HKIOS
HONG KONG INTERNATIONAL OPTOMETRIC SYMPOSIUM
香港國際視光學會議

The 22nd Hong Kong International Optometric Symposium
第二十二屆香港國際視光學會議

Myopia – From Control to Prevention, Where Are We Now?
近視 – 從控制到預防，我們現在處於何處？

7 / 11 / 2024
Thursday 星期四

9:00am – 5:00pm
上午9時 – 下午5時
UTC/GMT+8 HKT 香港時間

Meeting Room N101, Hong Kong Convention and Exhibition Centre
香港灣仔博覽道1號 香港會議展覽中心會議室 N101

Organiser
主辦機構

HKTDC 香港貿發局

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合作機構

香港光學會 The Hong Kong Optometric Association

The Hong Kong Polytechnic University 香港理工大學

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The 22nd Hong Kong International Optometric Symposium

Under the theme "**Myopia - From Control to Prevention, Where Are We Now?**", the Symposium will feature 6 experts from Germany, Australia, Hong Kong and Mainland China to share the latest research on myopia control and prevention in optometric practice.

第二十二屆香港國際視光學會議

第二十二屆香港國際視光學會議以"**近視 - 從控制到預防，我們現在處於何處？**"為主題，邀請了來自德國、澳洲、香港及中國內地的六位專家分享驗光實踐中近視控制和預防的最新研究成果。

For enquiry, please contact:
Exhibitions and Digital Business Department, Hong Kong Trade Development Council
Unit 13, Expo Galleria, Hong Kong Convention and Exhibition Centre
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Email: hkios@hktdc.org

如有查詢歡迎聯絡：
香港貿易發展局 展覽及數碼業務部
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This activity, COPE Activity Number 129458, is accredited by COPE for continuing education for optometrists.
此會議（COPE 活動編號 129458）已獲得 COPE 認證，可作於驗光師的持續進修課程。

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HKIOS HONG KONG INTERNATIONAL OPTOMETRIC SYMPOSIUM 香港國際視光學會議

The 22nd Hong Kong International Optometric Symposium
第二十二屆香港國際視光學會議

Myopia – From Control to Prevention, Where Are We Now?
近視 － 從控制到預防，我們現在處於何處？

Date/日期 : 7/11/2024 (Thursday 星期四)
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Venue/地點 : Meeting Room N101, Hong Kong Convention and Exhibition Centre
香港會議展覽中心會議室N101
Language/語言 : English (with simultaneous interpretation in Cantonese and Mandarin)
英語（設廣東話及普通話即時傳譯）

Opening Ceremony Programme 開幕禮程序

08:15	**Registration 登記入場**
09:00	**The 22nd Hong Kong International Optometric Symposium — Kick off Session** **第二十二屆香港國際視光學會議 — 啟動儀式** **Welcome Remarks 歡迎辭** - **Prof Chea-su KEE 紀家樹教授** Head & Professsor, School of Optometry; K.B. Woo Family Professor in Optometry; Associate Director, Research Centre for SHARP Vision, The Hong Kong Polytechnic University 香港理工大學眼科視光學院學院主任及教授 、 胡賡佩家族眼科視光學教授、視覺科學研究中心副主任 - **Mr Calvin KWAN 關國輝先生** President, The Hong Kong Optometric Association 香港光學會會長 **Opening Remarks 開幕辭** - **Dr Simon TANG 鄧耀鏗醫生** Director of Cluster Services, Hospital Authority 醫院管理局聯網服務總監
09:10	**Presentation of Souvenirs to Speakers, Moderators and Supporting Organisations 頒贈紀念品儀式** - **Ms Jenny KOO 古靜敏女士** Assistant Executive Director, Hong Kong Trade Development Council 香港貿易發展局助理總裁 - **Mr Calvin KWAN 關國輝先生** President, The Hong Kong Optometric Association 香港光學會會長
09:15	**Ribbon Cutting Ceremony 剪綵儀式** - **Dr Simon TANG 鄧耀鏗醫生** Director of Cluster Services, Hospital Authority 醫院管理局聯網服務總監 - **Ms Jenny KOO 古靜敏女士** Assistant Executive Director, Hong Kong Trade Development Council 香港貿易發展局助理總裁 - **Mr Calvin KWAN 關國輝先生** President, The Hong Kong Optometric Association 香港光學會會長 - **Prof KEE Chea Su 紀家樹教授** Head & Professsor, School of Optometry; K.B. Woo Family Professor in Optometry; Associate Director, Research Centre for SHARP Vision, The Hong Kong Polytechnic University 香港理工大學眼科視光學院學院主任及教授 、 胡賡佩家族眼科視光學教授、視覺科學研究中心副主任 - **Ms Grace CHO 曹綺梅女士** President, The Hong Kong Optical Manufacturers Association 香港中華眼鏡製造廠商會會長 - **Dr Chi Shing Fan 樊志誠博士** Vice President & Professional Chairman, AMOA 亞洲眼視光執業管理協會副會長兼 事務委員會主席
09:20	**Group Photo with Speakers & Guests 講者及嘉賓合照**

Symposium Rundown 會議程序

09:30 - 12:45 **Morning Session 上午環節**

Moderator 主持人: Dr Lydia YU 余泳欣博士 (Hong Kong 香港)
Assistant Professor of Practice, School of Optometry, The Hong Kong Polytechnic University
實務助理教授, 香港理工大學眼科視光學院

09:30 – 10:30 **Recent Advances in the Prevention and Control of Myopia**
近視預防和控制的最新進展
Speaker 講者: Prof Ian MORGAN (Australia 澳洲)
Visiting Fellow, Research School of Biology, Australian National University, Australia
澳洲國立大學 生物研究院客席研究員

10:30 – 10:45 Coffee Break 休息時段

10:45 – 11:45 **Use of atropine for prevention of myopia onset in pre-myopia children**
使用阿托品以預防兒童近視形成
Speakers 講者: Dr CHEN Jun 陳軍博士 (Mainland China 中國內地)
Senior Researcher, Shanghai Eye Disease Prevention and Treatment Centre, Shanghai, China
上海市眼病防治中心, 資深研究員

11:45 – 12:45 **How Might Astigmatic Blur Affect Myopia Control**
散光如何影響近視控制
Speaker 講者: Prof KEE Chea-su 紀家樹教授 (Hong Kong 香港)
Head & Professsor, School of Optometry; K.B. Woo Family Professor in Optometry;
Associate Director, Research Centre for SHARP Vision, The Hong Kong Polytechnic University
香港理工大學眼科視光學院學院主任及教授 、 胡賡佩家族眼科視光學教授、視覺科學研究中心副主任

12:45 – 13:45 Lunch Break 午膳

13:45 – 14:00 **Registration 登記入場**

14:00 - 17:00 **Afternoon Session 下午環節**

Moderator 主持人: Ms Patti CHAN, B.Optom.(Hons) 陳柏廸小姐 (Hong Kong 香港)
The Hong Kong Optometric Association
香港光學會會董

14:00 – 15:00 **Mechanisms of emmetropization and what might go wrong in myopia**
正視化機制及近視的可能成因
Speaker 講者: Prof Frank SCHAEFFEL (Germany 德國)
Senior Professor, Ophthalmic Research Institute, Tuebingen, Germany; Guest Professor,
Institute of Molecular and Clinical Ophthalmology Basel (IOB), Switzerland
德國蒂賓根眼科研究所資深教授, 瑞士巴塞爾分子與臨床眼科研究所(IOB)客席教授

15:00 – 16:00 **How does atropine inhibit myopia - do we understand its mechanism of action?**
阿托品如何抑制近視 - 我們了解其作用機制嗎？
Speaker 講者: Dr Regan ASHBY (Australia 澳洲)
Associate Professor, Molecular & Biochemical Therapeutics, University of Canberra, Australia
澳洲坎培拉大學分子與生化治療學副教授

16:00 – 17:00 **Myopia Management: From Control to Prevention**
近視管理：由控制到預防
Speaker 講者: Prof CHEN Zhi 陳志教授 (Mainland China 中國內地)
Director, Specialty Contact Lens & Myopia Control Center, Fudan University Eye & ENT Hospital, Shanghai, China
中國上海復旦大學眼耳鼻喉醫院, 特殊隱形眼鏡及近視控制中心主任

Remarks: The Organiser reserve the right to alter the topic/content/speaker of the programme without prior notice.
註: 主辦機構保留對程序調動之權利而無須另行通知。

Topic 講題：

Recent Advances in the Prevention and Control of Myopia
近視預防和控制的最新進展

Prof Ian MORGAN (Australia 澳洲)
Visiting Fellow, Research School of Biology,
Australian National University, Australia
澳洲國立大學生物研究院客席研究員

Speaker's Biography 講者簡介

Prof Ian MORGAN have science qualifications in Biochemistry and Pharmacology, but he has no clinical qualifications. When He discovered the problem of myopia, He was fascinated by the conflict between textbook descriptions of myopia as under genetic control, and the emergence of a myopia epidemic in East Asia. His work has revised our understanding of myopia aetiology, to emphasize the impacts of two environmental factors, intensive education and limited time outdoors. Increased time outdoors has been used to slow the onset of myopia, particularly in Taiwan, while there are recent initiatives to limit the onset by reducing educational pressures in mainland China.

Ian MORGAN 教授擁有生物化學和藥理學的科學資格，但他沒有臨床資格。當他發現近視問題時，他對教科書上描述的近視受遺傳控制與東亞近視流行之間的衝突感到著迷。他的研究修正了我們對近視病因的理解，強調兩個環境因素的影響，即密集教育和有限的戶外活動時間。增加戶外活動的時間已被用來減緩近視的發生，尤其是在台灣，而中國大陸最近也有減少教育壓力來限制近視發生的措施。

Presentation Abstract 演講摘要

It was once widely accepted that myopia is primarily genetic. However, the rapid emergence of a epidemic of myopia in parts of East and Southeast Asia, where, after 12 years of school, the prevalence of myopia has risen to around 80%, and the prevalence of potentially pathological high myopia to 10-30%, is now well-documented. This showed that environmental risk factors must be playing a major role. Two powerful causal risk factors have been identified; intense educational pressures from an early age, and limited amounts of time spent outdoors. These appear to explain most of the features of the current epidemic. Increasing time outdoors has been successfully used in schools, particularly in Taiwan, to slow the development of myopia. The recent Double Reductions policy in mainland China opens the way to decreasing early educational pressures and for more time outdoors in the early school years. There has also been rapid development of a range of clinical interventions to slow the progression of myopia, including low-dose atropine, red light therapy, and myopic defocus spectacles. Combining rigorous public health initiatives in schools and systematic use of myopia control in clinical practice should enable the current epidemic to be turned around.

人們曾經普遍認為近視主要是由遺傳造成的。然而，近視在東亞和東南亞部分地區迅速成為了流行病。在這些地區，學生就學12 年後，學童的近視患病率已上升到 80% 左右，潛在病理性高度近視的盛行率上升到10-30%。這顯示環境風險因素一定扮演了重要的角色。這兩個強大的致病風險因素包括：從小就承受強大的教育壓力，以及戶外活動的時間有限。這些因素似乎可以解釋當前流行病的大部分特徵。增加戶外活動時間已成功應用於學校，特別是在台灣，以減緩近視的發展。中國大陸最近的雙減政策，為減少早期教育壓力，以及在學齡初期增加戶外活動時間開闢了道路。此外，一系列減緩近視發展的臨床預防措施也有迅速發展，包括低劑量阿托品、紅光療法和光學離焦軟眼鏡。學校採取準確的公共衛生措施，與臨床實務中有系統的近視控制措施結合，應可扭轉目前的流行趨勢。

Topic 講題 :

Use of atropine for prevention of myopia onset in pre-myopia children
使用阿托品以預防兒童近視形成

Dr. CHEN Jun (Mainland China 中國內地)
陳軍 博士
Senior Researcher, Shanghai Eye Disease Prevention and Treatment Centre, Shanghai, China
上海市眼病防治中心, 資深研究員

Speaker's Biography
講者簡介

Jun Chen, Ph.D. in Epidemiology, is a key member of Shanghai Eye Disease Prevention and Treatment Center and National Clinical Research Center for Eye Diseases. He has led projects such as the Shanghai Outstanding Young Public Health Project and has been a key person in executing the National Key R&D Program. Dr. Chen has published over 20 research papers on myopia prevention and control in journals such as JAMA Network Open and Ophthalmology. As a principal member, he has received honors including the Shanghai Science Popularization Award, and the Second Prize of the Shanghai Preventive Medicine Science and Technology Award.

陳軍，流行病學博士，是上海市眼病防治中心及國家眼部疾病臨床醫學研究中心的核心成員。他曾領導傑出青年公共衛生等項目，並在執行國家重點研發計畫中發揮了關鍵作用。陳博士在 JAMA Network Open、Ophthalmology 等期刊發表超過20篇近視防控研究論文。作為多項計劃的要員，他曾獲上海市科學技術普及獎、上海預防醫學科技獎二等獎等榮譽。

Presentation Abstract
演講摘要

Myopia has become a serious public health issue globally. Preventing the early onset of myopia is crucial to reducing its prevalence and associated complications. Premyopia, the rapidly progressive stage, has shown that outdoor time has a limited protective effect for children in this phase. Therefore, stronger interventions are necessary to slow the myopic shift in premyopic children. Studies have demonstrated that low-dose atropine is effective in preventing myopia in premyopic children. This lecture will introduce both the established and emerging evidence on atropine for myopia prevention. It will provide a comprehensive overview of the characteristics and latest findings on premyopia, the effectiveness of atropine in preventing myopia among premyopic children, and future potential research directions.

近視已經成為全球嚴重的公共健康問題。預防近視提早發生，對於降低其患病率及相關併發症至關重要。近視前期是眼軸長度和屈光度快速進展的階段，研究表明戶外活動對近視前期兒童的保護作用有限。因此，要採取更強的預防措施來減緩兒童前期近視的發展。有研究指出，低濃度阿托品有效預防兒童近視。本研討會將介紹阿托品預防近視方面的現有和最新發展。今天將全面概述關於近視前期特點以及最新研究發現、阿托品在預防近視前期兒童發生近視方面的效能，以及未來需要關注的研究方向。

Topic 講題 :

How Might Astigmatic Blur Affect Myopia Control
散光如何影響近視控制

Prof. KEE CHEA SU (Hong Kong 香港)
紀家樹 教授
Head & Professsor, School of Optometry; K.B. Woo Family Professor in Optometry;
Associate Director, Research Centre for SHARP Vision, The Hong Kong Polytechnic University
香港理工大學眼科視光學院學院主任及教授 、 胡賡佩家族眼科視光學教授、視覺科學研究中心副主任

Speaker's Biography
講者簡介

Prof. Kee is a Professor teaching Optometry subjects related to clinical and ophthalmic dispensing at the School of Optometry, The Hong Kong Polytechnic University. He received his Bachelor degree in Optometry from the Hong Kong Polytechnic University. He later obtained his Masters and PhD degrees from the City College of New York and University of Houston, respectively. Before returning to Hong Kong, Prof. Kee was an Assistant Professor in Physiological Optics at the New England College of Optometry in Boston, Massachusetts, USA.

紀教授是香港理工大學眼科視光學院的教授，教授臨床及眼科藥劑有關的眼科視光學科目。他在香港理工大學取得眼科視光學學士學位。及後，他分別在紐約市立學院和休士頓大學取得碩士和博士學位。回港前，紀教授在美國麻薩諸塞州波士頓的新英格蘭視光學院擔任生理光學助理教授。

Presentation Abstract
演講摘要

"How Might Astigmatic Blur Affect Myopia Control" addresses the significant public health issue posed by the myopia epidemic and the need to explore the role of astigmatism due to its frequent coexistence with myopia. The talk will begin by highlighting the origins of current myopia control strategies derived from animal studies, followed by a review of evidence showing how astigmatic blur consistently affects eye growth in a classic animal model. It will then present the latest findings linking astigmatic properties with changes in ocular structure and refractive status. The talk will conclude by proposing potential mechanisms through which astigmatic blur could influence myopia control, aiming to enhance our understanding and management of these interconnected vision conditions.

演講「散光如何影響近視控制 」提出近視普及此所帶來的重大公共健康問題，研究散光常與近視共存的重要性。講座將先強調目前近視控制策略源自動物研究的起源。然後，講座將介紹散光特性與眼球結構和屈光狀態變化相關聯的最新發現。最後，講座將總結散光可能影響近視控制的潛在機制，旨在於加強我們對這些相互關聯的視力狀況的了解和管理。

Topic 講題：

Mechanisms of emmetropization and what might go wrong in myopia
正視化機制及近視的可能成因

Prof Frank SCHAEFFEL (Germany 德國)

Senior Professor, Ophthalmic Research Institute, Tuebingen, Germany;
Guest Professor, Institute of Molecular and Clinical Ophthalmology Basel (IOB), Switzerland
德國蒂賓根眼科研究所資深教授, 瑞士巴塞爾分子與臨床眼科研究所 (IOB) 客席教授

Speaker's Biography
講者簡介

Studied biology and physics, University of Freiburg, Germany
1985 PhD in biophysics (vision in Drosophila), myopia research since 1985
1985-1988 Cornell University with Howard Howland,
1988-1989 Max Planck Lab Munich with Eberhart Zrenner,
1989-1999 myopia lab in Tuebingen,
2000-2019 Professor of Neurobiology of the Eye at the University of Tuebingen,
Since 2020 Senior Prof. in Tuebingen and Guest Prof. at IOB in Basel, Switzerland
Awards: Max-Planck Research Award, Professorship of Schilling foundation, European Vision Award, honorary doctoral degree at SUNY, USA, Guest Prof. AIER School of Ophthalmology, coordinator of 3 multicenter PhD Training Networks funded by the European Community, continuous funding by the German Research Council (DFG) since 1985, 24 PhD students completed, 200 papers in PubMed, >15000 citations, h-index 68

在德國弗萊堡大學學習生物學和物理學
1985 年獲得生物物理學博士學位（果蠅視覺），自1985 年起從事近視研究
1985-1988 年在康奈爾大學師從霍華德-豪蘭（Howland ）
1988-1989 年在慕尼黑馬克斯-普朗克實驗室師從埃伯哈特-茨倫納（Eberhart Zrenner）
1989-1999 年在圖賓根近視實驗室工作
2000-2019 年在圖賓根大學擔任眼神經生物學教授，2020 年起擔任圖賓根大學高級教授和瑞士巴塞爾 IOB 客座教授。
獎項：馬克斯-普朗克研究獎、Schilling 基金會教授、歐洲視覺獎、美國紐約州立大學榮譽博士學位、AIER 眼科客座教授、3 個由歐洲共同體資助的多中心博士培訓網絡協調員、自1985 年以來持續獲得德國研究理事會(DFG) 的資助、培養了24 名博士生、在PubMed 上發表了200 篇論文、被引用次數超過15000 次、h 指數68

Presentation Abstract
演講摘要

If the mechanisms of emmetropization respesent a closed loop feedback system, involving a stimulatory and an inhibitory pathway for eye growth control, it remains unclear why myopia does not limit itself and why undercorrection does not work as hoped. One possible explanation is that the myopic retina is no longer able to generate a signal for the choroid and the sclera to inhibit further eye growth. Our experiments (with Barbara Swiatczak at IOB in Basel, Switzerland) in young human subjects have shown that (1) the myopic human retina can no longer distinguish positive optical defocus from calculated defocus, even if the spatial frequency spectra were carefully matched, (2) the myopic human retina can no longer respond to simulated longitudinal chromatic aberration (LCA). If the blue channel in the RGB image is spatially low pass filtered to simulate LCA of a myopic eye, emmetropic subjects responed with eye shortening and choroidal thickening while myopes do not, (3) different from emmetropic subjects, myopic subjects do not respond with axial eye shortening when they look at an array of red LED array at 50 cm distance, (4) myopic subjects do not respond with eye shortening when they watch movies with a positive lens and through a narrowband 620 nm filter, but emmetropic subjects do. These 4 independent experiments suggest that the myopic retina can no longer elicit a growth inhibiting signal for eye growth, at least in short term experiments (10-45 min). A key question for future research is (1) what has changed in the myopic retina and (2) when does it happen? – before myopia develops, or after.

如果正視化代表一個閉環回饋系統，涉及眼球生長控制的刺激和抑制途徑，那麼為什麼近視不會自我限制，為何矯正亦無法如預期般奏效。一個可能的解釋是近視視網膜無法產生訊號，讓脈絡膜和鞏膜抑制眼球進一步增生。我們在瑞士巴塞爾的 IOB 實驗室與芭芭拉-斯維亞查克（Barbara Swiatczak）對年輕人進行的實驗表明：
(1)近視眼的視網膜無法再分辨出正的光學散焦和計算出的散焦，即使空間頻率光譜已仔細匹配；(2) 近視眼的視網膜無法再對模擬的縱向色差 (LCA) 作出反應。如果將 RGB 影像中的藍色通道進行空間低通濾波以模擬近視眼的縱向色差，近視受試者會有眼球縮短和脈絡膜增厚的反應，而近視受試者則沒有；(3) 與近視受試者不同的是，近視受試者在觀看 50 公分距離的紅色 LED 陣列時，不會有軸向眼球縮短的反應；(4) 近視受試者在使用正視鏡並透過窄帶 620 nm 濾光片觀看電影時，不會有眼球縮短的反應，而近視受試者則有。這 4 個獨立的實驗顯示，至少在短期實驗（10-45 分鐘）中，近視視網膜已經不能再引起抑制眼睛生長的生長訊號。未來研究的關鍵問題是：(1)　近視視網膜發生了什麼變化；(2) 何時發生變化？- 是在近視形成之前，還是之後。

Topic 講題：

How does atropine inhibit myopia – do we understand its mechanism of action?
阿托品如何抑制近視－我們了解其作用機制嗎?

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Speaker's Biography 講者簡介

Dr Regan Ashby is an Associate Professor at the University of Canberra (Australia) with a research background is in developmental biology and neuroscience (focusing on the visual disorder myopia). Using molecular, pharmacological and biochemical approaches, Dr Ashby's lab investigates the environmental drivers and cell signaling pathways underlying myopia. This helps inform novel diagnostic and therapeutic treatments. Dr Ashby is best known for his seminal work showing that light-induced stimulation of dopamine release inhibits the development of experimental myopia. This paradigm-shifting work may help explain the epidemiological finding that children who spend more time outdoors are less likely to develop myopia.

Dr Regan Ashby是澳洲坎培拉大學（University of Canberra）的副教授，擁有發育生物學和神經科學（重點研究視覺障礙性近視）的研究背景。 Dr Regan Ashby的實驗室採用分子、藥理學和生物化學方法，研究近視背後的環境驅動因子和細胞訊號路徑。這有助於為新的診斷和治療方法。Dr Regan Ashby因其開創性的研究而聞名，該研究表明光誘導刺激多巴胺釋放，可抑制實驗性近視加深。這一顛覆性的研究可能有助於解釋流行病學的發現，即花較多時間在戶外的兒童較不容易罹患近視。

Presentation Abstract 演講摘要

Several pharmacological interventions have been shown to slow myopia progression in patient populations. The most successful and widely used of these compounds is that of atropine. However, the site and mechanism of action by which atropine inhibits myopia is not well understood. This can limit our ability to comprehensively assess its safety profile or to develop novel variants to increase treatment efficacy and reduce off-target effects. This talk will outline some of the gaps in our knowledge.
As we will discuss, due to the cross reactivity of broad-spectrum drugs such as atropine, we cannot assume they function to inhibit myopia based solely on their listed drug class. Specifically, atropine is classified as a muscarinic-cholinergic receptor antagonist, yet recent evidence suggests this may not be the pathway by which it inhibits growth. Furthermore, it is unclear which layers of the eye are targeted by atropine, or how modulation of these targets can lead to a change in scleral growth/remodelling. Much can still be learnt from animal models, but we may also need to find innovative ways to test the translatability of findings to humans.

多種藥物已被證明可以減慢患者近視加深。在這些化合物中，其中最成功且使用最廣泛應用的是阿托品。然而，人們對阿托品抑制近視的作用部位和作用機制仍不甚了解。這限制了我們全面評估其安全性或開發新型變體以提高療效並減少脫靶效應的能力。本講座將概述我們的一些知識缺口。 正如我們將討論的那樣，由於阿托品等廣譜藥物的交叉反應性，我們不能僅根據其列出的藥物類別就認為它們具有抑制近視的功能。具體來說，阿托品被歸類為毒蕈堿-膽鹼能受體拮抗劑，但最近的證據表明，這可能並不是它抑制生長的途徑。此外，目前還不清楚阿托品會針對眼球的哪一層，也不清楚對這些靶點的調節如何導致鞏膜生長/重塑的變化。動物模型仍有很多可以學習的地方，但我們可能還需要找到創新的方法來測試轉化研究結果對人類的可能性。

Topic 講題：

Myopia Management: From Control to Prevention
近視管理：由控制到預防

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Speaker's Biography 講者簡介

Dr. Zhi (Peter) Chen is an ophthalmologist from Fudan University Eye and ENT Hospital in Shanghai, China. He completed his joint PhD program with Fudan University and University of California Berkeley in 2013. He became the fellow of International Academy of Orthokeratology and Myopia Control (FIAOMC) in 2018. As the director of the Department of Contact lens and Myopia control, his research interests are in the mechanism underlying myopia onset and development, optical and pharmaceutical interventions regarding myopia control, and specialty contact lenses. He has published over 60 research papers and was the leading PI for over 10 multicenter clinical trials. With a huge number of myopic patients in his database, he's able to develop novel methods and deliver customized myopia control treatment plans to his patients. He's been invited to lecture both nationwide and overseas to share his research and experience in myopia management.

陳博士是中國上海復旦大學眼科及耳鼻喉科醫院的眼科醫生。他在 2013 年完成了復旦大學和加州大學伯克利分校的聯合博士學位課程。他於 2018 年成為國際角膜矯形及近視控制學會 (FIAOMC) 會員。作為隱形眼鏡與近視控制學系的主任，他的研究方向是近視形成和發展的機制、使用光學、藥物干預、以及特殊隱形眼鏡以控制近視。他已發表 60 多篇研究論文，並擔任 10 多項多中心臨床試驗的主要 PI。他的資料庫中有大量的近視患者，因此他能夠開發新的方法，並為患者提供客製化的近視控制治療方案。他曾受邀到國內外演講，分享他在近視管理方面的研究與經驗。

Presentation Abstract 演講摘要

As evidenced by one of our latest studies, myopia onset in the younger generation has advanced by 3 years, from an average of 10.6 years to 7.6 years, during the past 16 years. Similar to the western population, the hyperopia reserve remains to be the key factor preventing myopia onset. However, the amount needed for the East Asians seems to be significantly higher than that for the Caucasians. For those already being in the pre-myopia zone, increasing outdoor activity doesn't seem to work to delay myopia onset. Some concentrations of atropine eye drop seem to work yet inevitably with side effects. Our study explored the possibility of using HALT spectacle lenses as an optical method to slow axial elongation in low hyperopic children and received positive results in the first year of observation.

根據我們最新的研究顯示，在過去的 16 年，年輕一代的近視發病年齡提前了 3 年，從平均 10.6 歲提前到 7.6 歲。與西方人口相似，遠視儲備仍然是防止近視發生的關鍵因素。不過，東方人所需的遠視儲備量似乎明顯高於白種人。對於那些已經處於近視前期的人來說，增加戶外活動似乎無法延緩近視的發生。某些濃度的阿托品眼藥水似乎有效，但難免有副作用。我們的研究發現了使用 HALT 鏡片作為光學方法來減緩低度遠視兒童軸向伸長的可能性，並於首年的觀察獲得正面的成果。