

# Exploring eye and phenotype characteristics in adults: high-definition oculo-phenomic evaluation study

<b>Submission date</b> 27/02/2024	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered
		<input type="checkbox"/> Protocol
<b>Registration date</b> 29/02/2024	<b>Overall study status</b> Ongoing	<input type="checkbox"/> Statistical analysis plan
		<input type="checkbox"/> Results
<b>Last Edited</b> 28/02/2024	<b>Condition category</b> Eye Diseases	<input type="checkbox"/> Individual participant data
		<input type="checkbox"/> Record updated in last year

## Plain English summary of protocol

### Background and study aims

With the growth and aging of the global population, vision impairment caused by age-related eye diseases has become a significant public health challenge worldwide. Understanding the natural progression and related factors of eye structure and function, and comparing the differences in eye structure and function between high myopia (short-sighted) and non-high myopia populations, is particularly important. This study aims to explore eye and phenotypic traits in adults.

### Who can participate?

Adults who permanently live in Guangzhou without serious eye or systemic diseases

### What does the study involve?

Comprehensive eye and general tests are performed every 2 years for 6 years.

### What are the possible benefits and risks of participating?

Participants receive comprehensive eye and general tests and one-on-one ophthalmologist consultations based on the exam results every 2 years. All the exams follow the normal clinical operation.

### Where is the study run from?

Zhongshan Ophthalmic Center, Sun Yat-sen University (China)

### When is the study starting and how long is it expected to run for?

November 2022 to December 2030

### Who is funding the study?

National Natural Science Foundation of China (China)

### Who is the main contact?

Dr Wei Wang, wangwei@gzzoc.com

# Contact information

## Type(s)

Public, Scientific, Principal investigator

## Contact name

Dr Wei Wang

## Contact details

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# Additional identifiers

## Protocol serial number

HOPE-2022-v6

# Study information

## Scientific Title

High-Definition Oculo-Phenomic Evaluation (HOPE) Study: profiling the ocular and phenotypic traits in adults

## Acronym

HOPE

## Study objectives

The project aims to explore the ocular and phenotypic traits in adults through a retrospective and prospective ambispective cohort.

## Ethics approval required

Ethics approval required

## Ethics approval(s)

approved 11/12/2022, Zhongshan Ophthalmic Center Ethics Committee, Sun Yat-sen University (No.7 Jinsui Road, Zhujiang New Town, Guangzhou, 510060, China; +86 (0)20 87332529; zocethics@163.com), ref: 2022KYPJ247

## Study design

Retrospective and prospective ambispective cohort study

## Primary study design

Observational

**Study type(s)**

Screening

**Health condition(s) or problem(s) studied**

Adults with high myopia and non-high myopia control

**Interventions**

The HOPE study is a retrospective and prospective ambispective cohort study that includes adults from Guangzhou, China. By conducting follow-ups every 2 years over a continuous period of 6 years, an adult eye health profile is constructed. All ocular examinations will be performed at the Zhongshan Ophthalmic Center (ZOC). The examinations include: questionnaire surveys (covering basic demographic information, general medical history, ocular disease history, lifestyle habits, cognitive function, dry eye scoring), general physical examinations (height, weight, waist circumference, hip circumference, blood pressure, lung capacity, grip strength, simple physical fitness tests), and ocular examinations (visual acuity, intraocular pressure, refraction, slit lamp examination, anterior segment photography, dry eye testing, comprehensive ocular surface analyzer, ocular biometry parameters, optical coherence tomography (OCT), OCT angiography (OCTA), fundus photography, and ultra-widefield fundus imaging.

**Intervention Type**

Other

**Primary outcome(s)**

Retinal and choroidal structures and blood flow measured by optical coherence tomography angiography at baseline and each follow-up visit (2, 4 and 6 years)

**Key secondary outcome(s)**

There are no secondary outcome measures

**Completion date**

31/12/2030

**Eligibility****Key inclusion criteria**

1. Adults
2. Permanent residents of Guangzhou (residing for more than 6 months)
3. Volunteers for this study and have signed an informed consent form

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Adult

**Sex**

All

### **Key exclusion criteria**

1. Presence of severe ocular diseases, such as advanced cataract, glaucoma, retinal diseases, etc
2. History of corneal or intraocular surgery, radiotherapy, laser treatment
3. Presence of severe systemic diseases, such as coronary heart disease, myocardial infarction, stroke, multiple sclerosis, dementia, depression, mania, etc
4. History of life-threatening major disease treatments, such as cardiac stent placement, major surgery under general anesthesia, surgery for malignant tumors
5. Pregnant women, disabled individuals, those with communication barriers, or those unable to complete the examination

### **Date of first enrolment**

01/01/2023

### **Date of final enrolment**

31/12/2024

## **Locations**

### **Countries of recruitment**

China

### **Study participating centre**

**Zhongshan Ophthalmic Center, Sun Yat-sen University**

No. 54 Xianlie Nan Road

Yuexiu District

Guangzhou

China

510060

## **Sponsor information**

### **Organisation**

Sun Yat-sen University

## **Funder(s)**

### **Funder type**

Government

### **Funder Name**

National Natural Science Foundation of China

**Alternative Name(s)**

Chinese National Science Foundation, Natural Science Foundation of China, National Science Foundation of China, NNSF of China, NSF of China, National Nature Science Foundation of China, Guójiā Zìrán Kēxué Jījīn Wěiyuánhùi, , NSFC, NNSF, NNSFC

**Funding Body Type**

Government organisation

**Funding Body Subtype**

National government

**Location**

China

## Results and Publications

**Individual participant data (IPD) sharing plan**

The datasets generated during and/or analysed during the current study will be available upon request from Dr Wei Wang (wangwei@gzzoc.com). Informed consent will be obtained before the participant joins the study. The study will follow the legal restrictions of the Ethics Committee of Zhongshan Ophthalmic Center, Sun Yat-sen University. For access to the data, please contact the principal investigator after the study is completed.

**IPD sharing plan summary**

Available on request