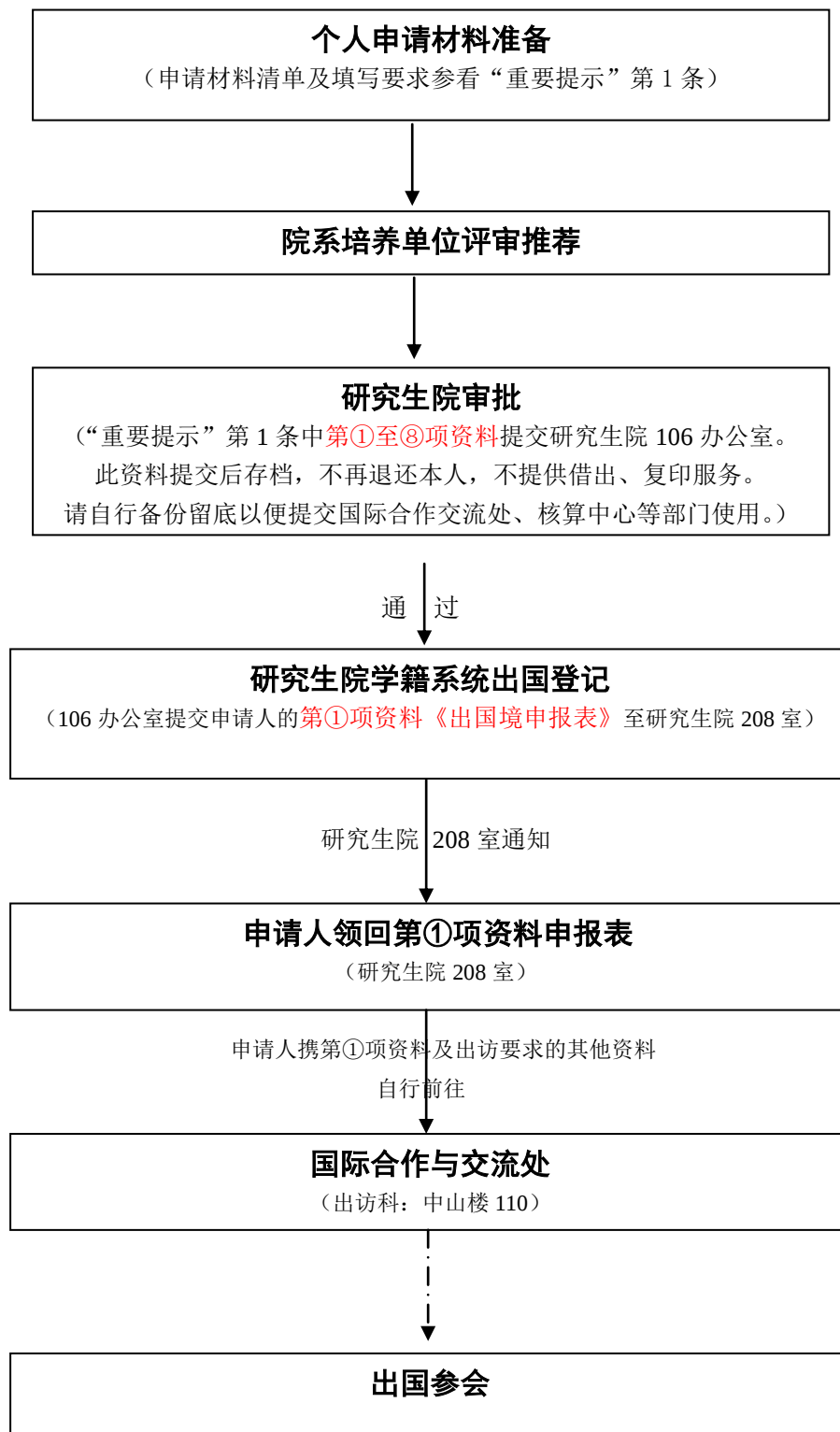


中山大学研究生参加国际学术会议资助项目流程指引

一、出国前申请流程



——预祝大家顺利出行，按时回国结项！结项流程后附，请仔细阅读！——

重要提示:

1、 **纸质申请材料清单及填写要求:** (提前至少 **60 日** 提交至院系培养单位)

① **《中山大学研究生临时出国(境)申报表》** ([下载路径: 研院主页-学籍管理-表格下载](#))

- *双面打印, 勿改变格式; 勿涂改; 个人声明勿漏签名;
- *导师部分资助经费, 勿漏填写经费号、导师签名。
- *保险选项勿漏勾选、签名, 并按要求提交保单复印件或相关证明材料。
- *须提交纸质版申报表。

② **《中山大学研究生参加国际会议经费资助申请表》**

- *专家评审意见需两位专家签署意见并签名;
- *如导师有资助经费, 导师资助金额处不得空白或填写 0。

③ **论文录用函或会议邀请函**

- *须是正式函件, 不接受邮件形式;
- *邀请函中需明确申请人个人信息(姓名、学校等)、参会时间、参会地点、被接收论文题目、参会形式为 oral 或 poster 等有效信息, 如函件未注明, 需单独提交相关证明材料。可参考“7、研究生出国会议资助申请邀请函模板 1 (信息完整)”; “研究生出国会议资助申请邀请函模板 2 (其他信息完整, 仅缺参会形式)+补充参会形式的证明材料。

④ **以上第③项材料的补充材料: 邀请函中缺漏参会形式、被接收论文题目等有效信息须提供的补充证明材料**

- *以上第③正式邀请函中若未注明个人姓名(姓名、学校等)、参会时间、参会地点、被接收论文题目、参会形式为 oral 或 poster 等有效信息, 须提供。

⑤ **拟发表论文全文或摘要**

- *须显示申请人全名及第一作者

⑥ **会议有关资料背景**

⑦ **外语水平证明**

- *雅思、托福、六级、外方导师语言证明等

⑧ **经费预算证明**

- *须提交机票往返价格单、注册费、住宿费等费用预算依据, 须与第②项表格“申请金额及依据”栏目填写一致。
- *温馨提醒: 按学校规定, 须乘坐国内航空公司。

2、 **所有申请材料提交审核后, 将被存档。** 我办不提供外借、复印等服务。如其他部门仍须相关材料, 提交申请材料前, 请大家自行备份留底。除第①和②项资料须原件外, 申请材料中的③至⑨项材料提供复印件即可。

3、 **出行前不办理①《中山大学研究生临时出国(境)申报表》将无法办理经费报销手续, 相关责任由研究生本人自行承担。**

4、 **《中山大学研究生临时出国(境)申报表》** 在研究生院审批签章后, 申报人**自行领取, 并提交**至国际合作与交流处(出访科: 中山楼 110)。国际合作与交流处办公室接收审批该申报表有提交期限规定, 请以其规定为准, 否则责任自负。

5、 **申请本专项资助的申请人, “重要提示”第 1 条中第①至⑧项资料提交**纸质**。**

由个人自费或导师等资助、且不申报本专项的学生, 也须办理出境审批程序。此类学生请直接上 U S C (大学服务中心) <http://172.22.43.178/taskcenter/> 系统申报, 不需再单独提交纸质版。****

6、 研究生院 106 咨询电话: 84113007;

研究生院 208 咨询电话: 84111763;

出访科中山楼 110 电话: 84110816;

核算中心报账大厅前台: 84113137。

7、 **研究生出国会议资助申请邀请函模板**

① **模板 1-邀请函全部信息完整**

会议Logo等信息抬头



2nd world congress on

Cancer Congress 2017

Cancer research and Therapy

October 02-04, 2017 San Diego, USA

March 23th, 2017

个人信息部分

Letter of Invitation

J. Cai 申请人姓名

[Redacted] Sun Yat-sen university

Guangzhou 510080, China

Phone: + 86 [Redacted]

申请人学校

Email: c [Redacted] @mail2.svsu.edu.cn

Innovinc International cordially notify you to attend the 2nd World Congress on Cancer Research & Therapy" during October 02-04, 2017, San Diego, USA

会议名称

会议时间

会议地点

You are warmly welcome to join with us and share your research and views on the theme "Aspiration, inspiration and imagination – Cancer research, Treatment and Care". We are glad

被接收论文题目

to inform you that your abstract "Title: Pro-apoptotic agents smac mimetic compounds potentiate replication and bystander killing effect of oncolytic virus M1 in tumor" has been accepted for Poster presentation. We have scheduled your presentation on Day-2 (03-10-2017).

参会形式

We look forward to meeting you in San Diego, USA.

落款和签名

With Thanks,

[Redacted Signature]

Dr. [Redacted] on Clark,

Scientific Committee Operator

Cancer Congress-2016

5201 Great America Pkwy #320,

Santa Clara, CA 95054, United States

Cancer Congress-2017 Organizing Committee Members

Prof. Paul B. Fisher

Professor & Chair Of The Department Of Human And Molecular Genetics
Virginia Commonwealth University, USA

Prof. Yihong Wan

Associate Professor, UT Southwestern Medical Center, USA

Disclaimer: This invitation is to attend Cancer Congress-2017 only
<http://cancercongress.innovincconferences.com/>

会议信息页脚

②模板 2-邀请函（其他信息完整，仅缺参会形式）+补充参会形式的证明材料

正式邀请函缺“参会形式”信息

会议邀请函抬头LOGO



SOCIETY for
NEUROSCIENCE

July 13, 2017

UG 申请人所就读学校

Sun Yat-sen University

Department of Psychology

Guangzhou, Guangdong 510006

China

被邀请参会的申请人个人信息

申请人姓名

Name as it Appears on Passport UG

Title:

Institution: Sun Yat-sen University

Date of Birth:

Passport Number:

Country of Passport: China

Dear Consular Officer,

被邀请参会的申请人姓名

论文题目

This is an official invitation for UG to present Temporal recalibration in the visual modality requires spatial grouping at Neuroscience 2017 and 47th Annual Meeting of the Society for Neuroscience (SfN) being held November 11-15, 2017, in Washington, D.C.

会议地点

大会名称

参会日期

SfN is a nonprofit membership organization of nearly 40,000 basic scientists and physicians who study the brain and nervous system. The Society's primary goal is to promote the exchange of information among researchers. For this purpose, SfN holds a prestigious annual meeting, attended by 30,000 scientists and researchers from around the globe. It is considered the most important annual forum for the global neuroscience research community, offering attendees the opportunity to learn about the latest advances in brain research and to meet and network with their colleagues from top institutions around the world.

This invitation does not include any financial support for this presenter's travel, registration fees, or local expenses once they arrive at the meeting.

Sincerely,

落款和签名

K. CMP

Director of Meeting Programs & Attendee Services
Society for Neuroscience

1121 14th Street NW, Suite 1010, Washington, DC 20005

相关信息页脚

Phone: (202) 962-4000 • SfN.org

正式邀请函缺“参会形式”补充证明材料

SfN 2017 会议的报告形式是: poster



被接收论文的题目

Abstract Control Number: 11806

Abstract Title: Temporal recalibration in the visual modality requires spatial grouping

Session Title: Timing, Rhythm, and Sequencing

Session Time: 11/12/2017 1:00:00 PM-11/12/2017 5:00:00 PM

Session Number: 257

Presentation Number: 257.04

Presentation Time: 4:00pm - 5:00pm

Poster Board Number: UU6

Location: Walter E. Washington Convention Center: Halls A-C

参会形式及编号

参会具体时间

被接收论文参会人员姓名

July 27, 2017

Dear [redacted]

出现在正文中的
被接收论文的

参会形式: poster

会议名称和参会时间

参会形式

We are looking forward to your upcoming poster presentation at Neuroscience 2017, taking place November 11-15 at the Walter E. Washington Convention Center in Washington, DC. This notification includes your one-hour presentation time and your presentation number and poster board assignment (listed above). Additionally, you will be able to submit your response to SIN's statement on scientific rigor and request audiovisual (AV) equipment to accompany your poster presentation, if needed.

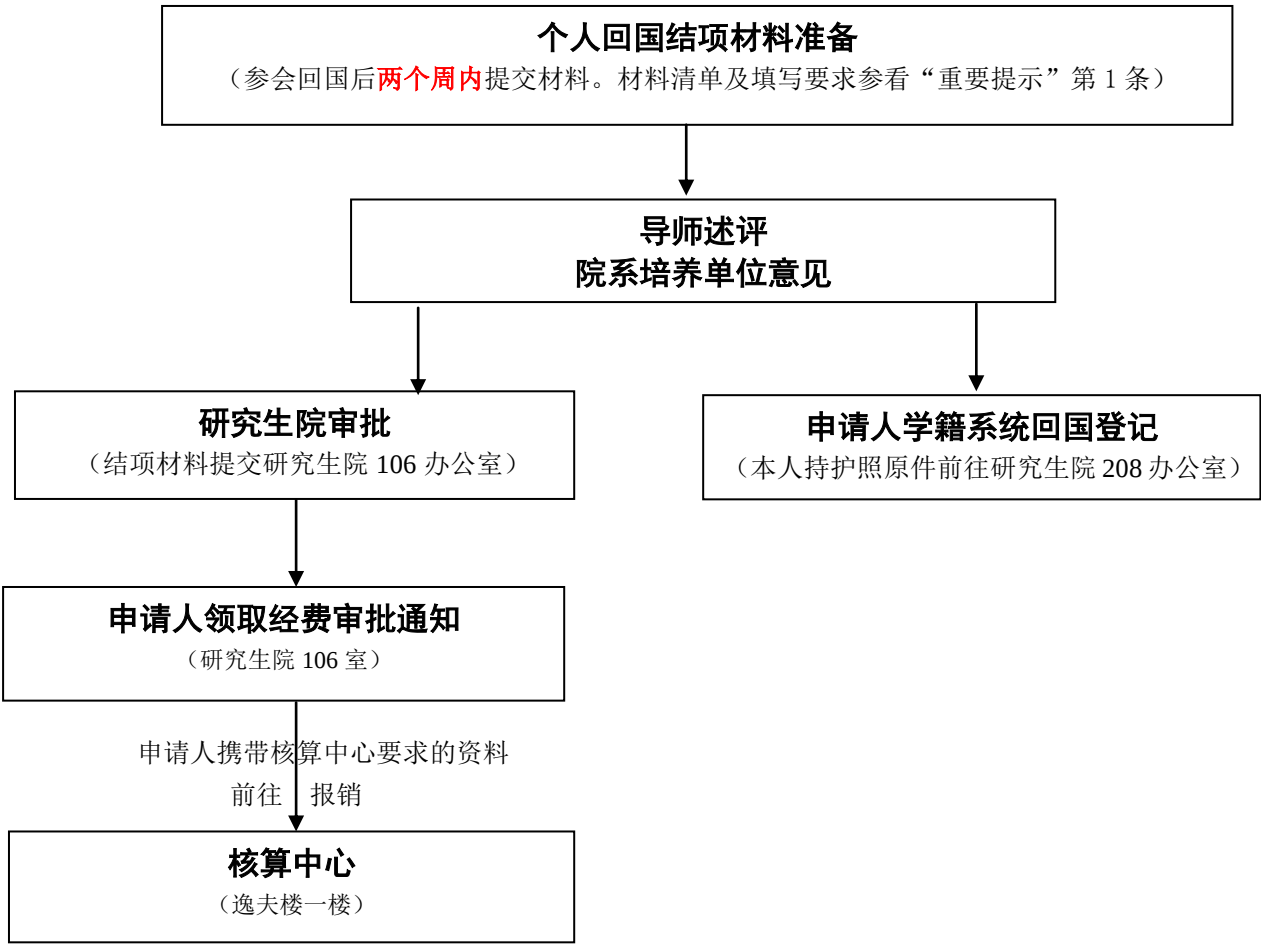
You have received this notification because you are the first (presenting) author of this abstract. Remember to share the information in this notification with your abstract's co-authors as they will not receive any direct communications from SIN.

This notification will not be accessible after Friday, August 25, 2017. After this date, you may view your abstract's presentation information by logging into your submission summary via the [Abstract Information web page](#) (submitting authors only) or by visiting the online Neuroscience Meeting Planner (available in late-August).

——预祝大家顺利出行，按时回国结项！结项流程后附，请仔细阅读！——

中山大学研究生参加国际学术会议资助项目申请流程

二、回国后结项流程



重要提示:

1、申请材料清单及填写要求:

① 《中山大学研究生参加国际学术会议结项报告》

*经导师、院系审批

② 含有本人发言或展板信息的会议日程页复印件

*该复印件要在会议期间发布的正式日程页，其页上需要显示本人姓名、参会形式的信息；参会形式需出现如下关键词：如 poster、oral、speaker，可参考“2、结项会议日程-①模板 1-poster；②模板 2-poster ③模板 3-oral”

③ 护照首页、及标有出、入境两个日期页面的复印件

*除护照首页外，出境日期、入境日期复印需清晰可见。（**温馨提示：**打手指模出入境的同学请，记务必得在出入境关口处，补盖出入境时间记录的章，以备回国查验。）

*若因故没有盖章，请务必提供以下资料作为出入境时间的证明：登机牌和行李牌（**注意不是行程单**）、或海关出入境记录查询结果等证明材料，复印信息需清晰完整。海关出入境记录查询结果可参考“3、结项出入境记录模板 1-海关出入境记录查询结果”

④ **温馨提示：**请按照财务部门的要求，除领款通知原件、结项报告复印件外，请另附出国境申报表、护照原件及出入境记录复印件、审批额度内的当次出国期间实际发生的足额票据等相关报销材料，前往财务部门报销。以上资料请另行自备一份交至核算中心。

2、结项会议日程模板

① 模板 1-会议日程信息完整



23rd Annual Meeting of the
Organization for Human Brain Mapping

会议名称

POSTER LISTINGS

参会形式

June 25-29, 2017

参会日期

Vancouver Convention Centre | Vancouver, British Columbia, Canada

参会地点

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申请人poster所属目录项

POSTER CATEGORY KEY

Monday and Tuesday Posters

Poster Numbers #1000-2223 (MT)

- Display Days: Your poster should be displayed on your assigned poster board on Monday and Tuesday.
- Set-Up Time: Please set-up your poster from 8:00 – 9:00 am on Monday morning ONLY. Posters placed before this time, will be removed.
- Poster Stand-By Times:
 - Even numbered posters between #1000-2222 will stand-by and present their poster on Monday, June 26 from 12:45 – 14:45.
 - Odd numbered posters between #1001-2223 will stand-by and present their poster on Tuesday, June 27 from 12:45 – 14:45.
- Poster Reception: All Monday and Tuesday poster presenters will have a poster reception on Tuesday, June 27 from 17:00 – 18:30. You may stand by your poster during this time.
- Poster Teardown: Monday and Tuesday presenters should remove their posters IMMEDIATELY after the poster reception on Tuesday night at 18:30. **IMPORTANT!** Posters not removed by the end of the posted teardown time will be recycled.

CATEGORY/SUB-CATEGORY	POSTER NUMBERS	CATEGORY/SUB-CATEGORY	POSTER NUMBERS	CATEGORY/SUB-CATEGORY	POSTER NUMBERS
Brain Stimulation Methods		Imaging Methods		Neuroanatomy	
Deep Brain Stimulation	1000-1008	BOLD fMRI	1441-1553	Anatomy and Functional Systems	1983-1992
Direct Electrical/Optogenetic Stimulation	1009-1010	Diffusion MRI	1554-1612	Cortical Anatomy and Brain Mapping	1993-2020
Invasive Stimulation Methods Other	1012-1014	Multi-Modal Imaging	1613-1645	Cortical Cyto- and Myeloarchitecture	2021-2024
Non-invasive Electrical/tDCS/tACS/tRNS	1015-1032			Microcircuitry and Modules	2025-2026
Non-invasive Magnetic/TMS	1033-1039	Informatics		Neuroanatomy Other	2027-2028
Non-Invasive Stimulation Methods Other	1040-1045	Brain Atlases	1646-1662	Normal Development	2029-2032
Sonic/Ultrasound	1046	Databasing and Data Sharing	1663-1685	Subcortical Structures	2033-2037
tDCS	1047-1053	Informatics Other	1686-1698		
TMS	1054-1070	Workflows	1699-1718	White Matter Anatomy, Fiber Pathways and Connectivity	2038-2072
Disorders of the Nervous System		Modeling and Analysis Methods		Perception and Attention	
Addictions	1071-1119	Bayesian Modeling	1719-1731	Attention: Auditory/Tactile/Motor	2073-2076
Anxiety Disorders	1120-1142	Diffusion MRI Modeling and Analysis	1732-1752	Attention: Visual	2077-2086
Autism	1143-1199	EEG/MEG Modeling and Analysis	1753-1795	Chemical Senses: Olfaction, Taste	2087-2090
Bipolar Disorder	1200-1205	Exploratory Modeling and Artifact Removal	1796-1803	Consciousness and Awareness	2091-2107
Depressive Disorders	1206-1256	Motion Correction and Preprocessing	1804-1821	Perception and Attention Other	2109-2113
Medical illness with CNS impact		Multivariate modeling	1822-1847	Perception: Auditory/Vestibular	2114-2126
(e.g. chemotherapy, diabetes, hypertension)	1257-1280	Other Methods	1848-1852	Perception: Multisensory and Crossmodal	2127-2134
Obsessive-Compulsive Disorder		PET Modeling and Analysis	1853-1855	Perception: Pain and Visceral	2135-2150
and Tourette Syndrome	1281-1300	Segmentation and Parcellation	1857-1886	Perception: Tactile/Somatosensory	2151-2160
Research Domain Criteria studies (RDoC)	1301-1303	Task-Independent and Resting-State Analysis	1887-1948	Perception: Visual	2161-2193
Schizophrenia and Psychotic Disorders	1304-1369	Univariate Modeling	1949-1951	Sleep and Wakefulness	2194-2202
Sleep Disorders	1370-1379				
Emotion and Motivation		Motor Behavior		Physiology, Metabolism and Neurotransmission	
Emotion and Motivation Other	1380-1392	Brain Machine Interface	1952-1961	Cerebral Metabolism and Hemodynamics	2203-2207
Emotional Learning	1393-1399	Mirror System	1962-1963	Neurophysiology of Imaging Signals	2208-2212
Emotional Perception	1400-1424	Motor Behavior Other	1964-1968	Pharmacology and Neurotransmission	2213-2218
Reward and Punishment	1425-1436	Motor Planning and Execution	1969-1976	Physiology, Metabolism and Neurotransmission Other	2219-2223
Sexual Behavior	1437-1440	Visuo-Motor Functions	1977-1982		

DISORDERS OF THE NERVOUS SYSTEM

Addictions, continued

Monday, June 26: 12:45 – 14:45 (even numbers)
Tuesday, June 27: 12:45 – 14:45 (odd numbers)

- 1114 **Heavy cannabis use alters neurochemistry**
Shafiq Newman¹, Hu Cheng², Ashley Schnakenberg³, Eli Galkins¹, Leah Moravec¹, William Hetrick¹, Brian O'Donnell¹
¹Indiana University Bloomington, Bloomington, IN
- 1115 **Neuronal circuitry from electronic cigarette use from psychophysiological interaction analysis**
DaWoon Heo¹, Yujin Jang², Hyun-Chul Kim³, Jong-Hwan Lee¹
¹Korea University, Seoul, Korea, Republic of
- 1116 **Evaluation of MR-compatible e-cigarette smoking equipment to use in an MRI environment**
Sungman Jo¹, DaWoon Heo¹, Hyun-Chul Kim³, Jong-Hwan Lee¹
¹Korea University, Seoul, Korea, Republic of
- 1117 **Uncinate Connectivity, Cortical Thickness and Verbal Memory Performance in Young Cannabis users.**
Alan Francis¹, Nina Levar¹, Jodi Gilman¹
¹Harvard Medical School, Boston, MA
- 1118 **Pattern classification identified large scale functional networks altered by nicotine use**
Reagan Wetherill¹, Hengyi Rao², Teresa Franklin³, Yong Fan¹
¹University of Pennsylvania, Philadelphia, PA, United States
- 1119 **Structure-function covariation in methamphetamine users underlying moral judgment**
Shruti Viji¹, Carla Harenski², Samantha Fede³, Steffi Baum⁴, Kent Kiehl⁵, Vince Calhoun⁶
¹University of Miami, Coral Gables, FL, ²The Mind Research Network, Albuquerque, NM, ³University of Manitoba, Winnipeg, Canada
- 1124 **Altered heartbeat perception is associated with brain structure in generalized anxiety disorder**
Bin Zhang¹, Hui Li¹, Jijun Wang¹
¹Shanghai Mental Health Center, Shanghai Jiao Tong University School of Medicine, Shanghai, China
- 1125 **Neural plasticity following psychotherapy in panic disorder: comorbid depression matters!**
Stefanie Kunas¹, Yunbo Yang², Benjamin Straube³, Tilo Kircher⁴, Alexander Gerlach⁵, Volker Arolt⁶, André Wittmann⁷, Andreas Strohle⁸, Hans-Ulrich Wittchen⁹, Ulrike Lueken¹⁰
¹Julius-Maximilians University, Würzburg, Germany, ²University of Marburg, Department of Psychiatry and Psychotherapy, Marburg, Germany, ³Department of Psychology, University of Cologne, Cologne, Germany, ⁴Department of Psychiatry and Psychotherapy, University Hospital Münster, Münster, Germany, ⁵Department of Psychiatry and Psychotherapy, Campus Charité Mitte, Charité University Medicine Berlin, Berlin, Germany, ⁶Institute of Clinical Psychology and Psychotherapy, Department of Psychology, Technische Universität, Dresden, Germany, ⁷Department of Psychiatry, Psychosomatics, and Psychotherapy, University Hospital, Würzburg, Germany
- 1126 **Hippocampal and meso-temporal neural oscillations in a human anxiety task**
Athina Tzavara¹, Tommaso Fedele², Saurabh Khemka³, Thomas Grunwald⁴, Niklaus Krayenbühl⁵, Johannes Samthein⁶, Dominik Bach⁷
¹University of Zurich, Zurich, Switzerland, ²University Hospital Zurich, Zurich, Switzerland, ³Swiss Epilepsy Centre, Zurich, Switzerland
- 1127 **Disrupted Functional Connectivity in Adolescents with Generalized Anxiety Disorder**
Linlin Fan¹, Fan Yang², Ying Lin³, Mei Liao⁴, Tianyi Zhai⁵, Yan Zhang⁶, Lingjiang Li⁷, Linyan Su⁸, Zhengjia Dai⁹
¹Department of Psychology, Sun Yat-sen University, Guangzhou, China, ²Guangdong mental health center, Guangdong general hospital & Guangdong academy of medical sciences, Guangzhou, China, ³Department of Psychiatry, The Second Xiangya Hospital of Central South University, Changsha, China, ⁴Department of Psychiatry, Guangzhou Huaili Hospital, Guangzhou, China

DISORDERS OF THE NERVOUS SYSTEM

Anxiety Disorders

- 1120 **Neuronal processing of affective touch in patients with Posttraumatic Stress Disorder**
Timmy Strauss¹, Kerstin Weidner², Ilona Croy³
¹University Hospital Carl-Gustav-Carus, Dresden, Germany
- 1121 **Mean Diffusion Kurtosis Correlated to Severity of Depressive and Postconcussive Symptoms**
Paolo Nucifora¹, Mitchel Kling^{2,3}, Richard Ross^{4,5}, Cobb Scott^{6,7}, Holly Barilla^{8,9}, Janeese Brownlow¹⁰, Philip Gehrmann¹¹, Seema Bhatnagar^{12,13}
¹Loyola University Chicago, Maywood, IL, ²Copeland Michael J. Crescenzo VA Medical Center, Philadelphia, PA, ³University of Pennsylvania, Philadelphia, PA, ⁴Children's Hospital of Philadelphia, Philadelphia, PA
- 1122 **Eight-Week Mindfulness Training Improve Attentional Control Ability in Test Anxiety**
Wenpei Zhang¹, Renlai Zhou²
¹Nanjing University, Nanjing, Jiangsu
- 1123 **Effects of Mindfulness-based Cognitive Therapy on Premenstrual Syndrome**
Lirong Chen¹, Renlai Zhou²
¹Department of Psychology, Nanjing University, Nanjing, Jiangsu, ²Nanjing University, Nanjing, Jiangsu
- 1128 **Real-time fMRI Neurofeedback of Amygdala Enhances Amygdala-orbitofrontal Connectivity in Combat-related PTSD**
Vadim Zolov¹, Raquel Phillips², Masaya Misaki³, Chung Ki Wong⁴, Brent Wurfel⁵, Matthew Meyer^{6,7}, Frank Krueger^{8,9}, Matthew Feldner¹⁰, Jerzy Bodurka^{11,12}
¹Laureate Institute for Brain Research, Tulsa, OK, ²Laureate Psychiatric Clinic and Hospital, Tulsa, OK, ³Department of Psychology, George Mason University, Fairfax, VA, ⁴Department of Psychological Science, University of Arkansas, Fayetteville, AR, ⁵College of Engineering, Stephenson School of Biomedical Engineering, University of Oklahoma, Tulsa, OK
- 1129 **The Threat of a Speech Affects Regional Homogeneity in Patients with Social Anxiety Disorder**
Jonas Engman¹, Andreas Frick², Mats Fredrikson³, Tomas Furmark⁴
¹Uppsala University, Uppsala, Sweden

会议日程目录页

ayer ida

预则何者更任?

Friday 15th September

申请人poster日期

08:00 - 08:30 Registration

08:30

TOPIC 4: Optical methods of myopia control

Carly Siu Yin Lam

Novel multi-segment of myopic defocus (MSMD) spectacle lens for slowing myopic progression in Hong Kong Chinese myopic schoolchildren

Miguel Faria-Ribeiro

Retinal Image Quality with Different Dual Focus Designs for Myopia Control

Pei-Chang Wu

Myopia prevention in a multi-area cluster randomized school-based intervention program (ROC711) in Taiwan

Thomas Aller

Myopia progression with distance and near center multifocal contact lenses, a retrospective case series study

Yu Zhang

Comparison of clinical results between toric and spherical orthokeratology lenses in myopic children with moderate-to-high corneal astigmatism

阿托品 停戴
好吗?

09:45

CooperVision Sponsor Session - Dr Arthur Back

10:00

Early Career Researchers: Rapid Fire 2

Alessandra Carmichael

Mimicking the impact of myopia on the Stiles-Crawford effect of the first kind

Mengyuan Ke

Following emmetropization, the residual retinal optical blur matches cone photoreceptor resolution in chicks

Dimitry Romashchenko

Comparison of wavefront sensing and photorefractive to measure microfluctuations in accommodation

Madara Zvirgzdina

Short term corneal biomechanical changes in orthokeratology

10:30

Coffee Break and posters

11:00

Posters continued: peripheral refraction, modelling, defocus as mechanisms for myopia, myopia control considerations, technology, impact of laser

12:30

Lunch

申请人poster具体时间及位置

13:30

TOPIC 5: Myopia control: Pharmacology

Sarah Kochik

Atropine Dosing Frequency

John R Phillips

Interaction of atropine and retinal image defocus on choroidal thickness in children with myopia

Baskar Arumugam

Topically applied caffeine, a non-selective adenosine receptor antagonist, alters emmetropizing responses in infant monkeys.

Toshihide Kurihara

Refractive myopic shift is suppressed by a carotenoid administration in a murine model of lens-induced myopia

15:00

Business Meeting

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Friday 15th September

poster 日期

poster presentation overview

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展板编号

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First Author
第一作者

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P098B-047	VISUAL OUTCOMES AFTER BALANCED SALT SOLUTION INFUSION DURING LENTICULAR SEPARATION IN SMILE FOR MYOPIC ASTIGMATISM	Ting Liu
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P103B-052	HIGH ORDER ABERRATION CONTRAST SENSITIVITY AFTER LASIK SURGERY WITH DIFFERENT RETROGRADE LASER PLATFORMS AND MECHANICAL MICROKERATOME	Tao-Lan Chen
P104B-053	THE EFFECT OF PERIPHERAL DEFOCUS ON AXIAL GROWTH AND MODULATION OF REFRACTIVE ERROR IN HYPEROPES	Jon Deasley

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poster 题目

申请人姓名

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POSTER 029

ANALYSIS OF THE RELATIONSHIP BETWEEN DEFOCUS AND ACCOMMODATION AND ITS RELATIONSHIP TO EMMETROPIZATION AND MYOPIC PROGRESSION OF THE HUMAN EYE

Kevin Sturman, Salihah Qayal, Alessandra Carmichael, Brian Vohsen
University College Dublin

Purpose: The aim of this study is to analyze whether the adult human eye is capable of determining the sign of defocus and initiate accommodation before relying on other visual cues. The overarching aim is to gain insight into the optical signals that drive the accommodative response and whether these also play a role for emmetropization of the developing eye.

Methods: A monocular vision system has been designed that makes use of a beam driven tunable lens (Captara) to make random changes of defocus in front of the right eye of subjects viewing a white test target on a monitor located at 40 cm distance. The other eye is occluded during the measurement process. A fast Hartmann-Shack wavefront sensor (Thorlabs) is located in a conjugate pupil plane to determine defocus and other aberration components of the eye. The aberrations are measured using a near-IR laser diode at 880 nm wavelength. The right eye of 4 subjects aged 26–45 years with normal vision have been analyzed. The tunable lens makes random changes of defocus at regular intervals within the accommodative range of each subject and the accommodative response is measured at high speed with the wavefront sensor.

Results: We report changes of defocus and other 4th order Zernike coefficients during the accommodative process with ms time resolution. The results obtained show a fast change (10s of ms) in accommodation in response to the change of optical power in the range of 0 to -1 diopters. The eye adapts rapidly to the change in power and accommodates to compensate the defocus of the tunable lens and shows a sign of overshooting. **Conclusions:** This study shows that accommodation of the human eye is fast and can be driven by the optics of the eye and refines in response to other defocus changes. Thus, the eye is capable of determining the sign of defocus before other accommodative cues become apparent. We are conducting further studies to clarify whether the same mechanisms play a role for emmetropization and the progression of myopia.

Funding

This project is funded by the European Commission Horizon 2020 programme under the Marie Skłodowska Curie Actions MyRUN ITN grant agreement no. 675137

Statement on proprietary interests
None listed

POSTER 5009

THE EFFECT OF CONTACT LENS CORRECTION AND ACCOMMODATION UPON MONOCHROMATIC HIGHER ORDER ABERRATIONS (MHOA) IN MYOPIA AND HYPEROPIA

Julie S Gray, Dirk Seidel, Lucy Machwaden
Glasgow Caledonian University

Purpose: To investigate the effect of contact lens correction and accommodation upon MHOA in myopic and hyperopic subjects. **Methods:** Eleven myopic subjects (average MSE -3.22±2.21D; mean axial length 25.02±0.67mm; mean age 20.7±1.1 years) and eleven hyperopic subjects (Average MSE 4.20±2.20; mean axial length 25.77±0.82; mean age 20.1±1.5) participated in the experiment. All subjects were visually normal, with VA > 0.0 logMAR or better, and cylindrical error of <1.25DC. Subjects were fully corrected with daily disposable contact lenses and pupil dilation was induced with 2 drops of 2.5% phenylephrine hydrochloride instilled 50 minutes prior to measurement. Five measurements of MHOA were obtained using the Zywave aberrometer (Bausch & Lomb, UK) under all viewing conditions. Subjects viewed a high contrast letter target array in a +5D Badal system, aligned perpendicularly to the measurement axis of the instrument via a semi-silvered mirror. Baseline measurements were obtained with the internal instrument fixation target, and subjects were then asked to fixate on the letter within the Badal system, which corresponded to displacement of the centre of the internal fixation target. Measurements of MHOA were then obtained at accommodation stimulus levels of 0D and 4D. The presentation of accommodation levels was randomized across subjects.

Results: Baseline MHOA was significantly ($p<0.01$) more positive in the hyperopic group. Contact lens correction induced significant ($p<0.01$) positive increases in MHOA in both groups with the hyperopic group demonstrating significantly greater magnitude of both total 3rd order ($p<0.01$) and positive spherical aberration (SA; $p<0.01$) as a result. The magnitude of both total 3rd order and SA decreased significantly ($p<0.01$) with accommodation in both groups, with the decrease in SA being significantly greater in the hyperopic group ($p<0.01$). For the 4D accommodation stimulus, all myopic subjects exhibited negative spherical aberration, whereas all hyperopic subjects maintained positive spherical aberration.

Conclusions: The combined effect of contact lens correction and accommodation results in SA at near fixation which is negative in myopia and positive in hyperopia. These effects may have implications for our understanding of the influence of MHOA on the development of ametropia.

Funding

College of Optometrists Research Grant to LSG

Statement on proprietary interests
None listed

POSTER 031

ASSOCIATION OF LOW CONTRAST VISUAL ACUITY WITH MYOPIA PROGRESSION: A 1-YEAR PROSPECTIVE STUDY

Jari Jiang, Felly Wang, Junhong Chen, Fan Lu
Wenzhou Medical University

Purpose: Blurry imaging is considered as one of the driving factors in myopia progression. Previous cross-sectional studies showed the positive association between the higher myopia and poorer low contrast visual acuity (LCVA). This study is to compare the myopia progression over 1 year in children with high and low LCVA. **Design:** Prospective study over 1 year.

Methods: A total of 80 children were categorized into high LCVA ($n=40$) and low LCVA ($n=40$) groups based on their 5% LCVA in their first visit, with regular follow-up every 6 months for 1 year. Comprehensive eye exams including subjective refraction and LCVA were performed by the same doctor. 25%, 10%, 5% contrast visual acuity was measured by Elite-eye MFW-100. Main outcome measure: Changes in spherical equivalent over 1 year.

Results: 1) 25%, 10%, and 5% contrast visual acuity (in LogMAR) in high LCVA group were all significantly higher than that in low LCVA group. 2) The high LCVA group had continuously and significantly higher LCVA than low LCVA group in each follow-up over 1 year. 3) The myopia progression in high LCVA group was persistently slower than low LCVA group in 6 months ($-0.29 \pm 0.28D$ vs $-0.57 \pm 0.36D$, $p=0.0003$), 12 months ($-0.46 \pm 0.32D$ vs $-0.83 \pm 0.37D$, $p<0.0001$). 4) The progression of axial length in high LCVA group was persistently less than low LCVA group in 6 months ($0.184 \pm 0.018mm$ vs $0.234 \pm 0.015mm$, $p=0.0034$), 12 months ($0.279 \pm 0.025mm$ vs $0.367 \pm 0.026mm$, $p<0.0175$). **Conclusions:** LCVA was inversely associated with myopia progression, but mechanisms of myopia progression are complicated, so further researches are still needed.

Funding

Fellowship Grant from Rising Star Program sponsored by Wenzhou Medical University, China

Statement on proprietary interests
None listed

申请人poster内容摘要

poster编号及位置

申请人姓名

申请人所属学校

CHOROIDAL THICKNESS AND VASCULATURE CHANGES WERE THE PRECONDITION OF AXIAL EYE GROWTH RETARDING IN MYOPIC CHILDREN TREATED WITH ORTHOKERATOLOGY

Zhouyue Li, Dongmei Cui, Xiao Yang
State Key Laboratory of Ophthalmology, Zhongshan Ophthalmic Center, Sun Yat-sen University, Guangzhou, China

Purpose: To analyze the change in choroidal thickness (CHT) and vasculature and its relationship with changes in axial length (AL) in myopic children treated with Orthokeratology (Ortho-K). **Methods:** Fifty myopic children participated in this study. 29 subjects were treated with Ortho-K lenses and 21 with spectacles. CHT, the thickness of the choroidal vascular layers across the posterior pole fundus, and outer biometrics, including AL, were measured at baseline, one month, and six months after lens wear in both groups.

Results: Compared to baseline, AL significantly increased along with CHT in the Ortho-K group, while there was no significant change in CHT in the control group over time. At the six-month visit, eye growth was relatively slower in the Ortho-K group compared to the control group (0.06 ± 0.10 mm vs 0.17 ± 0.10 mm, $P<0.001$). Choroids were found to be thicker with Ortho-K treatment not only at one month but also at six months (1.70 to $18.90 \mu m$ vs 2.00 to $22.20 \mu m$), although there was no significant difference between the two follow-up visits (all $P>0.05$). In addition, the large choroidal vascular layer (LCVL) also thickened, which accounted for the majority of subfoveal choroidal thickening (approximately 77% and 80% at one-month and six-month visits, respectively).

Conclusions: After six months, Ortho-K treatment induced significant choroidal thickening followed by a slowing of eye growth. LCVL thickness also increased, which accounted for the majority of subfoveal choroidal thickening. However, its potential mechanism requires further investigation.

Funding

This work was supported by grants from National Natural Science Foundation of China, China (grant no.: 81200716)

Statement on proprietary interests
None listed

会议日程目录

agenda

Wednesday 13th September

- 17:00 Conference registration will be open by the Courtyard Restaurant in Conference Aston from 5pm.
- 18:00 We would like to welcome you to Aston University with drinks, a hot fork buffet reception and a chance to catch up with your fellow researchers.

Thursday 14th September

申请人oral日期: 7.

- 08:00 - 08:45 Registration
08:45 Welcome and introduction
Chair IMC 2017 - Dr Nicola Logan
Aston University Vice Chancellor - Prof Alec Cameron

- 09:00 **Chew Sek Jin memorial lecture**
Dr Christine Wildsoet
Lessons from animal models of myopia - A cautionary tale

- 09:45 Dr Lisa Jones-Jordan
Progressing towards an answer: the numbers that lead the way

10:05 TOPIC 1: Prevalence, progression and risk factors for myopia

申请人oral具体时间

申请人姓名

申请人oral论文题目

- Olavi Pärssinen
The relationship of high myopia with different factors in adult myopic Finns
Weizhong Lan
Association between risk factors and refractive error: a quantification analysis based on big data technology
Ian Morgan
The relationship between myopia and educational systems
Sichun Ao
A Study of Anisometropia Development Pattern in Danish Myopic Children

- 11:05 Coffee Break

11:30 TOPIC 2: Mechanisms of myopia: Role of light

- Seang-Mei Saw
Light patterns, outdoor activity and myopia
Saoirse McCrann
Daily activity patterns of Irish school children and parental attitudes towards myopia
Scott Read
Objective measures of light exposure in Australian and Singaporean children
Sekar Ulaganathan
Light exposure and daily axial length variations in emmetropes and progressing myopes
Kazuo Tsubota
Myopia Progression could be Controlled by Violet Light Exposure

申请人参会形式的详细页

0001 THE RELATIONSHIP OF HIGH MYOPIA WITH DIFFERENT FACTORS IN ADULT MYOPIC FINNS 参会形式

Olavi Pärssinen, Markku Kauppinen

Department of Ophthalmology, Central Hospital of Central Finland, 40020 Jyväskylä, Finland and Gerontology Research Center and Department of Health Sciences, University of Jyväskylä, 40100 Jyväskylä, Finland

Purpose: To study how many of those whose onset of myopia was at the mean age of 10.9 (SD = 1.1), ranging from 8.8 to 12.8 years, had high myopia at the mean age of 33.0 (4.0) years, and the relationship of myopia and high myopia with age of myopia onset, spherical equivalent (SE) at onset, corneal refractive power (CR), axial length (AL), ratio of AL with CR (AL/CR ratio), heredity and the length of education. **Methods:** One hundred and eighty seven, 78% of the original cohort of 240 children could be followed to adulthood with mean follow-up of 22.1 (3.9) years. Cycloplegic SE, CR and AL were measured. High myopia was defined as SE $\leq$ -6.00 D in the more myopic eye. Heredity and years of education were assessed with questionnaires. **Results:** Mean SE at baseline was -1.43 (0.60) D, ranging from -0.38 D to -3.00 D. At the end of the follow-up the mean SE (SEend) was -4.96 (2.07) D, ranging from -0.250 to -11.250. High myopia D was present in 31.3 % of subjects (26.5% among males and in 37.4% among females). SEend $\leq$ -5.00 D was present in 48.7% of subjects (36.8% among males and 53.3% among females). Among high myopes one or both parents were myopic in 74% of cases as compared with 57% among those having lower myopia. The means among high myopic and not high myopic males were: for CR 43.55 (1.25) D and 43.25 (1.21) D, for AL 26.42 (1.02) mm and 25.15 (0.91) mm and for AL/CR ratio 0.61 (0.04) and 0.58 (0.03), respectively. For females the means for CR, AL and AL/CR ratio were 43.87 (1.44) D and 43.68 (1.14) D, 25.60 (0.85) mm and 24.74 (0.74) mm and 0.59 (0.03) and 0.57 (0.03), respectively. The correlation of SEend with the age at baseline was $r = 0.365$ ($p < 0.001$), with SE at the onset: $r = 0.371$, $p < 0.001$, with parents' myopia $r = 0.155$, $p = 0.005$, with the length of education: $r = 0.091$, $p = 0.215$. There were no significant correlations between SEend and CR in either myopic group. The correlation of SEend with AL/CR ratio was lower than that with AL both among high myopia and among those with lower myopia. **Conclusion:** High myopia developed to adulthood in 31.1 % of those Finnish children whose myopia began at the mean age of 10.9 years. Age and SE at the onset of myopia and parents' myopia together explained 27 % of the amount of myopia at adulthood. Age and SE at onset of myopia and parents' myopia explained 14.6 %, 5.9 % and 4.3 %, respectively, of the prevalence of high myopia.

Funding: None stated

Statement on proprietary interests: None listed

oral编号

oral论文题目

申请人姓名

申请人所属学校

0002 THE RELATIONSHIP BETWEEN MYOPIA AND EDUCATION SYSTEMS

Ian Morgan¹, Amanda French², Kathryn Rose²

1. Australian National University, Canberra and Zhongshan Ophthalmic Center, China 2. Discipline of Orthoptics, Graduate School of Health, University of Technology Sydney, Sydney

Purpose: To examine the relationship between prevalence of myopia and education systems and outcomes. **Methods:** A systematic review of the literature using as search terms "myopia" and "prevalence" was performed using Medline. Abstracts of papers were reviewed to assess relevance, and methodology in terms of sample frame and measurement of myopia. Generally on papers which reported cycloplegic refractions and population-representative data were examined. Education systems were characterized by Google searches, and educational outcomes were assessed where possible through the PISA and TIMSS datasets. **Results:** Four different patterns were observed in the prevalence of myopia. In situations where there was little if any formal schooling, the prevalence of myopia in young adults was very low, with a prevalence of only 1-2%. In situations in which low pupils completed secondary education, the prevalence of myopia was higher but never exceeded 10-15% in young adults. In situations similar to those of modern western education, where completion rates are high, and a significant percentage of students proceed to tertiary education, the prevalence is higher again, and quite variable, but in the range 20-50%. In situations where modern East Asian education is the norm, the prevalence rates are much higher at around 80-90%, and the prevalence of high myopia is around 10-20%. Comparing modern western education and East Asian education shows that children commence intensive homework earlier and perform much more in schools in East Asia. Greater use of out-of-school classes is also common in East Asia, and East Asian children report much less time outdoors than children in western countries. East Asian school systems also make more use of accelerated learning pathways which have selective entry, often from the preschool years on. **Conclusions:** These patterns of associations provide important clues as to how to structure programs for the prevention of myopia. While increasing the time that children spend outdoors appears to be a successful approach, changes to school systems to limit competition for places, time spent on homework and on out-of-school classes may be important in countries affected by an epidemic of myopia.

Funding: None listed

0003 ASSOCIATION BETWEEN RISK FACTORS AND REFRACTIVE ERROR: A QUANTIFICATION ANALYSIS BASED ON BIG DATA TECHNOLOGY

Weizhong Lan, Longbo Wen, Haogang Zhu, Yihao Huang, Yan Wu, Xiang Li, Zhikuan Yang

Aier School Of Ophthalmology, Central South University, Changsha, China; Aier Institute of Optometry & Vision Science, Changsha, China

Purpose: Although excessive close-up work and insufficient outdoor exposure have been generally accepted as myopia behavioral risk factors, their exact roles in myopia development and their dose-effect correlation are still not very clear. One major reason is the lack of an objective approach to quantify these risk factors. The purpose of the study was to investigate the relationship between refractive status and these risk factors recorded objectively through a newly developed wearable device Cloudip™. **Methods:** Cloudip™ is a device attached to the temple of the eyeglass, which is able to dynamically measure visual distance per 5 seconds and ambient illuminance per 2 minutes. Two hundred and fifty-five grade 4 students with a mean SER of 0.24 $\pm$ 1.16D (range: -8.00 ~ -4.00D, from city- ($n=53$) and county- ($n=131$) and village-level ($n=71$) schools respectively, were enrolled in the study. All students were requested to wear eyeglasses with Cloudip™ continuously for a week during the school term. Cycloplegic refractive error was measured by autorefractor (AR-1, Nidek). Big data technique was utilized to describe and compare behavioral data consisting of viewing distance and ambient illuminance of each population from these 3 types of schools. Additionally, correlation was determined between individual refractive error and behavioral data. **Results:** Significantly different distribution of viewing distance and ambient illuminance was found between these 3 types of schools. Specifically, students in the city- level school tend to spend more time in close-up work, but in a higher ambient illuminance than the county- and village-level schools. Longer viewing distance and brighter ambient illuminance were linked to more positive (i.e. less negative) values of refractive error. It was also shown that the protective effect of high illuminance was stronger than that of short viewing distance. **Conclusions:** Cloudip combined with big data technique offered a valuable approach to quantify myopia-related risk factors objectively. Through this approach, association between close-up work, poor lighting and myopia was confirmed. But the causal effect of these risk factors need further validation through prospective studies.

Funding

The study received grant support from Aier school of ophthalmology, Central South University, China. Clinical trial registration: ChiCTR180016010143 Commercial financial conflicts of interest: WL, LW, YH, YW, XLZY are co-inventors of Cloudip™

申请人oral内容摘要

0004 A STUDY OF ANISOMETROPIA DEVELOPMENT PATTERN IN DANISH MYOPIC CHILDREN

Sichun Ao¹, Xiao Yang¹, Søren Munk Røbel-Madsen², Zhouyue Li¹, Klaus Trier², Dongmei Cui¹

1. State Key Laboratory of Ophthalmology, Zhongshan Ophthalmic Center, Sun Yat-sen University, Guangzhou, China 2. Trier Research Laboratories, Tingskovvej 6, DK-2500 Hørsholm, Denmark

Purpose: The purpose of current study was to compare myopia progression, axial eye growth and corneal power change in Danish myopic children with or without anisometropia and their correlations. **Methods:** Three hundred and sixty-nine Danish children aged 4-18 years found to have myopia during screening for a clinical trial (ClinicalTrials.gov NCT00263471). All children found to have any degree of cycloplegic myopia (including half of cylinder) at the first of two visits were included. Cycloplegic refraction was measured using an autorefractor, axial eye length and corneal power using an automatic combined non-contact partial coherence interferometer and keratometer. Changes over one year of axial length, refraction, and corneal power were analyzed. **Results:** There was no relationship between degree of anisometropia and age ($p=0.62$). Compared with baseline, degree of anisometropia decreased over one year in 333 children with myopic anisometropia (0.54 ± 0.62 D vs. 0.48 ± 0.62 D, $p < 0.001$). Myopia progression in the less myopic eye was faster than in the more myopic eye (0.52 ± 0.44 D vs. 0.45 ± 0.42 D, $p < 0.001$). Degree of anisometropia was negatively correlated with baseline of refraction both in the more myopic eye ($p < 0.001$) and in the less myopic eye ($p < 0.02$). A positive correlation was found between the degree of anisometropia and baseline of axial eye length in the more myopic eye ($p < 0.001$), but not in the less myopic ($p = 0.09$). **Conclusion:** In myopia with anisometropia, the myopia of each individual eye seems to progress in such a way that the degree of anisometropia over time tends to be reduced.

Funding

Three hundred and sixty-nine Danish children in the study were participants of an on-going clinical trial (ClinicalTrials.gov NCT00263471, URL: <https://clinicaltrials.gov/ct2/show/NCT00263471?term=NCT00263471>). Financial Support: This study was supported by grant 81100692 from National Natural Science Foundation of China. The sponsor or funding organization had no role in the design or conduct of this research.

出入境记录查询结果

通过公安部出入境管理信息系统查询，姓名 唐，
证件名称和号码 普通护照 E0，在 2016 年
10月 日至 2017 年 11月 日期间有下列出入境记录：

人员姓名	出入标识	国籍/地区	性别	出生日期	证件类型	证件号码	出入时间	出入口岸	交通工具	前往地/出发地
唐	入境	中国	女	1988-	普通护照	E0	2017-10-	白云机场	CZ	美国
唐	出境	中国	女	1988-	普通护照	E0	2016-10-	白云机场	CZ	美国

注：因数据采集、传输等原因，上述出入境记录可能存在差错或者缺漏，仅供参考。

2017 年 11 月 日

