Van Mons *Essai sur l'ophtalmie de l'Armée des Pays-Bas* (Verriest). Annales d'oculistique 1877,78:265-295. JPW



**Vogt, Alfred (1879-1943)** Swiss ophthalmologist born in Aargau/Switzerland. Vogt studied medicine in Basle and Zürich, and graduated M.D. in 1902. In 1909 he returned to Aargau as *Oberarzt* and remained there until 1918 when he was appointed Professor Extraordinary at the University of Basle becoming full professor in 1920. He remained three years in Basle succeeding →Huguenin at Zurich where he remained until he retired. Fascinated by Gullstrand's presentation of his slit-lamp at the Congress of Heidelberg in 1911 and the link by Henker of the Czapski microscope to the Gullstrand-Slit-Lamp, Vogt very soon became an expert in this new instrument which was meanwhile evolved by Zeiss 1919. His observations were continuously published in journals culminating in his *Atlas der Spaltlampenmikroskopie des lebenden Auges*, Berlin 1921[GM 1527], second edition in three volumes 1931-1942 and first English translation by Frederick C. →Blodi, Bonn Wayenborgh 1978-1981. Vogt also published in 1932 an important memoir on the detachment of the retina. He introduced the use of electro-cautery, red-free light for the ophthalmoscopic examination of the retina and a diathermy operation of the corpus ciliare for the treatment of glaucoma (Ergebnisse der Diathermiestichelung des Corpus Ciliare gegen Glaukom, in *Klin.Mbl. Augenheilkunde* 1937)[GM 5988]. Vogt also carried out prolonged investigations into the causation of furnace workers' cataract, showing that the active agent was infrared rays. He received among other honors, the Gullstrand Medal by the Swedish Medical Society of Stockholm in 1942. BJO 1944; 28:256-258.

**Völckers, Karl (1835-1914)** German ophthalmologist, born in Lensen, Germany. He was professor of ophthalmology at University of Kiel from 1868 to 1907. The Ophthalmoscope, London 1914, p.253. JPW

**Volkman, Alfred Wilhelm (1800-1877)** German physiologist, born in Leipzig, Germany. Volkman received his M.D. in 1826 with the thesis *Observatio biologica de magnetismo animali* at the University of Leipzig, where he subsequently became lecturer (1828) and professor of zootomy (1834). From 1837 to 1843 he was professor of physiology and pathology at Dorpat; from 1837 until his death, he was professor of physiology at Halle. His writings are mainly concerned with neurophysiology, the circulation of blood, and the physiology of vision. On vision he wrote: *Neue Beiträge zur Physiologie des Gesichtssinnes*. Leipzig 1836 and *Physiologische Untersuchungen im Gebiet der Optik* (2 issues) 1863-1864. Albert. JPW

**Voltaire, François-Marie Arouet de (1694-1778)** French philosopher and man of letters. Voltaire was born in Paris, a lawyer's son. Voltaire had begun to make his name as a poet and playwright when a witticism at the expense of a nobleman led to his being exiled. In London (1726-1729), he became interested in the work of Newton and other English scientists; the *Elémens* was written after his return to France, during the period of his residence at the Marquise du Chatelet's estate at Cirey (1734-1749). Voltaire waged a lifelong battle against dogma and illusion, against religious and political oppression; driven from various courts and cities because of his outspokenness, he spent most of his later life at his country home at Ferney, on the French-Swiss border near Geneva, corresponding with the great thinkers of his age. One of the finest books about Newton's philosophy is doubtless his *Elémens de la philosophie de Neuton mis à la portée de tout le monde*. Amsterdam 1738 (English edition London, same year) Albert

**von Bahr, Gunnar O. A. see Bahr, Gunnar O.A. von**

**von der Heydt, Robert see Heydt, Robert von der**

**von Noorden, Gunter Konstantin see Noorden, Gunter Konstantin von**

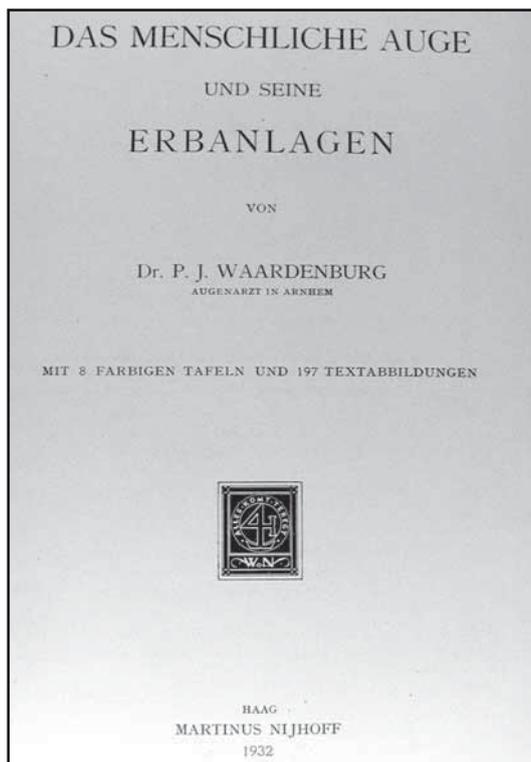
**Vossius, Adolf (1855-1925)** German ophthalmologist, born in Zempelburg, Germany. Vossius received his M.D. in 1879 at the University of Giessen, where he studied under Arthur von Hippel. He was lecturer (1882-1887) and then professor of ophthalmology (1887-1890) at the University of Königsburg before returning to Giessen as professor of ophthalmology (1890-1925). Vossius was the first to describe keratitis interstitialis

centralis annularis and the annular contusion cataract now known as Vossius' lenticular ring. Vossius wrote: *Leitfaden zum Gebrauch des Augenspiegels für Studierende und Aerzte*. Berlin 1886 (2nd ed 1889); *Grundriss der Augenheilkunde* Leipzig und Wien 1888; *Die wichtigsten Geschwülste des Auges*. Breslau 1895. (Hugo Magnus: *Augenärztliche Unterrichtstafeln*, Issue 7); *Der gegenwärtige Standpunkt in der Pathologie und Therapie des Ulcus Corneae serpens*. Halle a. S. 1898; *Lehrbuch der Augenheilkunde*. Leipzig & Wien 1898. Albert

**Vottem, Ferdinand (1797-1843)** Belgian surgeon. Vottem was born in Visé (province of Liège). He obtained the M.D. degree in Liège in 1820 and succeeded Antoine-Joseph Ansiaux in 1835. Already in 1838 he left the course of theoretical ophthalmology to his pupil Nicolas-Joseph-Victor→Ansiaux. Nevertheless he had written a paper on *inflammation of the capsule of the crystalline lens* (1837). He was a member of the (French) Belgian Academy of Medicine.(Verriest)

W

**Waardenburg, Petrus Johannes (1886-1979)** Dutch ophthalmologist. He was one of the first Dutchmen who was interested in anthropogenetics and, being an ophthalmologist and geneticist, he studied the genetics of eye disease in detail. He was one of the founders of clinical genetics in the Netherlands. In this respect he was far ahead of his time. His name is well known throughout the world of ophthalmology and genetics because of his many publications and because of the syndrome named after him. The Waardenburg syndrome is an autosomal dominant syndrome consisting of (1) dystopia canthorum; (2) pigmentary abnormalities of the eyes, hair, or skin; and (3) deafness. It was described for the first time in 1951 (Am. J. Hum. Genet. 3:195, 1951). After seeing a patient with deafness and dystopic canthi in 1947, Waardenburg examined all the pupils in the schools for deaf children in the Netherlands. Of the 1,050 pupils he found 12 affected by this syndrome. In the families of these 12 children he detected altogether 114 patients with similar abnormalities. Waardenburg was born in Nijeveen in the Dutch province of Drenthe, the son of a clergyman. He finished his medical studies in Utrecht in 1911. More or less by chance he became an ophthalmologist because of a vacancy in the Department of Ophthalmology. Two years later he had qualified as an ophthalmologist and he had also finished his thesis under Professor →Snellen, Jr., on "*Examination in the Human Being on the Heredity of Physiological and Pathological Characteristics of the Eye*." At that time the laws of Mendel had only recently been rediscovered (1900) so that his thesis was new at that time. He published 267 papers and six books. In 1932, he presented "*Das menschliche Auge und seine Erbanlagen*" ("The Human Eye and Its Genetic Composition [Design]"). This was the first book on genetic aspects of ophthalmology. Almost every ophthalmologist knows the monumental two-volume work, "*Genetics and Ophthalmology*," that he published in 1961 and 1963 in collaboration with Professors →Franceschetti and →Klein, both from Geneva, Switzerland. His last book, written at 84 years of age is entitled "*Remarkable Facts in Human Albinism and Leukism*," and it was published in 1970 by Royal Van Gorcum of Assen, the Netherlands. It is remarkable and almost unbelievable that he performed most of his work while as an ophthalmologist in private practice in Arnhem where he worked from 1913 to 1952. He was lecturer in medical anthropogenetics at the University of Utrecht from 1934 to 1940. From 1952 to 1956 he had a



part-time appointment at the University of Leyden and he was head of the Department of Anthropogenetics of the Institute of Preventive Medicine. In 1920 he founded a Genetics Society and a Dutch National Bureau for Anthropogenetics. Out of this the Netherlandish Anthropogenetics Society was founded in 1949. He was its president from 1949 to 1963. His great scientific achievements have been honored on several occasions. He was honorary member of the Dutch and the Danish Ophthalmological Society and of the Dutch, Italian, and German Anthropogenetic Societies. In 1954 he became doctor *honoris causa* at the University of Leyden and in 1964 at the University of Münster. In 1957 he became a Knight in the Order of the Dutch Lion. In 1965 he received the Snellen medal, which is given every five years to a Dutch ophthalmologist who has made outstanding

contributions. In 1965 the Netherlandish Ophthalmological Society instituted the Waardenburg Prize for theses of promising young ophthalmologists. His work with →Henkes of Rotterdam resulted in a joint paper with Pameyer and Henkes on the inheritance pattern of choroideremia (Br. J. Ophthalmol. 44:724, 1960) Some of his main interests were the study of the macula in red-free light and the studies of diaphanous irides in ocular or generalized albinism. AJO 1980,89:306-308

**Wadsworth, Oliver Fairfield (1838-1911)** American ophthalmologist born in Boston. He entered Harvard College in 1856 and graduated there with the academic degree of Master of Arts (A.M.) in 1863 and obtained his doctorate degree from Harvard Medical School in 1865. After he had served for a short time as assistant physician in the Fifth Massachusetts Cavalry he set off for further training in Zürich working under Johann Friedrich Horner. After his return in 1867, he worked at Boston City Hospital from 1870. From 1873 to 1900 he also worked at Massachusetts General Hospital and from 1892 at Massachusetts Charitable Eye and Ear Infirmary. In 1881 Wadsworth began as instructor in ophthalmology at Harvard Medical School, and in 1891 became professor of ophthalmology. In 1898 he received the title Williams Professor of Ophthalmology in honor of his well-known predecessor Henry Willard Williams (1821-1895). He published 42 papers, mostly in the Transactions of the American Ophthalmological Society. He was the President of that society from 1899 to 1902. Wadsworth developed a new ophthalmoscope (manufactured by H.W.Hunter) which he presented to the Boston Society of Medical Sciences December 26, 1876. Transactions of the American Ophthalmological Society Vol.XIII, 1911. Schett/Keeler The Ophthalmoscope, Vol.1, Wayenborgh Ostend 1996.

**Wahlfors, Karl Reinhold (1849- 1929)** Finnish ophthalmologist from Helsinki. He graduated from the University of Helsinki in 1876 and served as a resident in ophthalmology 1879-1880. He presented his doctoral thesis at the University of Helsinki on "*Fluid Dynamics of the Eye*" in 1881. He completed his training in ophthalmology by travelling in Sweden, Denmark, Germany, Austria and United States of America. He served as Professor of Ophthalmology at the University of Helsinki 1888-1909. At the Heidelberg Ophthalmology Congress in 1888 he was the very first person to present the method of measuring human intraocular pressure using a mercury manometer connected with a cannula inserted into the vitreous cavity (*Ueber Druckmessungen im menschlichen Auge*. Siebenter Periodischer Internationaler Ophthalmologen-Congress, Heidelberg, 8-11 August, 1888, JF Bergman, Wiesbaden 1888: pp.268-274.) As a clinician he performed squint surgery, cataract surgery with a round pupil, and extracted intraocular foreign bodies using a magnet. He also experimented transplanting corneas using frog's cornea. He introduced strict aseptics and antiseptics to the operating theatre. Examination of bacteria from the conjunctival cul-de-sac before intraocular operations was routinely carried out. [by Ahti→Tarkkanen]

**Wald, George (1906-1997)** American biologist who discovered the role of vitamin A in vision. He was born and raised in New York City. After graduating from Washington Square College, New York City, in 1927, he moved uptown to Columbia University, where he studied with Selig Hecht, PhD, the foremost visual physiologist of the day. Hecht not only introduced Wald to visual physiology, but also had a profound influence on him. Hecht's studies had led to the realization that many visual phenomena can be explained in terms of physics and chemistry. Wald was to set many of Hecht's concepts into molecular terms. Early in his career, Wald elucidated the nature of the visual pigments, the light-sensitive molecules that initiate vision. He showed that the visual pigments consist of a protein (termed "opsin") to which is bound a light-sensitive chromophore, vitamin aldehyde (now termed "retinal"), a slightly oxidized form of vitamin A. This discovery not only elucidated the role of vitamin A in vision, but also was one of the first instances in which a biochemical role for a vitamin had been established. Wald and his colleagues went on to make many contributions to our understanding of the visual pigments and their role in vision. These include detailed studies on the rod pigment, rhodopsin, and the extraction and characterization of the first known cone pigment, jodopsin. His laboratory elucidated the role of *cis/trans* isomerization in the visual cycle, showing for the first time that such molecular transformations play a role in biology. He and his colleagues also studied the diversity of the visual pigments in nature, vitamin A

deficiency, visual adaptation, color vision, and the absorption properties of the cone visual pigments in primates, including man. His was the leading laboratory of its time in visual pigment biochemistry, and for his contributions he was awarded the Nobel Prize in Physiology or Medicine in 1967. Wald was awarded many other prizes, including the Eli Lilly Prizel, the Albert Lasker Award: the Rumford Medal and the Proctor Medal. Wald spent his entire academic career at Harvard University, Cambridge, beginning as a tutor in biochemical sciences in 1934 and retiring as Higgins Professor of Biology in 1977. He was a superb lecturer and teacher and was named one of the 10 best teachers in the country by Time magazine in 1966. He was also one of the earliest academics to speak out against the Vietnam War and became a forceful spokesperson against the war, nuclear arms proliferation, and a variety of other political issues. After his retirement from Harvard, he gave up laboratory research and devoted himself to political causes. He traveled widely until a few years before his death. Wald was one of the leading figures in vision research in this century. His contributions and insights have touched virtually all of us working in vision research. Arch Ophthalmol 1997,115:1088

**Walker, Arthur Nimmo ( ? – 1916).** British ophthalmologist , son of George Edward →Walker, the Liverpool ophthalmic surgeon and founder of St.Paul's Eye and Ear Hospital, killed in action during World War I. Walker was appointed surgeon to St.Paul's Eye Hospital, ophthalmic surgeon to the Lewis Northern Hospital, surgeon to the School for the Indigent Blind and Assistant Lecturer in anatomy in the University of Liverpool. The Ophthalmoscope, 1916,p.687-688.

**Walker, Cyril Hutchinson (1861-1955)** British ophthalmologist. Walker was born in Yorkshire, studied at Haileybury and Jesus College, Cambridge, carried out his medical studies at the London Hospital, and qualified M.B. in 1887. He became junior and later senior house surgeon at Moorfields; in 1900 he was appointed ophthalmic surgeon to the Bristol General Hospital, and then surgeon to the Bristol Eye Hospital. He was lecturer in ophthalmology to the University of Bristol, Master of the Oxford Ophthalmological Congress (1933 and 1934), President of the Ophthalmological section of the Royal Society of Medicine, and Vice-President of the Ophthalmological Society of the United Kingdom (1921 to 1924). He resigned from practice in 1933. Walker assisted in planning and carrying out the rebuilding and reconstruction of the Bristol Eye Hospital BJO 1955,39:704

**Walker, George Edward (1840-1909)** British ophthalmologist from Liverpool, founder of St.Paul's Eye and Ear Hospital. He received his medical education at University College Hospital, London and was later clinical assistant to Sir William →Bowman at Moorfields Hospital, London. In the year 1870 Walker settled as a general surgeon in Liverpool, and whilst awaiting practice, he started a dispensary in St.Paul's Square for the free treatment of the poor affected with diseases of the eye or ear. From the small two rooms where he started there grew a hospital with 50 beds and with about 10.000 patients treated a year. Walker published: *Essays in Ophthalmology* London 1879. The Ophthalmoscope 1909,p. 302-303. Albert: Source Book of Ophthalmology,p.362.

**Walker, John (1803?-1847)** British ophthalmologist. Walker was surgeon at Manchester (England) Eye Infirmary and instructor in anatomy, physiology, and ophthalmology at the Manchester Royal School of Anatomy and Medicine. He wrote articles and books on eye diseases and the physiology of vision. He authored : *The principles of ophthalmic surgery: being an introduction to a knowledge of the structure, functions and diseases of the eye: embracing new views of the physiology of the organ of vision.* London 1834; *The philosophy of the eye: being a familiar exposition of its mechanism, and of the phenomena of vision* London 1837; *The oculist's vade-mecum: a complete practical system of ophthalmic surgery* London 1843.Albert

**Wallace, William (? -1940)** Scottish ophthalmologist, composer and writer on musical subjects. Wallace received his education at Fettes and the University of Glasgow; he qualified M.B., C.M. in 1885 and took the M.D. (with commendation) three years later. During the Great War Wallace was appointed ophthalmologist to the Colchester Military Hospital and later served as Captain, R.A.M.C., attached as eye specialist to the London district. He had, early in his career, been house surgeon for two years at the Glasgow Eye Infirmary and clinical assistant at Moorfields Hospital. He recorded his ophthalmic

experiences in the war years in BJO, Vol.3 (1919) p. 481. In the same volume he wrote on the beginnings of fundus illustration, p. 102. The early ophthalmoscopic atlases was a subject to which he had devoted much attention. But it is as a musician that he will chiefly be remembered. For years he was secretary to the Philharmonic Society and he was the author of "*The Threshold of Music*" as well as works on Wagner and other musical subjects. A series of his drawings in water colour of eye injuries was in the Army Medical War Museum. BJO 25,96,1941

**Wallace, William Clay (19th cent.,)** American surgeon and ophthalmologist, studied under William MacKenzie and George Monteath at the Glasgow Eye Infirmary, and practiced in New York City. He wrote: *The structure of the eye with reference to natural theology*. New York 1836; *A treatise on the eye, containing discoveries of the causes of near and far sightedness, and of the affections of the retina, with remarks on the use of medicines as substitutes for spectacles*. New York 1839 (2<sup>nd</sup> edition of Structure of the Eye); *The accommodation of the eye to distances* New York 1850; *Wonders of vision, a treatise on the eye; containing discoveries of the causes of near and far sightedness, and of the affections of the retina, with remarks on the use of medicines as substitutes for spectacles*. 3rd ed. New York 1841. Albert

**Walsh, Frank B. (1895-1978)** Canadian ophthalmologist, born in Oxbow, Saskatchewan, Canada. During his boyhood he developed an interest in outdoor life, hunting in the woods of Saskatchewan, an activity he continued into his later years. As a young man he was a member of the Oxbow hockey team. He was an avid, capable, left-handed golfer. At the age of 80 he was still able to play 18 holes with a score of 82. In 1915 he joined the Canadian Army together with eight other members of his hockey team. At the end of the war, there were only five. After the war Frank returned to Canada and attended the University of Manitoba, where he received his M.D. degree in 1921. He then went into general practice in Estevan, Saskatchewan, and became a Fellow of the Royal College of Surgeons of Edinburgh in 1928. Two years later he abandoned general practice and entered the residency, at the Wilmer Institute in 1930 at the age of 35. Often, a relatively minor incident tells more about the character of an individual than a long recitation of his accomplishments. There was a story frequently told about Dr. Walsh's independence, which is not meant to reflect unfavorably on either of the individuals in this story. It occurred during the chairmanship of Dr. Wilmer, who had been a general in the Army Air Force during World War I and in charge of aviation medicine. During this tour of duty he acquired some military attitudes and disciplines. One of these was to have the chief resident meet him at the front door of the Wilmer Institute and escort him down the corridor to his office. When Dr. Walsh became resident he thought this unnecessary and refused to meet the Chief. In those days the Head of the Department was treated with extreme respect and no one dared question his word. This was particularly true of Dr. Wilmer. Therefore, it took great courage on Dr. Walsh's part to show this independence. Dr. Wilmer then responded by refusing to make rounds with Dr. Walsh and avoiding him in other ways. Again, it is to Dr. Walsh's great credit that he saw that his display, of independence was disrupting things and because of this he had the humility to return to meeting Dr. Wilmer in the morning at the front door. Walsh was always extremely fond of teaching, and was certainly a superb instructor. During his residence he began conferences each Saturday morning on neuro-ophthalmology, and until his terminal illness seldom missed a meeting. It was also at his suggestion that the Wilmer Residents meetings, which are held each year in the spring, were begun. Because of his great love for teaching and instruction of the younger staff, he was affectionately known as "Pappy" by the house staff and students. After the completion of his residency he joined the fulltime staff of the Wilmer Institute, and in 1937 he began his famous book of medical ophthalmology "Clinical Neuro-ophthalmology." This classic in the field of our specialty was first published in 1947. In 1945, personal necessity caused him to leave the fulltime faculty of the Wilmer Institute and enter private practice. A year or two later he joined Charles Iliff, in a partnership that lasted until 1957. He then returned to Wilmer to become a geographic full time member of the faculty, a position he maintained until his death. The second edition of "Clinic Neuro-ophthalmology" was published in 1957, and a third and enlarged edition was published with his former student William F. Hoyt. He also published in 1973 "*Neuropathology of Vision- An Atlas*" with Richard Lindenberg and Joel Sacks. AJO 1979,87:249-251

**Walther, Philipp Franz von (1782-1849)** German surgeon and ophthalmologist, born in Burweiler, Germany. Von Walther studied at the University of Vienna under Beer and at the University of Landshut, where he received his M.D. in 1803. After further study under Desault in Paris, he became professor of physiology and surgery at Landshut (1804-1818); from 1818 to 1830, the apex of his career, he was professor of surgery and ophthalmology at the University of Bonn, where students and patients from all over Europe flocked to benefit from his skill; from 1830 until his death he was professor of surgery at the Ludwig Maximilian Universität in Munich. In 1820 Walther and Carl Ferdinand von Graefe founded the *Journal für Chirurgie und Augenheilkunde*, which became an important forum for new developments in ophthalmology. Walther worked for the uniting of surgery with medicine, and for the firm scientific grounding of both in physics and chemistry. Von Walther wrote: *Abhandlungen aus dem Gebiete der practischen Medicin besonders der Chirurgie und Augenheilkunde* Landshut 1810; *Merkwürdige Heilung eines Eiterauges nebst Bemerkungen über die Operation des Hypopyon* Landshut 1819; *Die Lehre vom schwarzen Staar und seiner Heilart* Berlin 1841; *System der Chirurgie*, 6 vols., Freiburg 1833-1852; *Lehre von den Augenkrankheiten*, 2 vols. Freiburg im Breisgau 1849.

**Walton, Henry Haynes (1816-1889)** British ophthalmologist born in Barbados. Walton was trained at St. Bartholomew's Hospital, London, becoming M.R.C.S. in 1839. After a residency at the Moorfields Ophthalmic Hospital, he established (1843) his own eye clinic, which grew into the Central London Ophthalmic Hospital, with Walton as its director until 1869. Walton was a frequent contributor of journal articles on general ophthalmic surgery. He wrote: *A treatise on operative ophthalmic surgery* London 1853 (American edition Philadelphia 1853); *A treatise on the surgical diseases of the eye*. London (2<sup>nd</sup> ed.1861); *A practical treatise on the diseases of the eye* London 1875 (3<sup>rd</sup> edition of *A Treatise*).

**Wang, Hwei-zu (1946-)** Taiwanese Ophthalmologist, Associate Professor of Ophthalmology, Chairwoman of the Department of Ophthalmology of Kaohsiung Medical Collage (KMC). She graduated from the KMC in 1971 and received her M.D. degree. After residency training (1971-1976) under Prof. CHEN Chen-Wu, she was appointed the Instructor of Ophthalmology (1976-1980), and then promoted to the Associate Professor in 1980 and serves to the present. She worked as Visiting Assistant Professor to Herman Eye Center, University of Texas, Houston in 1981. She has served as the Acting Chairman (1980-1989) and Chairman (1989 to present) of the Department of Ophthalmology of the KMC. In the professional Societies, she served as the General Secretary of the Ophthalmological Society of ROC since 1989 to the present, and Director of Eye Bank, Kaohsiung Chapter of Red Cross of Roc (Taiwan) from 1985 to 1996. Her publications embrace clinical and basic experimental aspects of Ophthalmology, and some examples are “*Using MTT viability assay to test the cytotoxicity of antibiotics and steroid to cultured porcine corneal endothelial cells*. J. Ocul. Pharmacol and Ther. 12: 35-43, 1996”, “*Alteration of glucose uptake in cultured human corneal endothelial cells grown in high glucose media via cAMP-dependent pathway*. Kaoshiung J. Med. Sci. 9: 566-571, 1997” and “*The changes of ocular axial length and corneal curvatures after scleral buckling for retinal detachment*. Kaoshiung J. Med. Sci. 10: 77-83, 1994”. (Department of Ophthalmology, Kaohsiung Medical College, Kaohsiung, Taiwan, fax: 886-7-3213931)(SM)

**Wang, Si-hui (1929- )** Chinese ophthalmologist, Chief Ophthalmologist, Advisor of Tianjin Eye Hospital. She graduated from the Faculty of Medicine, The Second Shanghai Medical University in 1954. After having completed Ophthalmology training at the Tianjin Eye Hospital in 1959, she worked (1959-1972) at the Strabismus, Eye Injury and Fundus disease Section of the Hospital, then as the Vice-Chief of the Glaucoma Section (1972-1983). She served as the Director of Tianjin Eye Hospital, Tianjin (1984-1991) and has been in this present position as above since 1987. The positions she has held in professional societies include Committee member of Ophthalmology of the Chinese Medical Association (1988), Committee member of Chairman delegation of China Disabled Persons Federation (1988-1998), Vice-President of Tianjin Disabled Persons Federation (1989-1998), Board member of the International Low Vision Research and Rehabilitation Association (Netherland)(1994-), Vice-Chairman of China Optometry Association (1997-) and Honorary President of Ophthalmology Division, Tianjin Branch

of the Chinese Medical Association. She serves as the editorial member to the *Chinese Journal of Ophthalmology* (1988-), *Chinese Journal of Practical Ophthalmology* (1988-), *Ophthalmology* (1992-), *Journal of Videology* (The Netherland)(1995-) and the *Journal of Applied Medical Science of Today* (1995). She published many papers and books and some examples are "*Ultrastructural observation of the anterior chamber angle tissues in congenital glaucoma. Eye Science*, 10: 50, 1994", "*Diseases of optic nerve. Chapter 12, Color Atlas of Fundus Diseases*, Tianjin Science and Technology Translation Publishing Co. Tianjin 1995" and "*Low vision textbook*, Hua xia Publishing Co. Beijing, 1998). From her contributions, she received many Honor Awards, e.g. Research in Low vision Children (1991). Distinguished Service Award of the Asia-Pacific Academy of Ophthalmology (1992) and National Excellent Person, Rehabilitation of disabled persons (1993). (Tianjin Eye Hospital, 102 Harbin Road, Tianjin 300022, People's Republic of China. phone: +86-22-23399843; fax: +86-27305083, e-mail: ophhostj@publicl.tpt.tj.cn ) (SM)

**Wangspa, Samran (1922- )** Thai ophthalmologist, Professor Emeritus of Mahidol University, Bangkok. He graduated from the University of Medical Science, Bangkok, in 1947 and received his M.D. degree. He extended his studies at Harvard Medical School and received a certificate in Otolaryngology in 1954, and in Ophthalmology in 1955. He became a Fellow of the International College of Surgeons in 1957. He further studied Ophthalmic Pathology at the Institute of Ophthalmology London in 1959. He received training in the prevention of Trachoma in India as WHO fellow in 1959. He was appointed the Professor of Ophthalmology of Siriraj Hospital, Mahidol University in 1970 and served until 1983. He is the president of the Foundation for Sight Preservation and Prevention of Blindness in Thailand under the Royal Patronage of H. M. the Queen (1964-present), Board Committee fellow of the College of Surgeons of Ophthalmology in Thailand, Member of the National Assembly (1973) and a Member of the Scientific Terms Subcommittee of the Royal Institute (1981-present) and the President of the Subcommittee since 1990. He has served on the Editorial Committee of the Thai Encyclopaedia of the Royal Institute since 1991 to present. He has published 51 articles in Thai Medical Journals and 8 in International Journals. He has also written the Section on Ophthalmology in the Thai Encyclopedia in 1988 and 20 articles for public education. He is an expert in Medical History in Thailand and published 22 articles on this subject. He has been in public service for a long time, and has participated in the Mobile Royal Medical Unit since 1967 and examined about 3000 cases and performed about 300 cataract surgery every year. In the international relations, he worked as WHO expert on trachoma and prevention of blindness (1978-1984), Councillor of the Asia-Pacific Academy of Ophthalmology (APAO)(1967-1984), Vice-President of the 8th Congress of APAO (1981) and received the Distinguished Service Award from the Academy. In recognition of his outstanding service, the King of Thailand conferred on him Knight Grand Cordon (Special Class) of the Most Exalted Order of the White Elephant in 1985. Currently, he is working as a Medical Officer, Ophthalmologist, The Royal Medical Unit, Bangkok.(SM)



Jamshed H. Wania

**Wania, Jamshed H. (1929-1991)** Pakistani ophthalmologist. Born of a Parsi Zoroastrian community in Karachi, he followed his father's footsteps in Ophthalmology and he graduated with MBBS from Dow Medical College, Karachi, Pakistan in 1953. He extended his study in London from 1954 and received training at Moorfields Eye Hospital and obtained DO (London) in 1956; he served in various clinical appointments in the UK. In the following year, he started to work for one year as an intern at the Ellis Hospital Schenectady, New York. He also worked for another year with Prof. Frank Walsh in neuro-ophthalmology at the Wilmer Institute where he was the first Pakistani to receive a grant for the coveted "Fight for Sight Fellowship". He returned home in 1959 and his life-time activity in Ophthalmology began. Although he set up private practice, he was involved in honorary professional and social works and he organized the first eye camp in a remote village in Sind Province. He served on various health committees of the Government and non-government organizations. In 1979, he organized the successful 7th Congress of the Asia-Pacific Academy of Ophthalmology (APAO) as the Secretary General, and also the 8th Afro-Asian Congress in 1984. He was elected to be President of APAO at the 13th Congress in Kyoto in 1991, where he delivered the deOcampo Lecture

"The Eye and intestinal parasite diseases". He was also a Council member of the Afro-Asian Congress of Ophthalmology, International Agency for the Prevention of Blindness and Vice-President of the Federation of Ophthalmological Societies of non-aligned and SAARC Countries. He was active in philanthropic works as a consultant and chairman of various hospitals and trust in his Country. In recognition of his outstanding service, he was granted the Ramzan Ali Syed Gold Medal in 1988. His son, Hormuzshaw Wania is an ophthalmologist, following his father's footsteps. (Ophthalmology awakens in Asia -40 years of Asia-Pacific Ophthalmology, Lim, K.H. & Lim Arthur S.M. Singapore National Eye Centre 1999).(SM)

**Ward, Basil Arthur (1916-1968)** British ophthalmologist, consulting ophthalmic surgeon to University College Hospital, West Indies, and Associate Lecturer in Ophthalmology, University of West Indies, Jamaica. He was born in Chingford, Essex, the only son of Arthur H. Ward, and was educated at Cranleigh School, Guildford, and St Thomas's Hospital Medical School. He graduated M.B., B.S. in 1942, obtaining an honours degree with distinction in surgery, and became casualty officer and house surgeon at St Thomas's Hospital. In 1943 he joined the R.A.M.C., attaining the rank of Captain, and served with the 5th Infantry Division, 1<sup>st</sup> Special Boat Service, and the 2nd Independent Parachute Brigade-without any training he parachuted into Northern Greece behind the German lines. On returning to civilian life he specialized in ophthalmology, becoming F.R.C.S. in 1948 and becoming house surgeon and senior resident officer at Moorfields Eye Hospital and senior registrar and chief assistant to the eye department at St Thomas's Hospital. From 1952 to 1954 he was Wernher Research Scholar in the department of pathology at the Institute of Ophthalmology, London, where he collaborated in the pioneer research which first demonstrated the role of oxygen in the pathogenesis of retrolental fibroplasia. This was the subject of his M.S. thesis. He subsequently became consulting ophthalmic surgeon in Fiji (Colonial Medical Service), in Perth, Western Australia, and finally in Jamaica. BJO 1969,53:144

**Wardle, John Dobson (1869-1959)** British ophthalmologist, emeritus professor of ophthalmology in the University of Durham and honorary consulting surgeon of the Royal Victoria Infirmary, Newcastle upon Tyne. He was born in Gateshead and educated at Aston Grammar School, Market Rasen, Lincs., and later at Durham University College of Medicine, where he qualified in 1891. In 1900 he was appointed ophthalmic surgeon to the old Newcastle Infirmary on the Forth banks. He lectured in ophthalmology in the College of Medicine, and was later appointed professor of ophthalmology in the University of Durham-one of the first chairs in the subject in England. He retired from the Infirmary in 1928 and from his professorship in 1933. BJO 1959,43:192

**Wardrop, James (1782-1869)** Scottish surgeon, born near Bathgate, Scotland. He served an apprenticeship to his uncle, an Edinburgh surgeon, before studying in London under Abernethy, Cline and Cooper, in Vienna under Georg Beer, who kindled his interest in ophthalmology. Admitted to the College of Surgeons of Edinburgh in 1804, he settled permanently in London four years later, as a general surgeon mainly concerned with the treatment of eye diseases. In the 1820s and 1830s an active lecturer and contributor to the medical literature, he alienated many colleagues by publishing personal attacks against them, and spent his last years both avoiding and avoided by the medical community, producing no more writings. Wardrop is best remembered for his *Essays on the Morbid Anatomy of the Human Eye* (2 vols. Edinburgh 1808-1818) and for his successful ligation of the carotid artery on the distal side of an aneurysm (1809). He also wrote: *Observations on fungus haematodes or soft cancer, in several of the most important organs of the human body, containing also a comparative view of the structures of fungus haematodes and cancer*. Edinburgh 1809; *History of James Mitchell, a boy born blind and deaf; with an account of the operation performed for the recovery of his sight* London 1813; *On the effects of evacuating the aqueous humour in the different species of inflammation of the eyes; and in some diseases of the cornea* London 1818; *An essay on the diseases of the eye of the horse, and on their treatment*. London 1819. Albert.

**Ware, James (1756-1815)** British ophthalmologist born in Portsmouth, England. Ware served an apprenticeship to a surgeon there and received further training at St. Thomas' Hospital in London. He became assistant (1777-1778) and then partner (1778-1791) to

London surgeon and ophthalmologist Jonathan Wathen; thereafter he conducted his own practice, chiefly in ophthalmic surgery. In 1800 he founded the London School for the Indigent Blind, modeled on the institution founded in Liverpool a decade earlier. Ware was a major force in the rescue of ophthalmology from the hands of quacks. He wrote: *Remarks on the ophthalmia, psorophthalmia, and purulent eye. With methods of cure* London 1780 (3<sup>rd</sup> ed. 1795); *Chirurgical observations relative to the epiphora, or watery eye, the scrophulous and intermittent ophthalmia, the extraction of the cataract, and the introduction of the male catheter.* London 1792 (German 1809); *An enquiry into the causes which have most commonly prevented success in the operation of extracting the cataract. To which are added observations on the dissipation of the cataract, and on the cure of the gutta serena. Also additional remarks on the epiphora; or, watery eye.* London 1795 (German edition 1799); *Remarks on the fistula lachrymalis; with the description of an operation considerably different from that commonly used, and cases annexed as proof of its utility. To which are added, observations on haemorrhoids; and additional remarks on the ophthalmia.* London 1798; *Observations on the cataract and gutta serena. The second edition with many additions* London 1804. *Remarks on the purulent ophthalmia, which has lately been epidemical in this country* London 1808; *On the operation of largely puncturing the capsule of the crystalline humour in order to promote the absorption of the cataract; and on the gutta serena* London 1812. Albert

**Ware, Lyman** (1841-1916) American ophthalmologist from Chicago. Ware was one of the founders of the Chicago Ophthalmological Society and their vice-president in 1889 and President in 1899. He was attached to the Illinois Charitable Eye and Ear Infirmary from 1871-1889. Ware translated into English Ferdinand Arlt's famous „*Klinische Darstellung der Krankheiten des Auges*“ 1881 : „*Clinical Studies on diseases of the eye*“ Philadelphia 1885. The Ophthalmoscope, 1916, p. 565.



Evariste Warlomont

**Warlomont, Evariste (1820-1891)** Belgian ophthalmologist, born in Aubel near Liège, Belgium. Warlomont received his M.D. in 1844 at Louvain (Leuven) and worked for seven years as a military physician before taking up the study of ophthalmology under Florent Cunier at the *Institut Ophtalmique de Bruxelles*; he joined the staff of this clinic, becoming its director in 1869. In 1883 he founded an eye institute in San Remo, Italy, of which he remained director until shortly before his death. After Cunier's death, Warlomont became chief editor of the *Annales d'oculistique* from 1853 to 1891; he published in it numerous articles and, with Achille Testelin, a French translation of Mackenzie's 4<sup>th</sup> edition of *Practical Treatise on Diseases of the Eye* and initiated the first International Ophthalmologic Congress in 1857, taking a prominent role in subsequent congresses as well. Warlomont wrote: *Quelques mots sur un nouveau cas de chromhidrose palpébrale.* Bruxelles 1864 ; he also added, with Mackenzie and Testelin, a supplement volume to the above mentioned translation of MacKenzie's Treatise (1856-1865).

Warlomont, in 1864, ordered a reprint of volume 1 of his *Annales d'oculistique* which he had brought to a new blossom after the death of its creator, F. Cunier. This reprint did not bear the exact title of the first volume which was *Annales d'Oculistique et de Gynécologie* causing later (until to-day!) much confusion in libraries around the world, which are not aware of that "reprint" which does not bear the words *reprint* or *second edition*.

Warlomont was also the (financially seen) owner of the *Annales*, and after his death the oldest ophthalmic review in the world, was offered for auction and was bought by the French ophthalmologist Valude and his Swiss colleague Sulzer. The *Annales* left Belgium for France, where it still exists, after merging with the *Archives d'Ophtalmologie*, under the present name of *Journal Français d'Ophtalmologie*. JPW.

**Warner, Joseph (1717-1801)** British surgeon and ophthalmologist born on Antigua. Warner came to London as a youth and studied medicine and surgery under Samuel Sharp, whom he succeeded as first surgeon at Guy's Hospital in 1745. Warner, the first to tie the common carotid artery (1775), achieved eminence as a general and ophthalmic surgeon; an advocate of Daviel's cataract extraction operation, he devised a cataract knife in 1754, which came into wide use. He wrote: *Cases in Surgery, with Introductions, operations and Remarks* etc. London 1754, 4<sup>th</sup> ed.1784, French edition *Observations de chirurgie* Paris 1757; *A description of the human eye, and its adjacent parts, together with their principal diseases and the methods proposed for relieving them* London 1773; *Account of the Testicles etc.* London 1774, 2<sup>nd</sup> ed.1779, German ed.1775. Albert. JPW

**Watanabe, Ikuo (1935- )** Japanese ophthalmologist, Professor and Chairman of the Department of Ophthalmology of Hamamatsu University, School of Medicine. He graduated from Nagoya University in 1959, studied Ophthalmology at the University under Prof. →KOJIMA Koku, and received his Doctor of Medical Sciences in 1966 (thesis: *Effect of ouabain and diamox on the S-potential*. J. Jpn. Ophthalmol. Soc. 70: 1905, 1966). He was promoted to the Lecturer of the University in 1968 and was appointed to the present position as above in 1976. He has worked on the electrophysiology of vision and published 328 original papers and has written 6 books. Some examples of his publications are "*Congenital stationary night blindness: a clinicopathological study*. Doc. Ophthalmol. 63: 55, 1986", "*Retinal cell death by light damage*. Jpn. J. Ophthalmol. 43: 171, 1999", "*Clinic of ERG and EOG*. Igaku-shoin, Tokyo, 1984" and "*Ophthalmology illustrated*. Kobundo Publ. First ed. 1987, 2nd ed. 1990, 3rd ed. 1991, 4th ed. 1994". He served as a Councillor to the Japanese Ophthalmological Society (1977-1998) and is an Honorary Member of the Society. He serves as an Executive Director of the Japanese Society for Clinical Electrophysiology of Vision. He is also a member of the International Society for Clinical Electrophysiology of Vision (ISCEV) and the International Society for Eye Research. He is a co-author of History of Ophthalmology in Japan, Centennial commemorative publication of the Japanese Ophthalmological Society, 1996: in cooperation with Prof. OHBA Norio, he completed the Data-Base of 100 years of the J. Jpn. Ophthalmological Society. (Department of Ophthalmology, Hamamatsu University School of Medicine, Hamamatsu-shi, Handa-cho 3600, Japan. phone: +81-5-3435-2254, fax: +81-5-3435-2372)(SM)

**Wathen, Jonathan (1729-1808)** British, London surgeon and ophthalmologist, the teacher and partner of James Ware, and a vigorous advocate of the extraction operation for cataract. In addition to ophthalmologic works, he published treatises on syphilis and diseases of the ear. He wrote: *A new and easy method of applying a tube for the cure of the fistula lachrymalis* London 1781(2<sup>nd</sup> ed.1792, German ed.1784); *A dissertation on the theory and cure of the cataract, in which the practice of extraction is supported and that operation in its present improved state is particularly described* London 1785. Albert

**Watson, Alexander (1799-1879)** Scottish surgeon, ophthalmologist, and authority on forensic medicine from Edinburgh, who named himself later Watson-Wemyss. was surgeon to the Royal Infirmary and founder of the Royal Eye Infirmary (1831). In 1846 he inherited a large country estate and retired from practice. His principal publications include a number of ophthalmological works and a *Medico-Legal Treatise on Homicide by External Violence* (1837). He also authored: *Anatomical description of the human eye* Edinburgh 1828; *Compendium of the diseases of the human eye ... to which is prefixed an account of the anatomy and physiology of that organ* Edinburgh 1822 (being the first English compendium).

**Watson-Wemyss** see **Watson, Alexander**



Richey L. Waugh Jr

**Waugh, Richey L., Jr. (1921-2000)** American ophthalmologist. Waugh received his medical education at Johns Hopkins University and earned his MD in 1946. He became Fellow in ophthalmology, Louisiana State University, New Orleans, Louisiana, 1950-1954. Waugh wrote: "*The Eye and Man In Ancient Egypt*" J.-P.Wayenborgh, 1995. (in Two Parts), (Hirschberg *History of Ophthalmology. The Monographs*. Volume One), and translated: Hugo Magnus. *Ophthalmology of the Ancients*. J.- P.Wayenborgh. Part 1, 1998, Part 2, 1999.( Hirschberg *History of Ophthalmology. The Monographs*. Volume 4a+b) and Julius Hirschberg "*The Ophthalmology of Aetius of Amida*" J.-P.Wayenborgh, (*The Monographs*. Volume 8, 2000). Waugh published the following papers: *Archives of Ophthalmology* 1952, Vol. 47, pp. 437-453; 1952, Vol. 48, pp. 40-43, *Southern Medical Journal* 1952. Vol. 45, No. 9, pp. 832-839; 1953. Vol.46, No. 4, pp. 363-372, *American Journal of Ophthalmology* 1954. Vol. 38, No. 1, Part 2, pp. 205-214. He belonged to the New England Ophthalmological Society, to the The Massachusetts Society of Eye Physicians and Surgeons and the American Academy of Ophthalmology. Address: Wakelee Road, East Dover, Vermont 05341-0208, USA (JPW)

**Wayenborgh, Jean-Paul (1942- )** Belgian publisher and editor of historic ophthalmic literature. Wayenborgh was born in Coulommiers, France and moved in 1946 to Belgium. He lived in Germany from 1959 until 1989 when he moved to Scotland,

coming back to Belgium in 1991 where he presently lives. He started in 1960 as an antiquarian bookseller specialising in ophthalmic literature. In 1976 he met Frederick C. →Blodi whom he asked to translate A.Vogt's second edition of the famous *Atlas of Slit Lamp Microscopy of the Living Eye*. That three volume set was promptly translated and published between 1978 and 1981. When Fred Blodi had translated Vogt's work, Wayenborgh asked him to translate Julius Hirschberg's monumental *Geschichte der Augenheilkunde* whose English edition is still in progress. Wayenborgh authored in German, under the pseudonym W. Poulet, the first systematic historical work on spectacles: *Atlas on the History of Spectacles*. (W.Poulet: *Atlas zur Geschichte der Brille*, 3 vols. Wayenborgh, Bonn 1978-1980) This work was translated into English by Fred Blodi (2 vols.), into French by Robert Heitz (2 vols.) and into Japanese by the Zeiss Company in Tokyo (2 vols.). At the same time, in 1981, with the help of Jules François of Ghent University, he founded the *Historia Ophthalmologica Internationalis* of which 4 volumes were published. Wayenborgh started to edit "*The Monographs*" (a supplement series to Hirschberg's History of Ophthalmology) in 1995 of which 8 volumes have been published to date. With Saiichi Mishima and Richard C. Keeler's help he authored IBBO-International Biography and Bibliography of Ophthalmology (2 vols. Ostend 2001-2002). He also wrote a short biography of Florent Cunier in *Strabismus* 2001,9:177-178. see *Belgium publisher of ophthalmic history* in: *Ophthalmology Times* March 2000.AB

**Weber, Adolph** (1829-1915). German ophthalmologist of Darmstadt. Pupil of Albrecht von →Graefe, he received 1854 his M.D. in Berlin and after his Master's death in 1870, was gifted all his surgical instruments. Like Max Knies, Weber recognised the importance played in pathology of glaucoma by closure of the angle of the anterior chamber. Weber proved by pathological examination that the main factor was mechanical and brought about by pushing forward of the root of the iris by the oedematous ciliary processes. Weber settled in Darmstadt as general practitioner and later, in 1855, as ophthalmologist. Weber invented numerous surgical instruments and procedures (succion method for treatment of detached retina), and made important discoveries concerning the causes and treatment of glaucoma. The Ophthalmoscope, 1916, p. 57. Albert: Source Book of Ophthalmology, p.370.

**Wecker, Louis de (1832-1906)** German ophthalmologist born in Frankfurt am Main. De Wecker received his M.D. at Würzburg in 1855 and pursued ophthalmologic studies under Arlt, Jaeger, von Graefe, Desmarres, and Sichel before establishing himself in Paris as an ophthalmologist in 1862. Before that he has been personal physician to count Stroganoff in Russia. Having bought the practice of Charles Deval in Paris, he became an internationally renowned practitioner, lecturer, and writer on eye diseases. He invented a pince-ciseaux for the division of after-cataract, and a double strabismus hook; advocated sclerotomy for the treatment of glaucoma; devised the capsular advancement procedure for strabismus in 1883; and devised a new method for enucleation. *Études ophthalmologiques; traité théorique et pratique des maladies des yeux*. 2 vols. Paris 1863-1866 (dedicated to my dear master Albrecht de Graefe), 2<sup>nd</sup> ed. 1867-68; *Rapport sur la Valeur de l'Iridectomie* Paris 1901 (Société Française d'Ophthalmologie, Congrès de 1901); with E. Jaeger *Traité des maladies du fond de l'oeil et atlas d'ophtalmoscopie*. Paris and Vienna 1870; *Échelle métrique pour mesurer l'acuité visuelle*. Paris 1877; edited by Masselon *Thérapeutique oculaire* Paris 1878-1879 (English ed. London 1879, Italian 1879); edited by Maselon *Chirurgie oculaire*. Paris 1879; with E. Landolt *Traité complet d'ophtalmologie* 4 vols., Paris 1880-1889; with Michel Julien Masselon *Ophthalmoscopie clinique* Paris 1881 (2<sup>nd</sup> ed 1891) and also with Masselon *Manuel d'ophtalmologie; guide pratique à l'usage des étudiants et des médecins*. Paris 1889; *Die Erkrankungen des Uvealtractus und des Glaskörpers* in the first edition of Graefe-Saemisch *Handbuch*, Vol.4 (1876). De Wecker also designed an ophthalmoscope named after him. Schett/Keeler *The Ophthalmoscope*, vol.1. JPW

**Wedel, Georg Wolfgang (1645-1721)** German physician born at Golssen, Germany. Wedel received his medical education at Jena entering the university at the early age of 16 and from 1673 until his death was professor of medicine there. He was a pupil of Schenck and Rolfink. After a short time travelling, interrupted by his father's death, he continued to study in Jena for five years. For a short time he practiced in Landsberg and in Züllichau, returning (1667) to Gotha as a town physician. He was in Gotha until 1672, went back to

Jena to earn his medical degree and to start his professoral career. He was a renowned teacher and the author of a vast body of medical treatises, among them several on eye diseases: *De nyctalopia*, praeside Georgio Wolfgango Wedelio ... exhibita Philippo Adamo Guolfgango Sauber ... Jena 1693; *Dissertatio De aegilope* ... praeside Georgio Wolfgango Wedelio ... submitta a Johanne Friderico Hünerwolff ... Jena 1695; *Dissertatio medica de ophthalmia* ... praxeos ... Georgii Wolfgangi Wedelii ... Christiano Ludovico Schnettero. Jena 1713; *Dissertatio ... Casum de gutta serena* praesidio Georgii Wolfgangi Wedelii... submissa a Daniele Lehenherr. Jena 1716; *Pharmacica in artis formam redacta* Jena 1677; *De medicamentorum facultatibus cognoscendis* Jena 1678 *Physiologia medica* Jena 1680, 2<sup>nd</sup> ed 1686, 3<sup>rd</sup> 1688; *Compendium praxeos clinica* Jena 1707. Albert. JPW

**Wedl, Carl (1815-1891)** Austrian histopathologist of Vienna. Wedl received his M.D. in 1841 at the University of Vienna, where he was professor of histology from 1853 until his death. His major works are the *Grundzüge der pathologischen Histologie* (Vienna 1854, English ed London 1855), with Stellwag von Carion *Atlas der pathologischen Histologie des Auges*, 4 parts, Leipzig 1860-1861; *Pathologie de Zähne* (Leipzig 1870), and with Emil Bock *Pathologische Anatomie des Auges* (Wien 1886).

**Weekers, Leo (1881-1962)** Belgian ophthalmologist. Father of Roger Weekers. He was born in Mechelen (province of Antwerp) and died in Liège. He worked in Liege under Nuel and with the physiologist Léon Frédéricq already before obtaining his M.D. degree in 1906. He visited from 1906 to 1908 the Institut Pasteur in Paris and the departments of ophthalmology in Freiburg-in-Breisgau, Heidelberg, Bonn, Paris and London. He then came back to Nuel and obtained in 1911 the special doctorate in ophthalmology with an experimental work on *ocular phlyctenes and on the action of tuberculin on the conjunctiva*. He taught already in 1912 but succeeded to Nuel only in 1919, after important medical activities during the first World War. He became emeritus in 1949 but worked in the department until his death. He wrote on *teaching of medicine* (1908, 1931), *miners' nystagmus* (1910), *the treatment of painful eyes with retrobulbar injections of alcohol* (1929), *the treatment of spasmodicentropium* (1932), *the hallucinations in delirium tremens* (1934). Well prepared by his physiological background he made experiments on *retinal detachment* (1925) and especially on the *dynamics of endocular fluids* (from 1921) as basis of useful treatments of glaucoma. He wrote on the *direct and consensual reactions in intraocular pressure* (1931) and improved much *antiglaucomatous surgery by realizing successively iridencleisis* (1931), *retrociliar diathermy* (1942) and *non perforating cyclodiathermy* (1946), with a review paper in 1948. His last paper is devoted to *photocoagulation of iris prolaps* (1963). He was member of the (French) Belgian Academy of Medicine and was its president in 1949. He contributed to regulation of specialization in ophthalmology and of physical requirements for car driving. He was an excellent teacher. (Verriest)

**Weekers, Roger (1911- )** Belgian ophthalmologist. Weekers was born in Liège. Like his father Leo Weekers he worked in general physiology during his student's years. He obtained the M.D. degree in Liège in 1935 and specialized in ophthalmology and ocular biochemistry in 1936/37 in Basel with →Brückner and in 1937/38 in Chicago with Brown. Thereafter he worked in Liège and obtained in 1941 the special doctorate with a thesis on cataract and the carbohydrate metabolism of the crystalline lens. He has been associated with the Belgian National Fund of Scientific Research from 1942 to 1948. After being professor, he succeeded his father as professor of ophthalmology in 1949. He retired in 1982. His first publications were devoted to *general physiology* (9 papers from 1931 to 1936), to the *biochemistry of the crystalline lens* (25 papers from 1937 to 1944) and on *the cornea* (1940). He started to write on *glaucoma* from 1942, *study of the aqueous veins* (1948), *physiopathology, rare clinical entities as soft glaucoma* (1943), *buphthalmos* (1949) and *capsular glaucoma* (1950) *electronic tonometry* (1951), *medical treatment with DFP* (1947), *acetazolamide* (1954) and later *sympathetic drugs, surgical treatment by iridectomy, iridencleisis* (1948), *retrociliarydiathermy* (1946) and *angiodiathermy* (1956). An early series of papers was devoted to the *assessment of visual functions with angioscotometry* (1943), *flicker fusion frequency* (1946) and *perimetry* (from 1953); he participated in the conception of the well-known *Goldmann-Weekers adaptometer* (1950). Concerning surgery he was especially interested in cataract extraction, keratoplasty, strabismus and retinal detachment. He made a report on *penicillin*

*treatment in ophthalmology* (1946), and later, with his still growing team, reports on *surgical treatment of paralytic squint* (1955), *early diagnosis of glaucoma* (1959), *hypertensive uveitis* (1960), and *photocoagulation in ophthalmology* (1965). He organised an international symposium on glaucoma in Liège (1958) and played an important role in the organization of postgraduate courses of ophthalmology. He is a member of the (French) Belgian Academy of Medicine. In 1951 he received with his father the award of the *International Society for Prevention of Blindness* for their common work on glaucoma. Verriest.

**Weeks, John-Elmer (1853-1949)** American ophthalmologist, born in Painesville, Ohio. He studied medicine at the Michigan University, and, in 1882, having met H. Knapp in New York, was named assistant under him. After this, he spent several months in Berlin, coming back to New York, where he continued to work under Knapp until 1890, the year he was named ophthalmologist at the New York Eye and Ear Infirmary. He worked there until 1920. Weeks was, with Axenfeld and Morax, one of those who created the field of bacteriologic ophthalmology. It was Weeks who discovered, already in 1886, the bacillus of the contagious conjunctivitis. Weeks wrote *Diseases of the Eye, Ear, Nose and Throat* (1892) and *Diseases of the Eye* 1910. JPW

**Wegner, Wilhelm (1898-1972)** German ophthalmologist born in Thorn (West Prussia). Wegner studied medicine in Marburg and Greifswald and received, at the last named his medical degree with the thesis *Amyotrophische Lateralsklerose*. He accepted 1923 a position as assistant at the Greifswald Eye Clinic under Löhlein and Meisner, becoming in 1927 lecturer at that institution. Wegner followed Löhlein (1931) to Freiburg accepting a post as first assistant (Oberarzt) at the Freiburg University Eye Clinic. He was named professor extraordinarius in 1932 and became (1934) professor and director of the Freiburg University Eye Clinic, a position he held until he retired. Wegner's main scientific interest was focused on glaucoma. He devised a *Polyophthalmoscope* with H. Hartinger from the Zeiss Company that was presented at the International Ophthalmic Congress in Brussels 1929, that allowed up to nine persons to observe a twelve times enlargement of a fundusscopy which was ideal for teaching purposes. During his stay in Freiburg Wegner also showed a profound interest in ophthalmic tuberculosis, which he encountered frequently in the area in which he worked. He founded, in the mountains of the Black Forest in Höhenschwand, a special clinic with Th.Axenfeld and Löhlein for the treatment of ophthalmic tuberculosis, similar to the clinic founded by Werdenberg in Davos (Switzerland). He published *Die Augentuberkulose in ihren Beziehungen zum Gesamtorganismus* in: *Zeitfragen der Augenheilkunde*, edited by Löhlein, Stuttgart 1938 and *Der Morbus Besnier-Boeck-Schaumann und seine Bedeutung für die endogenen Augenentzündungen*, edited by Wener and K. Wurm, Stuttgart 1957. He edited with Löhlein *Zeitfragen der Augenheilkunde* Stuttgart 1934 (2nd edition 1938). Ophthalmologen Verzeichniss 483. Klin. Monatsbl. f. Augenheilk. 1972,161:617-619. JPW

**Weill, Georges (1866-1952)** French ophthalmologist. Weill was professor of ophthalmology in Strassbourg from 1918 until 1937 having reached the age limit. He was forced, for political reasons, to leave Strassbourg in 1939, coming back, after the war, in 1945. JPW

**Weinreb, Robert N. (1949 - )** American ophthalmologist, Professor of Ophthalmology at the University of California School of Medicine in San Diego. Weinreb graduated from Harvard Medical School in 1975. He was a Resident in Ophthalmology and Fellow in Glaucoma at the University of California, San Francisco. As a Resident, he studied uveitis with Samuel J. Kimura, M.D. and described the relationship between angiotensin converting enzyme and gallium scans with sarcoid uveitis. While at the University of California, San Francisco, he also worked in glaucoma with Jorge Alvarado, M.D. and Jon Polansky, M.D. to first grow the trabecular meshwork cells in vitro. In 1982, he was Chief Resident at the Illinois Eye and Ear Infirmary under the direction of Morton F. Goldberg, M.D. Since 1984, he has been Professor of Ophthalmology at the University of California, San Diego where he is also Director, Glaucoma Center, and Vice Chairman. At the University of California, San Diego he has worked with Pamela Sample, Ph.D. to develop new functional testing, including short-wavelength automated perimetry. He has worked with Gerhard Zinsser, Ph.D. to develop confocal scanning laser ophthalmoscopy

and with Andreas Dreher, Ph.D. to develop scanning laser polarimetry. He has collaborated with James Lindsey, Ph.D. to *first* grow ciliary muscle cells in vitro, and they have studied the biologic basis of prostaglandin action on the uveoscleral outflow pathway, including the ciliary muscle and sclera. He was elected to the Board of Trustees of the Association for Research in Vision and Ophthalmology (ARVO) in 1998. He was President of the San Diego County Ophthalmologic Society in 1990-1991 and President of the Foundation for Eye Research since 1984. He has been a member of the Society of Heed Fellows since 1982, and in 1997 was recognized with the Heed Ophthalmic Foundation Award. He has been a member of the Alcon Research Institute since 1984 and a two-time recipient of the Alcon Research Institute Award for Outstanding Contributions to Research in Visual Sciences (1983 and 1992). He has been cited in Woodward/White, *“The Best Doctors in America”* in all editions since 1992. He has received the Honor Award (1986) and Senior Honor Award (1996) of the American Academy of Ophthalmology, and the Research to Prevent Blindness Senior Scientific Investigator Award (1997). He is on the Scientific Advisory Boards of the Glaucoma Foundation, the Glaucoma Research Foundation, and Research to Prevent Blindness. He is a member of the Glaucoma Society of the International Congress of Ophthalmology (1990 -); 2001 Board of Governors and co-Founder of the Association of International Glaucoma Societies; 2001 Editor, International Glaucoma Review and 2001-2002 President, Association for Research in Vision and Ophthalmology (ARVO). His editorial appointments include *Archives of Ophthalmology* (1995 - ), *Investigative Ophthalmology and Visual Science* (1992 - ), Associate Editor, *Journal of Glaucoma* (1990 - ), Current Research Section Editor, *Survey of Ophthalmology* (1986 - ), Co-Editor, *Graefe’s Archive for Clinical and Experimental Ophthalmology* (1999 - ), *Seminars in Ophthalmology* (1994 - ), *Ocular Surgery News* (1996 - ), *Online Journal of Ophthalmology* (1998 - ), and *International Glaucoma Review* (1998 - ). He also has been Chief Editor of *Focus on Glaucoma*, a patient newsletter, since 1984. His books include *Glaucoma Surgery: Principles and Techniques* (first and second editions) with R. Mills), *Glaucoma in the 21<sup>st</sup> Century* (with Y. Kitazawa and G. Krieglstein), *Uveoscleral Outflow: Biology and Clinical Aspects* (with A. Alm), and *Biology of the Ocular Microcirculation* (with W. L. Joyner and L.A. Wheeler). (Department of Ophthalmology, University of California, San Diego, 9500 Gilman Drive, La Jolla, California 92093-0946, Tel: 858-534-8824, Fax: 858-534-1625, e-mail: weinreb@eyecenter.ucsd.edu) (SM)

**Weiss, Leopold (1849-1901)** German ophthalmologist born in Giessen, Germany. Weiss received his M.D. at the University of Giessen in 1874 and became in 1876 lecturer and from 1895 to 1901 professor of ophthalmology at the University of Heidelberg. Of Weiss's wide-ranging investigations, most were concerned with myopia or the anatomy of the orbit. He was the first to describe what is now called *Weiss's reflex*. He authored: *Über das Vorkommen von scharfbegrenzten Ektasien im Augenrunde und über partielle Farbenblindheit bei hochgradiger Myopie* Weisbaden 1897; *Ueber das Gesichtsfeld der Kurzsichtigen* Leipzig & Wien 1898. Albert

**Weller, Carl Heinrich (1794-1854)** German ophthalmologist born in Halle, Germany. Weller received his M.D. at the University of Halle in 1817 with the thesis *Diss. Inauguralis sistens experimenta quaedam circa animalium classium inferium incrementum et vitam* and settled in Dresden, where he practiced general medicine and ophthalmology. Weller authored: *Die Krankheiten des menschlichen Auges* Berlin 1819 (4th ed 1830, Engl. ed. Glasgow 1821, French ed 1828 and Italian 1833-34); *Diätetik für gesunde und schwache Augen, oder was hat man zu thun, um sein Gesicht bis in's hohe Alter möglichst zu erhalten* Berlin 1821; *Ueber künstliche Pupillen, und eine besondere Methode, diese zu fertigen*. Berlin 1821; *Icones ophthalmologicae seu selecta circa morbos humani oculi*. Leipsic & Paris 1825. Albert.JPW.

**Wells, John Soelberg (1834-1879)** British ophthalmologist born in Norwich, England. Wells received his M.D. at the University of Edinburgh in 1856 and spent several years in Berlin as student and assistant of von Graefe. In 1860 he joined the staff at Moorfields in London, first as clinical assistant to Bowman and from 1867 until his death as surgeon; in 1865 he became professor of ophthalmology at King's College, London. In addition to the monographs listed here, Wells published numerous articles on eye diseases. He brought to

England the scientific and clinical advances of Berlin, Vienna, and Utrecht. Wells wrote: *On long, short, and weak sight, and their treatment by the scientific use of spectacles*. London 1862; *Glaucoma, and its cure by iridectomy; being four lectures delivered at the Middlesex Hospital* London 1864; *A treatise on the diseases of the eye* London 1869, American ed. Philadelphia 1869. Albert.JPW

**Wells, William Charles (1757-1817)** American physician born in Charleston, South Carolina, to Scottish parents. Wells was educated in Scotland, receiving his M.D. at the University of Edinburgh in 1780. In 1784 he settled in London, where he became physician to St. Thomas' Hospital (1795-1817). In addition to his essays on the physiology of vision ( *An essay on single vision* etc. London 1792, 1810, 1811), which advanced the understanding of fusion, accommodation, and hypermetropia, Wells published landmark works in several other fields: a paper (1797) showing that the coloring matter in blood was not iron but an organic substance (subsequently identified as hematin); the first clinical report on rheumatic heart disease (1821); a study of proteinuria and hematuria (1812); the famous *Essay on Dew* London 1814, which proved that dew is the result of condensation and discussed radiational cooling and the influence of relative humidity on people's comfort; and an essay on skin color which anticipated Darwin's theory of natural selection (1818). Albert

**Welsh, Robert C. (1922- )** American ophthalmologist, philanthropically engaged in work for poor countries. Welsh developed, in 1983, a Coaxially-Illuminated Eye-Operating microscope that he made from cheap dissecting microscopes. He made all these at home, checked and sent these Eye-Operating Microscopes, for teaching and high-quality cataract-microsurgery to rural areas of poorer countries. About 100,000 mostly free cataracts are done yearly with these Welsh Microscopes. He earned for this the Pfizer Award for Innovation (1984). From 1985 to 1995 he organized, promoted and ran the Volunteer Eye Surgeons Association. He donated this yearly meeting to ORBIS in 1995. Welsh was voted by 880 attendees, *Outstanding Educator in Cataract Surgery* at the 1977 Cataract congress. In 1980 he received the Maumenee Gold Medal as the World's Top Educator in Cataract Surgery of the Past Ten Years. He founded, in 1969 the Welsh Cataract Congresses that he organized and ran until 1998 and of which the reports were printed by Miami Educational Press. Address: 1600 Onaway Drive, Miami, FL.33133, Phone (305) 856-1375 (AB)

**Wenzel, Jacob de (1755-1810)** French ophthalmologist of Paris, oculist to the Imperial family. Wenzel was the son and pupil of the famous itinerant cataract extractor Michael Johann Baptist von Wenzel (d. 1790). The younger Wenzel accompanied and assisted his father (who was of German birth but lived chiefly in Paris) on his travels through Europe; in 1799 he received the M.D. degree from the Paris Faculté with the thesis *Dissertatio de extractione cataractae*, and after his father's death he settled in Paris, where in 1808 he became ophthalmologist to the imperial family. He wrote *Traité de la cataracte, avec des observations qui prouvent la nécessité d'inciser la cornée transparente & la capsule du cristallin, d'une manière diverse, selon les différentes espèces de cataractes*. Paris 1786 (English ed London 1791); *Manuel de l'oculiste, ou dictionnaire ophthalmologique* Paris 1808.

**Wenzel, Matys (1868-1908)**. Hungarian ophthalmologist who died at the early age of 40 years. A few days after his death his appointment as extraordinary professor of ophthalmology in the Czech University of Prague was officially promulgated.

**Wenzl, Johann Baptist (1785-1844)** German physician born in Schlehdorf, Germany. Wenzl received his M.D. in 1810 at Landshut and after several years of study abroad settled in Munich, where he became an eminent general practitioner. He wrote a critical survey about ophthalmology in France and Germany: *Über den Zustand der Augenheilkunde in Frankreich; nebst kritischen Bemerkungen über denselben in Deutschland*. Nürnberg 1815. Albert

**Werner, Louis (1902-1991)** Doyen of Irish ophthalmology, and past president of the Ophthalmological Society of the United Kingdom and of the Irish Ophthalmological Society . Louis Werner died in Dublin in his 90th year. His grandfather left Alsace when it became part of Germany after the Franco-Prussian war and commissioned as a portrait

painter in Ireland. His father also Louis Werner, was a gold medallist in philosophy and devoted his career to ophthalmology in Dublin where, together with Sir Henry→Swanzy, he wrote a standard textbook on diseases of the eye, which greatly raised the status of Irish ophthalmology. His education was at Stephen's Green School, Dublin, where young Louis excelled at rugby, cricket, and tennis. He was in second place in the entrance examination to Triton, College, Dublin. He was awarded the anatomy prize and first class honours and first place in medicine, being placed second with honours in surgery. After qualification he worked under Sir John →Parsons at Moorfields for a year and soon after was appointed surgeon to the Royal Victoria Eye and Ear Hospital and four other hospitals in Dublin. He was lecturer in ophthalmology Dublin University and examiner at the Royal College of Surgeons in Ireland, Queen's University, Belfast, and Dublin University. He was Montgomery lecturer in 1932 at the age of 31, twice president of the Irish Ophthalmological Society, and elected honorary member of several foreign ophthalmological societies. In 1964-8 he was president of council of the European Ophthalmological Society, in 1972 deputy master of the Oxford Ophthalmological Congress, and in 1974-5 president of the Ophthalmological Society of the United Kingdom. Among his other achievements were the award of honorary fellowship of the Royal College of Surgeons in Ireland and of the College of Ophthalmologists in London. Louis was a great teacher and had deep interest in many problems, especially those of glaucoma, and he was one of the first to appreciate the importance of relative pressures within and without capillary walls in the retina and optic nerve. He made many contributions to Irish and British ophthalmology and in his fluent French read papers in Paris and Alsace. He carried a heavy burden of responsibility but continued to work courageously in spite of pain, poor vision, and restricted mobility until almost the end of his life. By the Americans Louis will be remembered as one who, with Becher →Somerville-Large and Alan→Mooney, restored Irish ophthalmology to its rightful place after the war; to the Irish as their father figure who encouraged the young and set the standard for all; and to the British as the epitome of an Irish colleague. BJO 1991,75:448

**Werner, Louis (senior) (1859-1937)** Irish ophthalmologist, the eldest son of Louis Werner, a French artist, who had studied at the Académie des Beaux-Arts in Paris under Paul Delaroche, and finally settled in Dublin. At the age of fifteen, the young Louis was sent to the College of La Chapelle near Belfort in Alsace, where he acquired that proficiency in French and German which later proved invaluable to him in his extensive study of contemporary ophthalmic literature. Returning to Dublin in 1876 he entered Trinity College. At his final Arts examination he obtained the *Large Gold Medal* in Ethics and Metaphysics. In 1880 he entered the Medical School, obtained a "Scholarship," and finally qualified in 1884. Having decided to devote himself to the practice of ophthalmology, he was appointed to the Staff of the National Eye and Ear Infirmary under Dr. C. E. Fitzgerald. and Dr. (later Sir) Henry→Swanzy. During the next few years, Louis Werner played an active part in helping to bring about an amalgamation between this small hospital, established in 1814, and the hospital of St. Mark's, an institution founded in 1844 by Sir William Wilde. In 1897, he and his colleagues had the gratification of assisting in the establishment of the present Royal Victoria Eye and Ear Hospital. This institution is a worthy monument to the zeal and public spirit displayed by the Irish Ophthalmologists of the nineteenth century. Louis Werner was best known outside Ireland through his connection with the popular text-book: "Swanzy's *Diseases of the Eye*". Between 1907 and 1925 he co-operated with Sir Henry Swanzy in producing a ninth and tenth edition, and on the death of his colleague, he produced three further editions under his own name. The sections in these which deal with optics and neurology are almost solely his own work. A further notable contribution are his beautiful paintings of external diseases and fundus conditions. Among his many and various communications recorded in the Transactions, perhaps the most interesting are a short paper published in 1886, in which he identified the condition "*Infiltration vitreuse de la retine*" described by Masselon in 1884 with "*Central guttate choroiditis*": a note on a case of subconjunctival cysticercus (*Taenia Solium*) published in 1889; and a paper describing a case of "*Intra-ocular echinococcus cyst with brood capsules*" published in 1903. This last, illustrated by the author's excellent drawings of the macro- and microscopical appearances, together with microphotographs, has been accepted as the classical description of a condition which is of exceeding rarity in the British Isles. Louis Werner's

reputation in Ireland stood deservedly high. He held many public appointments, including that as Professor of Ophthalmology at University College, Dublin. His enormous private practice was evidence of the confidence that he inspired in the general public. BJO 1937,21:105-106

**Westheimer, Gerald (1924- )** American Vision Scientist of German origin and of Australian Citizenship. Born in Berlin, he moved to Sydney Australia and graduated from Sydney Technical College of Optometry (1943) and, then at University of Sydney, he majored in mathematics, physics and physiology, and completed the course with B.Sc. degree in 1948. He conducted postgraduate research at Ohio State University under Prof. Glenn A. Fry and received Ph.D. degree in 1953 (thesis: *The response of the oculo-motor system to visual stimuli in the horizontal plane*). He further extended his research career at Cambridge University (England) under Prof. W. A. H. Rushton in 1958 (Disjunctive eye movements. J. Physiol. 159: 339, 1961, with Rashbass C.), and later he worked with Fergus Campbell on accommodation. He has held professorship at many institutions, i.e. Professor of Physiological Optics, School of Optometry of the University of California (UC) Berkeley (1963-1967), Professor of Physiology, Department of Physiology-Anatomy, UC Berkeley (1967-1989), Head, Division of Neurobiology, Department of Molecular and Cell Biology, UC Berkeley (1987-1992), Professor of the above Department (1989-1994) and Professor in the Graduate School, Division of Neurobiology, UC Berkeley (1994-). He has conjoint appointment as Professor at the School of Optometry, UC Berkeley (1990-) and the Rockefeller University New York (1992). His many editorial assignments embrace Vision Research (1972-1979), Chairman of its editorial board (1976-1991), J. Opt. Soc. Am. (1980-1983), Invest.Ophthalmol., Optics Letters, Exper. Brain Res., Human Neurobiol., J. Physiol., Proc. Royal Soc. London B and currently, he is an editor of Ophthalmic and Physiological Optics. He is a Fellow of Royal Society London (1985-), Optical Society of America, Society of Neuroscience, Physiological Society (UK), Association for Research in Vision and Ophthalmology (ARVO), American Academy of Optometry, Royal Society of New South Wales and many other Societies. He has served on many Committees of the National Institute of Health, U. S. He is the recipient of many honor medals, i.e., Tillyer Medal from Optical Society of America (1978), Proctor Medal from ARVO (1979), von Sallmann Prize from ISER (1986), C.F. Prentice Medal from the American Academy of Optometry, Bicentennial Medal from the Australian Optometric Association. He also gave many named lecture throughout the World, that include Ferrier Lecture at the Royal Society (London) 1992 and Max Wertheimer Lecture at the University of Frankfurt-am-Main (1998). He has devoted his life to research of vision physiology, and has published more than 200 original papers. Some examples of his papers are "Eye movement responses to a horizontally moving visual stimulus. Arch. Ophthalmol. 52: 932, 1954", "Dynamics of accommodation responses of the human eye. J. Physiol. 151: 285, 1960", "Modulation thresholds for sinusoidal light distributions on the retina. J. Physiol. 152: 67, 1960", "The Maxwellian view. Vision Res. 6: 669, 1966", "Temporal and spatial interference with vernier acuity. Vision Res. 15: 1137, 1975", "Proctor Lecture: The spatial sense of the eye. Invest. Ophthalmol. Vis. Sci. 18: 893, 1979", "Orientation dependency for foveal line stimuli: orientation discrimination, vernier acuity, resolution, detection and intensity discrimination. Vis. Res. 38,1097, 1998" and "Gestalt theory reconfigured: Max Wertheimer's anticipation of recent developments in visual neuroscience. Perception 28: 5, 1999".(Division of Neurobiology, Department of Molecular and Cell Biology, 565 Life Sciences Addition, University of California, Berkeley, CA 94720. phone: +1-510-642-4828; fax: +1-510-643-6791; e-mail: gwest@socrates.berkeley.edu )

**Weston, H. C. (?- 1963)** British scientist, Director of the M.R.C. Group for Research in Occupational Optics. Weston was unique in his grasp of the apparently academic problems of vision and their application to everyday life. His work on visual performance is a classic, and forms the basis of the Code promulgated by the Illuminating Engineering Society, which underlies the illumination of operating theatres, hospital wards, schools, factories, etc. His book *-Light, Sight, and Efficiency-* is one of the pillars of the practice of industrial ophthalmology, and a new edition has recently (1963) been published under the title of *"Sight, Light, and Work"*. The public will remember him incognito for his contribution to the manner in which Belisha beacons are used in connexion with zebra

crossings. Weston's work received recognition: he was awarded the O.B.E. in 1959, and the I.E.S. Gold Medal in 1961. BJO 1963,47:320

**Weve, H.J.M. (1888-1962)** Dutch ophthalmologist born in Nijmegen, Netherlands. Weve studied medicine in Amsterdam where he soon oriented himself to ophthalmology. His assistant time there was interrupted by the outbreak of World War I. Two years later Weve moved to Rotterdam where he was to stay until 1929. During that time Weve became famous amongst his colleagues. 41 years old, Weve was named professor of ophthalmology at the University Eye Clinic at Utrecht, following Donders (1858-1883), Snellen Senior (1883-1903) and Snellen Junior (1903-1928). Very soon he received the Chair of ophthalmology at the medical faculty of Utrecht. Weve, adopting Goulin's ideas about retinal detachment, acquiring rapidly an international reputation for the new diathermy methods he developed, attracting patients as well as ophthalmologists from around the world wanting to benefit from his method of treatment. All his life he tried to improve his operation methods for retinal detachment. Weve was interested in many sections of ophthalmology and wrote a considerable quantity of papers on many topics of ophthalmology. He received (1939) the Bowman medal at the occasion of his Bowman lecture *On Diathermy in Ophthalmic Practice*. He wrote: *Beschouwingen Over Accomodatie En Refractie*. Utrecht 1929 (inaugural professoral lecture); *Driekwart eeuw Ned. Gasthuis voor behoeftige en minvermogende ooglijders te Utrecht. 1858-1933* Utrecht 1933 (History of his clinic); *Die Briefe Albrecht von Graefes an F.C. Donders (1852-1870)* Stuttgart 1935; *Leerboek Der Oogheelkundige Onderzoekingsmethodes*. Leiden 1942. *Annales d'oculistique* 1962, 185:383-384. JPW

**Wharton, John (1877-1952)** British ophthalmologist from Cheshire. Wharton was elected a foundation scholar and a Hare's exhibitioner at St. John's College, Cambridge, graduating B.A. with first class honours in 1898. He continued his medical education at Owen's College, Manchester, obtaining the Cambridge degrees of B.Chir. in 1902 and M.B. in 1903, subsequently proceeding to M.A. and M.D. After a period as house surgeon to Sir William Thorburn, he was appointed in 1904 as junior house surgeon to the Manchester Royal Eye Hospital. Thus began a life-long connection with this institution, as he became successively assistant-honorary, honorary, and consulting surgeon, and was ultimately appointed a vice-president of the hospital. In 1923 he was elected honorary ophthalmic surgeon to the Manchester Royal Infirmary, an appointment which made him directly responsible for the clinical training of students: at this time he also became clinical lecturer in ophthalmology at the University of Manchester. Wharton was an active member of the Ophthalmological Society of the United Kingdom; he was a foundation member of the North of England Ophthalmological Society, though he resigned in 1923. Not a prolific writer, he produced an outstanding monograph on *ophthalmia neonatorum* and was largely responsible for the establishment of a special segregated unit at his hospital for the treatment of this, then, serious condition. Wharton was one of the great triumvirate of clinicians of the last generation at the Manchester Royal Eye Hospital-Gray Clegg, Horsman McNabb, John Wharton. All were outstanding, but possibly Wharton had the most balanced judgment. BJO 1952,36:464

**Wheeler, John Martin (1879-1937)** American ophthalmologist. His family originally came to America from Cranfield, Bedfordshire, UK. He received his early education in the public schools of Burlington and the University of Vermont from which he graduated in arts in 1902 and in medicine in 1905. In 1906 he received the B.Sc. degree and during the years 1906 and 1907 he was an instructor in anatomy. In 1908 John Wheeler became an intern in the New York Eye and Ear Infirmary. His natural ability and hard work soon gained him a prominent place among ophthalmologists. He served on the Councils of the American Ophthalmological Society and the American Academy of Ophthalmology and Otolaryngology, and in 1933 he became President of the latter. Wheeler was appointed Professor of Ophthalmology at Columbia University in 1928 and three years later he became Director of the newly built eye institute at the Columbia Presbyterian Medical Center. His special interest lay in surgery, particularly plastic surgery around the eyes, a field in which he felt that ophthalmic surgeons did not do nearly so much as they should. In 1928 the University of Vermont conferred upon him an honorary degree of D.Sc., and in 1933 he received a similar award from Middlebury College. In 1931 the decoration of Commande of the Order of the Cross of Siam was conferred upon Wheeler after he had

operated on the King of Siam's eyes, and in the same year he was awarded the Leslie Dana Medal for distinguished service in the conservation of sight. Wheeler published some fifty original communications. BJO 23, 1938

**Wheeler, Maynard C. (1903-1979)** American ophthalmologist. The son of an eye, ear, nose, and throat physician, he was born in Fargo, North Dakota. He grew up in Tacoma, Washington. He received his preliminary education at the Phillips Exeter Academy, Dartmouth College, and Stanford University before receiving his M.D. from Columbia University. After an internship in New York, he joined the resident staff at the newly opened Institute of Ophthalmology of Presbyterian Hospital at New York's Columbia Presbyterian Medical Center where he remained until his retirement in 1973, as clinical professor. In keeping with his primary clinical interest in ocular motility, he established an orthoptic department and muscle clinic, both of which continue to function strongly. He was chief of the Eye Clinic, member of the board of surgeons, and director of undergraduate teaching. He wrote "*The American Ophthalmological Society-The First Hundred Years*," to commemorate the 100th anniversary of the AOS. Appropriately, he was president of the AOS at the time. In addition to numerous publications relating to strabismus, he wrote a *History of the Eye Institute of the Columbia Presbyterian Medical Center* and a manual: "*Introduction to Ocular Motility*" AJO 1979,83:628-629

**Whitehead, Arthur Longley ( ? – 1930)** British ophthalmologist. Whitehead was educated at the Leeds Medical School and spent his whole life in Leeds. He graduated at London University in 1893 and was honoured by the Royal College of Surgeons electing him as a Fellow in 1924. He was appointed on to the Infirmary Staff in 1899 as Assistant-Surgeon to the Ophthalmic and Aural Department and in the same year was appointed to the full staff. In 1912 the two departments were separated and Whitehead and Secker Walker chose to carry on ophthalmic work only. He was Lecturer in Ophthalmology from 1912-1920. He was President of the Ophthalmic Section of the Royal Society of Medicine 1922-1924; he had also been President of the North of England Ophthalmological Society and the West Riding Medico-Chirurgical Society. BJO 1930,14:650

**Widmark, Erik Johan (1850-1909)** Swedish ophthalmologist. He studied medicine at Uppsala University, and after being abroad for some time, joined the Karolinska Medical-Surgical Institute in Stockholm. Widmark worked as professor for general and ophthalmic surgery, and became the first professor of ophthalmology in 1891 when this was established at the school. After bacteriological researches as to the nature of ophthalmia Neonatorum, Widmark brought it to the attention of the medical authorities resulting in energetic measures taken in Sweden since the year 1886. Widmark was for twenty-five years Sweden's only professor for ophthalmology. He conducted important investigations on snow blindness, ophthalmia electrica, and on the pathologic effects of ultraviolet radiation on the eyes and skin. Together with J. Bjerrum of Copenhagen he was editor of Nordisk optalmologisk Tidskrift and from 1898 published the results of his own and his pupils researches in „*Mittheilungen aus der Augenklinik des Carolinschen Medico-Chirurgischen Institutes*“ Jena 1898-1910. He also published „*Beiträge zur Ophthalmologie*“, Leipzig 1891, which are Widmark's published papers from 1883-91. The Ophthalmoscope, 1910, p. 243-244. Albert:Source Book of Ophthalmology,p.377.

**Wiener, Meyer (1876-1965)** American ophthalmologist, born in St. Louis. Wiener received his secondary education at the St. Louis Manual Training High School, and was graduated from Missouri Medical College, later Washington University at St. Louis, in 1896 magna cum laude. He pursued his graduate studies in ophthalmology at the University of Berlin, Vienna, the Sorbonne, and the Royal Ophthalmic Clinic, Moorfields, London. He commenced the private practice of medicine in St. Louis in 1900, which continued, except for the interruption of World War I, until 1936. At the time of his retirement from active practice he had one of the largest surgical eye practices in the world. He designed many new ophthalmic surgical instruments. In 1910, Dr. Wiener was made professor of clinical ophthalmology, Washington University at St. Louis, a position he held until he was made *emeritus professor of clinical ophthalmology* following his retirement from the faculty. He was one of the pioneers who started the courses of instruction which are now such an outstanding and integral part of the annual meetings of

the American Academy of Ophthalmology and Otolaryngology. He taught his own popular course in *eye surgery* at the Academy, always oversubscribed well in advance, until 1953. For many years his course in eye surgery, including animal eye surgery, was a cornerstone at the annual meetings of the Los Angeles Research Study Club. Wiener was a life fellow and former executive vice president of the American Academy of Ophthalmology and Otolaryngology. He was a fellow in the American College of Surgeons, and a member of the Chicago, Kansas City and St. Louis Ophthalmological Societies. During his active clinical years he was associate ophthalmologist at Barnes Hospital and the St. Louis Children's Home, ophthalmic surgeon at the Missouri Pacific Hospital, and consulting ophthalmologist at the Bethesda, Jewish and Frisco Hospitals and St. Vincent's Sanitarium. During World War I, he was chief of the eye service, Army General Hospital No. 14 Oglethorpe, Georgia. Immediately following the War he organized and headed the Ophthalmic Plastic Surgery Service at the Army General Hospital No. 11, Cape May, New Jersey. He rose to the rank of lieutenant colonel before being released to inactive duty in 1920. As honorary consultant to the Surgeon General, U. S. Navy, during and after World War II, he was largely responsible for organizing the residency training program in ophthalmology and establishing the Navy's program for rehabilitation of the blind. For over 25 years he was consultant and lecturer in ophthalmology at the U. S. Naval Hospital, San Diego. The fruits of his knowledge and wisdom poured from his prolific pen as author and editor over the entire span of his life. During his active clinical years he contributed over 100 professional articles to medical journals the world over. His most noteworthy and widely received contribution was his textbook, *Surgery of the Eye* Philadelphia 1940, which went into three editions, the first co-authored with B.Y. → Alvis, and the third with H.G. → Scheie. He had been the editor of the *St. Louis Medical Review* and *Annals of Ophthalmology*, and associate editor of the *American Journal of Ophthalmology* and the *Mississippi Valley Medical Journal*. Wiener was also editor-in-chief of a two volume edition of *Ophthalmology in the War Years* Chicago 1946-1948 and co-editor of the one volume edition of *Progress in Ophthalmology and Otolaryngology* which followed as a sequel a few years later. He was a moving force in the Missouri Blind Commission, The St. Louis Society for the Blind, and helped to found The Service Club for the Blind in St. Louis. The latter always remained especially close to his heart. He organized and established the Henry L. Wolfner Memorial Library for the Blind in St. Louis during the 1930's, a model in its field. In 1954, he started and became a founder member and director of the San Diego Foundation for Visually Handicapped Children. The goal of the Foundation was the integration of the visually handicapped child into normal society. He was an advisor to the California Welfare Department in matters concerning the blind-aid program. Wiener held many responsible positions and received many honors during his distinguished career. He was awarded the Braille Medal in 1947 for his contributions to the blind. During the same year, President Truman cited him for his outstanding achievements on behalf of the Armed Forces. In 1961, and again in 1963, he was the recipient of a special commendation by the Surgeon General of the Navy. He was honorary president of The Service Club for the Blind in St. Louis, and was the only honorary member of the San Diego County Ophthalmological Society. He was honorary consultant to the San Diego Zoo, giving generously of his time to the Zoological Hospital. AJO 1965, 59:953-955

**Wiesel, Torsten (1924- )** American neurobiologist of Swedish origin. He was born in Sweden where he received his M.D. degree from The Karolinska Institute in 1954. In 1955, he joined the Johns Hopkins Medical School and in 1958 was named Assistant Professor in Ophthalmic Physiology. In 1959, he joined Harvard Medical School and became Chairman of the Department of Neurobiology; he became the Robert Winthrop Professor in 1973. His pioneering studies of the mammalian visual cortex have significantly shaped current understanding of brain structure, function and development. Dr. Wiesel along with his long-time collaborator, Dr. David Hubel, received the 1981 Nobel Prize in Medicine and Physiology. In 1983, he joined The Rockefeller University as Head of the Laboratory of Neurobiology and was named the Vincent and Brooke Astor Professor. He became the seventh President of the Rockefeller University in 1992; in 1998, he became President Emeritus and Director of the Shelby White and Leon Levy Center for Mind, Brain and Behavior. Dr. Wiesel is a member of The National Academy of Sciences and The Royal Society. His many awards in addition to the Nobel Prize

include the Dr. Jules C. Stein Award presented by the Trustees for Research to Prevent Blindness, the Karl Spencer Lashley Prize of the American Philosophical Society, the Ledlie Prize from Harvard University, Columbia University's Louisa Gross Horwitz Prize and Friedenwald Medal from the Association for Research in Vision and Ophthalmology. He holds honorary degrees from Harvard University, New York University, Johns Hopkins University, the University of Pennsylvania, the Karolinska Institute, the University of Bergen, Linköping University and Ancona University. Some examples among his many publications are "The Nobel Lecture: *The postnatal development of the visual cortex and influence of environment*. Nature.299: 83-592, 1982", "The Sharpey-Schafer Lecture: *Morphological basis of visual cortical function*. J. Exp. Physiol. 68: 525-543, 1983", "The Helmerich Lecture: *Neural mechanisms of visual perception*. Proc. Retina Res. Foundation Symposia. Vol 2: 7-35, 1989" and "*Receptive field dynamics in adult primary visual cortex*. Nature 356: 150-152, 1992".

**Wilbrand, Hermann (1851-1935)** German neuro-ophthalmologist born in Giessen, Germany. Wilbrand studied medicine at the Universities of Giessen and Strassbourg, receiving his M.D. in 1875. After ophthalmologic training under Laquer in Strasbourg and Förster in Breslau, he set up a practice in that specialty in Hamburg, becoming director of the ophthalmology department at the city hospital in 1905 and professor at the University of Hamburg in 1919. He wrote extensively on the neurological aspects of ophthalmology. He wrote his masterpiece with the neurologist A. Saenger: *Die Neurologie des Auges* 10 vols and a supplement, Munich & Wiesbaden 1899-1927. He also authored: *Über hemianopsie und ihr Verhältniss zur topischen Diagnose der Gehirnkrankheiten* Berlin 1881; *Ophthalmiatische Beiträge zur Diagnostik der Gehirn-Krankheiten* Wiesbaden 1884; *Die Seelenblindheit als Herderscheinung und ihre Beziehungen zur homonymen Hemianopsie zur Alexie und Agraphie* Wiesbaden 1887; *Die hemianopischen Gesichtsfeld-Formen und des optische Wahrnehmungszentrum. Ein Atlas hemianopischer Defekte*. Wiesbaden 1890. Albert. JPW

**Wilhelm, Helmut (1954- )** German ophthalmologist. Wilhelm received his medical education at University of Freiburg, Germany, at University of Uppsala, Sweden and University of Mainz, Germany. He received his Medical Degree 1983 in Freiburg and became ophthalmologist and Privat-Dozent (Lecturer) 1988 in Tübingen. His ophthalmic teachers were: Prof. G. → Mackensen, Prof. → Hübner, Prof. → Aulhorn and Prof. Zrenner. He worked in ophthalmology in Trier (Mainz University) 1981-83 and Cardiology in Bernkastel-Kues (1983-84) and from 1984 in Tübingen. His medical thesis was titled: "*Fotokeratometrie mit einem Fotokeratoskop nach Dekking*" (under Prof. G. Mackensen/Freiburg) [Photokeratometry with a photokeratoscope after Dekking] Habilitation: *Konsequenzen neuerer Forschungsergebnisse für die Untersuchung und Abklärung der normalen und der gestörten Pupillomotorik*. Wilhelm's clinical working field is neuro-ophthalmology and traffic ophthalmology as well as pupil research. **Bibliography** A: Books 1. Burde RM, Savino PJ, Trobe JD. *Neuroophthalmologie*. Stuttgart, Kohlhammer Verlag, (H. Wilhelm und B. Wilhelm: translation), 1989 2. Wilhelm H. *Pupillenreaktionen, Pupillenstörungen*. Stuttgart, Kohlhammer, 1991 B: Co-author 1. Wilhelm H. *Inverses Marcus-Gunn-Phänomen*. In: Gädecke R, Hrsg. *Fragen aus der pädiatrischen Praxis. Antworten von Experten*. Hans Marseille Verlag, München, 1989; 221 2. Wilhelm H. *Die Pupille*. In: Deetjen P, Speckmann EJ, *Physiologie*. Urban & Schwarzenberg, München, 1992; 83-85 3. Wilhelm H. *Pupillenstörungen*. in: Lund OE, Waubke TN *Neuroophthalmologie*. Enke, Bücherei des Augenarztes Band 131, Stuttgart, 1993; 78-96 4. Wilhelm H. *Die Pupille und ihre Störungen*. in: Huffmann G, Braune H-J, Fritz C, Rössy W *Vegetativum - Schlaf - Schmerz*, Einhorn-Press Verlag, Reinbek 1997, 306-316 5. Wilhelm H. *Pupillomotorik - das autonome Nervensystem* in: Huber, A., Koempf, D. *Klinische Neuroophthalmologie*, Thieme, Stuttgart 1998; S. 105-109 6. Wilhelm H. *Akkommodation*. In: Huber, A., Koempf, D. *Klinische Neuroophthalmologie*, Thieme, Stuttgart 1998; S. 110 7. Wilhelm H. *Methoden zur Untersuchung der Pupillomotorik*. In: Huber, A., Koempf, D. *Klinische Neuroophthalmologie*, Thieme, Stuttgart 1998; S. 223-228 8. Wilhelm H. *Störungen der Pupillomotorik und der Akkommodation*. in: Huber, A., Koempf, D. *Klinische Neuroophthalmologie*, Thieme, Stuttgart 1998; S.622-631 9. Rohrbach JM, Lieb WE. *Tumoren des Auges und seiner Adnexe*. Schattauer, Stuttgart 1998; S. 153, 164-166 10.

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**Wilhelmus, Kirk Robert (1949- )** American ophthalmologist, born in Indiana. He received his B.A. at Indiana University, obtained his M.D. at Vanderbilt University, School of Medicine, trained in ophthalmology at Baylor College of Medicine and at Moorfields Eye Hospital, and later obtained his M.P.H. at the University of Texas, School of Public Health, with the dissertation "*A systematic overview of clinical trials evaluating the acute treatment of herpes simplex virus epithelial keratitis*." Wilhelmus is Professor at the Cullen Eye Institute, Baylor College of Medicine, where he specializes in corneal and external eye diseases, directs the Sid W. Richardson Ocular Microbiology Laboratory, and is medical director of the Lions Eye Bank of Texas. He authored 150 journal articles, predominantly on corneal infections, and with J.S. Pepose and G.N. Holland, he co-edited "*Ocular Infection & Immunity*" 1996. Wilhelmus currently works in Houston, Texas. (AB)

**Williams, Cornelius (1848-1918)** American ophthalmologist of St. Paul, Minn. Born in Kentucky, he moved in 1864 to Minnesota but later returned to Kentucky. His medical degree was received at the College of Physicians and Surgeons in the City of New York in 1874. Having studied ophthalmology and oto-laryngology and practiced both these specialities in New York City for a number of years he moved in 1882 to St.Paul. In 1901 he was president of the Ramsey County Medical Society. *AJO* 1919,2:462-463

**Williams, Henry Willard (1821-1895)** American ophthalmologist of Boston. Williams studied medicine at Harvard University from 1844 to 1846, receiving his M.D. in 1849 and in Europe from 1846 to 1849 under Sichel and Desmarres in Paris; Jaeger and Rosas in Vienna; Dalrymple, William Lawrence, Dixon, Critchett, and Bowman in London. On his return he established an ophthalmologic practice in Boston and was professor of ophthalmology at Harvard from 1871 to 1891. Williams gave the first clinical course in ophthalmology, at Harvard, in 1850 and is thought to have been the first to limit himself strictly to the eye. An influential teacher and writer, Williams made several significant advances, including the treatment of iritis without mercury; in cataract surgery, he advocated the suturing of the flap after extraction. He was one of the first, if not the first, to use ether anesthesia routinely for cataract surgery. Williams wrote: *On the treatment of*

*iritis without mercury* Boston 1856; *A practical guide to the study of the diseases of the eye: their medical and surgical treatment* Boston 1862; *Recent advances in ophthalmic science* Boston 1866; *Optical defects in school children ... an address read before the Massachusetts Teachers' Association* Boston 1869; *Our eyes, and how to take care of them* Boston 1871; *Eserine and pilocarpine in the treatment of eye disease* Cambridge, Mass. 1878 and *The diagnosis and treatment of the diseases of the eye* Boston 1881 (2<sup>nd</sup> ed.1886).

**Williams, John (fl. 1790-1830)** English quack who practiced in Paris, specializing in ophthalmology. He did not perform cataract surgery himself, but sold a topical medication which, he claimed, prepared the patient for the operation and made it safer. He distributed: *Traité des maladies des yeux, avec des observations pratiques, constatant les succès obtenus, tant à Paris qu'à Londres, par l'usage d'un topique inventé par J. Williams* Paris ca. 1814 ; *Compte rendu des cures faites sur des maladies des yeux réputées incurables, avec un topique inventé par J. Williams.* Paris 1815; *Observations nouvelles sur les maladies des yeux et des oreilles* Paris 1816. Albert

**Williams, Patricia B (? )** American, professor of pharmacology, Eastern Virginia Medical School, Norfolk, Virginia since 1986 and associate Professor of Ophthalmology, Eastern Virginia Medical School, Norfolk, VA, since 1987. Patricia Williams received her Ph.D. from the Medical College of Virginia, Pharmacology, Health Sciences Division, Virginia Commonwealth Univ. Richmond, VA, 1972 and her B.S. College of Pharmacy, University of Michigan, Ann Arbor, MI, 1968; Assistant Instructor - Undergraduate Student Laboratory, Department of Botany, University of Michigan, 1967. She became Teaching Assistant, Pharmacology, Medical College of Virginia, 1970-1971; Assistant Professor, Nursing and Dental Hygiene, Old Dominion University, Norfolk VA, 1972-1974; Assistant Professor, Pharmacology, Eastern Virginia Medical School, Norfolk, VA, 1972-1979; Lecturer, School of Continuing Education, University of Virginia, 1972 Adjunct Assistant Professor, Chemistry, Old Dominion University, Norfolk, VA, 1976-1981; Associate Professor, Pharmacology, Eastern Virginia Medical School, Norfolk, VA, 1979-1986; Adjunct Associate Professor, Chemistry, Old Dominion University, Norfolk, VA, 1984- present; Professor, Pharmacology, 1986-present. Dr. Williams has actively maintained an extramurally funded research program at EVMS since 1975. Her lab is currently funded by Orphan Medical, and by a grant from the FDA and the Lions Club. Long term research interests focus on the effects of disease on vascular function. She made a major contribution to the identification of unique characteristics of peripheral collateral arteries. A proposal to elucidate the role of growth factors in the stimulation of collateral growth is under development. A project with Dr. John Sheppard employs a unique approach to corneal neovascularization. A joint project with Dr. Earl R. Crouch, Jr., Professor and Chairman of Ophthalmology, ranging from the basic experiments to clinical trials produced a significant advancement for the topical treatment of hyphema. Other interests include wound healing and unique approaches to delivering drugs to the site of action. These projects have included revascularization of random skin flaps and re-epithelialization of chronic corneal defects. Williams received many **Honors and Awards:** Sigma Xi (President, Tidewater Chapter 1989-90) Listed in American Men and Women of Science, 13 ed. to present ; American Heart Association, Merit Award, 1989; Dean's Faculty Achievement Award, 1990; American Heart Association, Sentara Health System/Siemens Sponsored Researcher, 1992. She is a member of half a dozen scientific societies and of the ARVO. **Papers in Professional Journals (selection)** : Williams, P.B. and Riggs, P.K. *Factors affecting therapeutic concentration of topical aminocaproic acid in traumatic hyphema.* Investigative Ophthal. 31:189-194, 1990; Williams, P.B. and Crouch, E.R. *Secondary Hemorrhage in Traumatic Hyphema.* Am. J. Ophthal. 113: 344-346, 1992; Crouch, E.R. and Williams, P.B. *Trauma: Ruptures and Bleeding in Clinical Ophthalmology, Clinical Ophthalmology* Vol IV Chapter 61 p. 1-22. J.B. Lippincott, Philadelphia. Tasman, Wm. and Jaeger, E., editors, 1993; Crouch, Jr., E.R., Williams, P.B., Gray, M. K., Crouch, E.R., Chames, M. *Topical Aminocaproic Acid in the Treatment of Traumatic Hyphema.* Arch. Ophthalmol. 115:1106-1112, 1997 (AB)

**Williamson, Alexander Dewar (? – 1958)** Scottish ophthalmologist, until 1957 senior ophthalmic surgeon and physician, Singapore, and lecturer in ophthalmology at the University of Malaya. Alex Williamson, the son of a Glasgow seedsman, was educated at

the High School and University of Glasgow. Before joining the staff of the Glasgow Eye Infirmary in 1928, he served as house surgeon and house physician in the Western Infirmary. In the seven years in which he was on the staff of the Eye Infirmary, his abilities as an ophthalmic surgeon developed rapidly. He displayed considerable gifts as a junior, gaining his D.O.M.S., and becoming a Fellow of the Royal College of Surgeons of Edinburgh at the first attempt. His first experience of work in the East was obtained in a 6 months' operating tour with Dr. McPhail's Mission Hospital in India, where he obtained a vast experience in intraocular surgery. In 1935 he was appointed ophthalmic surgeon and university lecturer in Singapore, so that most of his working life has been spent in Malaya. He established the School of Ophthalmology in Singapore under considerable difficulties, in a country of a multi-racial population striving in recent years towards independent nationhood. In early days he ran his department alone; later, he trained a succession of Asian medical officers, encouraging each in turn to seek higher qualifications in Britain. During the Japanese occupation he continued his work among the local population for over a year, subsequently, and with relief, being interned with his fellow civilians until the liberation. His early death may be attributed, in part, to this internment. It is characteristic of the man that he returned immediately after only a short leave to carry on his work in Singapore. In 1949 the Army Council appointed him an honorary consultant to the army in Singapore. He was also consultant to the Singapore Association for the Blind and a member of its Executive Committee. Post-war operative pressure was very great both in Singapore and in the Federation. The number of medical students at the University of Malaya has been increased so that teaching has become an essential part of the work of the department. In April, 1957, Williamson elected to retire; by this time his department had become completely Malayanized and was staffed by his former students. Williamson was not a man who wrote, all his energies being devoted to the creation of the Ophthalmic School in Singapore, but the hospital, there, is a monument to him. After the war he worked on the problem of neonatal keratomalacia. In Singapore this occurred not only in under-nourished and marasmic children, but also in apparently well-nourished infants, whose only dietary defect was vitamin A deficiency. His work with P. C. Leong of the University of Malaya led to the fortifying of all tinned and dried milks sold in Malaya with vitamin A, and has banished the disorder from the Dominion. He was also an acknowledged expert on trachoma. BJO 1958,42:63-64

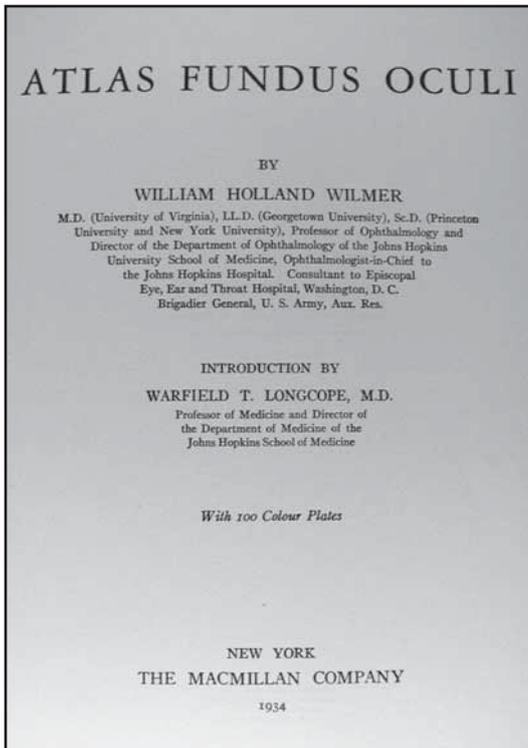
**Williamson-Noble, Frederick Arnold (1889-1969)** British ophthalmologist, Consulting Surgeon to St. Mary's Hospital, Moorfields Eye Hospital, the National Hospital for Nervous Diseases, and the Royal National Throat, Nose and Ear Hospital. died on February 27, 1969. He was educated at Oundle School, Queen's College, Cambridge, and St. Mary's Hospital Medical School, where he qualified in 1914. He joined the Royal Navy upon the outbreak of the first world war - and served throughout the period of hostilities. He was present at the Battle of Jutland, and in the next ship in line of battle the medical officer was Sir Cecil Wakeley, lately President of the Royal College of Surgeons of England. Williamson-Noble returned to St. Mary's after demobilization and became house surgeon to Warren Low. He decided to specialize in ophthalmology and took the F.R.C.S. together with those extra papers which allowed him to be designated the first fellow with Ophthalmology. He was appointed to the post of supernumerary ophthalmic surgeon to St. Mary's in 1924 and he joined Leslie→Paton and Frank→Juler in a very happy association which continued for many years. Upon the retirement of Leslie Paton he became Assistant Ophthalmic Surgeon at St. Mary's and at about the same time he was appointed surgeon to the Central London Ophthalmic Hospital (later to amalgamate with the Royal London Ophthalmic Hospital and the Royal Westminster Ophthalmic Hospital to form Moorfields Eye Hospital). He was appointed Ophthalmic Surgeon to St. Mary's when Frank Juler retired. He was a very enthusiastic ophthalmologist, who attended, most regularly, all the ophthalmic meetings and who always had his own definite opinions regarding developments in the specialty. He served as Master of the Oxford Ophthalmological Congress, and as Vice President of the Ophthalmological Society of the United Kingdom, and he was the first Treasurer of the Faculty of Ophthalmologists. He served for many years as a member of the Editorial Board of the British Journal of Ophthalmology and was a Civilian Consultant in Ophthalmology to the Royal Navy. He was the joint author with Humphrey→Name of "*A Handbook of Ophthalmology*" and was a regular contributor to the ophthalmic journals. BJO 1969,53:504



William Willis

**Willis, William (1837-1894)** Scottish surgeon, a graduate of the University of Edinburgh in 1859, came to Japan in 1862 as a Medical Attaché to the British Embassy. During the Japanese Civil war for Meiji Restoration, he treated many wounded and traveled in Japan along with the Army of the Meiji Government. It is said that his medical skill made the New Japanese Government reach the decision to systematically import European Medicine. He taught at The Tokyo Hospital (Precursor of the Tokyo University Hospital) in 1868-1869. Due to the Government decision of inviting German Teachers, he left Tokyo and taught Medicine at Kagoshima Medical School during 1869-1874 and 1876-1877. He left the statistics of 3050 patients he saw January-July of 1870: 534 were patients with eye diseases and their description became the *first* statistics of eye diseases in Japan. He performed 5-cataract operations and 4 were successful.[SM]

**Wilmer, William Holland (1863-1936)** American ophthalmologist of Washington, born in Virginia. He had his medical education at Virginia University and took his degree in 1885. He then served an internship at a New York Hospital, and after two years as assistant to Emil Gruening; he began practice at Washington in 1889. In 1897 he took an active share in the foundation of the Episcopal Eye, Ear and Throat Hospital, and in 1906 became Professor of Ophthalmology in Georgetown University. In 1917 he became Major in the Medical Corps of the United States Army, and served in charge of a Research Laboratory for Air Service at Mineola. He rose to be Brigadier-General in the Medical Reserve Corps. The Wilmer Ophthalmological Institute of Johns Hopkins University is a tribute to his standing as an ophthalmologist in the United States. Before the buildings were planned Wilmer gave up his practice at Washington and went to Baltimore to organize his new Institute. He came to Europe to study the great hospitals and in 1927 started work in temporary quarters. The Institute was formally opened in 1929, with addresses from Ernst→Fuchs, Dr. George →de Schweinitz and Sir John→Parsons. Until 1935, when he reached retiring age, Wilmer was in charge of this great Institute, and on ceasing to hold the Directorship he went home to Washington and resumed private practice. Wilmer held the Distinguished Service Medal and the Cross of a Commander of the Legion d'Honneur. He wrote a magnificent *Atlas Fundus Oculi* published in 1934, that became his chief work. JPW



**Wilson, Kinnier Samuel Alexander (1878-1937)** British neurologist. Kinnier Wilson was born in the United States in 1878 and was educated in Edinburgh. He qualified M.B.Edin. in 1902 and served as house physician in the Edinburgh Royal Infirmary. In the following year he obtained the B.Sc. with honours in physiology. A research scholarship enabled him to put in post-graduate work at Paris and on his return to England he became house physician at the National Hospital, 1 Queen Square. At the expiration of this appointment he became resident medical officer, and later registrar and pathologist. He was elected to the honorary staff in 1913, became physician to out-patients in 1921 and physician to in-patients in 1925. It was not until 1912 that he took his M.D.Edin., securing the gold medal. His connection with the Royal College of Physicians began with his taking the M.R.C.P. in 1907; seven years later he became F.R.C.P., and in 1925 he gave the Croonian Lectures. In 1912 he joined the staff of the Westminster Hospital and was at one time Dean of the Medical School. In 1919 he resigned his appointment at the Westminster Hospital on being elected junior neurologist at King's College Hospital. It was in 1912 that he contributed to *Brain* the description of progressive lenticular degeneration which has ever since borne the name of Wilson's disease. In 1920 he was appointed the first Editor of the *Journal of Neurology and Psychopathology*, a post which he held until the end of his life. Wilson was the author of numerous papers on such neurological subjects as aphasia, epilepsy and narcolepsy. His purely ophthalmological writings were infrequent and were mainly concerned with the ophthalmoplegias. In 1921 at a combined meeting of the Neurological and Ophthalmological sections of the Royal Society of Medicine, Kinnier Wilson contributed to a discussion on "*Ocular palsies*"; he confined his remarks to the question of a possible unilateral cranial polyneuritis. In the same year he read a paper at the Annual Congress of

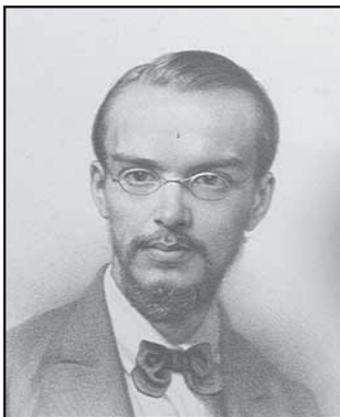
the Ophthalmological Society of the United Kingdom on "*Psychological peculiarities in certain visual auras in epilepsy.*" He had been a member of the Society since 1911. He was elected one of the secretaries in 1915 and served for the customary period of three years, when he became a member of the Council. Kinnier Wilson also served for many years as a trustee both of the Society and of the Nettleship Prize Fund. In 1930 he gave the Morison lecture before the Royal College of Physicians at Edinburgh. Kinnier Wilson had a great reputation abroad as well as at home and was made an honorary member of many foreign Neurological Societies. BJO 1937,21:396-397

**Wilson, Steven Eugene (1951- )** American ophthalmologist and scientist, Professor and Chairman, Department of Ophthalmology, University of Washington, Seattle, WA, (1988) M.S. Molecular Biology and Biochemistry, University of California, Irvine, CA, 1977, M.D. University of California, San Diego (1984). Residency in Ophthalmology, Mayo Clinic, Rochester, MN, (1985-1988), Fellowship in cornea, external disease, and refractive surgery at the LSU Eye Center, New Orleans, LA with Herbert Kaufman, M.D., Marguerite McDonald, M.D., and Stephen Klyce, Ph.D, (1988-1990). Assistant Professor and Associate Professor of Ophthalmology at University of Texas Southwestern Medical School, (1990–1995), Medical Director of Refractive Surgery, The Cleveland Clinic Foundation, Cleveland, OH, (1995 – 1998), Professor of Cell Biology, Neurobiology, and Anatomy. The Cleveland Clinic Foundation Health Sciences Center of the Ohio State University, (1996 –1988). Founder and organizer of Ocular Cell and Molecular Biology Symposium, (1992, 1995, 1997) (Keystone Symposium), 1999 (Keystone Symposium), Program Planning Committee, Cornea Section, Association for Research in Vision and Ophthalmology, (1993 – 1995), Chair (1995), Organizer of Cornea section for ICER, Santa Fe, New Mexico, USA, 2000. Editorial boards Investigative Ophthalmology & Visual Science, (1997-date), Experimental Eye Research, (1995-date) (section editor, 1998-), Cornea, (1998-date), Journal of Refractive and Corneal Surgery, (1994-date), EyeNet, (1999-date) Dr. Wilson has had a long-standing interest in growth factors and growth factor receptors roles in corneal development, wound healing, and homeostasis, as well as in the lacrimal gland. Major contributions characterization of expression and function of numerous growth factor and receptor systems in the cornea including hepatocyte growth factor, keratinocyte growth factor, bone morphogenic proteins 2 and 4, Fas and Fas ligand, and platelet-derived growth factor. His laboratory discovered that disappearance of keratocytes after corneal epithelial injury was mediated by apoptosis and reported evidence that it is mediated by cytokines released from injured epithelial cells. Characterized keratocyte apoptosis as the initiator of the subsequent events in wound healing in the cornea following surgical procedures and injury. Discovered the association between keratocyte apoptosis and keratoconus. Discovered the association between hepatitis C virus and some cases of Mooren's corneal ulcer. Together with Stephen Klyce, Ph.D. performed many of the early studies on corneal topography including effect of contact lens wear, effect of PRK, ALK, and other surgical procedures on corneal topography, and development of quantitative descriptors of corneal topography, including SRI and SAI. Performed a number of clinical studies on refractive surgical procedures and development of techniques for limiting and treating complications. Key publications: 1) *Hepatocyte growth factor (HGF), keratinocyte growth factor (KGF), their receptors, FGF receptor-2, and the cells of the cornea.* Invest Ophthalmol Vis Sci 34:2544-61, 1993. 2) *Mooren's corneal ulcers and hepatitis C virus infection: A New Association.* N Engl J Med 329:62, 1993. 3) *Epithelial injury induces keratocyte apoptosis: hypothesized role for the interleukin-1 system in the modulation of corneal tissue organization and wound healing.* Exp Eye Res 62:325-8, 1996. 4) *Apoptosis in the cornea: further characterization of Fas-Fas ligand system.* Exp Eye Res 65:575-89, 1997. 5) *Keratocyte apoptosis after corneal surgery.* Invest Ophthalmol Vis Sci 39:276-83, 1998. 6) *Stimulus-specific and cell type-specific cascades: Emerging principles relating to control of apoptosis in the eye.* Exp Eye Res 1999;69:255-66. Research to Prevent Blindness William and Mary Greve International Research Scholar (July 1, 1992- February 1, 1994), Manpower Award, Research to Prevent Blindness, (July 1, 1994-June 30, 1995), Honor Award, American Academy of Ophthalmology (1995), Everett-Kinsey Lecturer for 1998 CLAO Meeting, Dean's award lecture in Neurosciences, Louisiana State University, New Orleans, 9/2000 "*Strategies for Control of Wound Healing and Manipulation of Other Cellular Functions in the Eye*" (Professor and Chairman, Department of Ophthalmology,

University of Washington, Box 356485, Seattle WA 98195-6485. phone: +1+206-543-7250, fax: +1-206-543-4414, e-mail: sewilson@u.washington.edu )(SM)

**Wise, George Nelms (1915-1974)**, American ophthalmologist, professor of ophthalmology at the Albert Einstein College of Medicine. A native of Virginia, a graduate of the Virginia Military Institute, The University of Virginia Medical School, and the Institute of Ophthalmology of Columbia Presbyterian Medical Center, Wise devoted his life to his profession. Rising through the ranks from instructor to full professor of ophthalmology at New York University School of Medicine, he founded a clinic devoted to the study of retinal diseases and was instrumental in initiating an ocular pathology laboratory. He maintained an active private practice throughout this period. In 1970, he accepted the challenge to help develop an academic Ophthalmology Department for the Albert Einstein College of Medicine and the Montefiore Hospital and Medical Center. He accepted a full-time academic position, founded a new retinal clinic at Montefiore Hospital, developed a fellowship program in medical retinal diseases, and provided exceptional guidance and leadership to a fledgling department. His ability as an observer of the retina was unparalleled, and his contributions to the delineation of retinal vascular disease will remain a cornerstone of ophthalmic knowledge. He held many important positions in ophthalmology, among which were: chairman of the Medical Advisory Committee for the New York State Commission for the Blind; chairman of the New York Academy of Medicine, Section of Ophthalmology; chairman of the New York Ophthalmologic Society; member of the Scientific Advisory Committee of Fight for Sight, Inc.; member of the American Ophthalmologic Society. He was the recipient of the 1966 Will A. Fisher Award of the Chicago Ophthalmological Society and was the 1973 Schoenberg Lecturer of the New York Society for Clinical Ophthalmology. *AJO* 1974,78:871-872

**Wistrand, Per J. (1927- )** Swedish pharmacologist and ophthalmologist. He took his M.D.- degree 1954 and PhD-degree (Thesis: *Carbonic Anhydrase and its Inhibitors*, Almquist & Wiksell, Uppsala 1960) at Uppsala University, the latter after studies with Ernst Ba'ra'ny at Uppsala and Thomas Maren at University of Florida in Gainesville. He was Professor (1968-1993) and Chairman (1970-1979) of Pharmacology at Uppsala University and since 1994 Emeritus Professor. He was Visiting Research Professor at the Department of Pharmacology and Experimental Therapeutics, University of Florida, for several periods during the years 1973-1990. He had appointments at drug industries and was Head of Pharmacology at Astra Co., at Sodertalje, 1964-1968, and a full or part time consultant to Pharmacia Co., at Uppsala between 1960-1963 and 1994-1999. His clinical training in internal medicine and ophthalmology took place at the Johns Hopkins and Uppsala University Hospitals. He was a consultant Ophthalmologist and Associate Professor of Ophthalmology at Uppsala University Hospital 1983-1993. His research has focused on the physiology and biochemistry of the enzyme Carbonic Anhydrase (CA) in many tissues, including CNS, G-I-tract, kidneys and eye. His finding in 1951 of CA in the ciliary epithelium initiated the 1954 introduction of acetazolamide in the treatment of glaucoma. His isolation and purification of the membrane-bound CA isozyme, CAIV, from human kidneys in 1989, and his subsequent finding and characterization of this isozyme in the eye, have been critical for understanding the mechanism of the IOP-lowering effect of dorzolamide, a topical inhibitor of CA, introduced 1995 by Thomas Maren in the treatment of glaucoma. He was the recipient of the Governor Lehman Fellowship 1964 and the Alcon Research Foundations' Award 1991. (Department of Pharmacology, University of Uppsala, Sweden. e-mail: per.wistrand@neuro.uu.se) (SM)



Mikhail Mikhailovitch Woinow

**Witelo, (ca.1230 - ca.1275)** German (?) scientist who was probably born and raised in Breslau, and who studied at the Universities of Paris and Padua; where and how he spent his last years are unknown. Although he is known to have written other works (most of them now lost), his reputation rests on the *Perspectiva*, a treatise on optics: *Peri optikes, id est de natura, ratione & projectione radiorum visus, luminum, colorum atque formarum, quam vulgo perspectivam vocant, libri X* Nurnberg 1535. Albert

**Woinow, Mikhail Mikhailovitch (1844-1875)** Russian ophthalmologist. Woinow studied under Hermann von Helmholtz and Otto Becker in Heidelberg and under Ferdinand Arlt in Vienna. He established a highly successful ophthalmologic practice in Moscow,

lectured at the University and published, in German, three monographs and a number of articles on topics in physiological optics: *Über das Verhalten der Doppelbilder bei Augenmuskellähmungen in Tafeln Dargestellt* Wien 1870; *Ophthalmometrie* Wien 1871 and with August Ritter von Reuss *Ophthalmometrische Studien* Wien 1869. Albert.

**Wolfe, John Reisberg (1824-1904)** British ophthalmologist born in Breslau, Germany. Wolfe received his M.D. in 1856 in Scotland, at Glasgow University, and spent most of his life thereafter as an ophthalmologist in Glasgow, establishing the *Glasgow Ophthalmic Institute* in 1870. A skilled and inventive cataract surgeon and the deviser of new methods for blepharoplasty and keratoplasty, Wolfe also invented a refracting ophthalmoscope. He wrote: *Clinical demonstrations on ophthalmic subjects given during the sessions of 1875-76* Glasgow 1877 and *On diseases and injuries of the eye: a course of systematic and clinical lectures to students and medical practitioners*. London 1882. Albert

**Wolff, Eugene (1896-1954)** British ophthalmologist born at Oudtshorn, Cape Province, South Africa. He came over as a boy to University College School, Hampstead, from which he went on to University College, London, and then University College Hospital, where he was awarded the Lister medal for clinical surgery in 1918. In the same year he passed the Final Conjoint examinations, and graduated M.B., B.S. of London University. Then followed a year's service as captain in the South African Medical Corps, during which he gained the affectionate respect of all ranks, because, already, Eugene showed that quality which remained for ever as the hallmark of his professional work-intense concern for the welfare of his patients. After his demobilization early in 1919, Wolff returned to University College, where during the next eight years he pursued the studies which afterwards enabled him to make such rich contributions to the anatomy and pathology of the eye. Soon he was aflame with that passion for microscopy which has fastened upon so many great masters of medicine in the past-notably Allbutt and Osler. These men had already shown, and Wolff showed afresh, that the microscope, so far from encouraging a narrow view of pathology, can augment the range of vision when it is put into the hands of an enlightened man. Meanwhile clinical work was not neglected, and he became house surgeon and afterwards ophthalmic registrar to the late Percy Flemming and Sir John Parsons at University College Hospital. He also gained additional experience as a chief clinical assistant at Moorfields Eye Hospital. Another teacher to whom he repeatedly expressed his indebtedness was the late Professor Elliot Smith, who occupied the chair of anatomy at University College. Although Wolff remained a student, in the best sense of that word, right up to the last, we may look upon 1927, the year in which he became a Fellow of the Royal College of Surgeons, England, as the end of his long and strenuous training in ophthalmology. During most of his years (1919-30) as a demonstrator of anatomy at University College, Wolff found time also to lecture on this subject in the Slade School of Art, and to write his first book, *Anatomy for Artists*, published in 1925. Two more editions appeared between the world wars, and the book was still in demand, for a further reprint of the third edition was issued in 1952. Another work by Wolff, entitled *A Shorter Anatomy*, was published in 1928, but his most important books, which will presently be mentioned, were - not yet ready. They emerged from his steadily growing clinical, anatomical, and pathological experience built up during the ten-year period immediately after his final F.R.C.S. For a short time Wolff was honorary ophthalmic surgeon to the Metropolitan Hospital, but he resigned that post soon after he was elected in 1928 to the honorary staff of the Royal Northern Hospital in succession to Basil Lang. Here he found himself among friends in a most congenial atmosphere, and for the rest of his life gave devoted service to the people of North London. In 1930 he gave up his anatomy demonstratorship at University College on being appointed pathologist at the Royal Westminster Ophthalmic Hospital. Here was a golden chance to follow his bent in a department of his own. Eagerly Wolff embraced the opportunity, so that year after year he was able to deliver beautifully illustrated papers on the normal and pathological anatomy of the eyes and their adnexa. His histological slides, in the preparation of which he was loyally served by Mr. A. McNeil, his laboratory technician, were first-class, and they succeeded in illuminating many a hitherto obscure bypath of ophthalmology. Selected jewels from all this richness adorned the pages of Wolff's *Anatomy of the Eye and Orbit*, which first appeared in 1933, and reached its fourth edition 1954. Scrutiny of the successive editions will convince the most exacting critic that Wolff never regarded his

work as complete. He was constantly on the alert to prune away obsolete material, and to insert new gems from his patient mining. *Anatomy of the Eye and Orbit* is far and away the best ophthalmic anatomy book in the English language. In 1934, only a year after the appearance of his great work on anatomy, Wolff produced his *Pathology of the Eye*, a book full of lucid descriptions and superb pictures. Here again he surpassed himself in subsequent editions, of which the third (1951) stands as a striking monument to his ability and industry. Wolff was elected to the honorary staff of the Royal Westminster Ophthalmic Hospital in 1936, but he continued to hold the post of pathologist, greatly to the advantage of the hospital. In the following year his *Diseases of the Eye* was published. This book contrived in remarkably few words to give a sound introduction to clinical ophthalmology, and its pages, unlike those of many elementary text-books, were large enough to display the illustrations advantageously. The author steadily improved his work in later editions, of which the fourth appeared 1953. At the Institute of Ophthalmology, after the fusion of the three eye hospitals north of the Thames (Royal London Ophthalmic Hospital, Royal Westminster Ophthalmic Hospital, and Central London Ophthalmic Hospital) to form the Moorfields Westminster and Central Eye Hospital in 1946, Wolff continued to lecture as a recognized teacher of the University of London. Here he regularly attended the medical committee meetings of the combined eye hospitals, and when his turn came round to take the chair, he endeared himself more deeply than ever to his colleagues. He had invariably studied the agenda with care before the meeting, and displayed the utmost scruple in seeing that all points of view were represented in discussion. It is good to know that Wolff was honoured by his colleagues in so many different ways *The Ophthalmological Society of the United Kingdom*, the Section of Ophthalmology at the *Royal Society of Medicine*, and the Section of Ophthalmology of the *British Medical Association*, all chose him as a vice-president, and there is little doubt that, if he had lived for a few years more, he would have become President of the *Ophthalmological Society of the United Kingdom*. In 1947 at Glasgow he received the Mackenzie Memorial Medal. Other tributes which delighted him were honorary membership of the *Belgian* and *Greek* Ophthalmological Societies. In 1950 he was appointed a member of the North-West Metropolitan Regional Hospital Board. Wolff's contribution to ophthalmology is established not only through his books and museum specimens, first-class though these undoubtedly are, but also by oral tradition. He was of course a fine lecturer, who delivered words audibly after careful preparation, so that much of his teaching will be remembered. BJO 1954,38:253-255

**Wolter, J. Reimer (1924- )** American ophthalmologist born in Germany. Wolter received his MD (Dr.med.) at the University of Hamburg in 1949. He was resident, University of Hamburg Augenklinik, 1949-1953. He became research associate in neuropathology, University of Michigan, 1953. Assistant Professor, ophthalmology, 1956; Professor, 1964, with joint appointment in pathology. Chief of ophthalmology, Ann Arbor Veterans Administration Hospital. ABO, 1961. AOS, 1966. He was a founding editor of the *Journal of Pediatric Ophthalmology*. He was a teacher at Lancaster course, Colby College. Wolter authored about 350 scientific articles and book chapters. He is Professor Emeritus since 1999. His main interests were: ophthalmic pathology, orbital surgery.(James Ravin)

**Wong, Doric W.K. (1963- )** Singaporean Chinese consultant ophthalmologist at the Vitreo-retinal Department of the Singapore National Eye Centre. Clinical teacher, Faculty of Medicine, National University of Singapore. He graduated in 1987 from the National University of Singapore. He performed his residency in the Department of Ophthalmology of the National University Hospital, obtaining the Master of Medicine (Ophthalmology) and becoming a Fellow of the Royal College of Surgeons of Edinburgh in 1994. He completed a medical and surgical vitreo-retina fellowship in the Singapore National Eye Centre in 1997-1999, during which he spent a year as international fellow in the Manhattan Eye, Ear and Throat Hospital under Dr. Lawrence Yanuzzi M.D. and Dr. Richard Spaide M.D. He has been with the Singapore National Eye Centre since 1996, and entered into his current position in 1999. His clinical interests are in vitreoretinal disorders and phacoemulsification. His research interests are currently in polypoidal choroidal neovascularization. (Dr. Doric W.K. Wong: Singapore National Eye Centre, 11 Third Hospital Avenue, Singapore 168751, Singapore. Phone: (65)2277255; Fax: (65)2277290; e-mail: doric\_wong@snecc.com.sg ) (SM)

**Wood, Casey Albert (1857-1942)** American ophthalmologist of Canadian birth. He was born in Canada and took his M.D. from Bishop's College, Montreal, in 1877. In those days he was one of Osler's clinical clerks at McGill, and the friendship between them lasted until Osler's death. Casey Wood started practice in Montreal as a physician, but he was always interested in ophthalmology and in 1886 he left Montreal and spent some years in post graduate work in England and on the Continent. In 1890 he settled in Chicago and rapidly developed a large ophthalmic practice. He was professor of ophthalmology at Northwestern University in 1900, and from 1904-1925 at the University of Illinois. Casey Wood was a prolific author. Besides a great many papers of clinical interest he was an editor of the *American Encyclopaedia of Ophthalmology* and also of a system of ophthalmic operations. But probably his best known work was done in comparative ophthalmology: *The fundus oculi of Birds* came out in 1917 and later he issued a large quarto " *Introduction to the literature of vertebrate zoology*". He was a generous benefactor to McGill, and the " introduction " referred to above, is practically a list of all the works on this subject there, many of them donated by himself. After retirement from active practice Casey Wood spent much of his time abroad and worked in Rome at the Vatican Library. His scholarly translation of Benevenuto Grassus on the eye, and the memorandum book of Jesus Hali are well known. His knowledge of the history of ophthalmology was most extensive, while the Blacker Library of Zoology and the Emma Shearer Wood Library of Ornithology at McGill are a lasting memorial of his generosity and ability. His ophthalmological collections also went to McGill Medical Library, and he was the donor of some valuable oriental manuscripts to the Osler Library. McGill gave him the degree of M.D. in 1905 and LL.D. in 1922. BJO 26,287,1942

**Wood, Cyril George Russ (1869-1938)** British ophthalmologist. Wood's medical studies were pursued at Bristol University and he obtained his M.R.C.S., L.R.C.P. in 1892, and his F.R.C.S.(Eng.) in 1902. At first his main interests were devoted to the study of pathology but shortly afterwards he came under the inspiring influence of F. Richardson Cross, who turned his thoughts to ophthalmology and led to his appointments as Hon. Ophthalmic Surgeon to Southport Infirmary and Southport Eye, Ear and Throat Hospital. In 1900 he was appointed Hon. Surgeon to the Eye, Ear and Throat Hospital, Shrewsbury, and it is to his lasting credit that in the exceedingly full and busy life that followed he gained his Fellowship though amongst other difficulties it involved a visit twice weekly to Birmingham University for the study of practical anatomy. His services to the Hospital in Shrewsbury were the means of raising its status to a very high level and his name soon became widely known and respected in Shropshire and Mid Wales, not only as an Ophthalmic Surgeon but also as an Oto-laryngologist. He added to his appointments those of Hon. Ophthalmic and Aural Surgeon to the Royal Salop Infirmary, the Shropshire Orthopaedic Hospital, Wrexham Infirmary, the Montgomery County Infirmary and Much Wenlock and Broseley Hospitals, to all of which he held the position of Hon. Consulting Ophthalmic Surgeon at the time of his death. His association with the British Medical Association dates from 1892 and he was from 1900 to 1931 an active member of the Shropshire and Mid Wales branch, being elected President in 1925. Since the institution of the Oxford Ophthalmological Congress in 1909, Russ Wood, as one of its founders, had always been one of its keenest and most active members. He was elected Hon. Secretary in 1928 and became Master in 1935. He served as President of the Midland Ophthalmological Society, being elected to deliver the Middlemore lecture in 1927, and he was also a member of the General Committee of the British Journal of Ophthalmology. On his retirement from practice in Shrewsbury in 1931 he was elected Assistant Surgeon and Pathologist to the Oxford Eye Hospital and later Consulting Surgeon, while at the same time he became Lecturer in the Oxford Post-Graduate Course in Ophthalmology and Examiner in Ophthalmology to Queen's University, Belfast. BJO 1938, 22: 699

**Woodhead, Abraham (1609-1678)** Roman Catholic controversialist and author of a treatise on optics, born in Yorkshire, England. Woodhead was educated at Oxford University for a career in the Protestant church but converted to Catholicism about 1645. He spent his later years in retirement at Hoxton, near London, anonymously publishing pro-Catholic polemics and devotional works and pursuing various literary and scientific studies. Most of his writings remained unpublished at his death. He wrote on optics: *Propositions concerning optic-glasses, with their natural reasons drawn from experiment*

Oxford 1679 [This work was published anonymously and was also attributed to Robert Cooper (1650-1733) and Obadiah Walker (1616-1699)]. Albert

**Woods, Alan Churchill (1889-1963)** American ophthalmologist, born to a prominent Baltimore medical family. His father, →Hiram Woods, was one of the leading ophthalmologists of his day. From 1887 to 1894, he was professor of Ophthalmology at the Woman's Medical College of Baltimore, and from 1895 to 1920, he was lecturer and later head of the Department of Ophthalmology at the University of Maryland. With this family background, one might have expected Alan C. Woods to have automatically entered the field of medicine. However, after he received his A. B. degree in 1910 from The Johns Hopkins University, he seriously considered taking graduate work in English. This desire was quickly put aside, for he entered the Johns Hopkins University School of Medicine in the same year. After receiving his M.D. degree in 1914, he spent a year under Dr. Henry A. Christian as a house officer in medicine at the Peter-Bent Brigham Hospital in Boston. It was during this year that his lifelong interest in bacteriology and immunology was initiated. The following year he began a two-year fellowship at the University of Pennsylvania under the guidance of Dr. Richard Pearce, professor of research medicine. A few years prior to this, Maurice Arthus had made his classic discovery that repeated injections of horse serum into rabbits created a state of hypersensitivity that led to local tissue reaction when serum was subsequently injected into the skin. One day Dr. Woods was perfusing a sensitized animal with soluble bacterial products to determine their effects on the kidney when he noted an inflammatory reaction in the eye. This turned his attention to uveitis, which was to be the field of his prime research interest throughout his long and fruitful career in ophthalmology. At about this time he decided to make ophthalmology his life's work.

George E. de→Schweinitz of Philadelphia was one of the leading ophthalmologists in the world at that time. He was also a good friend of Hiram Woods. Because of this, a close personal relationship developed and Alan Woods spent his afternoons working with de Schweinitz and many of his evenings discussing medical problems with him. A few years earlier, Woods had joined the Medical Reserves of the U. S Army. Because of the American skirmish with Mexico in 1916, he was called to active duty for a period of five months. In August, 1917 he was again placed on active duty for World War I. He was sent to England with the University of Pennsylvania Medical Unit, where he was placed in charge of the laboratory. Fortunately, de Schweinitz was ophthalmic consultant for the American Expeditionary Forces and was able to have him transferred to the British Expeditionary Forces under Sir William Lister. During this time, he learned a great deal about eye surgery and more of the clinical side of ophthalmology. After his discharge from the Army as a major in 1919, he returned to Baltimore to practice with his father. In the mornings he saw his private patients at 842 Park Avenue, and in the afternoons he worked in the clinic of The Johns Hopkins Hospital as an instructor in ophthalmology. In 1922 he was made an associate in ophthalmology and in 1925, when the Wilmer Institute began, he served as assistant director to Dr. →Wilmer. In 1926, he was promoted to associate professor. When Wilmer retired in 1934, he succeeded him as director of the Wilmer Institute and became acting professor of ophthalmology. In 1937, he gave up his city office and established a geographic full time practice at the Wilmer Institute. In 1946, he joined the full-time staff of the university and became full professor of ophthalmology, a position which he held until his retirement in 1955. After his retirement, he maintained an office in the Wilmer Institute and was active in both clinical and experimental medicine until a few weeks before his death. He became a leader in the field of uveitis. In the university, he was an active and influential member of the Advisory Board, and in the Hospital he served as chairman of the Medical Board for nine years. Because of his numerous activities, he received many awards in ophthalmology, such as the Ophthalmological Research Medal of the Section of Ophthalmology of the American Medical Association and the Howe Medal given by the American Ophthalmological Society. He was made a fellow of the Royal College of Surgeons (Edinburgh), the only American ophthalmologist so honored in the history of the society. He was made Honorary Doctor of Laws by Hampden-Sydney in 1951. He gave a lecture as the guest-of-honor of the American Academy of Ophthalmology in 1955. He received the Gonin Medal in 1958 for outstanding contributions to ophthalmology during his generation, and was until that time the only American to have received this award. AJO 1963:842-845; BJO 1963,47:254-256 (by Duke-Elder)

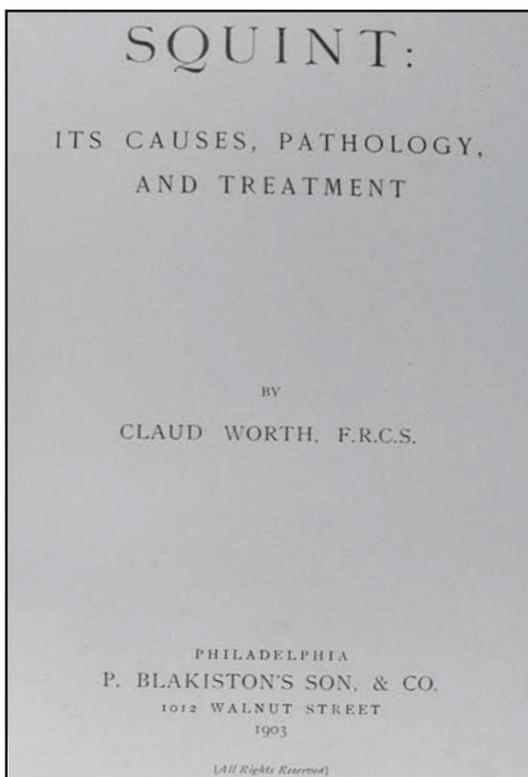
**Woods, Hiram (1857-1931)** American ophthalmologist, born at Baltimore. Woods was educated in George Carey's private school in Baltimore, and at Princeton University, where he graduated in 1879. His medical education was obtained at the University of Maryland, at which institution he received his MD in 1882. He served one year as interne at Bay View Hospital, after which he was connected with the University of Maryland, first in the department of dermatology and later in the department of ophthalmology and otology. From 1887 to 1894 he was professor of ophthalmology and otology at the Woman's Medical College of Baltimore. In 1895 he returned as lecturer in ophthalmology and otology at the University of Maryland, and he was shortly elected to be head of the department, in which capacity he served until 1920. In this field of endeavor he was especially talented, and he took great delight in demonstrating various lesions to the students. For many years he was surgeon to the Presbyterian Eye, Ear, and Throat Charity Hospital, where his ability as surgeon was utilized by the many seeking relief, and where he often had demonstrations for his students. The meticulous care which he took of his patients in those early days made him stand out among his colleagues. He was elected to many positions of honor. Locally he served on several occasions as chairman of the ophthalmological section, in 1906 he was president of the Maryland Medical and Chirurgical faculty, and later he was chairman of the council. In 1912 he was chosen as chairman of the Section on Ophthalmology of the American Medical Association and in 1919 as president of the American Ophthalmological Society. His many contributions to ophthalmic literature, were of a clinical nature but exceedingly well prepared and of permanent worth. AJO 1931,14:364

**Woodward, Julius Hayden (1857-1916).**New Yorker ophthalmologist, director of instruction of the eye department of the Post-Graduate Hospital Medical School.

**Woolhouse, John Thomas (ca.1650-1734)** British ophthalmologist born in England to a family of oculists. Woolhouse traveled throughout Europe learning ophthalmologic techniques and in 1688, as oculist to King James II, accompanied him into exile in Paris. There he remained until about 1728, becoming a celebrated practitioner and lecturer on eye diseases; he spent his last years in England. Both a skilled operator and an unprincipled charlatan, Woolhouse claimed to possess secret formulae and techniques which he would disclose to students for large fees. He vigorously opposed Brisseau and Maitre-Jan's new concept of cataract. In 1711 he wrote of the possibility of iridectomy for the formation of a new pupil; it was Cheselden, however, who first performed the operation, in 1728. He authored: *Dissertations ... sur la cataracte et le glaucome de quelques modernes et principalement de MM. Brisseau, Antoine, et Heister* 1717, latin version : *Dissertationes ophthalmicae de cataracta et glaucomate, contra systema sic dictum novum D.N.N. Brissaei, Antonii, Heisterii et aliorum.* Frankfurt/M 1719.

**Woollard H. H. (?-1938)** British Professor of Anatomy in University College, London. He was the author of much research on the anatomy of the central nervous system and contributed a paper on congenital ophthalmia in a puppy to the tenth volume of Brit.J.Ophthalmology. BJO 23,219, 1938

**Worth, Claud Alley (1869-1936)** British ophthalmologist. Worth was a Lincolnshire man, and was born at Holbeach, the son of Thomas Mordaunt Worth, representative of an ancient Lincolnshire family. He was educated at Bedford and St. Bartholomew's Hospital. He qualified as M.R.C.S., L.R.C.P. in 1893, held house-surgeonship at a hospital in the Midlands, and proceeded to the F.R.C.S. in 1898. Worth began the study of ophthalmology under Henry Power and Bowater Vernon at St. Bartholomew's and joined the practice at Moorfields, where he worked in Holmes Spicer's clinic. He was elected to the honorary staff at Moorfields in 1906 and in due course became consulting surgeon. He was, for many years, ophthalmic surgeon to the West Ham Hospital, now the Queen Mary Hospital for the East End. His work on Squint made Worth's name familiar all over the world. His well-known book, "*Squint, its causes, Pathology and Treatment*" 1903, reached its 6th edition in 1935 and has



been translated into many languages. He also wrote with Charles H. May “*A Manual of Diseases of the Eye*” (London 1906), 7<sup>th</sup> edition 1934. Worth, in the orthoptic treatment of Squint, was essentially a pioneer. Worth joined the Ophthalmological Society of the United Kingdom in 1899, and contributed many papers to its transactions. So far back as Vol. XXI he read a paper on the orthoptic treatment of Squint in Young Children. Worth's amblyoscope and "Fourlight test" are part of the armamentarium of every ophthalmic surgeon, and his advancement forceps was a notable advance over the old-fashioned Prince's forceps. Worth was very successful in handling small children. But, had he not made a name for himself in ophthalmology Worth's name would have been a household word wherever yachts are sailed. His love of the sea dated from childhood, and although he was prevented from entering the Royal Navy, his knowledge of seamanship, currents, harbours and all else that go to make up the science of yachting was immense. In 1926 he sailed his own boat to the Azores. Worth was president of the Little Ship Club, and Vice-Commodore of the Royal Cruising Club, a master mariner and first class pilot. He also wrote books on yacht sailing which are classics. In 1910, "*Yacht Cruising*" was published, and it has reached its fourth edition in 1936. In 1927 he published a companion volume, "*Yacht Navigation and Voyaging*." Some of his boats he designed himself and he proved the practicability of sailing small boats safely in deep water ; insisting that a suitable boat, manned by an efficient crew was perfectly safe, even for long voyages. BJO 1936,20:558-559. The Times June 26, 1936,p.11a; British med Journ 1936,1:51.JPW.

**Worthen, David McQuarrie (1936-1988)** American ophthalmologist, Assistant Chief Medical Director for Academic Affairs for the Veterans Administration. When he retired because of medical disability in 1987 he was a member of the faculties of the medical schools at Georgetown, Howard, and Johns Hopkins universities. A native of Provo, Utah, he attended the University of Utah through two years of medical school. He graduated from medical school at the University of Minnesota, where he became a member of Alpha Omega Alpha. He interned at the U.S. Navy Hospital in Oakland, California. While in the Navy, he had an intensive course in psychiatry and served two years as a staff psychiatrist before entering an ophthalmology residency in 1964 at the Massachusetts Eye and Ear Infirmary. While residents, he and Richard Brubaker developed a small, inexpensive instrument for cryoextraction of the lens that was widely used for several years. He remained in Boston until 1970 in a group practice, serving on the faculty of the Howe Laboratory and as a consultant at Peter Bent Brigham and Childrens Hospitals. He became skilled in electron microscopy and did pioneering studies of the anterior segment in glaucoma. In 1970, he joined the faculty of the Department of Ophthalmology at the University of Florida in Gainesville. He became Chief of the Ophthalmology Service at the Gainesville Veterans Administration Hospital. In addition to teaching, medical care, research, and administration, he completed a Master of Arts Degree in Education at the University of Florida. In 1974, he was named head of the ophthalmology program at the University of California in San Diego and became Chief of Ophthalmology at the San Diego Veterans Administration Medical Center. He was named an Associate Examiner for the American Board of Ophthalmology, and assumed responsibility for ophthalmic basic science teaching in several ongoing courses. In 1977, he became Associate Secretary for Continuing Education of the American Academy of Ophthalmology. Under his direction the section of ophthalmology at the University of California expanded. His research interests broadened to include the biochemical function of the trabecular meshwork and he continued clinical studies, started in Florida, on laser treatment for open angle glaucoma. With M. Gary Wickham, he performed the first systematic studies of argon laser trabeculoplasty in the United States. The method they devised is the forerunner of the one used today. Worthen became interested in clinical trials and developed a plan for a multicenter trial to clarify the efficacy and safety of argon laser trabeculoplasty. This study was funded in 1980, but was not implemented because, in that year, he moved to Washington to the central office of the Veterans Administration. His study plan was used in developing the plan for the Glaucoma Laser Trial, an ongoing clinical trial. At the Veterans Administration central office he headed the largest coordinated health care education program in the nation. He managed nearly 1000 cooperative training agreements between the Veterans Administration and dentistry, nursing, schools of medicine, pharmacy, social work, and other associated health professions. He was responsible for continuing education of health professionals and other staff at the 172

Veterans Administration Medical Centers. In 1975, he joined the Ophthalmic Devices Panel of the Food and Drug Administration, which he chaired from 1977 through 1982. He served as a consultant to the panel until 1987. He served on 16 other advisory groups on medical education, government regulation health, and fitness. His contributions have been recognized by commendations from the American Academy of Ophthalmology, the Food and Drug Administration Commissioner, the chief medical director of the Veterans Administration, the Surgeon General, Congress, and the President of the United States. At his retirement, the Veterans Administration established the David M. Worthen Award for Academic Excellence. He died at age 52 of Amyotrophic Lateral Sclerosis. At Georgetown University his contributions have been commemorated by the creation of the David M. Worthen Center for Clinical Studies. At the Wilmer ophthalmologic Institute, a named lectureship and fellowship has been established. David Worthen believed it important for each person to strive to do his best. This is reflected in his work and his commitment to physical fitness. *AJO* 1988, 106, 375-376; *Arch Ophthalmol* 1988, 106:733

**Wright, Halstead Robert (1875-1918)** A young American ophthalmologist of great promise. Born at Coshocton, Ohio, he moved to Columbus with his father's family in 1880. He graduated in dentistry at the University of Ohio in 1895, but after a brief period of dental practice, took up the study of medicine in the same university, where he received the medical degree in 1910. He then located for practice in Columbus, becoming a partner with his father. He was, from 1910 till 1917, instructor in physiology and pathology at his alma mater. He invented a number of ophthalmic instruments, and contributed to "*The Ophthalmic Record*" a number of ophthalmic articles, among which may be mentioned the following: "*The Use of the Snare as the Final Step in the Enucleation of the Eye*"; "*A New Method of Preparing an Eye for Microscopic Sections*"; "*A Rare Intraocular Tumor*," and "*A Rare Tubercular Condition of the Eye*." He became a captain in the Medical Service of the Army, and died at Camp Greenleaf, Georgia. *AJO* 1919,2:168

**Wu, Lezheng (1935- )** Chinese ophthalmologist, Professor of Ophthalmology of Sun Yat-Sen University of Medical Sciences (SUMS), Son-in-law of CHAN Eugene and MAO Wenshu. He graduated from the SUMS in 1957 and finished the Postgraduate School of the SUMS in 1962. He then worked at the Department of Ophthalmology of the SUMS in 1957-1972. He carried out research for about 4 years from 1979 to 1982 at Stanford University, Johns Hopkins University and National Institute of Health, U.S.A. He has been in the present position as above since 1985, and served as the Chairman of the Department of Ophthalmology (1985-1996), Deputy Director of Zhongshan Ophthalmic Center of the SUMS (1983-1992), Director of the Eye Research Institute, SUMS (1983-1995) and Director of the National Ophthalmological Laboratory, Ministry of Public Health, China (1991-1995). He is active in many scientific societies and is the Board Member of the International Society for Clinical Electrophysiology of Vision (since 1990), Chinese Ophthalmological Society (1992-1996), Afro-Asian Council of Ophthalmology (since 1992), Consultant to Helen Keller International (since 1988) and a member of the Oxford Ophthalmological Congress (since 1985). His international activities are very extensive and he serves as the President of the 12th Afro-Asian Congress of Ophthalmology, Guangzhou, in 2000, as the Guest Professor to the University Eye Hospital, Munich in 1991 and the Visiting Professor to the University of Sao Paulo in 1996. He was the Co-Founder and the Chief Editor of "*Eye Science*" (Chinese and English Language Journal) during 1988-1992. He has published 250 scientific papers and some examples are "*Characteristics of the capillary-free zone in the normal human macula*, *Jpn. J. Ophthalmol.* 29, 306, 1985", "*Characteristics of the macular microvasculature*, *ibid.* 29: 412, 1985", "*Study of aging macular degeneration in China*. *Jpn J. Ophthalmol.* 31: 349, 1995" and "*Study of pathogenesis of age-related macular degeneration*. *Eye Science* 12: 58, 1996". Some examples of his books are "*Artificial Vision*" Science Press, Beijing 1980, "*Clinical Electrophysiology of Vision*" Science Press, Beijing 1999 and "*Guide of modern Ophthalmological Surgery in Clinic*" People's Med. Publ. House, Beijing 1995. He has been Guest Lecturer to many international congresses, e.g. 91st Congress of the Japanese Ophthalmological Society (1987), 13th Congress of the Asia-Pacific Academy of Ophthalmology (APAO) (1993), the First International Symposium of Tropic and Subtropics on Ophthalmology, Waterloo, Canada (1994). He is the recipient of APAO

Distinguished Service Award (1991), Distinguished Service Award of the World Eye Foundation, U.S.A. (1982), and Awards of "Advance in Science and Technology" of the National Education Commission and Ministry of Public Health, China, many times during 1987-1993. (SM)

**Würdemann, Harry Vanderbilt (1865-1938)** American ophthalmologist. He took his M.D. in 1880, but before taking up medicine he had spent four years in an architect's office and as a topographer with the U.S. Geological Survey. After post-graduate study in London and on the Continent he started practice in Milwaukee. He was Professor of Ophthalmology in the Chicago Eye, Ear, Nose and Throat College and was for a time Editor of the *Annals of Ophthalmology*. In 1909 he moved to Seattle. Würdemann is best known in this country for his admirable transilluminator. He brought out a book on "*Injuries of the Eye*" in 1912 and this ran to a greatly enlarged second edition in 1932, which became a recognised textbook on its subject. It was very largely a record of his own cases. BJO 1938,22:508, Am J Opht June 1938.

**Wybar, Kenneth(1921-1992).**British ophthalmologist. He was an authority on ocular motility.First consultant at the Hospital for Sick Children and at Royal Marsden , he became director of the orthoptic department at Moorfields, High Holborn and subsequently director of the combined school of orthoptics at both branches of Moorfields.He became president of the ophthalmic section of the Royal Society of Medicine and of the Ophthalmological Society of the United Kingdom. He wrote the sections of *Anatomy* and of *Ocular Motility and Strabismus* of →Duke Elder's *System of Ophthalmology*, he co-authored two other textbooks and wrote: *Concise Textbook of Ophthalmology*.He published countless articles on various subjects of which the latest became more focused on squint management.The Times, London May 16,1992.

# X

**Xia, Dezhao (1918- )** Chinese ophthalmologist, Professor of Ophthalmology, the First Clinical College, China Medical University, Shenyang. He graduated from Man-Zhou Medical University in 1941, studied Ophthalmology under Prof. SASAKI Toichiro and OHISHI Siyozo. He served as the Professor and Chairman of the Department of Ophthalmology of the First Clinical College of the University in 1949—1983. Currently, he serves as the Director of School for Doctor's degree (1986—1998), and the Editor-in-Chief of *Chinese Journal of Practical Ophthalmology* since 1983. He is a member of the Ophthalmological Society of People's Republic of China (1954-) and served as a Standing Committee Member in 1985-1995. He wrote "*Ophthalmology*. 3rd Ed. Edition, 1989" and "*Eye section in Surgical Anatomy*, Edition 1992". (Department of Ophthalmology, China Medical University, Shenyang, China 110001) (SM)

**Xie, Lixin (1942- )** Chinese ophthalmologist, Vice President (1996- ) of the Shandong Academy of Medical Science, Director and President (1990- ), Institute of Ophthalmology and Eye Hospital, Shandong Academy of Medical Science, Professor and President of the Affiliated Eye Hospital, Medical College of Qingdao University . He graduated from Shandong Medical University in 1965 and received his postgraduate training at the Shandong Provincial Hospital in 1974-1975. He further studied as a Corneal Research Fellow, LSU Eye Center, New Orleans, USA during 1987-1988. On home coming, he served as the Head and Associate Professor at the Department of Ophthalmology, Weifang Medical College (1987-1988). He has been in the present position as above since 1990, and he conjointly serves as the President and Professor of Ophthalmology of the Affiliated Eye Hospital of the Medical College of Qingdao University (1994-), Visiting Professor to the No.2 Clinical College of Beijing Medical University (1995-) and Visiting Professor to the LSU Eye Center, New Orleans, U. S. A. (1999-). He has been also responsible for Doctor of Medicine training of the Medical College of Qingdao University (1998-) and of the Beijing Medical University (1997-). He is also the Chairman of the China Eye Bank Association since 1985 and is responsible for organizing and supervising nationwide eye bank programs. Other professional positions include Member, Fifth Judgement group of China Natural Science Foundation Vice Chairman, Corneal Disease Symposium of Chinese Medical Association, Member, Cataract Symposium of Chinese Medical Association, Associated Member, Qingdao Branch of Society of Ophthalmology, Chinese Medical Association, Member, Shandong Branch of Chinese Health Rehabilitation Association, Member, Shandong Medical Science Committee, Permanent Council,

Qingdao Branch of Chinese Medical Association. He serves on the Research Board of Advisor: The Board of directors, Governing Board of editors and Publications of the American Biographical Institute and is a member of the U.S. Chinese Medical Association, American Ophthalmology Association, Asian-Pacific Society of Cornea & Refractive Surgery and Board member of International Ocular Surface Society. He works as an editor to *Chinese Journal of Ophthalmology*, *Ophthalmology in China*, *Chinese Journal of Behaviour Medicine*, *Recent Advances in Ophthalmology*, *Chinese Ophthalmic Research*, *Journal of Clinical Ophthalmology*, *Chinese Journal of Strabismus & Pediatric Ophthalmology*, *Journal of Injuries and Occupational Diseases of the Eye with Ophthalmic Surgeries*. He has published more than 200 original papers and some examples of recent articles are " *Evaluation of PKP to fungal keratitis*. Chinese Journal of Ophthalmology. 1999,35:386", " *The advanced understanding of gene therapy for corneal disease*. Foreign Medical Science 1999,23:257", " *Two cases for intraocular lens power calculation error after micro lamellar keratectomy*. Chinese Journal of Ophthalmology. 1999,35:472" and " *The surgical management for the ruptured globes following radical keratectomy* (report three cases ). Journal of Injuries and Occupational Diseases of the Eye with Ophthalmic Surgeries 1999,21:553". For the excellence of his scientific contributions, he received many Honor Awards from local, national and international Organizations, e.g. Excellent worker, Chinese Health Bureau (1995), The first class award of the Chinese Ophthalmology Association (1998), The deputy to 9th National People's Congress (1998) and Achievement award, LSU Eye Center (1999). (Director & President, Institute of Ophthalmology & Eye Hospital, Shandong Academy of Medical Science, 5 Yanerdao Road, Qingdao 266071 P.R.China. Phone: +86-532-5896622; Fax. +86-532-5881212; E-mail: lixinjie@public.qd.sd.cn )

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**Yaguchi, Shigeo (1949- )** Japanese ophthalmologist, Professor and Chairman of the Department of Ophthalmology, Showa University Fujigaoka Hospital. He was a graduate of Showa University in the year 1973; he studied Ophthalmology at the Graduate School of Medicine of the University under Prof. FUKADO Yoshinao and completed the course in 1977 with the Doctor of Medical Sciences granted from the University (thesis: *Electron microscopic study of the anterior chamber angle in rabbits with experimental steroid glaucoma*. J. Jpn. Ophthalmol. Soc. 881: 900, 1977). He was promoted to Assistant Professor in 1985 and was appointed to the present position as above in 1991. He has worked extensively in ocular surgery and published more than 180 original articles in the field. Some examples are " *Ocular Surgery Illustrated*. Vol. 2: p.124, *Cataract surgery - Secondary structure of the Intraocular Lens*. Medical View Publ. Tokyo 1991" and " *Ophthalmology Out-patient series I, Cataract*. Medical View Publ. Tokyo 1998". Besides being a member of many National professional Societies, he is a member of American Society of Intraocular Lens Implant and Refractive Surgery. (Department of Ophthalmology, Showa University Fujigaoka Hospital. Fujigaoka 1-30, Yokohama, 227-8501, Japan. Phone & Fax: +81-4-5971-8130)(SM)

**Yaisawang, Sudarat (1949- )** Thai ophthalmologist, Associate Professor of Ophthalmology, Faculty of Medicine, Chulalongkorn University, Chief of the Strabismus Clinic. She graduated from the Faculty of Medicine, Chulalongkorn University in 1973 and received her M.D. degree. After having completed residency training at Chulalongkorn University, she received the Diploma of the Thai Board of Ophthalmology and extended her studies in Strabismus at the University of Freiburg, Germany (1980-1981) and also at Wills Eye Hospital, Philadelphia, U. S.A. (1994). She has been in the present position since 1977. She served on the Organizing Committee of the 8th Asia-Pacific Academy of Ophthalmology (APAO) in 1981, and as the Head of the Thai Red Cross Eye Specialist Surgical Team to provide medical service to Cambodian refugees (1982-1993). She also served the Royal College of Ophthalmologists of Thailand as the Treasurer (1992-1996) and the Ophthalmological Society of Thailand as the Secretary and Treasure (1994-1995). Some examples of her scientific publications are " *Trachomatous entropion correction, use of orbital septum and levator aponeurosis*. Arch. Ophthalmol. 96: 874, 1978", " *Common intraocular parasites at Chulalongkorn Hospital*, Proc. VIII Congress of APAO p.975, 1981", " *Ophthalmic problems among Cambodian refugees*. Proc. APAO 1991, *Current Aspects in Ophthalmology*, ed. K. Shimizu, Vol. 1: p74, Excerpta Medica, 1992", " *No needle sub-Tenon's anesthesia for strabismus surgery*.

Chula. Med. J. 41: 429, 1997” and “*Inferior oblique myectomy: a simple surgical technique and results*. Chul. Med. J. 37:307, 1993”. She received, for her outstanding service, The First International Humanitarian Service Award from the American Red Cross (1988) and Distinguished Service Award of the APAO(1999).(Department of Ophthalmology, Chulalongkorn Hospital Rama IV Road, Bangkok 19500, Thailand; phone: 662-2528290, fax: 662-2528290) (SM)

**Yamada, Eichi (1922-)** Japanese anatomist and cell biologist, a graduate of Kyushu University, Faculty of Medicine in 1945, studied at the Department of Anatomy of the University and received his Doctor of Medical Sciences in 1950 from the University, and he was promoted to Associate Professor. He was then appointed the Professor of Anatomy of Kurume University in 1956. In 1960 he moved to be Professor at Kyushu University and served for 10 years. In 1970 he was invited to be the Professor of Anatomy at Tokyo University and worked until retirement in 1983, whereupon he was entitled Professor Emeritus of Tokyo University. In 1970-71, he carried out research at the Jules Stein Eye Institute, Los Angeles, U.S. A. and after retirement from Tokyo University, he was asked to be Visiting Professor to Yale University. He was invited to Fukuoka University in 1983 and served until 1993. His research interest was in the fine structure of the retina, and many publications include “*The fine structure of the horizontal cells in some vertebrate retinae*. Cold Spring Harbor Symposium, 30:383, 1965” and “*Morphology of vertebrate photoreceptors*. Methods in Enzymology 81:3, 1982”. He has been granted many awards for his outstanding contributions, e.g. *Seto Award* (1958), *Yamaji Award* (1969), *Fujiwara Award* (1992) and *Legiao de Honora Guseppe Garibaldi* (from the Brazilian Government, 1991). In conjunction with the International Congress of Anatomy in 1975, he held a symposium “*The Structure of the Eye III*” and served as the President: the Proceedings edited by him were published by the Japanese Journal of Ophthalmology. He is the member of Japanese Association of Anatomists and Japanese Society of Electron Microscopy and Honorary Member of American Association of Anatomists and of American Society for Cell Biology. (Shin-Koga Hospital, Electron microscopic Laboratory, Tenjin machi Kurume, 830-0003, Japan; phone: 81-9-4238-2222, fax: 81-9-4238-2255, e-mail: kyokokhp@kurume.ktarn.or.jp )(SM)



Kunihiko Yamada

**Yamada, Kunihiko (1889-1927)** Japanese ophthalmologist, Professor of Ophthalmology of Kanazawa University. He graduated from Tokyo University in 1916 and studied Ophthalmology under Prof. →KOMOTO Jujiro. He was then invited to be a Lecturer at Kanazawa University and was promoted to be Professor in 1921 as the successor of Prof.→TAKAYASU Mikito. He studied in Germany for 2 years in 1921-1923 and on his homecoming he received the degree Doctor of Medical Sciences from Tokyo University (thesis: Studies of autolytic substances in the eye). Unfortunately he died in 1927 at the age of 39.[SM]

**Yamaguchi, Hidetaka (1866-1916)** Japanese ophthalmologist, Founder of Taipei Medical School, presently National Taiwan University. He graduated from Tokyo University in 1889 and was invited to the Taipei Hospital as the First Director in December 1896 and contributed greatly to the hygiene of people in Taiwan. He strongly insisted on the need of a Medical School and established a course for the teaching of Medicine in 1897. This course was officially recognized and the Taipei Medical School was founded in 1899. Due to difference of opinion from those of the Government, he had to leave Taipei in 1901 before the first class of his students graduated from the School. He then went to the University of Freiburg and studied Ophthalmology under Prof.Th.→Axenfeld during 1902-1904. On his homecoming he received the degree Doctor of Medical Sciences from Tokyo University in 1906 (thesis: *Ein Beitrag zur Pathologie des Sehnerven bei Hirnerkrankungen. I: Recidivierende Stauungspapille mit Thrombose der Vena centralis Retinae bei einem Sarkom des Stirnhirns. II: Menstruationstoerungen und Sehnervenatrophie bei basalen Tumoren*. Klin. Mbl. Augenheilkd. 41: 180, 1903.) His contribution to Taiwan was exalted on the occasion of the Centennial Festivities of the National Taiwan University Hospital in 1995.[SM]



Hidetaka Yamaguchi

**Yamakawa, Ryoji (1952- )** Japanese ophthalmologist, Professor and Chairman of the Department of Ophthalmology, Kurume University School of Medicine. He was a graduate of Kyoto University in 1979, and he studied Ophthalmology under Prof.

TSUKAHARA Isamu and HONDA Yoshihito: he received his Doctor of Medical Sciences in 1989 (thesis: *Involvement of fibronectin in in-vitro regeneration of retinal pigment epithelium*. Graefe's Arch. Clin. Exp. Ophthalmol. 226: 11-14, 1988). He extended his studies during 1986-1988 at the Doheny Eye Institute of the University of Southern California under Prof. Stephen J. Ryan (thesis: *Investigations on contractile properties of retinal pigment epithelial cells*. Ophthalmologica 199: 165-172, 1989). He worked in 1989-1992 as the Director of the Eye Clinic of Kokura Memorial Hospital in Kitakyushu, in 1992-1996 as the Assistant Professor of Ryukyu University, in 1996-1999 as the Director of the Eye Clinic of Tenri Hospital, Nara. He has been in the present position as above since 1999. He is a Councillor of the Japanese Ophthalmological Society, and a member of many Japanese professional Societies and of international Societies, e.g. International Society for Eye Research, the Association for Research in Vision and Ophthalmology and many others. His research interest is in retinal problems, and his many publications embrace "*Chick retinal pigment epithelium exhibits glutathione requiring prostaglandin D2 synthetase activity*. Invest. Ophthalmol. Vis. Sci. 27: 1058, 1986" and "*Involvement of fibronectin in in-vitro regeneration of retinal pigment epithelium*. Graefe's Arch. Clin. Exp. Ophthalmol. 226: 11-14, 1988". (Department of Ophthalmology, Kurume University School of Medicine, 67 Asahi-machi, Kurume, 830-0011, Japan. phone: +81-942-31-7574, fax: +81-942-37-0324, e-mail: ryamak@med.kurume-u.ac.jp )(SM)

**Yamamoto Yukio (1927- )** Japanese ophthalmologist and philanthropist. He was a graduate of Tokyo Medical and Dental University in the year 1949 and completed the course of the Graduate School of Medicine under Prof. OHTSUKA Jin in 1952 with Doctor of Medical Sciences granted (thesis: *Studies of myopia and physique*. I, II, III, J. Jpn. Ophthalmol. Soc.(JJOS) 56: 238, 241, 317, 1952). He developed a new electronic tonometer to study microundulation of the intraocular pressure in 1952 (JJOS 57: 881, 1953) and published the World's *first* ultrasonographic measurement of the axial length of the eye (JJOS 64: 1333, 1960). He served the Japanese Society of Ultrasonics in Medicine as Executive Director (1987-) and the President (1987), and he is an Honorary Member of the International Society of Ophthalmic Ultrasound (SIDUO). He served as the Director of the Tokyo Tama Hospital for Senior Citizens (1986-1991). Whilst having busy duties at the Hospital, he has organized every year since 1982, Ophthalmic Teams to the Micronesian Islands (supported by Yomiuri Foundation for Light and Love) and has seen more than 20,000 patients and performed more than 2,000 surgical treatments including cataract. For these philanthropic activities, he received the Exaltation Award from the Ministry of Foreign Affairs of Japan in 1995. In recognition of his meritorious service, the Government of Japan conferred on him the Third Order of the Sacred Treasures in 1997.(SM)



Kakuji Yamamoto

**Yamamoto, Kakuji (1923-1986)** Japanese ophthalmologist, Professor of Ophthalmology of Kawasaki Medical School. He graduated from Okayama University in 1954, studied Ophthalmology under Prof. AKAGI Goro and received the degree Doctor of Medical Sciences in 1959 (thesis: *Studies of bicarbonate in the aqueous humor and serum*, in 4 papers, J. Jpn. Ophthalmol. Soc.61: 2151,1957; 62: 363, 1958; Folia Ophthalmol. Jpn. 9: 541, 1958; ibid. 9:667, 1958). He was appointed Lecturer of Okayama University in 1959 and Assistant Professor in 1962. He was then invited to Kawasaki Medical School as the Professor of Ophthalmology in 1971 and served until his death. He had joint appointment as the Vice-Director of the Kawasaki Hospital since 1982. He studied in 1970-1971 in Ghent under Prof. J.→Francois. His interest in research covered many areas of Ophthalmology and carried out works on the basis of his biochemical knowledge and skill. He gave a lecture "*Biochemical studies of the causes of retinal pigmentary degeneration*. J. Jpn. Ophthalmol. Soc. 73: 2495, 1969" at the 73rd Congress of the Japanese Ophthalmological Society in 1969, and "*Aging of the human lens and the mechanisms of senile cataract formation – about structural lens crystallin -*, J. Jpn. Ophthalmol. Soc. 86: 1859, 1982" at the 86th Congress of the Society. He also gave a lecture "*Aging of the lens and the mechanism of formation of senile cataract*" at the 34th Congress of the Japanese Society of Clinical Ophthalmology. He was one of the founders of the *Japanese Society of Cataract Research* and organized the 11th Congress of this Society as the President in 1985. In recognition of his contributions to cataract research,

the American Society of Cataract Research granted him the International Award in 1983.[SM]

**Yamamoto, Misao (1936- )** Japanese ophthalmologist, Professor Emeritus of Kobe University. He is a graduate of Kobe University in 1960, studied Ophthalmology at the Graduate School of Medicine under Prof. →IMACHI Jo and Prof. →ISAYAMA Yoshimasa and completed the course with Doctor of Medical Sciences granted in 1965 (thesis: *Biochemical studies on experimental arachnoiditis.: respiration and glycolysis in the spinal cord of rabbits with talcum arachnoiditis.* J. Jpn. Ophthalmol. Soc. 69: 1618, 1965). He has served as the Professor and Chairman of the Department of Ophthalmology of Kobe University during 1984-1999; he has also served as the Executive Director of the University (1995-1999) and the Dean of the Medical School of the University (1996-1999). He has held many key positions in National professional Societies, e.g. Councillor of the Japanese Ophthalmological Society (JOS) (1985-1999), Executive Director of the Japanese Society of Pediatric Ophthalmology (JSPO) (1981-1999), President of the JSPO (1989), Executive Director of the Japanese Association of Strabismus and Amblyopia (1978-1999), Japanese Society of Ophthalmological Optics (1987-1999), Japanese Society of Ophthalmic Surgeons (1990-1999) and many others. He is the leading specialist of Pediatric Ophthalmology and he served as Visiting Professor to many Universities and as a member of many Government Councils and Committees. He organized, as the President, the 52nd Congress of the Japanese Society of Clinical Ophthalmology (1998) and many Congresses of National Societies. He is on the Editorial Board of many Japanese Journals and of the Afro-Asian Journal of Ophthalmology (1986-). Some examples of his many publications are "Visual function following congenital cataract surgery. Jpn. J. Ophthalmol. 42: 411, 1998", "Differential expression of nitric oxide synthetase isoforms in form-deprived chick eye. Curr. Eye Res. 17: 586, 1998" and "Editor of *Surgery in Pediatric Ophthalmology*. Nakayama Shoten, Tokyo, 1998". He is an Honorary Member of the JOS and many Japanese Societies and currently serves as the Director of the Hyogo Prefectural Children's Hospital. (Director, Hyogo Prefectural Children's Hospital, Takakura-dai 1-1-1, Suma-ku, Kobe, 654-0081, Japan. phone: +81-7-8732-6961, fax: +81-7-8735-0910)(SM)



Seiichi Yamamoto

**Yamamoto, Seiichi (1895- 1977)** Japanese ophthalmologist, Professor of Ophthalmology of Kyoto University. He graduated from Kyoto University in 1920, studied under Prof. ICHIKAWA Kiyoshi and received the degree Doctor of Medical Sciences in 1928 (thesis: Effects of removal or stimulation of the sympathetic nerve on the aqueous humor. No.1, J. Jpn Ophthalmol. Soc. 30: 1352, 1926, No.2, ibid. 32: 97, 1928, No. 3, ibid. 32: 140, 1928). After having served as the Head of the Eye Clinic of Kitano Hospital in Osaka (1928-1931) and of Osaka Red Cross Hospital (1931-1944), he was appointed Professor and Chairman of the Department of Ophthalmology of Kyoto University in 1944. He maintained the Department during the hard times of World War II and after the War. In spite of the hardship, he carried out research and some examples are as follows: "A method of improving movement of ocular prosthesis. J. Jpn. Ophthalmol. Soc. 52: 137, 1948", "A new finding on the innervation of the oculomotor nerve. ibid. 53: 130, 1949". Unfortunately, he fell ill in 1949 and resigned from the University in 1957.[SM]

**Yamamoto, Toshiyuki (1925-)** Japanese anatomist, a graduate of Tohoku University in 1949, studied at the Department of Anatomy. He received his Doctor of Medical Sciences in 1960, by submitting the thesis "*On the innervation, especially sensory innervation, of the pars pylorica, the duodenum and the pancreas in Formosan macaque.* J. Comp. Neurol. 114: 89, 1960". He was appointed the Professor and Chairman of the Department of Anatomy in 1963 and served until retirement in 1989, whereupon he was entitled Professor Emeritus of the University. His many publications include "Fine structure of the octopus retina. J. Cell Biol. 25: 345, 1965" and "Diurnal changes in synaptic ribbons of rod cells of the turtle. J. Ultrastruct. Res. 86:246, 1984". The Japanese Society of Electron Microscopy granted him the *Sedoh Prize* in 1989 in recognition of his outstanding contributions. He is currently an Honorary Member of the Japanese Association of Anatomists, Councillor of the Japanese Society of Electron Microscopy and of the Clinical Electron Microscopy Society of Japan. ( fax: 81-2-2278-0738, e-mail: tyymamo@cocoa.ocn.ne.jp )(SM)

**Yamanaka, Akio (1930- )** Japanese ophthalmologist, Chairman of the Board and President of the Kobe-Kaisei Hospital. He graduated from Kobe University in 1957, studied Ophthalmology at the Graduate School of Medicine under Prof. →IMACHI Jo and completed the course with Doctor of Medical Sciences granted in 1962. He is a pioneer of Intraocular lenses and vitreous surgery in Japan and has many original articles in the field, e.g. "*Physical and chemical analysis of intraocular lens material*. Am. Intra-Ocular Implant Soc. J. 5: 131, 1979", "*Scanning electron microscopic study on the biodegradation of IOL and suturing*. Trans. Ophthalmol Soc. U.K. 104: 517, 1984", "*Biocompatibility* in (ed.) S.P.B.Percival, *A colour atlas of lens implantation*: 219-222, 1991", "*Epitome and Operation Report of Committee for Intraocular Lens Implant Data System*. IOL & RS. Vol. 12: 111, 1998" and "*Complication of vitrectomy: surgical management of intraocular foreign bodies*. (Ed.) Mizuno, K. Excerpta Medica, International Congress Series, p.239-241, Amsterdam, 1985". His professional activities embrace Councillor (1987-1997,1999-) of the Japanese Ophthalmological Society, Executive Director (1985-) of the Japanese Society of Intraocular Lens Implant and Refractive Surgery, Executive Director (1990-) and the Vice-President (1991-1996), President of the 15th Congress (1993) of the Japanese Society of Biomaterial, Vice-president of the International Intraocular Implant Club (1992-1993) and the President of the Interdisciplinary Club for Biomaterials in Ophthalmology (1996-1999). He also serves as an Expert Member of the ISO 174 (1997-) for international standardization of intraocular lens and intraocular tamponade. He contributes towards education as Visiting Professor of Mie University, Showa University, Kobe University and Hyogo College of Medicine. For the excellence of his works, he received Le Prix de Medaille d'Association Francaise des Implants Intra-Oculaires, Fellowship of Biomaterials Science and Engineering from the International Liaison Committee of multinational societies. (Chairman of the Board and President, Kobe Kaisei Hospital: Shinohara-kita-machi, Nadaku, Kobe, 657-0068, Japan. phone: +81-7-8871-5201, fax: +81-7-8871-5206, e-mail: yamanaka@kobe-kaisei.org )(SM)



Hiroshi Yamane

**Yamane, Hiroshi (1895-1945)** Japanese ophthalmologist, Professor of Nagasaki University. He graduated from Kyoto University in 1921 and studied Ophthalmology under Prof. ICHIKAWA Kiyoshi. He was invited to be Assistant Professor of Nagasaki University by Prof. ASANYMA Takeo, and served until 1942 when he was promoted to Professor and Chairman of the Department of Ophthalmology. He received the Doctor of Medical Sciences from Nagasaki University in 1932 (thesis: Experimental studies of retinal detachment). He died on August 9th 1945 from the atomic bomb.[SM]

**Yamanouchi, Uichi (1925- )** Japanese ophthalmologist, Professor Emeritus of Oita Medical University. He graduated from Nagasaki University in 1951, studied Ophthalmology under Prof. HIROSE Kinnosuke and received his Doctor of Medical Sciences in 1960 (thesis: *Sebaceous glands of eyelids in Japanese – A morphological study*. Nagasaki Medical Journal. 35:958-967, 1960). He was appointed the Lecturer at the Nagasaki University in 1963, and spent one year (1968-1969) at the Bascom Palmer Eye Institute as a visiting Researcher. In 1972, he was promoted to Assistant Professor of the Nagasaki University, and in 1979 he was invited to be Professor and Chairman of the Department of Ophthalmology of Oita Medical University and he founded the Department. During his tenure until retirement in 1991, he served to the University as the Director of the University Library (1987-1991). He has served the Japanese Ophthalmological Society (JOS) as a Councillor since 1977 and worked as an Examiner of the Board of the JOS. He is an Honorary Member of the Society. He has published many original works on retinal diseases, and some examples are "*Monocular indirect argon laser photocoagulator*. J. Jpn. Ophthalmol. Soc. 86:2019, 1982", "*Clinical application of monocular indirect argon laser photocoagulator*. Acta Med. Nagasakiensia 28: 89,1983", "*Scleral changes induced by instillation of Mitomycin-C*, Acta Med. Nagasakiensia 28:99, 1983", "*Choroidal detachment*. Folia Ophthalmol. Jpn.3 2:22, 1981" and "*Postoperative choroidal detachments development and mechanisms*, Jpn. Rev. Clin. Ophthalmol. (Ganka Rinsho Iho) 80:2365, 1986". He is also an expert on the History of Ophthalmology in Japan and is a member of the Japanese Society of History of Medicine. He is the co-author of the "*History of Ophthalmology in Japan*; Centennial commemorative publication of the JOS, 1997".(SM)

**Yamashita, Hidetoshi (1955- )** Japanese ophthalmologist, Professor and Chairman, Department of Ophthalmology of Yamagata University. He graduated from Tokyo University in 1981, studied Ophthalmology at the University under Prof. →MISHIMA Saiichi and received his Doctor of Medical Sciences in 1986 (thesis: *Glial cells in culture of preretinal membrane of proliferative vitreoretinopathy*. Jpn. J. Ophthalmol. 29: 42, 1985; *Microfilaments in preretinal membrane cells of proliferative vitreoretinopathy*. ibid. 29: 394, 1985; *Population and proportion of component cells in preretinal membranes*. ibid. 30: 269, 1986). He extended his postdoctoral study at Ludwig Institute for Cancer research, Biomedical Center, Uppsala, Sweden during 1992-1994. He served as the Lecturer at Tokyo University (1987-1992, 1994-1999) and was appointed to the present position as above in 1999. His interest in research is in cytokines and growth factors in the eye, diabetic retinopathy and cornea, and some examples of his publications are "Vascular endothelial growth factor in diabetic retinopathy. Lancet 349: 1520, 1997" and "Osteogenic protein-1 binds to activin type II receptor and induces certain activin-like effects. J. Cell Biol. 130: 217, 1995". He delivered a special report to the 101st Congress of the Japanese Ophthalmological Society (*Functions of the transforming growth factor- $\alpha$  superfamily in eyes*. J. Jpn. Ophthalmol. Soc. 101: 927-947, 1997). He is a member of the International Society for Eye Research and Association for Research in Vision and Ophthalmology. (Department of Ophthalmology, Yamagata University, Iida-nishi, Yamagata, 990-9585, Japan. phone: +81-2-3628-5374, fax: +81-2-3628-5376, e-mail: hyama-ky@umin.u-tokyo.ac.jp )(SM)

**Yan, Mi (1931- )** Chinese ophthalmologist, Professor and Director of the Department of Ophthalmology, The First University Hospital, West China University of Medical Sciences. He graduated from West China University of Medical Sciences in 1956 with an M.D. degree granted. He further extended his study as a Visiting Scholar at Scheie Eye Institute, University of Pennsylvania and Wilmer Eye Institute, Johns Hopkins University during 1982-1983. He has been in the present position since 1987 and he has many conjoint appointments, e.g. Member of Standing Committee of Chinese Ophthalmology Society (1988-), Chairman of Retina Association of Chinese Ophthalmological Society (1992-). Chairman of Sichuan Ophthalmological Society (1993), Vice-Chairman of Chengdu Laser Association (1996-), Vice-chief Editor (1985-1997) and Editor-in-Chief of Chinese Journal of Ocular Fundus Diseases (1997-) and Editorial Member of 8 National Ophthalmological Journals. He has published more than 50 original papers and written many books: some examples are "Neuro-ophthalmology in: *Clinical Neurology*, Chengdu, Sichuan People's Publishing House, 1980" and "Macular Diseases, in *New Concepts of Ophthalmology*, Beijing, People's Health Publishing House, 1991". He was the editor-in-chief of the *Textbook of Ophthalmology* of the 4th edition, which was published by Beijing, People's Health publishing House in 1966, and he was also the editor-in-chief of the *Neuro-Ophthalmology* of Vol.10 of the *Ophthalmology Encyclopedia*, which was published by People's Health Publishing House, in 1966, in Beijing. He is a recipient of many Honor Awards for his scientific achievements, e.g. Awards from the Ministry of Health (1979,1980,1996-1997) and from Tibet Science and Technology Committee (1989). (Department of Ophthalmology, The First University Hospital, West China University of Medical Sciences, Chengdu Sichuan, 610041, People's Republic of China. phone: +86-28-5422543; fax: +86-28-5422543, e-mail: ophthalm@mcwcums.com )

**Yan, Xiaoming (1961- )** Chinese ophthalmologist, Associate Professor and Acting Chairman of the Department of Ophthalmology, The First Hospital, Beijing University Medical School. She graduated from Sun Yat-sen University of Medical Sciences in 1984 with M.D. degree granted, and further studied at Beijing University Medical School and received her Ph.D. degree. She worked as a Visiting Scholar at Memphis Eye & Cataract Associates, Memphis, TN in 1996 and at Ophthalmic Pathology Laboratory, UIC Eye Center, Chicago during 1997-1998. She is a member of The Association for Research in Vision and Ophthalmology USA and Chinese Medical Association for Ophthalmology. Some example of her recent publications are "Xiaoming Yan et al: *Ocular calcification: Radio-pathologic correlation and review of the literature*. International Journal of Neuroradiology 1998;4(2):81", "Xiaoming Yan et al: *Matrix metalloproteinases (MMPs) in glaucoma*. Invest. Ophthalmol. Vis. Sci.1998;39(4):917", "Xiaoming Yan et al: *Clinical research in the treatment of herpes simplex keratitis with gancyclovir*. Chinese Journal of

Practical Ophthalmology. 1997;15(7):426", "Xiaoming Yan et al:*Keratoconus*. Chinese Journal of Practical Ophthalmology 1997;15(5):300" and "Xiaoming Yan et al:*Comment on lomefloxacin eye solution treating bacteria infection in external eyes*. Ophthalmology in China 1997;4(6)210". (Xiaoming Yan, MD, PhD: Acting Chairman, Department of Ophthalmology, The First Hospital, Beijing University Medical School, P.R.China. phone: +86-10-66171122-3418; Fax: +86-10-66176450, E-mail: xymwzhou@bj.col.com.cn )

**Yanaura, Saizo (1917-)** Japanese pharmacologist working on the eye, Professor Emeritus of Hoshi University of Pharmacy. He is a graduate of Tokyo Medical Collage in 1954 and he studied Pharmacology at the University which granted him Doctor of Medical Sciences in 1959. He has been interested in Ocular Pharmacology and is one of the Founders of the Japanese Society of Ocular Pharmacology and served as the President in 1986-1988. He organized the 4th Meeting of the Society as the Congress President. He carried out many joint projects with the Department of Ophthalmology of Tokyo University. His many publications in pharmacology include "A method of inducing and recording cough and examination of the action of some drugs with this method". Jpn. J. Pharmacol. 9: 46, 1959" and "Screening method for drug dependence liability using admixed food (DAF) method." Pharmacol. Therap. 5: 511, 1979". He is the Honorary Member of the Japanese Society of Pharmacology, Japanese Society of Neuropharmacology and Japanese Society of Ocular Pharmacology. He is a recipient of the Award from the Japanese Society of Pharmacology and the Japanese Society of Pharmacists. (e-mail: yanaura@mb.infoweb.ne.jp )(SM)



Yen-Fei Yang

**Yang, Yen-Fei (1922-1997)** Taiwanese ophthalmologist, regarded as the father of Ophthalmology in Postwar Taiwan. He graduated from Taihoku Imperial University (now National Taiwan University) under Japanese rule in 1932, and studied Ophthalmology under Prof. A. MOTEGI. After the end of the World War II, he was appointed the Professor of Ophthalmology of the National Taiwan University in 1946 and stayed in this position until retirement in 1981. In 1954, he studied for one year at the Sheie Institute of the University of Pennsylvania. He established the Ophthalmological Society of ROC and served as the President and trained many capable Ophthalmologists in Taiwan and gave distinguished service for the Eye health of the public. During his tenure at the University, he served as the President of the Chinese Medical University at Taichung, and also had joint appointment as the Research full-time Professor of the National Science Council of Executive Yuen. In 1981, he was entitled Professor Emeritus of National Taiwan University. His many publications include "Surgical treatment of retinal detachment, Trans. Ophthalmol. Soc. ROC.10: 41, 1971, and "Epidemic hemorrhagic keratoconjunctivitis. Am. J. Ophthalmol. 80: 192, 1975.(SM)

**Yarr, Sir Michael Thomas (1862-1937)** British Army Medical Service ophthalmologist. Yarr was an Irishman. He was born at Cloughjordan, Co. Tipperary and was educated in Ireland. He qualified L.R.C.P.L and L.M. in 1882, and twelve years later took the F.R.C.S.I. In 1886, he entered the Army Medical Service and was promoted Surgeon-Major in 1898; Lieut-Col., R.A.M.C., 1906; Colonel, 1915; temporary Surgeon-General, while D.M.S., 1916. He was seconded for service under the Siamese Government from 1895 to 1900, and for service on the staff of the government of Bombay, 1903-1907. Yarr served in the South African War, 1900-1901, and in the Great War as A.D.M.S. and D.D.M.S. to the Mediterranean Expeditionary Force. He was decorated with the C.B. (military) and was made K.C. M.G. in 1917, and was Knight of Grace of the Order of St. John of Jerusalem. In his early years he worked at Moorfields where he held the post of Chief Clinical Assistant and he became a member of the Ophthalmological Society of the United Kingdom in 1896. To its Transactions he communicated important papers on "Indirect Gun-Shot Injuries," and on "Lightning Injuries of the Eye, 1901-1902. Besides this he was the author of a *Manual of military ophthalmology*, and he contributed papers to the Brit. Med. J. on the *Ocular Manifestations of Leprosy and Trachoma and Race*. BJO 1937,21:333-334.

**Yasuda, Kunio (1942-)** Japanese biologist, Professor at Graduate School of Biological Sciences, Nara Institute of Science and Technology (NAIST). He graduated from Kyoto University in 1967, studied at the Department of Physics (1966-1971) and received his M.Sc. degree. He further studied at the Department of Biophysics, Faculty of Science of

Kyoto University under Prof. OKADA Tokindo and received his Ph.D. degree in 1979 (thesis: *Transdifferentiation of "lentoid" structures in cultures derived from pigmented epithelium was inhibited by collagen*. Develop. Biol. 68: 618-623, 1979). He has been Research Fellow (1971-1972) at Kyoto University, Instructor in Developmental Biology, Department of Biophysics (1972-1986) and Associate Professor in Molecular Biology (1986-1993) at the Faculty of Science of Kyoto University. He has been in the present position since 1993, Professor in Molecular and Developmental Biology of NAIST. He served as a Senator to NAIST during 1994-1998. He published many original articles in his field and two examples of his publications are "*Tissue-specific expression of a cloned d-crystalline gene in mouse lens cells*. Nature 301, 440-442, 1983" and "*Induction of lens differentiation by activation of a bZIP transcription factor L-Maf*. Science 280: 115-118, 1998". He is a member of the Japanese Society of Developmental Biology, the Japanese Society of Molecular Biology, American Association for Advancement of Science, American Society for Developmental Biology and a foreign Fellow of Indian Academy of Science. (Laboratory of Molecular and Developmental Biology, Graduate School of Biological Sciences, Nara Institute of Science and Technology, 8916-5 Takayama, Ikoma 630-0101, Japan; phone: 81-743-72-5550, fax: 81-743-72-5559, e-mail: kyasuda@bs.aist-nara.ac.jp)(SM)

**Yasuhara, Hajime (1945-)** Japanese pharmacologist working on drug metabolism and the eye, Professor and Chairman of the Department of Pharmacology of Showa University. He is a graduate of Showa University in 1970 and studied at the Department of Pharmacology of the Graduate School of Medicine of the University: he received his Doctor of Medical Sciences in 1974. He spent 2 years at the Department of Pharmacology and Anaesthesiology of the University of Kansas, U.S.A. (1976-1978) and also at the Department of Clinical Pharmacology of Royal Postgraduate Medical School of the University of London, U.K. (1982-1983). He is active in many professional societies, e.g. he is the Auditor of the Japanese Pharmacological Society since 1999, Board of Directors of the Japanese Society of Ocular Pharmacology since 1994; he served as the President of the 16th Congress of the latter Society in 1996. He is also an active member of many other domestic Societies and of American Society for Pharmacology and Experimental Therapeutics (1985-) and of the New York Academy of Sciences (1985). He is the Editor in Chief of the Showa University Journal of Medical Sciences since 1995 and on the Editorial Board of Biogenic Amines (1985-) and Asia Pacific Journal of Pharmacology (1986-). His publications include "*Ocular hypotensive effects of monoamine oxidase-A inhibitors in the rabbit*. Jpn. J. Ophthalmol. 32:21, 1988" and he edited "*Monoamine oxidase: basic and clinical aspects*" VSP Netherland 1993 and has an article "*Localization and activity of multiple forms of MAO in the human eye*" of 137 pages in this book. (2nd Department of Pharmacology, Showa University Medical School. 15-8 Hatanodai, Shinagawa-ku, Tokyo, 142-0064, Japan; phone: 81-3-3784-8127, fax: 81-3-3784-3200, e-mail: yshajime@med.showa-u.ac.jp )(SM)

**Yeo, Kim-Teck (1958- )** Singaporean ophthalmologist, Senior Consultant in Vitreoretinal Surgery and Phacoemulsification Surgery Trainer. Graduated from National University of Singapore in 1982. Obtained FRCS (Edinburgh) in 1988. Received training in vitreo-retinal subspecialty at The Moorfields Eye Hospital (Professors Alan Bird & Peter Hamilton ) and the University of Nijmegen ( Professors August Deutman & F. Hendriske). Dr. Yeo is a founder member of the WorldEyes — a foundation dedicated to the Prevention of Blindness and he is also on the Editorial Board of the Asia-Pacific Journal of Ophthalmology. His main area of work is in the management of vitreo-retinal diseases in particular in the management of diabetic retinopathy, retinal detachment as well as Phacoemulsification and vitrectomies in diabetics. He also has a keen interest in the Prevention of Blindness (POB) particularly from diabetic retinopathy and was instrumental in starting a Retinal Photography Programme with the Ministry of Health to screen for diabetic retinopathy in 1991. This on-going programme in 7 Polyclinics has to-date performed nearly 100,000 screenings, one of the largest programme of its kind worldwide. Publications in the area of POB include "*Meeting the Challenge of Diabetic Blindness in the 90's*" ( Singapore Medical Journal June 93 Vol 34 ) , "*Mass Screening of Diabetic retinopathy in the Prevention of Blindness*" ( Asia- Pacific Journal of Ophthalmology Vol 7 No.4 Oct 1995) and "*Interview with Professor Arthur SM Lim on*

*Mass Cataract Blindness*" (Book article - *Vision for the World*, ASM Lim). Dr. Yeo spoke at a symposium on diabetic retinopathy screening at the XXVIIth ICO Conference in Toronto in 1992. Also delivered the Singapore National Report on FOB at a WHO Conference in Japan (1993). Awarded a Best-Poster Prize for the Management of Diabetic Macular Edema in 1995 at the APAO (Asia-Pacific Academy of Ophthalmology) meeting in Hong Kong. Nominated and received an Asia-Pacific Prevention of Blindness Award in Manila at the APAO conference (1999). Appointed to the Review committee on the management of Diabetes Mellitus by the Ministry of Health in Singapore (1999). (Dr. Kim-Teck Yeo: Singapore National Eye Centre, 11 Third Hospital Avenue, Singapore 168751, Singapore. Phone: (65)2277255; Fax: (65)2277290) (SM)

**Yeoh, Ronald Lam Soon (1956- )** Singapore ophthalmologist, Part-time Senior Consultant, Singapore National Eye Centre. Visiting Consultant and Part-time Tutor, National University of Singapore. Consultant Ophthalmologist, Gleneagles Hospital, Singapore. He graduated from St Bartholomew's Hospital, University of London in 1981 and received his postgraduate training in Ophthalmology at St Thomas' Hospital under Mr Tony Chignell. He received his vitreoretinal training from Mr PK Leaver and Prof Alan Bird in Moorfields Eye Hospital, London 1991. He sits on committees in the Asia-Pacific Academy of Ophthalmology (APAO), Asia-Pacific Intraocular Implant Association (APIIA), National Committee of Ophthalmology, Singapore and the Specialists' Training Committee, Singapore. He is an examiner of the Graduate School of Medical Studies, National University of Singapore and an external examiner for the Royal College of Surgeons, Edinburgh and the University Kebangsaan, Malaysia. He is an active teacher in vitreoretinal surgery and phacoemulsification and has conducted numerous instruction courses all over the world. His publications have been in vitreoretinal surgery and phacoemulsification and include "*The 'Pupil Snap' Sign of Posterior Capsule Rupture with Hydrodissection in Phacoemulsification*". Br. J. Ophthalmol., May 1996, 80:486." He wrote a chapter with Prof Arthur Lim: *Atlas of Ophthalmology, Cataract rehabilitation in Asia: the role of extracapsular cataract extraction*. Published by Martin Dunitz Ltd. London 1999. His editorial commitments include: Associate Editor, *Ophthalmologica*, Editorial Board, *Asia-Pacific Journal of Ophthalmology*. He was awarded the APAO Distinguished Service Award in 1995 and the honorary degree of Fellow of the Royal College of Surgeons, Edinburgh (FRCSEd) in 1996. He has also been nominated for the Member of Merit award from the Instituto Barraquer, Barcelona, Spain in 1999. (Dr. Yeoh Ronald Lam Soon: Singapore National Eye Centre, 11 Third Hospital Avenue, Singapore 168751, Singapore. Phone: 65-2277255, Fax: 65-7333360, email: ophylys@leonis.nus.edu.sg)

**Yokoyama, Minoru (1923- )** Japanese ophthalmologist, Professor Emeritus of Mie University. He graduated from Kyoto University in 1947, studied Ophthalmology at the University under Prof. →ASAYAMA Ryoji and received his Doctor of Medical Sciences in 1953 (thesis: *Studies of ocular reflex reactions to various types of injury*. No. 1 - 4. J. Jpn. Ophthalmol. Soc. 57: 285; 836; 1329; 1327, 1953). He was invited to be Assistant Professor of Mie University under Prof. →SUGA Kazuo in 1949 and was promoted to Professor and Chairman of the Department of Ophthalmology in 1974: he served in this position until retirement in 1987. He served as the Dean of the Medical School during 1984-1986. He has been a Councillor of the Japanese Ophthalmological Society (JOS) (1974-1987), Executive Director (1985-1986) and the President of the 90th Congress and the 90th Anniversary of the JOS in 1986. He worked extensively on the Electrophysiology of the visual system, and he received the JOS Award in 1984 (the Award Lecture: *Electrophysiology in the visual pathway and its clinical application*. J. Jpn. Ophthalmol. Soc. 89: 39, 1985). Another example of his works is "*Monochromatic ERGs in a case of progressive cone dystrophy*". Doc. Ophthalmol. Proc. XI ISCERG Symp. 145:-154, 1974". He has been on the editorial board of *Folia Ophthalmol. Jpn.* (1975-1987) and a guest editor to the *Doc. Ophthalmol.* (1986). To commemorate his retirement, his students issued No. 1 of the *Jpn. J. Ophthalmol.* Vol. 31, in 1987 where his selected bibliography can be found. After retirement from the University, he served as the Director of the Matsuzaka City Hospital from 1987 to 1994. He enjoys star watching with his own telescope with the eye of an ophthalmologist: he has confirmed the angle between the Mizar and Alcor of the Ursa major to be 11.8 minutes, and believes the legend that the stars were used to examine vision in ancient times (Burnham's *Celestial Handbook*). (SM)



Daizo Yonemura

**Yonemura, Daizo (1923-1992)** Japanese ophthalmologist, Professor Emeritus of Kanazawa University. He graduated from Kanazawa University in 1946, studied Ophthalmology under Prof. KURACHI Yoshi and received the degree, Doctor of Medical Sciences in 1952 (thesis: *Studies of flicker fusion frequency*, a series of articles in J. Jpn. Ophthalmol. Soc. 55: 244, 1952; *ibid.* 56: 513, 1233, 1246, 1265, 1953). He worked as the Professor and Chairman of the Department of Ophthalmology of Kanazawa University from 1971 to his retirement in 1988: he served as the Director of the University Hospital in 1980-1982. His research interest was electrophysiology of the eye. He discovered Oscillatory Potential of ERG which was reported at the 66th Congress of the Japanese Ophthalmological Society (J. Jpn. Ophthalmol. Soc. 66: 1576, 1962). He made a report of this discovery at the First Symposium of International Society for Clinical Electrorretinogram held in New York in 1962 and J. H. Jacobson invited him to work at the New York Eye and Ear Infirmary for one year. The results of his research for many years were summarized in his Special Lecture "*Studies of the human electrorretinogram*" at the 81st Congress of the Society (J. Jpn. Ophthalmol. Soc. 81: 1632, 1977). He developed many ingenious techniques of recording the early receptor potential and of detecting abnormality of retinal layers (*Electrophysiological study on activities of neuronal and non-neuronal retinal elements in man with reference to its clinical applications*. Jpn. J. Ophthalmol. 22: 195, 1978). Other professional activities include being the Chairman of the Exhibition Committee of the 23rd International Congress of Ophthalmology, President of the 92nd Congress of the Japanese Ophthalmological Society, Special Lecture at the 16th Congress of the International Society for Clinical Electrorretinography (ISCERG) in 1978 (*Study of human electrorretinogram. New approaches to ophthalmic electrodiagnosis*). He received The Culture Award of the City of Kanazawa in 1982. In recognition of his outstanding contributions, the Government conferred on him the posthumous decoration of The Third Order of the Rising Sun.[SM]



Bong Hun Yoon

**Yoneya, Shin (1947- )** Japanese ophthalmologist, Professor and Chairman of the Department of Ophthalmology, Saitama Medical College. He graduated from Iwate Medical College in 1973, and studied Ophthalmology at the Graduate School of Medicine of Gunma University under Prof. →SHIMIZU Koichi. He completed the course with the Doctor of Medical Sciences granted in 1977 (thesis: *Studies of retinal photocoagulation: relationship between the specificity of laser source and the effects of coagulation*. J. Jpn. Ophthalmol. Soc. 81: 829, 1977). He extended his studies in 1979-1981 at the University of Illinois where he studied pathology under Dr. M.O.M. Tso and published "*Angioarchitecture of the human choroid*. Arch. Ophthalmol. 105: 681, 1987". He has been in the present position as above as the successor of Prof. →NOYORI Kimiharu since 1997. His special interest is in vitreoretinal diseases, lasers in Ophthalmology and Ophthalmic pathology: he has many original articles in the field, and an example of his recent publications is "*Binding properties of indocyanine green in human blood*. Invest. Ophthalmol. Vis. Sci. 39: 1286, 1998". He is a Councillor of the Japanese Ophthalmological Society. He is a member of the American Academy of Ophthalmology, The Macular Society, the Association for Research in Vision and Ophthalmology, International Society for Eye Research and European Association for Vision and Eye Research. (Department of Ophthalmology, Saitama Medical College, Moro-Hongo, Saitama-ken, 350-0495, Japan. phone: +81-4-9276-1248, fax: +81-4-9295-8002, e-mail: shin@saitama-med.ac.jp )(SM)



Won Sik Yoon

**Yoon, Bong Hun (1907-1995)** Korean ophthalmologist, Professor and Chairman of the Department of Ophthalmology, Seoul National University. He graduated from Kyongsong Imperial University Faculty of Medicine (now Seoul National University) as the first alumnus. He was appointed the Lecturer of the Department of Ophthalmology of Seoul National University College of Medicine in 1945 and the Chairman of the Department of Ophthalmology of Seoul National University in 1946 until he had retired in 1949. He served as the first President of the Korean Ophthalmological Society. (SM)

**Yoon, Won Sik (1919-1979)** Korean ophthalmologist, Professor and Chairman of the Department of Ophthalmology, Seoul National University. He graduated from Kyongsong Imperial University (now Seoul National University) in 1943. He was appointed the Lecturer of the Department of Ophthalmology of Seoul National University College of Medicine in 1946, and as the Chairman of the Department of Ophthalmology of Seoul

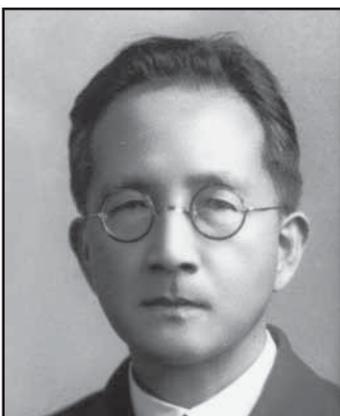
National University College of Medicine in 1961 until he had retired in 1971. He became the Professor of Seoul National University in 1964. He wrote the first Korean Textbook "Ophthalmology" in 1964 and participated as the representative of the Korean Ophthalmological Society to the 22nd Concilium Ophthalmologicum Paris in 1974. His special interest was immunology in Ophthalmology. He served as the President of the Korean Ophthalmological Society from 1964 to 1966. He also served as a councillor on Medical Affairs of the Ministry of National Defense in 1974.(SM)

**Yoshida Akitoshi (1952- )** Japanese ophthalmologist, Professor and Chairman of the Department of Ophthalmology, Asahikawa Medical College. He was a graduate of Asahikawa Medical College in 1979, studied Ophthalmology under Prof. →HOSAKA Akio and received his Doctor of Medical Sciences in 1986 (thesis: *A study on blood-retinal barrier in myopia -Analysis employing vitreous fluorophotometry and computer simulation*. J. Jpn. Ophthalmol. Soc. 90: 527, 1986). He was promoted to Lecturer of the College in 1979, and then extended his studies at the Schepens Eye Research Institute and worked with Drs. McMeel W. and Feke, G.T. (1980-1983), and in 1989 he came to Boston again to continue their cooperative work. Some publications during these periods are "Retinal blood flow alterations during progression of diabetic retinopathy. Arch Ophthalmol. 101: 225, 1983" and "Retinal circulatory changes after scleral buckling, Am. J. Ophthalmol. 95: 182, 1983". On homecoming, he was promoted to Assistant Professor in 1988, and then to the present position in 1992. His research interest is in retinal circulation, vitreo-retinal diseases, blood-ocular barrier etc. and he has 293 original papers. Some recent papers embrace "Inward and outward permeability of the blood-retinal barrier in experimental myopia, v. Graefe's Arch. Clin. exp. Ophthalmol. 234: 239, 1996" and "Radiating retinal folds detected by scanning laser ophthalmoscopy using a diode laser in a dark field mode in idiopathic macular holes, v. Graef's Arch Clin. exp. Ophthalmol. 336: 445. 1998". On the basis of his expertise, he has been an invited Lecturer to many Universities, Symposia and Congresses. He serves as a Councillor to the Japanese Ophthalmological Society (JOS), (1992-), as Secretary to the International Society of Ocular Fluorophotometry, and he is a member of the Club Jules Gonin (1998) International Society of Telemedicine (1998-), International Ocular Inflammation Society (1999), the Retina Society (1999). He also serves on the Editorial Board of the Folia Ophthalmol. Jpn. (1990-), Ophthalmic Surgery and Lasers (1996-) and of the Jpn. J. Ophthalmol. (1997). For the excellence of his research, The Retina Research Foundation, Houston, Texas, granted him the Paul Kayer International Award of Merit in Retina Research in 1999. He has been elected as Special Reporter at the 104th Congress of JOS in 2000 (Macular Disorders - basic and clinical study). (Department of Ophthalmology, Asahikawa Medical College, 2-1 Midorigaoka higashi, Asahikawa, Japan 078-8510. phone: +81-1-6668-2540, fax: +81-1-6668-2549, e-mail: pyoshida@asahikawa-med.ac.jp (SM)



Yoshiji Yoshida

**Yoshida, Yoshiji (1891-1959)** Japanese ophthalmologist, Professor Emeritus of Nagoya City University. He graduated from Kyoto University in 1917, studied Ophthalmology under Prof. ICHIKAWA Kiyoshi and received Doctor of Medical Sciences in 1925 (thesis: Pigmentation of the ligamentum pectinatum. J. Jpn. Soc. Ophthalmol. 29: 755, 1925). He was made the Professor and Chairman of the Ophthalmology Department of Nagoya Women's Medical School in 1943. The Medical School became the Faculty of Medicine of Nagoya City University in 1950, and he continued to serve as the Professor until his retirement in 1958. His study covered many fundus diseases and he gave a special lecture "Problems in fundus diseases - Causes of central serous retinopathy" at the 62nd Congress of the Japanese Ophthalmological Society in 1958 (J. Jpn. Ophthalmol. Soc. 62: 914, 1958).[SM]



Tadasu Yoshimoto

**Yoshimoto Tadasu (1878-1973)** Japanese philanthropist, founder of the Japan Association of the Blind and Pioneer of Welfare for the Blind. He graduated from Tokyo College of Commerce (presently Hitotsubashi University). He suffered from low vision in both eyes since his youth and the vision gradually deteriorated and he became blind in the 1940s. While he was studying at the College, he devoted himself to the welfare of the blind. He was impressed by the British activities for the welfare, and he decided to study in England and majored in the divinity, education and welfare of the blind at Oxford University during 1900-1906. On return home, he became a lecturer at Waseda University. While

teaching the English language at the University, he founded the *Japan Association of the Blind* in 1906. He came to England again in 1908 and started a trading company with the help of Mr. Pauling; he was married to his daughter Elsie Margaret, and he settled in England from then. Although his company had to go through hardship many times and he had to travel very often between Japan and England, he devoted his lifetime to the welfare of the blind. He began publications in Braille in 1917 and completed 31 volumes of the *New Testament* in Braille: a lifework over 20 years. He published a book "*The blind in Japan and England*" which introduced the advanced state of the welfare of the blind in England to the Japanese Society in 1913-15. Acupuncture and massage are recognized as the occupation for the blind in Japan, and his activities greatly contributed to this. He also initiated the basis for the *Mainichi Braille Newspaper* that started in 1922. He gave support to Japanese people, e.g. Iwahashi Takeo, Nakamura Kyotaro (Chief-Editor of Braille Mainichi) to study in England. He represented Japan at the International Meeting of the Welfare of the Blind in 1949. In the postwar Japan, he continued granting scholarships for higher education of blind students, donation of funds and books to many schools of the blind and welfare institutions. In recognition of his distinguished service, he received the first Mainichi Braille Culture Award in 1964, and in 1967 the Government of Japan conferred on him the Third Order of the Sacred Treasures.(SM)

**Yoshimura, Nagahisa (1952- )** Japanese ophthalmologist, Professor and Chairman of the Department of Ophthalmology, Shinshu University. He graduated from Kyoto University in 1977, studied Ophthalmology at the University under Prof. →TSUKAHARA Isamu and received his Doctor of Medical Sciences in 1985 (thesis: *Calpain and calpastatin in porcine retina*. Identification and action on microtubule-associated proteins. Biochem J. 223:47-51, 1984, with Tsukahara, I. and Murachi T.). He has been in the present position as above since 1997. His research interest is in vitreoretinal diseases, ocular cell and molecular biology and some examples of his many publications are "*Photocoagulated human retinal pigment epithelial cells produce an inhibitor of vascular endothelial cell proliferation*. Invest. Ophthalmol. Vis. Sci. 36: 1686, 1995" and "*Expression of cell cycle-related genes in dying cells following retinal ischemic injury in the rat*. Invest. Ophthalmol. Vis. Sci. 39: 610, 1998". He is a section editor for the Japanese Journal of Ophthalmology and on the editorial board for Investigative Ophthalmology and Visual Science. He serves the Japanese Ophthalmological Society as a Councillor and is a member of the American Academy of Ophthalmology, International Society for Eye Research and Association for Research in Vision and Ophthalmology. (Department of Ophthalmology, Shinshu University School of Medicine. Asahi-machi, Matsumoto, 390-8621, Japan. phone: +81-2-6337-2662, fax: +81-2-6332-9448, e-mail: nagaeye@hsp.md.shinshu-u.ac.jp )(SM)

**Yoshioka, Hisaharu (1925- )** Japanese ophthalmologist, Professor Emeritus of Kurume University. He graduated from Kyushu Medical school (now Kurume University School of Medicine) in 1947, studied Ophthalmology at Nagasaki University under Prof. HIROSE Kinnosuke and received his Doctor of Medical Sciences in 1955 (thesis: *Studies of premature infants*. I. J. Jpn. Ophthalmol. Soc. 58: 879, 1954; II. *ibid.* 58: 893, 1954; III. *ibid.* 59: 945, 1955). He was promoted to Lecturer (1952) and Assistant Professor (1957) of Nagasaki University. He was invited to his Alma Mater in 1963 as the Assistant Professor under Prof. MASUDA Yoshiya and then promoted to Professor and Chairman of the Department of Ophthalmology of Kurume University in 1973; he served in this position until retirement in 1990. During his tenure, he served as Vice-Director of the University Hospital (1979-1981) and Vice-president of the Kurume Medical Association (1979-1981). He organized, as President, the 41st Congress of the Japanese Society of Clinical Ophthalmology in 1978. He worked extensively on retinal diseases, and some examples of his many publications are "*Experimental central serous chorioretinopathy in monkey eyes: Fluorescein angiographic findings*. Ophthalmologica 185: 168, 1982" and "*Experimental Central serous Chorioretinopathy*. I. *Clinical findings*. Jpn. J. Ophthalmol. 25: 112-118, 1981. II. *Further clinical findings*. Kurume Med. J. 25: 189-196, 1981. III. *Ultrastructural findings*. Jpn. J. Ophthalmol. 25: 397-409, 1982". He gave a special lecture at the 52nd Congress of the Middle Section of the Japanese Ophthalmological society (JOS) in 1986 (New findings of central serous chorioretinopathy). For his lifetime work, the JOS granted him the Society Award in 1991

(The Award Lecture: *The etiology of central serous chorioretinopathy*. J.Jpn. Ophthalmol. Soc. 95: 1181, 1991). He served the JOS as a Councillor (1973-1993) and is an Honorary Member of the JOS and also Consultant to the Japanese Vitreoretina Society.(SM)

**Yoshizawa, Toru (1927-)** Japanese scientist specializing in Biochemistry of the Retina. He is a guest Professor of Osaka Sangyo University. He graduated from the Faculty of Science of Osaka University, and finished the Postgraduate School at the Department of Biology of the University. He was granted the Doctor of Science in 1961, with the thesis "*Studies of photobleaching process of rhodopsin*". He carried out postgraduate works during 1961-1964 at the Biological Laboratories of Harvard University in Cambridge MA, U.S.A., under Prof. George Wald. In 1971 he was invited to be the Professor of the Department of Biophysics of Kyoto University where he worked until retirement in 1991. During his tenure, he was visiting Professor to Princeton University and guest Scientist of Bell Laboratories in 1976-1978. After retirement from Kyoto University he was entitled the Professor Emeritus of the University, and he served as a Professor at The University of Electrocommunication (1991-1993). He then served as the Professor of Osaka Sangyo University (1993-1998) and as the Director of Information Science Center of the University (1995-1998). He works as an editor of many scientific Journals, e.g. "*Comparative Physiology and Biochemistry*", "*Photobiochemistry and Photobiophysics*" and many other international Journals. He served as the President of many organizations, e.g. President of the International Society for Eye Research, Japanese Chapter in 1981-1983, President of the Association Internationale de Photobiologie in 1988-1992, and many others. His publications on photobiochemistry of the Retina totals 220 which includes "*Behaviour of visual pigments at low temperatures, Handbook of Sensory Physiology VII/7, Springer-Verlag, 1972, and "Primary photochemical events in the rhodopsin molecules. Progress in Retinal Research, The Rockefeller University Press, 1992. He is a recipient of many awards from various scientific societies. ( e-mail: toruyosh@rb3.so-net.ne.jp )(SM)*

**Youn, Dong Ho (1930-)** Korean ophthalmologist, Professor Emeritus of Seoul National University. He graduated from the College of Medicine Seoul National University in 1954 and studied Ophthalmology at the Graduate School of Medicine of the University and received his Ph.D. He worked in 1977 as a Clinical Fellow at Washington University, St Louis MO, U. S. A. He served as the Professor and Chairman of the Department of Ophthalmology of Seoul National University from 1978 to 1988. He served as the Director of Seoul Borame City Hospital in 1990-1994 and since 1995 he has been Director of Eul Ji General Hospital, Eul Ji Medical Center Seoul. He is the Founder of the English Language " Korean Journal of Ophthalmology" and served as the Chief-Editor in 1987-1997. His professional activities include Director of Executive Committee of the Korean Ophthalmological Society in 1978-1980, Founder and the President (1984-1994) of the Korean Glaucoma Society, President of Korea-Japan Joint Meeting of Ophthalmology in 1988-1992 and the President of the 12th Congress of the Asia-Pacific Academy of Ophthalmology in 1989. He is a recipient of the *Distinguished Service Award* of the Asia-Pacific Academy of Ophthalmology, and he is the Honorary President of Korean Glaucoma Society and an Honorary Member of the Asia-Oceanic Glaucoma Society. He wrote a *Textbook of Ophthalmology* and a *Textbook of Glaucoma*, both books being widely referred to in Korea. In recognition of his meritorious service, the Government of Korea conferred upon him *The Order of National Service Merit (Pomegranate Medal)* in 1995. (Director, Eul Ji Meddical Center, No Won Eul Ji General Hospital, 280-1 Hagye 1-Dong, Nowon-ku, Seoul 139-231, Korea, Phone: 82-2-972-0062, Fax:82-2-972-0555, e-mail: ydh4101@eulji.or.kr)(SM)

**Young, George (1875-1935)** Ophthalmic Surgeon to the Essex County Hospital, born in Bucharest, where his father, Dr. Young, was attached to the Court in a medical capacity. He was educated at Zürich and studied medicine there and in Philadelphia, taking his M.D. Zürich in 1901. In 1902 he came to England and took his M.R.C.S., L.R.C.P. He worked in the Ophthalmic Department at the London Hospital under Roxburgh and also at Moorfields, where he became a clinical assistant. He also studied under Professor Fuchs in Vienna. In 1908 Young went to the United States, qualifying there by obtaining the M.D., New York State, and he practised in New York until 1914. He was Assistant Surgeon to the New York Eye and Ear Infirmary and Ophthalmic Surgeon to the Central and

Neurological Eye and Ear Infirmary, and did much work in association with Marple. On returning to England in 1914 he immediately volunteered for the Army, but was not accepted, so he settled in Colchester, where he was appointed Ophthalmic Surgeon to the Essex County Hospital and he did much valuable work amongst the soldiers during the war. As can be gathered from his professional record, he was an extremely good linguist, and a man of very wide experience. In his professional work the subject that probably interested him most was the treatment of glaucoma. He was very enthusiastic about the miotic treatment of suitable cases, and he worked out with the tonometer how frequently pilocarpine had to be used to keep the tension within normal limits and found that he was able to control cases satisfactorily by this method. For those requiring surgical treatment he devised the operation known as double, sclerectomy and published his first results in the *Trans. Ophthal. Soc. U.K.*, in 1924, and he described the operation again with his latest modifications at the meeting of the Oxford Ophthalmological Congress in 1934. He became a member of this in 1917 and never missed a meeting. He was a great lover of Oxford and to show his appreciation, wished to take the Diploma in Ophthalmology of that University, but he was persuaded instead to undertake the task of giving the lectures on physiological optics, which he did in spite of indifferent health and often at considerable inconvenience to himself. He worked for hours endeavouring to perfect his lectures and took an immense amount of trouble in making them as helpful to his audience as possible. *BJO* 1935,19:700-701

**Young, Thomas (1773-1829)** British physician, physicist, and Egyptologist, born in Milverton, England. Young was largely self-taught in natural philosophy and in ancient and modern languages (he knew at least a dozen). Between 1792 and 1799 he studied medicine in London, Edinburgh, and Göttingen. He settled in London from 1800 and until his death he maintained a part-time medical practice, but devoted most of his energies to scientific research. Young demonstrated that accommodation of the eye is due to change of curvature in the crystalline lens (1793); gave the first description of astigmatism (1801); first stated the theory that color vision is due to retinal structures corresponding with red, green, and violet (1801); advanced a wave theory of light (1801-1803) and demonstrated its application to crystalline refraction and dispersion phenomena (1809). He made important advances in mechanics as well. Finally, it was Young who provided the key to understanding Egyptian hieroglyphic writings: he translated the demotic characters on the Rosetta Stone, making the important discovery that these characters were not alphabetic, but rather symbols derived from the hieroglyphs on the stone. He wrote: *Observations on vision* London 1793; *Light, colour, optics*. London 1802-1804; *A course of lectures on natural philosophy and the mechanical arts* 2 vols., London 1807. Works of Young: *Miscellaneous works of the late Thomas Young, M.D., F.R.S.* ... [edited by George Peacock] [edited by John Leitch] London 1855; *Oeuvres ophthalmologiques traduites et annotées par M. Tscherning ... et d'une préface par Émile Javal* 1894. Albert

**Yuan, Jia-Qin (1919- )** Chinese ophthalmologist, Professor of Ophthalmology, Tianjin Medical University, Honorary Director of Tianjin International Intraocular Implant Training Centre (IIITC). She graduated from Kweiyuang Medical College in 1943, received Residency training at Chungking Central Hospital (1943-1946) and served at the Department of Ophthalmology of Tianjin General Hospital in 1946-1957 first as the Chief Resident and then Deputy Director. She served as the Professor and the Chairwoman at the Department of Ophthalmology, Tianjin Medical University Hospital during 1957-1989. She established the IIITC at the University and served as the Director from 1989 to 1995. She has held more than 36 training courses of Cataract and Implant surgery, 21 at the IIITC and 15 areas throughout China, and she trained more than 2000 Ophthalmologists who have spread all over China and are performing cataract-implant surgery to eradicate blindness due to cataract. She also has built up a system of sending a team to rural hospitals for training of local doctors, and she herself traveled many times throughout the Country. She retired as Director in 1995 and continues to serve as the Honorary Director. She is also a pioneer in establishing Research in Industrial Ophthalmology in China and serves as the Editor and Honorary Editor of “*Journal of Injuries and Occupational Diseases of the Eye*” since 1979. Her professional activities extend over many Societies, e.g. Vice-President of the Asia-Pacific Intraocular Implant Association (1998-), Vice-President of the Chinese Ophthalmological Society (1980-1984), Member of Honorary

Board of the World Eye Surgeons (1994-) and member of many National and International Societies. She serves on the Editorial Board of the *Chinese Journal of Ophthalmology* and *Asia-Pacific Journal of Ophthalmology*. She published 133 scientific papers and 7 books, and wrote chapters in 7 books. Some examples of the books are "*Eye care in Industry*" The People's Medical Publ. House, Beijing, 1956, "*Slit-lamp Microscopy of the eye*" the same publishing Co. as above, 1982 and "*Spreading lights across China*" World Sci. Publ. Co. Singapore, 1996. In recognition of her meritorious service, 14 organizations granted her Honor Awards including the Ministry of Health of China, International Congress of Ophthalmology, Asia-Pacific Academy of Ophthalmology, Chinese Medical Association, Asia-Pacific Intraocular Implant Association and many others. (International Intraocular implant Training Centre Tianjin China, Tianjin Medical University, No. 22 Qi Xiang Tai Road, Tianjin 300070, People's Republic of China. fax: +86-22-23346434) (SM)



Tsunekazu Yuge

**Yuge, Tsunekazu (1906-1987)** Japanese ophthalmologist, Professor Emeritus of Kyoto Prefectural University of Medicine. He graduated from the University in 1930, studied Ophthalmology under Prof. FUJIWARA Kenzo and received the degree Doctor of Medical Science in 1936 (thesis: *Studies of the lacrimal gland cells*. J. Jpn. Ophthalmol. Soc. 37: 1069, 1933; 38: 835, 1934; 38: 2040, 1934; 39: 508, 1935; 39: 1826, 1935; 40: 889, 1936). He served as the Assistant Professor (1936-1947) and as the Professor and Chairman of the Department of Ophthalmology of Kyoto Prefectural University of Medicine during 1947-1968: he served as the Director of the University Hospital in 1956-1958. He was elected to be President of the University in 1959 and served until 1962. He worked further as the Director of Kyoto City Hospital in 1968-1976. He published many works on Sympathetic Ophthalmia with Prof. K. →Fujiwara, and they wrote "*Sympathetic Ophthalmia*, Handbook of Ophthalmology Vol. 20 of the Japanese Ophthalmological Society" in 1955. He is also the author of the book "*Diseases of the lacrimal apparatus*" Vol. 15 of the Handbook. He was the leader in Strabismus research in Japan and delivered a lecture "*Treatment of Strabismus*" at the 62nd Congress of the Japanese Ophthalmological Society in 1958 (J. Jpn. Ophthalmol. Soc. 62: 2030, 1958), and he organized the International Strabismus Symposium in Kyoto in 1972 (Jpn. J. Ophthalmol. 17: 1-99, 1973). He also served as the President for the 54th Congress of the Japanese Ophthalmological Society in 1950. He was a Founder of the Japanese Society of Strabismus and Amblyopia and was the President in 1972-1978; on the basis of his donation the Society created the *Yuge Award* to be granted to outstanding researchers in the field. In recognition of his distinguished service, the Government conferred on him the Third Order of the Rising Sun in 1979.[SM]



**Zadunaisky, Jose A. (1932- )** Physiologist and neuroscientist of Argentina established in the USA who has made significant contributions to the Physiology and Biophysics of the cornea, the retina pigment epithelium and the ciliary epithelium in the areas of cellular mechanisms of active ion transport principally his demonstration of active chloride secretion. His studies also extended to the field of marine species in the comparative function of the eye and of the gill of fish. At present he is Professor of Marine Biology (RSMAS) and of Ophthalmology (Bascom Palmer) at the University of Miami, in the USA. After receiving his Medical degree from the University of Buenos Aires (UBA) in 1956 he did doctoral work in Physiology with Eduardo Braun Menendez in the Institute of Physiology of UBA under the direction of Bernardo A. Houssay (Nobel price winner, 1947) and was awarded a degree of Doctor in Medicine. (Thesis, University of Buenos Aires, "*The influence of the thyroid on the kidney and experimental hypertension*" 1959). He specialized in membrane biology in the laboratory of biochemistry of E.J. Conway at the National University of Ireland in Dublin (1958-1959) and in the Department of Biochemistry of the University of Copenhagen, Denmark with Hans H. Ussing (1959-1960). Returning to Buenos Aires, he established a successful laboratory in the Department of Biophysics of the School of Medicine of UBA (1960-64) and was sponsored by the Rockefeller Foundation, the National Institute of Health of the USA and the National Research Council of Argentina. His studies demonstrated in model epithelia that chloride was not a passively transported ion, but it was a sodium dependent actively transported one. In this period he trained numerous younger fellows in this, then, new field of research. His studies were received with great interest at the Congress of

Physiological Sciences in Leyden, Holland in 1961 (Nature, 195:1004, 1962, J. Gen. Physiol. 47:393-402, 1963.) Werner Noell the retina physiologist introduced him to eye research during his visit to Argentina in 1962 and more definitively, Hugh Davson, then of University College London, who attracted him to collaborate in the establishment of the Eye Research Laboratory of the University of Louisville, KY in USA (1964-1967) There as Associate Professor of Ophthalmology and Physiology (1964) and later as Director of Research (1965), he applied the basic knowledge of membrane biophysics to the problem of corneal hydration and transparency explaining the origin of the corneal electrical potential on the basis of the secretion of chloride ions of the corneal epithelium (Nature 209:1136-1137, 1966 ; Am. J. Physiol. , 211:506-511, 1966). This work initiated a long list of publications from his laboratory, his students and other laboratories on this subject. This research established the existence of transporters and channels of chloride that later were found in all other organs besides the corneal epithelium and are relevant to the etiology of diseases such as cystic fibrosis, alterations of kidney function, the understanding of cholera and for normal neurotransmission. In 1967 he moved to Yale University, Departments of Ophthalmology and Physiology and continued his studies on the cornea and epithelia in general. In 1973 he became Professor of Ophthalmology and Physiology at New York University Medical Center in New York city, and in 1981 Director of the Sackler Institute of Basic Biomedical Sciences .In this period he and associates described to the activation of active chloride secretion by catecholamines and cAMP (Invest. Ophthal. 11: 644-650, 1972) the understanding of the cellular models of the epithelia of the eye (In: *Membrane Transport in Biology. Transport in eye epithelia:* Vol. III, G. Giebisch, D. Tosteson, H.H. Ussing (Eds.), Springer-Verlag, Berlin, pp.307-335, and 337-354 1978) With his associates he described the model for ion transport in the retina pigment epithelium (Exp. Eye Res., 37, 409-420 1983) and with M. Wiederholt the cellular model for the ciliary epithelium (Pflügers Archiv. 407:(suppl 2) S112-S115, 1986; see also Membrane Transport in Ocular Epithelia in "*Barriers and Fluids of the Eye and Brain*", M. Segal (ed.) CRC Press, New York, 1992.) With collaborators K. Karnaky and K. Degan he discovered the mechanism of ion secretion in the mitochondria rich cells of the gill epithelium of teleost fish. Also there a current of chloride secreted ions, is the mechanisms for salt homeostasis in the plasma of fish (Science: 195: 203-205, 1977, J. Physiol. (London) 271, 155, 1977; see also *Fish Physiology*, Vol. XB, Academic Press, New York, 1984, pp.129-176). His book "*Chloride Transport in Biological Membranes*" published in 1982 (Academic Press) summarizes the field. In a symposium in honor of Hugh Davson the work in all the epithelia of the eye was again defined (in "*Barriers and Fluids of the Eye and Brain*", M. Segal (ed.) CRC Press, New York, 1992). From 1975 to 1999 he was a Principal Investigator during summer sessions at the Mount Desert Island Biological Laboratory in Salsbury Cove Maine, where he worked in Comparative Physiology. In 1996 he moved to the University of Miami. At present he has some papers in the process of publication ( J.membrane biol. 2000 in the press). Dr Zadunaisky attracted many students to his laboratory and they have become academic ophthalmologists or physiologists. He educated many generations of medical students teaching Physiology, Cell Biology and Ophthalmology and contributed to the Visual Science community by being an Executive Editor of the journal Experimental Eye Research for 20 years, Editor with Hugh Davson of Current Topics in Eye Research for Academic Press, and editing other books such as "*Toxins, Drugs, and Pollutants in Marine Animals*" (L. Bolis, J. Zadunaisky, R. Gilles (eds.), *Proceedings in Life Sciences*, Springer-Verlag, New York, 1984) and publishing numerous monographs and book chapters. He was a founder member of the International Society of Eye Research (ISER), Council member and Secretary (1976-1980) and its President from 1980 to 1984 .In the Association for Research in Vision and Ophthalmology (ARVO) he was a member of the organizing committees and Chairman of the Physiology and Pharmacology Section (1969-72 and again in 1993-96). In the American Physiological Society he organized a symposium on chloride transport that resulted in his book of 1982. At the National Institutes of Health he was a member of the Visual Science Study Section from 1976-1980 and of the Behavioral Science Study Section 84-88. He was Director of Training Grants of the National Eye Institute at NYU for 15 years. He was also an originator of the Transport Club of New York and ran it for 14 years. At NYU Medical Center he was President of the Faculty Council and held other administrative or faculty positions. He is a member of the board of reviewers for the FONCYT of Argentina

(Fondo de Ciencia y Tecnica) and has been a member of the committee for the appointment of the Professor at the UBA Medical School. Dr Zadunaisky was made a Fellow of the New York Academy of Sciences in 1977; received the Alcon Award in 1984 and the Endre Balacz Award of ISER for Distinguished Contributions to Eye Research in 1992. From 1989 to 1993 he was an invited Scholar in Residence at the Fogarty International Center of the National Institutes of Health. At present he continues his research in the eye and the gill. (Jose A. Zadunaisky, Section of Marine Biology, Rosenstiel School of Marine Sciences, University of Miami, 4600 Rickenbacker Causeway, Miami Fl. 33149 U.S.A. Tel: +1-305 856 4178.; Fax: +1- 305 856 6322.; e-mail Josezad@AOL.com )

**Zagórski, Zbigniew (1942- )** Polish ophthalmologist, Professor of ophthalmology in Lublin (Poland). Z. Zagórski received his medical education at the Faculty of Medicine, Lublin Medical University (1959-1965) He received his degree MD in 1974 at Lublin Medical University and was a fellow 1975/76 of the Ophthalmic Clinic, University of Ghent, Belgium and 1985/86 and 1991 at University of Erlangen, Germany. He received his habilitation in 1980 and became Professor in 1992. Zagórski received his ophthalmic education under Prof. Tadeusz → Krwawicz (Lublin, Poland), Prof. Jules → François (Ghent, Belgium) and Prof. Gottfried → Naumann (Erlangen, Germany). His Academic path was : Dept. of Ophthalmology, Medical University, Lublin: Assistant 1968-1970, Senior assistant 1970-1976, Adjunct 1976-1983, Docent 1983-1991, Chairman from 1991, Professor extraordinarius 1991-1998, Professor ordinarius from 1998. **Bibliography**  
**A:** Published Books: *Current Problems in Ophthalmology* (Proceedings of the 1st Polish-Ukrainian Ophthalmological Conference, Lublin, 1997) *Tadeusz Krwawicz Foundation*, Lublin 1999; **B:** Co-author: 1) Zagórski Z: *Replication capacity of the regenerating human corneal endothelium in organ culture*. In : Naumann GOH, Gloor B: *Wundheilung des Auges und ihre Komplikationen* (Bergmann, München 1980) pp 223-225; 2) Zagórski Z: Ruprecht KW, Naumann GOH: *Corneal endothelialization in experimental anterior synechias and rubeosis iridis*. In: Ben Ezra D, Ryan S, Glaser BM, Murphy RP: *Ocular circulation and neovascularisation*, (M Nijhoff/Dr W Junk Publishers, Dordrecht 1987) pp 367-371; 3) Zagórski Z: *Über die Proliferation des Hornhautendothels*. In: Lang GK, Ruprecht KW, Jacobi KW, Schott K: *2. Kongress der Deutschen Gesellschaft für Intraokularlinsen Implantation* (Enke, Stuttgart 1989) pp 230-231; 4) Zagórski Z., Rakowska E., Haszcz D. *Combined Cataract, Glaucoma and/or Keratoplasty Procedures*. In: Bavishi AK, Nagpal PN, Khamar BM: *Cornea & Refractive Surgery* (Ahmedabad Academy of Ophthalmology, 1997) pp 71-73; 5) Zagórski Z., Sergienko N., Solodkii N., Toczolowski J. *The Ukrainian Technique of Radial Keratotomy*. In: Bavishi AK, Nagpal PN, Khamar BM: *Cornea & Refractive Surgery* (Ahmedabad Academy of Ophthalmology, 1997) p.105; 6) Zagórski Z., Schotzer-Schrehardt U., Rummelt V., Naumann G.O.H. *Epithelial Ingrowth - Pathogenesis and Treatment* In: Bavishi AK, Nagpal PN, Khamar BM: *Cornea & Refractive Surgery* (Ahmedabad Academy of Ophthalmology, 1997) pp 94-99; 7) Zarnowski T., Kardaszewska A., Kwietniewska M., Rakowska E., Zagórski Z.: *Clinical evaluation of penetrating keratoplasty for keratoconus* In: Süveges I, Follmann P: *XI th Congress of the European Society of Ophthalmology*, (Monduzzi Editore 1997) pp 273- 277; 8) Haszcz D., Zarnowski T., Zagórski Z. *Corneal topography of keratoconus*. In: Süveges I, Follmann P: *XI th Congress of the European Society of Ophthalmology*, (Monduzzi Editore 1997) pp 165-170; 9) Machowicz-Matejko E., Zarnowski T., Zagórski Z. In: Süveges I, Follmann P: *XI th Congress of the European Society of Ophthalmology*, (Monduzzi Editore 1997) pp 105-109; 10) Biziorek B., Zagórski Z., Jedrzejewski D. *Clinical study of ocular borreliosis in mid-eastern region of Poland*. In: Süveges I, Follmann P: *XI th Congress of the European Society of Ophthalmology*, (Monduzzi Editore 1997) pp 687-689; 11) Zagórski Z, Schlötzer-Schrehardt U, Naumann GOH, Szczesny P: *Epithelial ingrowth*. In: Süveges I, Follmann P: *XI th Congress of the European Society of Ophthalmology*, (Monduzzi Editore 1997) pp 267-272; **C:** Published papers: 1. *J Chromatog* (1964) 17:288-294, 2. *Gen Pol* (1969) 11:155-159, (1971) 12:587-592; 3. *Pol Tyg Lek* (1970) 25:201-204, 4. *Humangenetik* (1970) 10:340-343; 5. *Cytobios* (1972) 5:249-256; 6. *Klin Oczna* (1972) 42:527-531; 1311-1315; 45:733-737; (1978) 48:97-99; 399-401; 48:605-606; (1979) 81:171-173, 317-319; (1980) 82: 13-15, 171-172, 565-567; (1981) 83: 477- 478; (1982) 84: 109-110; (1983) 85: 197-199; (1984) 86: 77-79; (1985) 87: 370-372; (1986) 88: 241-244; (1987) 89: 405-407; (1989) 91: 73-75, 89-91, 180-181; (1990) 92:

31-32,154-155,184-185,186-187; (1991) 93:54-62,129-131,226-228; (1994) 96:110-111; (1995) 97: 64-65; (1996) 98: 125-127, 357-359;(1997) 99:21-24,313-315; (1998) 100: 1-4,11-14,235-237; 7.*Pol Med Sci Bull* (1976) 15:253-259, 8.*Ophthalmic Res* (1977) 9:357-365, (1989) 21: 440-442; (1990) 22:51-56; 9.*Am J Ophthalmol* (1978) 86:233-238; (1979) 88: 396-401, 10.*Ceskoslov Oftalmol* (1979) 35:81-84,85-88; 11.*Bull Soc Belge Ophthalmol* (1987) 224:15-21; 12.*Klin Mbl Augenheilk* (1988) 192: 23-26,192: 365-366;193:16-20; 13.*Curr Eye Res* (1989) 8: 649-659; 14.*Fortsch Ophthalmol* (1989) 86: 581-583; 15.*Graefe's Arch Clin Exp Ophthalmol* (1990) 228:55-57; 16.*Doc Ophthalmol* (1990) 73:285-289; 17.*Lens and Eye Toxicity Res* (1991) 8:311-318; 18.*Acta Ophthalmologica* (1992) 70: 366-370. Zagorski is member of the Polish Ophthalmological Society; the German Ophthalmological Society (DOG); ARVO; American Academy of Ophthalmology; European Ophthalmic Pathology Society; International Ocular Surface Society. Phone/fax: +48 81 5324827 email: zagorski@panaceum.am.lublin.pl (JPW)

**Zahn, Johann (1641-1707)** German philosopher who belonged to the Premonstratensian Order at Herbipolis (Würzburg). Zahn displayed a detailed knowledge of vision, the properties of light, and the structure of the eye. He authored the first complete history of early microscopes: *Oculus artificialis teledioptricus sive telescopium* Würzburg 1685-1686 (2<sup>nd</sup> ed 1702). Albert

**Zanen, André (1940- )** Belgian ophthalmologist. Zanen was born in Ixelles (Brussels). He is the son of Jules Zanen (born in 1904 ), also an ophthalmologist. He obtained the M.D. degree at the Brussels University in 1964, and after a 12 months stay in Geneva under →Babel he became simultaneously assistant at the Department of Ophthalmology (Professor P.→Danis) and research-worker at the Laboratory of physiopathology of the nervous system (Professor J.E. Desmedt) of the Brussels University. He obtained in 1973 in the same University the special doctorate in ophthalmology with an electrophysiological study of the *normal photoreceptor mechanisms*. From 1977 he progressively left the St. Pierre hospital for the Erasme hospital. At Erasme he organized the department of ophthalmology and became its head in 1979. He has taught at the Brussels University since 1982. André Zanen's first papers concern local adaptation (with Liliane Conreur and Guy Meur, 1966). From 1969 he studied (with Julien Debecker) the *fast photovoltage of the human eye*, in which he analyzed the (photopic and scotopic) visual pigments and melanin contributions. He contributed to Francois' 1974 report on electrodiagnosis for the Belgian Ophthalmological Society. He also wrote on other visual functions as colour vision (1978) and visual evoked potentials (1982). In 1982 he organized for the French section of the Belgian Ophthalmological Society an excellent symposium on the visual and motor symptoms of multiple sclerosis. In 1985 he reported for the main Belgian Ophthalmological Society on informatics in ophthalmology. He also wrote on clinical subjects as *retinal embolism by cardiac myxoma* (1974), *Wernicke's encephalopathy* (1979) etc. André Zanen is the present secretary of the French-speaking section of the Belgian Ophthalmological Society. (Verriest).

**Zanen, Jules (1904-1992)** Belgian ophthalmologist, father of André Zanen. Zanen obtained his M.D. degree in Brussels in 1929 and specialized in ophthalmology with Léon→Coppez. He did early research in *acquired colour vision defects*, which he studied by means of the measurements of *foveal achromatic and chromatic thresholds for monochromatic flashes* and on which he wrote a report for the Belgian Ophthalmology Society in 1953. He did with René Hermans an experimental work on *visual performance* in 1963. Among his clinical papers we have surely to mention the *first description of vitelliform macular dystrophy* in 1950 (with G. Rausin). (Verriest)

**Zarrin-Dast see Abu Ruh. Bin Mansur bin Abi Abdallah bin Mansur alyamani.**

**Zehender, Karl Wilhelm von (1819-1916)** German ophthalmologist, founder of the still existing *Klinische Monatsblätter für Augenheilkunde*. Von Zehender was born in Bremen the offspring of an old Bern patrician family in Switzerland. He studied in Halle and Göttingen, receiving at the latter his *Dr.med.* in 1845. He practiced for a time in the Oldenburg region, was military physician during the war against Danmark and afterwards undertook scientific journeys, staying in Paris, Prague and Vienna. He was assistant to Friedrich Jaeger in Vienna, later to Albrecht von Graefe in Berlin, becoming ophthalmologist to the *Erbgrossherzog* (Duke) in Streulitz , Medical Council (Medicinal-

Rath) and Fellow of the Medical College. In 1862, von Zehender received a call to be Professor of ophthalmology in Bern, a call which he accepted. A few years later, in 1866, he received an invitation from the Rostock University and he went back to Germany to fulfil his new obligations. It was during his tenure in Bern, that he founded the *Klinische Monatsblätter für Augenheilkunde*. Most of von Zehender's papers are to be found in the first 10 volumes of Graefe's *Archiv für Ophthalmologie*, later in his own Journal. von Zehender wrote *Anleitung zum Studium der Dioptrik des menschlichen Auges*, Erlangen 1856; *Eine Missgeburt mit hautüberwachsenen Augen. Gratulationsschrift im Namen der medicinischen Facultät zu Rostock*. Rostock, Adler, 1872. He edited the 2nd edition of Eugen Seitz 1855 treatise *Handbuch der gesammten Augenheilkunde* in 1869 and later re-wrote and enlarged it into two volumes (Erlangen 1874-1876). Other books authored by von Zehender are: *Lehrbuch der Augenheilkunde für Studierende* Stuttgart 1879; *Über den Beruf der Frauen zur Studium und zur praktischen Ausübung der Heilwissenschaft*, Rostock 1875; *Über den Einfluss des Schul-Unterrichts auf Entstehung der Kurzsichtigkeit*, Stuttgart 1880. von Zehender was the inventor of two ophthalmoscopes in 1854 and an auto-ophthalmoscope in 1863 all of which bear his name .Hirsch 6:362; BMC; Albert;C.R.Keeler, JPW

**Zeis, Eduard (1807-1868)** German pioneer plastic surgeon, born in Dresden, Germany. Zeis received his M.D. at Leipzig in 1832 and practiced general surgery in his native city before becoming professor at Marburg (1844-1850); he returned to Dresden as chief surgeon of the new city hospital (1850-1868). Zeis, who introduced the term *plastic surgery* in his *Handbuch der plastischen Chirurgie* (1838), wrote extensively on the history of and contemporary developments in this field, and himself performed blepharoplasty and strabismus operations with great skill. He authored: *Abhandlungen aus dem Gebiete der Chirurgie* Leipzig 1845. Albert

**Zeiss, Erich (1894-1975)** German ophthalmologist. Zeiss was born in Dresden-Loschwitz, Germany. He studied medicine in Zurich, Kiel, Munich and Jena, receiving at the last named, in 1923, his medical degree. Zeiss spent a practical year in 1924 at Halle University Clinic under Schieck and at the Knappschaft Hospital under Hartung. In 1925 he received at Jena his doctoral title with the thesis *Zur Entstehung der Gliomrosetten*. Zeiss became 1925 assistant at the Halle Ophthalmic University Clinic under Clausen and remained in this position until 1928. The same year he moved to Leipzig to work, as assistant, under professor Hertel, remaining there until 1935. In the meantime, in 1934, he was promoted first assistant and became lecturer with the thesis *Vergleichende Untertageuntersuchungen über den Bergarbeiternystagmus*. Zeiss now went to Würzburg to work as first assistant (Oberarzt) under professor Schieck (1935-1938) and became professor extraordinarius in the same university. He then moved to Münster to work under Marchesani at the University Eye Clinic (1938-1940). Zeiss was in the German army from 1940 to 1945. On his return to Münster, he was named adjunct Director to the Münster University Eye clinic, a position he held until 1947. From 1947 to 1960 he was head of the City Eye Clinic of Dortmund. Zeiss was particularly interested in the nystagmus of miners. He wrote *Das Augenzittern der Bergleute* Leipzig 1936; a chapter in *Handbuch d.ges. Arbeitsmedizin: Das Augenzittern der Bergleute* Munich 1961; a chapter *Bau und Wirkungsweise des menschlichen Auges* in : *Handbuch der Lichttechnik* Berlin 1938. Zeiss did pioneer work on the influence of high frequency ultra sounds on animal eyes (1938) and discovered that these sounds clouded the lens. Zeiss, whose grandfather was Carl Zeiss, was very interested in optics and developed many ophthalmic optical devices. See: Fischer *Die Geschichte der Augenheilkunde in Würzburg* (Thesis) Würzburg 1968; Klin.Mbl.f.Augenheilk. 1975,167:148ff. JPW

**Zhang, Chengfen (1925- )** Chinese ophthalmologist, Professor of Ophthalmology, Peking Union Medical College (PUMC). She graduated from Shanghai Medical College in 1951 with MD degree granted. Subsequently, she completed her Ophthalmology residency at the PUMC Hospital, and she was promoted to Clinical Associate Professor (1962-1979), Associate Professor Deputy Chief (1979-1981). She extended her study as a Research Associate at the Eye Research Institute of Retina Foundation, Harvard Medical School in 1981-1982. On home coming, she served as the Professor and Chairperson of the Department of Ophthalmology of PUMC Hospital and Eye Research Center from 1983 to 1989. She was a visiting Professor in 1987 to the Department of Ophthalmology of West

Virginia University, U. S. A. Currently, she works as Professor and Director of Retina-Vitreous Service of PUMC (1990-) and Consultant to Suiyi Eye Center Hospital (1997-). Her editorial activities include *Foreign Medicine in Ophthalmology* (1979-), *Chinese Academy of Medical Sciences* (1983-1992), Vice-Chief Editor of *Ocular Fundus Journal* (1985-), *Chin. J. Ophthalmol.* (1979-), *Chinese J. of Medical laser*, *Chinese J. of Pediatric Ophthalmology and Strabismus*, *The Eye Journal*, *J. of Eye Research* and *J. of Eye and ENT*. She has more than 100 original scientific papers and has been guest lecturer on more than 25 occasions. Some examples of her publications are "*Textbook on eye fundus diseases*, Beijing People Health Publ. House, 1998", "*Fluorescein angiography and indocyanine green angiography study on age-related macular degeneration*. The Proc. the First Global Chinese Ophthalmic Conference, Beijing 1999" and "*Age-related macular degeneration in two sibling cases*. *Chin. J. Eye Fundus*, 1999, 15: 120". She is a recipient of many Honor Awards that include Award from Chinese Academy of Medical Sciences (1980), Ministry of Public Health (Prize A, 1981), National Award for Advance of Science and Technology (1991) Golden Key Award by Chinese American Ophthalmologic Society (1998) and many others. (Professor, Department of Ophthalmology, Eye Research Center, Peking Union Medical College Hospital and Chinese Academy of Medical Science, 1 Shuai Fu Yuan, Beijing, 100730, P. R. China. phone: +86-10-65296355) (SM)

**Zhang, Hui-rong (1931- )** Chinese ophthalmologist, Professor at the Department of Ophthalmology, Third Hospital, Beijing Medical University. She graduated from the Faculty of Medicine, West China Union University, Si Chuan, in 1953 and studied Ophthalmology in the Postgraduate School of Medicine of Beijing Medical University with Doctor of Medicine granted in 1959. She extended her study as an Exchange Scholar at the Pacific Medical Center, San Francisco, U. S. A. (1983-1984). She has served as Vice-Chairman, Associate Professor (1961-1983) and Professor and Chairman (1983-1993) and Professor and Supervisor of Postgraduate School and Member of Scientific Committee of the Third Hospital of Beijing Medical University. Her professional activities embrace Executive Member of the Standing Committee of the Society of Ophthalmology, Chinese Medical Association (1982-), Vice-Chairman, Beijing Society of Ophthalmology (1980-1996), Vice-Chairman, and member, The Ocular Fundus Group (1982-) and of the New Technical and Therapeutic Group (1980-1997) of the Society of Ophthalmology, and also editor to the *Chinese Journal of Ophthalmology* (1989-), *Chinese Journal of Ocular Fundus Diseases* (1986-), *Journal of Foreign Medicine*, Ophthalmological Section (1980-), *Journal of Ophthalmology in China* (1986-), *Journal of Practical Ophthalmology in China* (1991-), *Journal of Pediatric Ophthalmology and Strabismus in China* (1993-), *Archives of Ophthalmology* (Chinese edition)(1988-1998) and *Ophthalmology Times*, U.S.A.(1986-1996). Her research interests cover ocular vascular structures, retinal vascular diseases, cell culture and growth factors, light damage of the eye, etc. and some examples out of 120 papers are "*Scanning electron microscopic study of corrosion casts on retinal and choroid angioarchitecture in man and animals* In: *Progress in Retinal and Eye Research*, ed. Osborne, N. N et al. Vol 13, pp 243, Pergamon Press, 1994", "*The characteristics of macular branch retinal vein occlusion*. *Chin. J. Ophthalmol.* 1996, 32: 441", "*Suppressive effects of 8-chloroadenosine on growth factor-induced vascular endothelial proliferation*. *Chin. Ophthalmic Res.* 1999, 1: 11" and "*Protective effect of anisodamine in light damaged rat retina*. *Ophthalmol in China.* 1996, 5: 44". She has written 11 monographs and books, e.g. "*Ocular microcirculation and its relative disease*. Beijing Medical University and Union Medical University Combined Publishing House, 1993". For the excellence of her works, she has received many Honor Awards, that include The Science and Technology Prize of the Ministry of Health (1991). (Department of Ophthalmology, Third Hospital Beijing Medical University, 100083, People's Republic of China. phone: 010-62017691-2775; fax:+86-010-62017700; e-mail: [huirong@public.fhnet.cn.net](mailto:huirong@public.fhnet.cn.net) ) (SM)

**Zhang, Shi-yuan (1929- )** Chinese ophthalmologist, Professor of Ophthalmology, Beijing Institute of Ophthalmology. He was born in Shandong Province, the eastern part of China, and graduated from Shandong Medical University in 1953, and then worked as a resident at the Department of Ophthalmology of Shanghai Guangei Hospital, Shanghai Second Medical College (University). At the beginning of 1954 and up to now, he worked at the Department of Ophthalmology of Beijing Tong Ren Hospital and Beijing

Institute of Ophthalmology as the resident, visiting doctor and Professor of Ophthalmology of Capital University of Medical Sciences. From 1983 to 1984, he stayed in London, Institute of Ophthalmology of London University as a visiting scholar and received the Diploma of preventive Ophthalmology and ocular microsurgery. He was invited as the distinguished guest, on behalf of the Chinese Ophthalmological Society to participate in the 90th, 100th anniversary celebration academic meeting of the Japanese Ophthalmological Society and 50th anniversary celebration academic meeting of the Korean Ophthalmological Society. From 1985, he served as the Director of Beijing Institute of Ophthalmology until 1995, then he was appointed as the Honorary Director of the Institute. During 1987 - 1990, he also served as the Executive Vice-Director of Tong Ren Hospital. In 1988 he was elected the President of the Chinese Ophthalmological Society at the 4th National Congress of Ophthalmology, and reelected as the 5th (1992-1996) and the 6th (1996-2000) President of the Society at the National Congresses of Ophthalmology. He has served as the Chief-Editor of the *Journal of Ophthalmology in China*, the *Journal of Foreign Medicine Section of Ophthalmology*, and the Deputy Chief Editor of the *Chinese Journal of Ophthalmology*. Under the leadership of the Ministry of Health, the National Committee for Prevention of Blindness was established in 1984, and he has served as the Vice-Director of the Committee from 1986 to the present. Since 1988, the Beijing Institute of Ophthalmology was designated as the WHO Collaborating Center for Prevention of Blindness by the World Health Organization. He has served as the Director of the Center from 1992 to the present and as a member of the WHO Expert Advisory Panel on Prevention of Blindness and Trachoma from 1993 to 1999. He was in charge of a national epidemiological survey of blindness and low Vision in 1987, and served as the Chairman of the 2nd International Ophthalmic Conference China (1995) and of the First Global Chinese Ophthalmic Conference (1998) Beijing. He was a member of the Advisory Council of World Cataract Lens Project, USA, the honorary member of SCOPE International USA. More than 20 papers have been published and he is author or co-author of the books e.g. "*The Manifestations of the Ocular Fundus of Patient with Tuberculosis Meningitis* (Beijing 1959), *Ocular Fundus Diseases* (Beijing 1977), *Eye Related Syndroms* (Beijing 1978), *China Encyclopedia of Medicine*, Section of Ophthalmology, (Shanghai 1979), *China System of Ophthalmology* (Beijing 1996), *Present Status of Ophthalmology in China* (Asia Leaders of Ophthalmology (Singapore 1989) and the *Development of Ophthalmology in China* (Ophthalmology Awakens in Asia, Singapore 1999). He received Awards for his clinical and research works and service: Award from Beijing Council of Science and Technology (1992,93,94), Distinguished Service Award of the Asia-Pacific Academy of Ophthalmology (1991) and the Asia-Pacific Intraocular Implant Association Award (1999).(Beijing Institute of Ophthalmology, Beijing 100005, P. R. China. fax: +86-10-65125617) (SM)

**Zhang, Xiaofang (1920- )** Chinese ophthalmologist, Professor of Ophthalmology, Henan Medical University, Zhengzhou. He graduated from Henan University Medical College in 1945, and studied Ophthalmology at Henan University Medical College and Henan Provincial Hospital under Dr. Sun Kaiyuan, and received his Master degree in 1947. He has been the Professor of Ophthalmology of the Henan Medical College since 1978, served as the Director of the Department of Ophthalmology (1949-1985) and is the Honorary Director of Henan Eye Trauma Institute since 1981 and Honorary Director of Henan Provincial Hospital of Ophthalmology since 1988. The positions he has held in professional societies include Executive Committee Member of Chinese Ophthalmological Society (1979-1992), World Eye Foundation, Member of the Executive Council and Director of China Branch (1983- ), International Eye Trauma Council Executive Member (1991-), Vice Director of National Cataract (Sight Restoring) Technology Guiding Group (1992-), Sightfirst China Action, Chinese Consultation Committee Member (1998-), and Science and Technology Commission of the Ministry of Health, Managing Director and Honorary President of Henan Provincial Society of Ophthalmology and Honorary Vice-Chairman of the Henan Provincial Federation of Handicapped. He has many editorial assignments, e.g. *Journal of Injuries and Occupational Diseases of the Eye with Ophthalmic Surgery*, *Chinese Journal of Ophthalmology*, *Chinese Journal of Practical Ophthalmology*, *Chinese Journal of Ocular Fundus Diseases*, *Journal of Ocular Trauma* (U.S.A.), *Chinese Ophthalmology Research*, *Clinical Ophthalmology*, *Clinical Medicine* and *Henan Medical University Journal*. Among many of his publications, some examples

are "*Posterior Chamber IOL implantation in traumatic cataract with injured complications*. Eye Science, 8: 11, 1992", "*Clinical observation of lensectomy, vitrectomy with anterior capsule preserved*. Chinese J. Ophthalmol. 33: 414, 1997" and "*The influence of macrophage on the proliferation of cultured human epithelial cells in vitro*. J. Injuries and Occupational Diseases of the Eye with Ophthalmic Surgery, 20: 407, 1998". He has written 12 books that include "*The Localization and extraction of intraocular foreign body*. The People's Health Publ. House. P. R. China 1976" and "*Ocular Toxicology*, Plenum Publ. House New York (co-editor), 1995". He is a recipient of many honor awards, e.g. Outstanding Achievements, United States Eye Injury Registry, 1996, National Award of Science and Technology Achievement, China, 1994, National Excellent Science and Technology Worker, China, 1997, and Meritorious Worker of Science and Technology, Henan Provincial Government, 1998. Besides his teaching activities, he has fostered to establish 16 Ophthalmic Hospitals and Ophthalmic Institutes throughout the Country. (SM)



Xiao-lou Zhang

**Zhang, Xiao-lou (1914-1990)** Chinese ophthalmologist, Professor of Ophthalmology, Peking Union Medical College (PUMC), one of the discoverers of trachoma pathogen, clamydia trachomatis. He was born in Hebei Province, ZhengDing County, and graduated from Peking Union Medical College in 1940 and was at service as an ophthalmologist for 2 years. He returned for a short period to serve in his native Hebei Province as a hospital doctor, but soon he was invited to Beijing Tong Ren Hospital as an Eye Specialist and the Director of the Eye Department in 1946. He was the founding director of Beijing Institute of Ophthalmology (1959). He succeeded in 1954, in cooperation with virologist Prof. Tang Fei-fan, in cultivating trachoma pathogens in chick embryo: this was the major break-through in the research of trachoma. In recognition of this outstanding work, he received many International and National awards, e.g. Award of Merit, National Symposium of Science and Technology, 1978, Gold Medal from the International Agency Against Trachoma (1981), Distinguished Service Award of the Asia-Pacific Academy of Ophthalmology (1981) and the Award from the Natural Science Academy of China. He has published more than 90 original scientific papers. He served as the Chief-Editor of the *Chinese Journal of Ophthalmology* and editor of the *International Metabolism and Child Eye Disease Journal*. He was a senior member of the Chinese Medical Academy, President of the Chinese Ophthalmological Society, Honorary Director of the China Medical Association, Deputy Chairman of the National Committee for Prevention of Blindness, Consultant to the World Health Organization and American Sight and Eye Research. His interest in technical information and development led him to work as the Editor of international Eye General Ophthalmology and Digest on Chinese Ophthalmology.(by Zhang Shi-yuan) (SM)

**Zhao, Dong-shen (1913- )** Chinese ophthalmologist, Professor and Chief of the First People's Hospital of Shanghai. He studied at the Army Medical College in China, and then studied at the University of Berlin and graduated from the University of Innsbruck, Austria, in 1939 with MD degree granted (thesis: *Ueber metastatische Entzündungsherde in Gebiet Opticusstamm*. A. von Graefe Arch Ophthalmol. 143: 239,1941). He then worked as an assistant at the 1st Eye Clinic and the Pathological Laboratory of University of Vienna, during 1939-1942, under Prof. J.→Meller, and Prof. J.→Bock. He extended his study during 1943-1944 at the University of Budapest under Prof. M.→Radnot. On his home coming, he was appointed the Professor of Ophthalmology at Jiang-su and Tong-Ji Medical University in 1945, Professor and Chief of the 1st People's Hospital, the Teaching Hospital of Shanghai Medical University since 1949. He has served as the Vice-Chairman of the Ophthalmological Society, Shanghai Branch of the Chinese Medical Association, and as an Editor to the Chinese Journal of Ophthalmology. Some examples of his many papers and books are "*Retinal detachment operation* (New China 10 years), 1959, Chin. J. Ophthalmol", "*Classification of membrane formation of retinal detachment and ultrastructure study*, Eye Science, 1986", "*Ophthalmic Surgery*", Wen Tung Publishing Co. Shanghai, and "*Retinal detachment operation including vitreous surgery*, 1999, Shanghai Science and Technology Publishing Co. Shanghai. He is a recipient of Certificate of Award from the National Science Conference, 1978 and National 5.1 Labor Medal, 1986. (The First People's Hospital of Shanghai, 85 Wu Jin Road, Shanghai 200080, P. R. China ) (SM)



Chenghu Zhou

**Zhou, Chenghu (1896-1978)** Chinese ophthalmologist. Born in Zhejiang province (China), he studied in Wen Hua University and Xiang Ya Medical College in Hunan province in 1914. In 1926, he was awarded a Rockefeller Fund Scholarship and studied at Vienna University and London University. After coming back in 1927, he became an assistant teacher in Peking Union Medical College and an attending doctor in the Department of Ophthalmology. From 1929, he was successively appointed to be a lecturer, vice professor, professor, educational director and a committee member of the Chinese Ophthalmological Society when he was working in Shanghai Medical College. He established Zhuji Hospital between 1945 and 1949 with the help of the United Nations general relief headquarters. From 1950, he was successively appointed to be a director in the Department of Ophthalmology in Shanghai Sixth People's Hospital, Ophthalmic consultant of Shanghai Health Bureau, Vice-president of Shanghai Health Care Training College, President of Shanghai Medical Training School and Vice-president of Chinese Medical Association Shanghai branch. Professor Zhou Chenghu had taken charge of scientific research, teaching, clinical works in Ophthalmology for more than fifty years. He published numerous original papers in academic journals at home and abroad. He enjoyed great prestige in academic circles. Not only was he a deputy director of the Ophthalmic Society attached to Chinese Medical Association, but also a deputy Editor-in-chief of the *Chinese Journal of Ophthalmology*. In 1958, he attended the first Asia-Africa Academic Conference in Ophthalmology and was elected as a member of the Asia-Africa Ophthalmic Association. He was a man of rich clinical working experience and was very active in guiding how to prevent and treat different kinds of eye diseases, especially fundus diseases, myopia, eye fatigue, trachoma and trauma. He also trained many excellent medical staff in Ophthalmology.(SM)

**Ziauddin Ahmed (1949- )** Pakistani Ophthalmologist, see **Shaikh, Ziauddin Ahmed**

**Ziegler, Lynn Richard (?- )** American Researcher in human vision, visual perception, cognitive psychology, and cognitive neuroscience. Experienced with visual psychophysics and quantitative modeling, specializing in studies of binocular vision and stereopsis. He received his Ph.D. at the University of Texas at Dallas (1993) (Human Development and Communication Sciences, Cognition and Neuroscience Track. Elective courses in optics, biochemistry, artificial intelligence, neural network modeling, and mathematical methods of physics.) Ziegler received a M.S., 1976 at the University of Texas at Dallas (Mathematical Sciences, Statistics Track) and a B.A., (Physics) at Austin College (1972). He advanced to Senior Scientist, Lockheed, NASA Space Center Houston, and Palo Alto (1974-79) ; to Electronics Applications Specialist, Information Systems Design, Sunnyvale, California (1979-80) became consecutively Electronics Engineer, Storage Technology, Sunnyvale, California (1980-81); Computer Software Consultant, SolarTek, Davis, California (1982-83); Robotics Engineer, Adaptive Technologies, Sacramento, California (1983-85); Teaching and Research Assistant, The University of Texas at Dallas (1985-93); Post-Doctoral Fellow, Montreal Neurological Institute, McGill University (1993-96); Post-Doctoral Fellow, McGill Vision Research, McGill University, Montreal, Canada (1996-Present) Ziegler published following papers: Ziegler, L. R., Kingdom, F. A. A. & Hess, R. F. (In Press). Local luminance factors that determine the maximum disparity for seeing cyclopean surface shape. *Vision Research* 40(9), 1157-1165; McColl, S. L., Ziegler, L. R. & Hess, R. F. (In Press). Stereodeficient subjects demonstrate non-linear stereopsis. *Vision Research*; Hess, R. F. & Ziegler, L. R. (In Press). What limits the contribution of second order motion to kinetic depth? *Vision Research*; Kingdom, F. A. A., Ziegler, L. R. & Hess, R. F. (Submitted). Luminance spatial frequency differences facilitate stereoscopic depth segmentation; Ziegler, L. R., Hess, R. F. & Kingdom, F. A. A. (2000). Global factors that determine the maximum disparity for seeing cyclopean surface shape. *Vision Research*, 40(5), 493-502; Ziegler, L. R. & Hess, R. F. (1999). Stereoscopic depth but not shape from second-order stimuli. *Vision Research*, 39(8), 1491-1507; Hess, R. F., Ziegler, L. R. & Kingdom, F. A. A. (1999). The linkage between the spatial channels for luminance and disparity modulation. *Vision Research*, 39(3), 559-568; Ziegler, L. R. & Hess, R. F. (1998). Depth perception during diplopia is direct. *Perception*, 26, 1225-1230; Ziegler, L. R. & Roy, J. P. (1998). Large scale stereopsis and optic flow: Depth enhanced by speed and opponent-motion. *Vision Research*, 38(9), 1199-1209; Ziegler, L. R. & Dowling, J. (1995). The hierarchical nature of perceiving direction of motion in depth from optic flow. *Vision*

*Research*, 35(10), 1435-1446; Ziegler, L. R. & Dorf, R. C. (1987). Applications of an analysis of the geometry of light-stripping vision systems. *Robotics*, 3, 167-173; Ziegler, L. R., Hess, R. F. & Kingdom, F. A. A. (1999). The relationship between luminance spatial frequency and  $d_{\max}$  for shape-from-stereo. *Investigative Ophthalmology & Visual Science*, 40(4), S420; Ziegler, L. R., Hess, R. F. & Kingdom, F. A. A. (1998). Factors that determine the maximum disparity for stereoscopic shape perception. (Presented at 21<sup>st</sup> ECVP, Oxford, August 1998.) *Perception*, 27 Supplement, 109b; McColl, S. L., Ziegler, L. R. & Hess, R. F. (1998). Linear and non-linear stereopsis in individuals with stereodeficiencies. *Investigative Ophthalmology & Visual Science*, 39(4), S556; Kingdom, F. A. A., Ziegler, L. R. & Hess, R. F. (1998). Luminance spatial frequency differences facilitate stereoscopic depth-segmentation. *Perception*, 27, Supplement, 21b; Hess, R. F. & Ziegler, L. R. (1998). Shape from linear but not nonlinear motion. *Perception*, 27, Suppl., 4b; Ziegler, L. R. & Hess, R. F. (1998). Why is there depth but no shape from uncorrelated micropatterns? *Investigative Ophthalmology & Visual Science*, 39(4), S615; Hess, R. F., Ziegler, L. R. & Kingdom, F. A. A. (1997). The linkage between the spatial channels for luminance and disparity modulation. *Investigative Ophthalmology & Visual Science*, 38(4), Vol. I, S954; Ziegler, L. R. & Hess, R. F. (1997). Linear and non-linear stereoscopic contributions distinguished by task. *Investigative Ophthalmology & Visual Science*, 38(4), Vol. II, S906; Ziegler, L. R. & Roy, J. P. (1996). Perceiving depth in large-field, high-disparity stereomotion displays (Talk given at ARVO 1996). *Investigative Ophthalmology & Visual Science*, 37(3), S685; Ziegler, L. R. & Roy, J. P. (1995). Does perceived 3D surface orientation alter the displacement limit of apparent motion? *Investigative Ophthalmology & Visual Science*, 36(4), S363. Ziegler wrote book reviews for: *Vision Research*, *Proceedings of the Royal Society*, and *Journal of Experimental Psychology: Human Perception and Performance*. He received the Winner of Outstanding Achievement Award for contributions to a NASA project (1977). Personal Interests: Art, photography, mathematics and science in general, classical literature and music, history, religion and philosophy. Address: McGill Vision Research, McGill University, 687 Pine Avenue West, Room H4-14, Montreal, Quebec H3A 1A1 phone: Royal Victoria Hospital: (514) 842-1231, Extension 5913 Fax: (514) 843-1691 E-mail: zieg@vision.mcgill.ca

**Ziegler, S. Lewis (1861-1926)** American ophthalmologist. Ziegler was born in Lewisburg, Pa., and received his preliminary schooling there and then entered Bucknell University from which he was graduated with the degree of A. B. in 1880. He came to Philadelphia in 1882 and matriculated in the Medical School of the University of Pennsylvania, and was graduated in 1885, then serving as interne at the Germantown and Episcopal Hospitals, and finally at the Wills Eye Hospital, in which he later became attending surgeon and subsequently executive medical officer. In 1889, he organized the eye clinic at St. Joseph's Hospital and remained a member of the staff up to the time of his death. In recognition of his work, he subsequently received his M.A. from Bucknell, and had the honorary degrees of Sc.D. and LL.D. conferred on him by Bucknell and Lafayette respectively. A close observer, of keen and analytic mind, he studied his cases with an untiring exactitude which generally brought him to conclusions, logically correct and sometimes at variance with the usually accepted theories of etiology and pathology. His treatment, always rational and often original for difficult and obscure cases, has, in many instances, become accepted as most efficacious. His ingenuity in devising and supervising the making of new instruments in ophthalmic practice, was of absorbing interest and genuine pleasure, to him, and some of his special operations have received well merited international recognition and adoption. Ziegler took the keenest interest in the new developments in the general field of medicine, and his activities outside his own specialty were evidenced by his valuable work in the local chapter of the American Red Cross, and his successful administration as Director of the Bureau of Health and Charities of the City of Philadelphia. For some years Ziegler had been writing and collecting material for a monumental work upon the surgery of the eye. He spent much time in the great libraries of Europe consulting original authorities and having photographic copies made of the portraits of the most noted ophthalmic surgeons from the earliest times. These portraits, together with reproductions of an admirable set of drawings of operations made under his directions, would have been the illustrations for the text, still unfinished, which it was the ambition of his life to complete. *AJO* 9,1926:689-690

**Zimmerman, Lorenz E. (1920- )** American ophthalmologist. Born to German and Swiss immigrant parents in Washington, DC in 1920, Lorenz Zimmerman received his medical degree from George Washington University. His residency training at Walter Reed Army Hospital was interrupted by the Korean War, during which he commanded a mobile medical laboratory. Returning after the war to the Armed Forces Institute of Pathology (AFIP), he pursued his first love, ophthalmic pathology, chairing the department for 29 years. Rather than directly treating patients, ophthalmic pathologists study tissues and cells of the eye to improve the scientific understanding of eye disease. At AFIP, Zimmerman established training programs and encouraged young ophthalmologists to go into this important research field. JPW

**Zinn, Johann Gottfried (1727-1759)** German anatomist, born in Ansbach, Germany. Zinn studied under Albrecht von Haller at the University of Göttingen, where he received his M.D. in 1749. After several years of botanical and anatomical studies in Berlin, he became professor of medicine at Göttingen and director of the city's botanical gardens (1753-1759). Zinn made important discoveries concerning the iris, ciliary body, lens, and ophthalmic nerves; for him are named the annulus of Zinn and the zonule of Zinn (the latter not discovered, but first fully described, by him). He authored the *first* complete anatomy of the eye: *Descriptio anatomica oculi humani iconibus illustrata* Göttingen 1755; *Observationes quaedam botanicae et anatomicae de vasis subtilioribus oculi et cochlea auris internae ... illustern Paulum Gottlieb Werlhof* Göttingen 1753. Albert

**Zuo, Ke-Ming (1900- )** Chinese ophthalmologist, former Professor, Chief Physician and the Director of the Department of Ophthalmology of Beijing Hospital. He graduated from Liaoning Medical College in 1926. Subsequently, he worked as resident Ophthalmologist and assistant doctor in Shenyang Ophthalmology Hospital (1926-1931), Chief of the Department of Ophthalmology in Shenyang Ophthalmology Hospital (1930), Chief physician and the Director of the Department of Ophthalmology in Tongren Hospital of Beijing (1930-1942) and Professor, Chief physician and the Director of the Department of Ophthalmology of Beijing Hospital (1949-1984). In 1950-1984, he served as a member of the Committee of the Chinese Ophthalmological Society and of the Editorial Board of the *Chinese Journal of Ophthalmology* for 39 years (1949-1989) and of the *Chinese Medical Journal*. He has been appointed a member of the Central Committee of Chinese Minjin Party for 12 years. He has been engaged in clinical research in Ophthalmology and clinical service for 60 years, and published many original papers in the *Chinese Journal of Ophthalmology*: some examples are "*Statistics and analysis of gonococcal conjunctivitis in North area of China* (1938)", "*Ocular Shingles* (1952)", "*Early diagnosis of glaucoma in Chinese elderly, an analytical study of optical conditions of the elderly* (1987)". He participated in compilation of "the *System of Ophthalmology*", "*Chinese Medical Encyclopaedia*" and "*Geriatrics*" and many others.(SM)

**Romano, Paul Edward (1934- )** American Pediatric Ophthalmologist and Strabologist, born In New York, New York. Romano received his A.B. from Cornell University, Ithaca, New York, New York (1955), his M.D. from Cornell University Medical College. New York, New York. (now Weill Medical Center of Cornell University) (1959). After a surgical internship and a year of surgical residency at Albany, New York, Medical Centre Hospital (1960-61) he served three years in Würzburg, Germany as a general medical officer with the U.S. Army (1961-1964). He then completed an ophthalmology residency at Georgetown University Medical College, Washington D.C. (1967) receiving an M.S. (with Distinction) in Ophthalmology. He served an Ophthalmic Pathology Fellowship at the Armed Forces Institute of Pathology, Washington D.C. (1967) and then a two year Strabismus and Ocular Motility Fellowship under Gunter K. von Noorden at the Wilmer Institute of the Johns Hopkins Hospital, Baltimore Maryland (1967-1969). After marrying an orthoptist, Judith Ann Robinson, whom he met during his fellowship, they moved to Chicago and took over the eye service at the Children's Memorial Hospital of the Northwestern University Medical School. After a highly productive decade, in 1980 he was strenuously recruited to Gainesville, Florida to assume the title of full Professor of Ophthalmology and Pediatrics and responsibility for the pediatric ophthalmology and strabismus service at the University of Florida until 1989, when they took what turned out to be an early retirement to devote themselves to their journal. He was a charter member of the American Association for Pediatric Ophthalmology and Strabismus (1974). His 400 published papers (as of 2002) have been published widely in ophthalmic and other books and journals since 1966. His many contributions to medical science include first

describing: the invalidity of Knapp's Law in clinical axial ametropias; aqueous LDH isoenzyme test for retinoblastoma diagnosis; technique of intraoperative adjustment of eye muscle surgery for increased accuracy of correction; iris lesions in tuberous sclerosis; pneumatosis oculi; method of photogrammetric diagnosis of optic nerve hypoplasia; method of measuring strabismus of far gaze using light reflections; the central form of ocular sighting dominance. He first defined vision requirements for lip-reading. He confirmed and popularized the use of systemic steroids to eliminate rebleeding in traumatic hyphema. He designed the right angle dual caliper (with Campos) for use in strabismus surgery, the variable aniseikonometer and the Active Feedback Distance Ocular Fixation Target. As an avocation for over 30 years from 1956 to 1988 he also owned, built (including engines), maintained and successfully drove and raced a series of sports cars and sedans in amateur and professional sprint and endurance races, winning a number of amateur championships. He also won the Grand Prix of Panama in 1985. He is the founder of the POMMM (Pediatric Ophthalmologists for the Medical Management of Myopia) and SASS.O5 (Scientists for the Abrogation of "Statistical Significance=P .05" ). To-day he continues as the Founding Editor and Publisher, since 1985, of the Indexed journal Binocular Vision & Strabismus Quarterly. His wife Judy continues as General Manager. After retiring from private practice in 1989, he became an investor and as a result was able to become a modest ophthalmologic philanthropist, making donations to the Wilmer Institute of Johns Hopkins Hospital to fund fellowship work in the Krieger Children's Eye Center and to the Library which was renamed the Friedenwald-Romano Library; to Baylor University in Houston, Texas to honor his mentor, Dr.Gunter K. von Noorden; and to open space preservation efforts in the Rocky Mountains where they presently live. Address: 740 Piney Acres Circle, Box 3727, Dillon, CO 80435-3727, USA. e-mail: perxbvq@colorado.net

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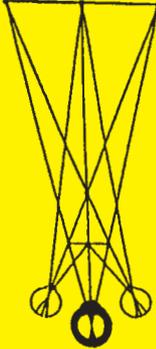
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**Paul E. Romano, MD, MSO**  
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