

Cell & Molecular Biology (CMB) Programme

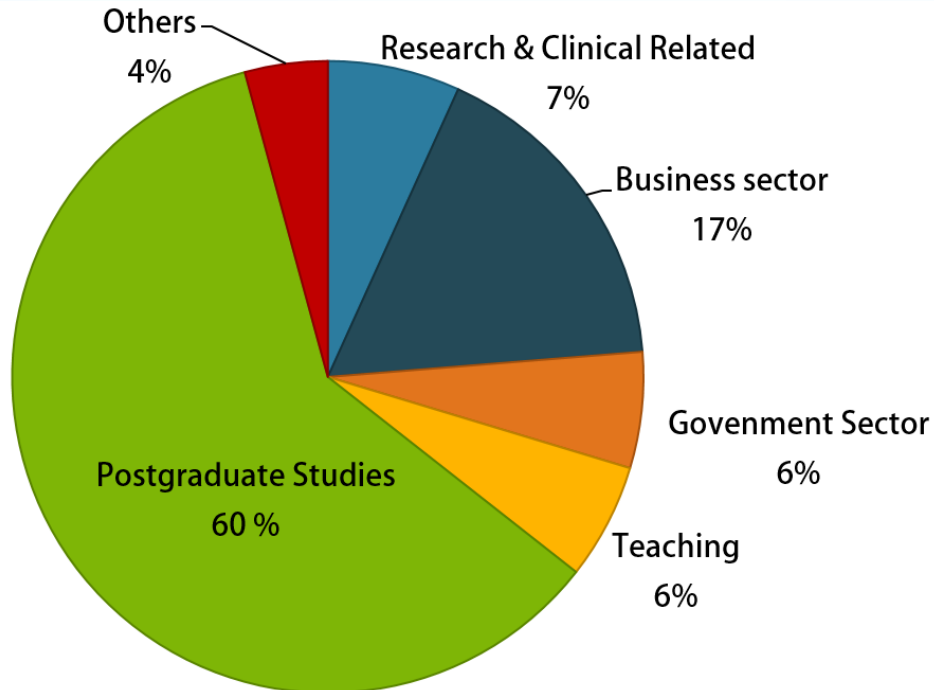
A Brief History

- Established in 2008
 - Admitted undergraduates in 2009
 - Postgraduate research programme started in 2012



- **58% of students pursue postgraduate research programmes**

Graduate Career Paths (2013-20)



Examples of Study Programmes Undertaken by CMB Graduates

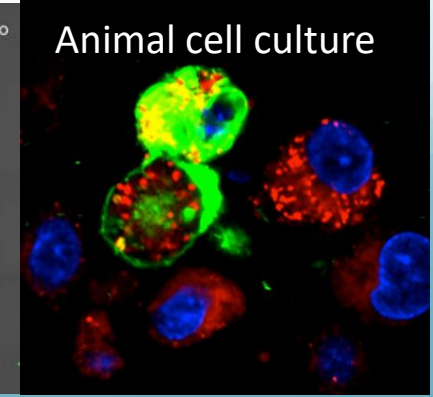
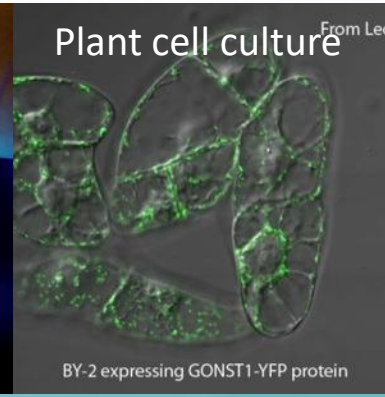
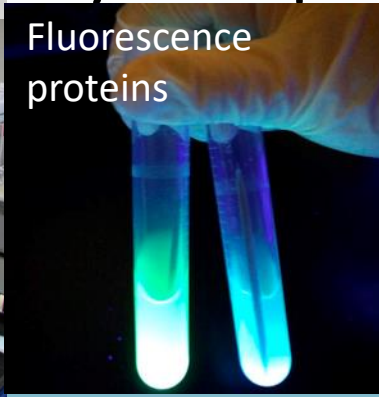
PhD or MPhil (CUHK); (HKU); (HKUST)
PhD (**Max Planck Institute**, Germany);
PhD (**Cambridge**, UK);
PhD (**Cornell**, USA);
PhD (**Duke University**, USA);
PhD (**Johns Hopkins**, USA);
PhD (**Stanford**, USA);
PhD (**U Penn**, USA)

CMB PROGRAM FEATURES

細胞及分子生物學課程特色

- Scientific writing, thinking and **self-motivated** learning (訓練寫作, 思考, 自發學習)
- Small class size (小班教學)
 - Regular **student-teacher interactions** (師生充分交流)
- **Extensive supervision** by a professor to learn a CMB-related topic (教授一對一指導)
- >10 hrs/wk of laboratory training with **project-based experiments** (全面實驗課程)

Our teaching laboratory & Examples of students' lab works



The 4-Year CMB Curriculum

Year 1

Building Up & Standardizing Fundamental Knowledge in Science

Faculty Package Courses

Biological Sciences + Chemistry + Mathematics/ Physics/ Statistics

Year 2

Foundation Courses in Life Sciences

Fundamentals of Biochemistry, Cell Biology, General Genetics,
Life Sciences labs

CMB Pre-capstone Course

Literature survey in CMB and Scientific Communication

Year 3

Year 4

CMB Core Courses

- Model Organisms in CMB Research,
- Protein Trafficking, Protein Folding, Signal Transduction,
- Cancer Cell Bio, Stem Cell Bio, Neuronal Cell Bio,
- Genomics and Transcriptomics, Proteomics, Metabolomics,
- Current Topics in Cell Bio, Molecular Bio & Biotechniques

Intensive Lab Training
Project-based experiments

Year-3 Capstone Courses

- Methodology of **Critical Thinking**
- Proposal** Formulation and **Creative Scientific Writing**

Final-Year Capstone Courses (optional)

Experimental Research Project

Unique 1-Unit Course Packages

CMBI4001 Protein Trafficking (1 U) - Prof. Jiang LW

CMBI4002 Protein Folding (1 U) - Prof. Wong KB

CMBI4003 Signal Transduction (1 U) - Prof. He JX

3 related, but independent modules
at advanced level

CMBI4101 Cancer Cell Biology - Prof. Ngo CK

CMBI4102 Stem Cell Biology - Prof. Tsang SY

CMBI4103 Neuronal Cell Biology - Prof. Kwan KM

CMBI4201 Genomics & Transcriptomics - Prof. Chan TF

CMBI4202 Proteomics - Prof. Ngai SM

CMBI4203 Metabolomics - Prof. Guo DJ

CMBI4301 Current Topics in Cell Biology - Prof. Zhuang XH

CMBI4302 Current Topics in Molecular Biology - Prof. Lau KF

CMBI4303 Current Topics in Biotechniques - Prof. Kang BH

Admission

- Broad-based admission through **Science (JS4601)**
- Students declare their major at any of the three time points with admission guaranteed
- No quota for a specific major

Phase I

(Entry)

Obtained Level 5 or above in a HKDSE subject of Biology/ Chemistry/ Combined Science (with Chemistry or Biology component)/ Integrated Science

Phase II

(End of Year 1)

Obtained C+ or above in **LSCI1002** from the Faculty Package

Phase III

(End of Year 2)

Taken **LSCI1002, LSCI2002, BCHE2030 and BIOL2120**

Admission Requirements (for Non-JUPAS / International Applicants)

- Applicants seeking admission on the strength of qualifications other than HKDSE examination results (*e.g.* IB, GCE-AL, overseas qualifications) can apply through Non-JUPAS channels
- Will be considered on a case-by-case basis, taking into account of individual merits
- Can apply for “Admission with Advanced Standing”
(*for particular qualifications only*)

Check more details at OAFA’s website!

Non-JUPAS Applications: <http://admission.cuhk.edu.hk/non-jupas-yr-1/requirements.html>

International Applications: <http://admission.cuhk.edu.hk/international/requirements.html>

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<http://www.sls.cuhk.edu.hk/index.php/cmbi>