



THE HONG KONG  
POLYTECHNIC UNIVERSITY

香港理工大學

凝聚智慧 創建未來

INNOVATION AND APPLICATION  
FOR THE FUTURE



眼科視光學院

SCHOOL OF OPTOMETRY

# In-focus

A newsletter of the School of Optometry

Vol. 10 | Issue 1 | 2012

# 醫療券

## Health Care Voucher

香港特別行政區政府

The Government of  
the Hong Kong Special Administrative Region



## Part I Optometrists Participate Elderly Health Care Voucher Scheme

## PART I OPTOMETRISTS PARTICIPATE ELDERLY HEALTH CARE VOUCHER SCHEME



The Hong Kong Government has extended the Elderly Health Care Voucher Pilot Scheme for another three years from 1 January 2012 and allowed Part I Optometrists to join. This means that eligible Hong Kong elders can now use their vouchers to procure primary eye care from approved Optometrists. Optometrists who wish to join can apply via the Health Care Voucher website ([www.hcv.gov.hk](http://www.hcv.gov.hk)).

The three-year Elderly Health Care Voucher Pilot Scheme was launched in 2008. It entitled people aged 70 years or above to five \$50 vouchers each every year to subsidize their visits to specific types of private health care providers. Under the extension, each eligible elder can have ten vouchers annually. These vouchers, however, are not to be used to buy products, such as spectacles or other optical goods.

In the initial three-year period, authorized health care providers were restricted to physicians, traditional Chinese medicine practitioners, dentists, chiropractors, registered nurses and enrolled nurses, physiotherapists, occupational therapists, radiographers and medical laboratory technologists.

The inclusion of Part I Optometrists is a major milestone for our profession because it signifies that the Government recognizes the value and role of Optometry in providing eye health services in the community for the elderly. The ultimate winners are the aged, who now have wider and more affordable access to primary eye care in their own neighbourhoods.

The opening up of the Scheme to Part I Optometrists is the result of a long and concerted effort by many parties and individuals. We would like to take this opportunity to thank in particular PolyU's School of Optometry, The Hong Kong Society of Professional Optometrists (HKSPPO) and The Hong Kong Private Practice Optometrists (HKAPPO) for their persistent lobbying of the Department of Health and the Food and Health Bureau to allow Part I Optometrists to take part in the Scheme for the benefit of Hong Kong's elderly.

### **Prof. George Woo**

Visiting Chair Professor of Optometry  
and Emeritus Professor

### **Mr. Peter Pang**

Associate Consultant Optometrist  
School of Optometry





## WHAT'S HAPPENING OUT THERE?

### The 9th Joint Eye Research Day

The 9th Joint Eye Research Day was co-organized by the State Key Laboratory of Ophthalmology, Zhongshan Ophthalmic Center, Sun Yat-sen University, and The Hong Kong Polytechnic University's School of Optometry on 7 January 2012 at PolyU's Hotel ICON. The one-day research symposium aims to provide a platform for academic exchange between scholars and a valuable learning experience for postgraduates to present their work. More than 80 staff and students from leading eye research centres in Hong Kong, mainland China and Taiwan came together to share and discuss their latest research findings. The programme featured various talks in the field of ophthalmology and vision research, including macular degeneration, glaucoma, myopia development, contact lenses and orthokeratology.



### Training Workshop on "Visual Development in Children"

By Ms Bibianna Yu, Optometrist

A workshop on "Visual Development in Children" was organized by the Hospital Authority from 9 to 12 January 2012 at the Hong Kong Eye Hospital. At the event, Prof. Lea Hyvärinen shared her knowledge of visual assessment and rehabilitation in children. Her vast body of work and experiences with children with visual impairment and other developmental disabilities impressed all of the participants and highlighted the importance of multidisciplinary collaboration. In the sharing session by local organizations, I was honoured to represent the School of Optometry and speak to the paediatric specialists about our recent findings on the ocular characteristics of children with special needs. And I'm happy to report some good news: a working group comprising representatives from all the specialties present has been formed by the Hospital Authority to enable us to plan how we can work in a more integrated way to help visually impaired children in the future.





## WHAT'S HAPPENING OUT THERE?

### Annual School Retreat

On 19 December 2011, around 50 staff and Advisory Committee members participated in the annual retreat themed "2012 — New Structure of Optometry Curriculum" off campus. Mr. Jimmy Wu, Senior Manager (Allied Health) of the Hospital Authority, was invited to talk about the career progression model for allied health professions in the Hospital Authority. Miss Mavis Fung, Ms. Rita Sum and Miss Carol Wong, Optometrists at our School, also shared their experiences of offering hospital-based optometric services, including diabetic retinopathy screening, triage service and cataract care service. A highlight of the event was a presentation on global perspectives in optometric education given by our Visiting Chair Professor of Optometry and Emeritus Professor George Woo. Last but not least, Mr. Peter Pang, Associate Consultant Optometrist at the School, provided attendees with an update of the launch of our new Optometry Clinic Management System (OCMS) and the adoption of the Elderly Health Care Voucher Scheme at the clinic.



### School Helps Special Olympians in Hong Kong

For many years, our School has taken part in the annual Opening Eyes vision screening of the Special Olympics' Healthy Athletes programme in Hong Kong. This year, our Optometrists and students, together with volunteers from the profession, screened 129 intellectually disabled athletes at a sports event on 11 February 2012. Although nearly half of the participants have failed the vision tests we administered, the prescription of new glasses have helped to improve the vision of these athletes. Intellectually disabled athletes in general tend to be at a high risk for eye problems like large refractive errors as well as cataract. The School is proud to be involved with the Special Olympics and will continue to support this meaningful movement in the future.





WHAT'S HAPPENING OUT THERE?

School's Staff Help Faculty Win on PolyU Staff Games Day 2011

Over 20 staff members from the School took part in several athletic and fun events at the PolyU Staff Games Day during the warm and sunny morning of 11 December 2011 as part of the Faculty of Health and Social Sciences squad. Our team spirit shone through as we helped our Faculty to win both the Best Team Award and the Most Supportive Team Award. Congratulations to everyone from the School who took part!



Visit to Singapore and Thailand

Prof. George Woo visited Singapore Polytechnic's University of Manchester Optometry Degree Program and met Dr. Thomas Chai, Senior Director of Singapore Polytechnic, Dr. Tan Kah-ooi, Director of the Program, and some friends from Hong Kong who are now working in the institution. In addition, Prof. George Woo also visited Dr. Danai Tonketmonghon, Optometry Program Head of the Institute of Health Science, Ramkhamhaeng University in Bangkok.



Dr. Thomas Chai and Dr. Tan Kah-ooi



(From left to right) Dr. Thomas Lam, Dr. Tan Kah-ooi, Prof. George Woo, Dr. Patrick Ting and Dr. Ivan Leung



Dr. Danai Tonketmonghon

Donations to the School

HOYA Lens Hong Kong Ltd. donated two TrueView tablets worth HK\$43,600 to the School's Optometry Clinic.

Our Lady of Maryknoll Hospital Ltd. donated a non-mydratric fundus camera and accessories to the School.

## OUR PEOPLE

### Honorary Appointments of the School

#### Honorary Professors:



**Prof. Hermann Barry Collin**  
(re-appointment)  
(University of New South Wales)



**Prof. Ge Jian**  
(re-appointment)  
(Sun Yat-sen University)

**Prof. Liu Yizhi**  
(new appointment)  
(Sun Yat-sen University)



Prof. Liu Yizhi is the Director of Zhongshan Ophthalmic Center (ZOC) and President of the Zhongshan Eye Hospital. His research interest and expertise are in cataract. As one of the experts in China who has initiated the operation of cataract phacoemulsification with intraocular lens implantation, Prof. Liu has been committed to the medical care, teaching, and research on cataract and blindness-prevention for over 20 years.

#### Adjunct Professor:

**Prof. Yip Hing-fai Jeffrey**  
(re-appointment)  
(Private Optometrist)



### PolyU Long Service Awards

Prof. Carly Lam, Miss Jupy Chow, Mr. Andy Kong, Mr. Jimmy Pang and Ms. Linda Liu from the School received Long Service Awards from PolyU. Congratulations to them!



### Standard Chartered Hong Kong Marathon 2012

Mr. Andy Kong, Technician, entered the 10K Challenge race of the Standard Chartered Hong Kong Marathon 2012 on 5 February 2012. His net finishing time earned him the 1st runner-up prize in the male staff category of the PolyU Running Team. Well done!



## Visitors to the School of Optometry

### Prof. Thomas Freddo

Professor, School of Optometry, University of Waterloo, Canada, and Departmental Academic Advisor, School of Optometry, The Hong Kong Polytechnic University

Date: 20-22 Feb 2012

### Dr. Cindy Tromans

Immediate Past President, The College of Optometrists, UK, and Consultant Optometrist, Department of Optometry, Manchester Royal Eye Hospital, UK

Date: 22-27 Apr 2012



## OUR RESEARCH

### Myopic Control Using Orthokeratology

By Prof. Pauline Cho

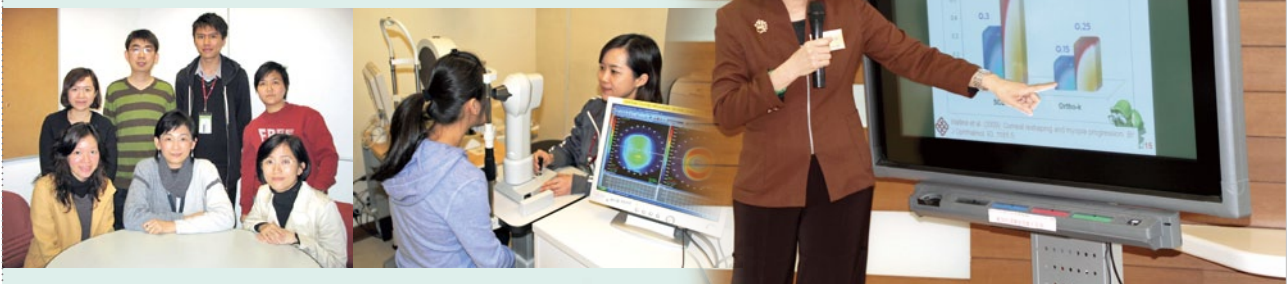


In 2005, our research team published findings in "Current Eye Research" journal on the use of orthokeratology for controlling the progression of myopia. Our results presented clinical evidence that orthokeratology may have a potential for controlling the progression of myopia in children. This prompted collaborative research agreements between PolyU and Menicon Co. Ltd (Japan) to confirm whether orthokeratology can indeed slow the progression of myopia in children. In 2008, two clinical trials, ROMIO (Retardation Of Myopia In Orthokeratology) and TO-SEE (Toric Orthokeratology — Slowing Eyeball Elongation), were conducted.

The ROMIO study is the first completed, randomized, single-masked study in the world to investigate the effectiveness of orthokeratology for myopic control in children. Children aged 7 to 10 years old, with myopia not more than 4.00D, were recruited and randomly assigned to either the orthokeratology group or the spectacle group. A total of 77 children (40 in the spectacle group, 37 in the orthokeratology group) completed the study. To monitor any changes in myopia, the eyeball lengths of the children were measured before the commencement of the treatment and every 6 months thereafter for 24 months. At the end of 24 months, an increase in eyeball length of 0.63 mm was found in the spectacle group and 0.36 mm in the orthokeratology group. In other words, the increase in eyeball length in children wearing orthokeratology lenses was about 43% slower than in those who were wearing spectacles.

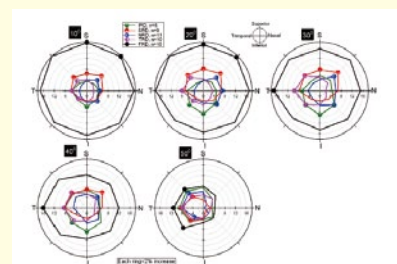
In the TO-SEE study, 37 children aged 6 to 12 years old, with myopia not more than 4.50D and astigmatism between 1.25D and 3.50D, completed the study. Toric design orthokeratology effectively reduced the astigmatism by 79% after one month of lens wear and the increase in eyeball length in this group of children was 0.31 mm at the end of 24 months.

In summary, our studies present scientific evidence that orthokeratology is effective in slowing the progression of myopia in children with low to moderate myopia by at least 40%. A press briefing was arranged on 8 January 2012 at the Optometry Clinic to announce the results of these two studies.



#### Research Student's Work On "Vision Research" Journal Cover

An image from our PhD student Mr. Geoffrey Chu's research work was featured on the cover of the February 2012 issue of "Vision Research".



## OUR RESEARCH

### Conference Presentations

Presenter	Conference	Title of Presentation
Mr. Sam Cheng	The 18th Asia Pacific Optometric Congress (Singapore), 24-26 November 2011	Prevalence and risk factors of myopic related retinal changes among Hong Kong Chinese teenagers with high myopia
Ms. Bibianna Yu	Hospital Authority Commissioned Training Workshop on "Visual development in children" (Hong Kong), 9-12 January 2012	Ocular characteristics of children with special needs in Hong Kong
Mr. Vincent Chui	Global Specialty Lens Symposium (USA), 26-29 January 2012	Unilateral corneal staining in an orthokeratology case
Mr. Jimmy Tse	Global Specialty Lens Symposium (USA), 26-29 January 2012	Contact lenses induced intra-corneal hemorrhage secondary to corneal neo-vascularization
Dr. Larry Ng	CLAO/CLAO Education and Research Foundation Symposium and Congress (USA), 26-28 January 2012	Reduction in axial length after long-term overnight orthokeratology lens wear: Case reports
Prof. George Woo	World Ophthalmology Congress 2012 (United Arab Emirates), 16-20 February 2012	<ol style="list-style-type: none"> <li>1. Development of a subjective refraction system with a Stenopaic slit</li> <li>2. Anthocyanin-rich bilberry extract supplements for dry eyes: A pilot study</li> </ol>
Prof. Pauline Cho	3rd Asia Orthokeratology & Specialty Lens Conference (China), 30-31 March 2012	<ol style="list-style-type: none"> <li>1. Orthokeratology for myopic control for myopic and astigmatic children (ROMIO &amp; TO-SEE studies)</li> <li>2. High myopia - partial reduction orthokeratology (HM-PRO) study</li> </ol>
Prof. Pauline Cho	12th International Congress of Ophthalmology and Optometry China (COOC) (China), 30 March-1 April 2012	角膜塑形術控制近視加深
Ms. Lee Tsui-tsui	3rd Asia Orthokeratology & Specialty Lens Conference (China), 30-31 March 2012	Changes in relative peripheral refraction in children after thirteen months of orthokeratology lens wear
Mr. Chan Ka-yin	3rd Asia Orthokeratology & Specialty Lens Conference (China), 30-31 March 2012	Orthokeratology for slowing myopic progression in a pair of identical twins
Ms. Connie Chen	3rd Asia Orthokeratology & Specialty Lens Conference (China), 30-31 March 2012	Corneal biomechanical changes in long-term orthokeratology wear on myopic and astigmatic children
Ms. Peggy Cheung	3rd Asia Orthokeratology & Specialty Lens Conference (China), 30-31 March 2012	<ol style="list-style-type: none"> <li>1. Anterior segment length in orthokeratology</li> <li>2. Parents' perspective on myopic control treatment options</li> </ol>
Mr. Roger Chiu	European Academy 2012 Dublin (Ireland), 20-22 April 2012	Case study: Successful lid crutches fitting in patient with bilateral ptosis
Ms. Rita Sum	19th Wonca Asia Pacific Regional Conference in Korea (Korea), 24-27 May 2012	How does optometrist service in general out-patient clinic affect referral pattern to ophthalmologists?



## OUR RESEARCH

## New Papers

Boost M, Poon KC, **Cho P**, Contamination risk of reusing daily disposable contact lenses. *Optom Vis Sci* 2011;88:1409-13.

Boost MV, **Shi GS**, Lai S, **Cho P**, Amoebicidal effects of contact lens disinfecting solutions. *Optom Vis Sci* 2012;89:44-51.

**Chan KY, Cheung SW, Cho P**, Corneal parameters of six- to 12-year-old Chinese children. *Clin Exp Optom* 2012;95:160-5.

**Chan KY, Cheung SW, Lam AK, Cho P**, Corneal sublayer thickness measurements with the Nidek ConfoScan 4 (z Ring). *Optom Vis Sci* 2011;88:E1240-4.

**Chen C, Cho P**, Toric orthokeratology for high myopic and astigmatic subjects for myopic control. *Clin Exp Optom* 2012;95:103-8.

Chen J, Gao Q, Liu Y, Ge J, Cao X, Luo Y, Huang D, Zhou G, Lin S, Lin J, **To CH**, Siu AW, Clinical device-related article evaluation of morphology and functions of a foldable capsular vitreous body in the rabbit eye. *J Biomed Mater Res B Appl Biomater* 2011;97:396-404.

Chen YP, Hocking PM, Wang L, Povazay B, Prashar A, **To CH**, Erichsen JT, Feldkaemper M, Hofer B, Drexler W, Schaeffel F, Guggenheim JA, Selective breeding for susceptibility to myopia reveals a gene-environment interaction. *Invest Ophthalmol Vis Sci* 2011;52:4003-11.

Chen YP, Prashar A, Erichsen JT, **To CH**, Hocking PM, Guggenheim JA, Heritability of ocular component dimensions in chickens: genetic variants controlling susceptibility to experimentally induced myopia and pretreatment eye size are distinct. *Invest Ophthalmol Vis Sci* 2011;52:4012-20.

**Cho P, Chan B, Cheung SW**, Mountford J, Do fenestrations affect the performance of orthokeratology lenses? *Optom Vis Sci* 2012;89:401-10.

**Cho P, Cheung SW, Charm J**, Visual outcome of softlens daily disposable and softlens daily disposable for astigmatism in subjects with low astigmatism. *Clin Exp Optom* 2012;95:43-7.

**Choy CK, Cho P**, Boost MV, Cytotoxicity and effects on metabolism of contact lens care solutions on human corneal epithelium cells. *Clin Exp Optom* 2012;95:198-206.

**Chu CH**, Deng L, **Kee CS**, Effects of hemiretinal form deprivation on central refractive development and posterior eye shape in chicks. *Vision Res* 2012;55:24-31.

**Chu PHW, Ng YF, To CH**, So KF, Brown B, **Chan HHL**, Luminance-modulated adaptation in the global flash mfERG: a preliminary study of early retinal functional changes in high-risk glaucoma patients. *Graefes Arch Clin Exp Ophthalmol* 2012;250:261-70.

Gordon-Shaag A, **Millodot M**, Shneur E, The epidemiology and etiology of keratoconus. *Int J Keratoco Ectatic Corneal Dis* 2012; 1:7-15.

Gordon-Shaag A, **Millodot M**, Ifrah R, Shneur E, Aberrations and topography in normal, keratoconus-suspect, and keratoconic eyes. *Optom Vis Sci* 2012;89:411-8.

**Ho DW, Yap M**, Yip SP, UPDG: Utilities package for data analysis of Pooled DNA GWAS. *BMC Genet* 2012;13:1.

**Ho WC**, Wong OY, Chan YC, Wong SW, **Kee CS, Chan HH**, Sign-dependent changes in retinal electrical activity with positive and negative defocus in the human eye. *Vision Res* 2012;52:47-53.

**Lam CS, Lam CH, Cheng SC, Chan LY**, Prevalence of myopia among Hong Kong Chinese schoolchildren: changes over two decades. *Ophthalmic Physiol Opt* 2012;32:17-24.

Mak JY, **Yap MK**, Fung WY, **Ng PW**, Yip SP, Association of IGF1 gene haplotypes with high myopia in Chinese adults. *Arch Ophthalmol* 2012;130:209-16.

**Swann PG**, Zeri F, Precipitazioni sull'endotelio. *LAC* 2011;13:93-94.

**Tse DY, To CH**, Graded competing regional myopic and hyperopic defocus produce summated emmetropization set points in chick. *Invest Ophthalmol Vis Sci* 2011;52:8056-62.

Yip SP, Leung KH, **Ng PW**, Fung WY, Sham PC, **Yap MK**, Evaluation of proteoglycan gene polymorphisms as risk factors in the genetic susceptibility to high myopia. *Invest Ophthalmol Vis Sci* 2011;52:6396-403.

Zeri F, Calcatelli P, Donini B, Lupelli L, Zarrilli L, **Swann PG**, The effect of hydrogel and silicone hydrogel contact lenses on the measurement of intraocular pressure with rebound tonometry. *Cont Lens Anterior Eye* 2011;34:260-5.

**Zhang H, Wong CL, Shan SW, Li KK, Cheng AK**, Lee KL, Ge J, **To CH, Do CW**, Characterisation of Cl transporter and channels in experimentally induced myopic chick eyes. *Clin Exp Optom* 2011;94:528-35.

## Upcoming Conferences / Seminars / Workshops

	Date & Venue	Details
Conferences	8 November 2012 Hong Kong Convention and Exhibition Centre, Hong Kong	The 10th Hong Kong Optometric Conference
School Seminars	30 May 2012 Venue: Room BC215	Measurement of corneal elasticity using an OCT-based air jet indentation system by Miss Hon Ying, Research Student, School of Optometry, PolyU
	11 June 2012 Venue: Room BC215	The cause(s) of myopia and the efforts that have been made to prevent it by Prof. Jacob Sivak, Distinguished Professor Emeritus, University of Waterloo, Canada

# STUDENTS CORNER

## 19th Optometry Departmental Society (OPTDS) Executive Committee



The new 19th OPTDS executive committee, WIF-EYE (瞻視幫), was elected and formed on 1 March 2012. The committee members would like to thank all the members of the society for their participation and support. To enhance the sense of belonging and congeniality among members, the new committee will be organizing many social activities in the year ahead.

### WIF-EYE Executive Committee:

#### > Back row (from left to right):

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>① Miss Mak Ka-yan, Kay<br/>(Promotions Secretary)</li> <li>③ Mr. Chong Tsz-pong<br/>(Welfare Secretary)</li> <li>⑤ Miss Szeto Ka-hei, Kimberley<br/>(Sports Secretary)</li> <li>⑦ Mr. Lo Tsz-hin, Andy<br/>(Information Technology Secretary)</li> </ul> | <ul style="list-style-type: none"> <li>② Mr. Leung Chi-wing, Neo<br/>(Financial Secretary)</li> <li>④ Mr. Lam Chun-wang, Ivan<br/>(General Secretary)</li> <li>⑥ Miss Wong Ka-man, Zita<br/>(External Secretary)</li> <li>⑧ Mr. Kwan Chun-hin, Sam<br/>(Internal Secretary)</li> </ul> |
|---|--|

#### > Front row (from left to right):

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>⑨ Mr. Lee Chun-wing<br/>(External Vice President)</li> <li>⑪ Miss Cheng Wing-lam<br/>(Internal Vice President)</li> </ul> | <ul style="list-style-type: none"> <li>⑩ Mr. Ko Man-chung, Kelvin<br/>(President)</li> </ul> |
|--|--|





STUDENTS CORNER

OPTDS Cup 2012

The Optometry Departmental Society (OPTDS) Cup is an annual event that encourages members of the society and staff to get to know one another informally through sports-related fun. The competitions this year were in soccer, basketball, badminton, dodgeball, and the soccer video game "Winning Eleven 2010".

The champions were:

- Soccer : Staff
- Basketball : Year 2 Students
- Badminton (Singles): Mr. Gilford Wong (Year 2)
- Badminton (Mixed) : Mr. Li Yat-hei (Year 3),  
Miss Kimberley Szeto (Year 1)
- Dodgeball : Year 1 Students
- Winning Eleven : Mr. Lee Chun-wing (Year 1)



## OPTOMETRY ALUMNI

### 25th Anniversary of the 1st Professional Diploma Graduation Class

By Mr. Daven Ngai, 1987 Graduate, Professional Diploma in Optometry

If it wasn't for an alum who called me up and told me about this anniversary, I would have almost certainly forgotten that I'd graduated 25 years ago from the then new Professional Diploma in Optometry course!

Sometimes you just choose not to mention anything that could give your age away, especially for something happened in the LAST CENTURY! However, I feel quite proud to say that I graduated 25 years ago and that I'm still alive and kicking in our profession!

I remember there were altogether 31 graduates in that landmark class of 1987. Fortunately, about half of us are still practicing in either Hong Kong or abroad. A few have been working as civil servants and some as professors in universities around the world. Oh, and one has retired and is living in New Zealand!

Although most of us are busy with our own lives, I'm glad that most of us have tried our best to attend gatherings and reunion events over the years. It's fun and enjoyable to talk and share memories, especially about our old student days, with a group of old friends who have known one another for almost 30 years. Above all, it's always amazing to learn that the son or daughter of this or that friend has graduated from university!

Looking back, we've realised that our feelings as Optometrists have changed over the years. After graduation, in the first 10 years, we were passionate and excited. In the second 10 years, our contentment became confusion with a dose of feeling lost. In the third 10 years, however, we were happy-go-lucky. I'm not yet sure what our dominant feeling will be in our fourth decade, but I'll keep you informed. We won't have to wait long — just 5 more years!



*First cohort of graduates of the Professional Diploma in 1987*



*(From left to right) Dr. Andrew Siu, Dr. Susana Chung, Ms. Freda Yan, Mr. Tse Siu-kee and Mr. Tony Cheng*



*(Front row, from left to right) Mr. Tse Siu-kee, Ms. Lam Wai-yee, Mr. Brian Chan and Mr. Lee Hung-chiu  
(Back row, from left to right) Prof. To Chi-ho, Mr. Daven Ngai, Mr. Philip Lau, Dr. Susana Chung, Mr. Oscar Lau, Mr. Jackson Leung, Mr. Matthew Chu and Mr. Joseph Chan*