

# Timothy En Haw Chan

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## Education

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**University of Freiburg & Max Planck Institute of Immunobiology and Epigenetics, Germany** Sep 2018 - Dec 2025

PhD in International Max Planck Research School for Immunobiology, Epigenetics, and Metabolism (IMPRS-IEM)

**Chang Gung University (C.G.U.), Taiwan**

Sep 2016 – Jul 2018

Master of Science (MS), Graduate Institute of Biomedical Sciences, Division of Microbiology

**Chang Gung University (C.G.U.), Taiwan**

Sep 2012 – Jun 2016

Bachelor of Science (BS), College of Medicine, Department of Biomedical Sciences

## Professional Experiences

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**German Cancer Consortium (DKTK), German Cancer Research Center (DKFZ), Germany** Jan 2019 – Dec 2025

IMPRS PhD researcher focus on epigenetics and cell signaling in Prof. Marc Timmer Medical Epigenetics Group, German Cancer Consortium (DKTK), partner site at University Medical Center Freiburg.

- Working on functional analysis of epigenetic factor in control of cancer cell signaling by multi-omics integration.
- Experienced with CRISPR editing, epigenetics, transcriptional experiments and data analysis, including RNA-Seq, CUT&RUN, CUT&Tag, ChIP-seq, ATAC-seq, Hi-C.
- Implementing and optimizing CRISPR editing and RNA-seq data analysis workflow for the lab.

**GLG (Freelance)**

May 2023 – Present

- As a GLG Network Member consultant, bringing insight and hand-on experience in the life sciences industry to help clients solve their business challenges around product development and consumer opinions.

**Max Planck Institute of Immunobiology and Epigenetics, Germany**

Sep 2018 – Dec 2018

IMPRS-IEM Lab rotations in Department of Epigenetics and Würzburg Max Planck Research Group for System Immunology.

- Passed European FELASA B lab animals accredited course with mouse module.
- Evaluated the effect of phytohormones in heterochromatic microsatellite repeats expression.
- Performed multi-color flow cytometry for innate lymphoid cells and natural killer cells isolation.

**The Investigator Taiwan, Taiwan**

Sep 2015 – Feb 2023

Contributing Editor and writer about recent biomedical research. Portfolio: [investigator.tw/author/id003/](http://investigator.tw/author/id003/)

- As former editor-in-chief (Year 2017), leading the editorial team, performed strategic planning and project management on editorial workflow.

**BioMed X Institute, CT, USA**

May 2023

Selected to participate a competitive innovation boot camp supported by AbbVie and BioMed X Institute.



- Elaborated and presented a project proposal about Complex Human Ex Vivo Models of Tissue Inflammation (disease-on-a-chip) in front of an expert panel.

#### **Tumor Virus Lab, Chang Gung University, Taiwan**

**Aug 2014 – Jul 2018**

Undergraduate and Master student worked in oral cancer and nasopharyngeal cancer research in Prof. Yu-Sun Chang lab. Supported by Taiwan Ministry of Science and Technology Undergraduate Research Fellowship.

- Discovered miRNA regulation of DNA editing enzyme APOBEC3A in APOBEC3B-deletion germline polymorphism.
- Investigated Epstein-Barr Virus encoded miRNAs in nasopharyngeal cancer cell line from exosome and worked on in-house Virus-encoded microRNA Disease Database curation and development.

#### **Chang Gung University International Genetically Machine (iGEM) Team, CGU\_Taiwan**

**Dec 2014 – Dec 2016**

Co-founder who organized the first iGEM team in Chang Gung University. Built an interdisciplinary team to take part the worldwide synthetic biology competition.

- Wrote proposal, secured team grant funding, did team recruitment and experiments design for the team. The results of RNA toehold switch and engineered G protein-coupled receptor on yeast as biosensor were presented at 2015 iGEM Giant Jamboree in Boston.

#### **Molecular Medicine Research Center, Chang Gung University, Taiwan**

**July 2013 – July 2014**

Trainer worked on gene expression profiling and R in genomics core lab, supervised by Hua-Chien Chen PhD.

### **Publications**

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**Chan TEH**, Islam MS, Fotouhi O, Bozkurt M, Nizamuddin S, Schüle KM, Arnold SJ, Timmers HTM. (2025): MLL4/KMT2D histone methyltransferase and JUNB cooperate in a feed-forward loop to support AP-1 dependent TGF- $\beta$  signaling. (In press)

**Chan TEH**, Timmers HTM. (2025): MLL4/KMT2D mutation increase immune activity and predict therapy efficacy in colorectal cancer. (Submitted)

**Chan TEH**, Timmers HTM. MLL3 and MLL4 H3K4 histone methyltransferases: diverse roles of gene regulation hub in cancer and development. (In preparation)

Islam MS, Nizamuddin S, **Chan TEH**, Fotouhi O, Koidl S, Biniossek M, Timmers HTM. (2025): Colorectal cancer-derived SMAD4 MH2 mutants are defective in p300 interactions leading to reduced activation of TGF- $\beta$  target genes. (In preparation)

Chi WY#, Li YD#, Huang HC#, **Chan TEH**#, Chow SY, Su JH, Ferrall L, Wu TC, Hung CF. (2022): COVID-19 vaccine update: Vaccine effectiveness, SARS-CoV-2 variants, boosters, adverse effects, and immune correlates of protection. *Journal of Biomedical Science* 29, 82. (10.1186/s12929-022-00853-8)

Chen TW#, Lee CC#, Liu H#, Wu CS#, Pickering CR#, Huang PJ, Wang J, Chang IYF, Yeh YM, Chen CD, Li HP, Luo JD, Tan BCM, **Chan TEH**, Hsueh C, Chu LJ, Chen YT, Zhang B, Yang CY, Wu CC, Hsu CW, See LC, Tang P, Yu JS, Liao WC, Chiang WF, Rodriguez H, Myers JN, Chang KP, Chang YS. (2017): APOBEC3A is an oral cancer prognostic biomarker in Taiwanese carriers of an APOBEC deletion polymorphism. *Nature Communication* 8, 465. (10.1038/s41467-017-00493-9)



## Conference Presentations

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**Chan TEH**. MLL4/KMT2D histone methyltransferase and JUNB cooperatively regulate AP-1 dependent TGF- $\beta$  signalling in a feed-forward loop. **15th Workshop Epigenetics@DKFZ**. Heidelberg, Germany (13 Jan 2025) (Oral Presentation)

**Chan TEH**. Islam MS, Fotouhi O, Nizamuddin S, Bozkurt M, Timmers HTM. MLL4/KMT2D histone methyltransferase and JUNB cooperatively regulate AP-1 dependent TGF- $\beta$  signalling in a feed-forward loop. **7th Max Planck Epigenetics Meeting**. Freiburg, Germany (Dec 4 2024)

König L, Schüle I, **Chan TEH**, Wimmers V, Tekman, Timmers HTM; Arnold S, Schmidts M. Investigating the role of epigenetic factors in congenital anomalies of the kidney (CAKUT). **1st International NephGen Symposium**. Freiburg, Germany (Sept 18 2023)

**Chan TEH**. Islam MS, Koidl S, Fotouhi O, Nizamuddin S, Timmers HTM. MLL4/KMT2D histone methyltransferase and AP-1 family proteins act cooperatively to regulate TGF- $\beta$  signaling. **Gordan Research Conference for Histone and DNA Modifications**. Smithfield, RI, United States (June 11 2023)

**Chan TEH**. Islam MS, Koidl S, Fotouhi O, Nizamuddin S, Timmers HTM. Involvement of MLL4/KMT2D histone methyltransferase and AP-1 family proteins in TGF- $\beta$  signaling. **6th Max Planck Epigenetics Meeting**. Freiburg, Germany (Nov 30 2022)

**Chan TEH**. Islam MS, Koidl S, Fotouhi O, Nizamuddin S, Timmers HTM. Involvement of MLL4 histone methyltransferase and AP-1 in TGF- $\beta$  signaling transcriptional activation. **FASEB TGF- $\beta$  Superfamily Conference: Signaling in Development and Disease**. Malahide, Ireland (July 17 2022)

**Chan TEH**. Islam MS, Timmers HTM. Role of MLL4/KMT2D methyltransferase complex in TGF- $\beta$  signaling and EMT control of colon cancer. **5th International TRR 81 Symposium on Chromatin Changes in Differentiation and Malignancies**. Bad Nauheim, Germany (Sept 9 2019)

## Selected Honors & Awards

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FASEB TGF- $\beta$ Superfamily Conference Travel Award	July 2022
Taiwan Overseas Community Affair Council Graduate Scholarship Award	Mar 2017
First Place Winner, Annual Research Poster Contest - Department of Biomedical Sciences	May 2016
Chang Gung Youth Award - College of Medicine, Chang Gung University	Apr 2016
Undergraduate Academic Excellence Award (Ranked top 5% in class 6 out of 8 semesters)	2013 - 2016
Silver Medal Award at International Genetically Machine (iGEM) Competition	Sept 2015
Gold Award in Popular Science Writing - Taiwan Genomics Medicine and Biomarker Society	Nov 2014

## Professional & Volunteer Activities

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Biochimica et biophysica acta Reviews on Cancer, STAR Protocols, Gene Reports, Genes & Diseases, Human Gene, <i>Reviewer</i>	Jan 2023 – Present
International Genetically Machine (iGEM) competition, <i>Judge</i>	Sept 2022 – Oct 2022



The Investigator Taiwan, ( <a href="http://investigator.tw">investigator.tw</a> ), <i>Contributing Editor / Science Writer</i>	Oct 2014 – Sept 2024
The Investigator Taiwan, <i>Editor-in-chief, Vice Director</i>	Jan 2017 – July 2018
Chang Gung Memorial Hospital University Volunteer Team, <i>Volunteer</i>	Oct 2016 – Sept 2017

## Teaching Experiences

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German Cancer Research Center (DKFZ). <i>Supervision</i> for Erasmus+ Research Internship	Mar 2024 – Jun 2024
Biology I, Uni. Freiburg. <i>Tutor</i> in bioinformatics analysis - Classical & Molecular Genetics (OM-02)	Feb 2020
Dept. of Biomedical Sciences, C.G.U. <i>Teaching Assistant</i> in Experimental Biology (LS3017)	Sept 2016 – Jan 2017
Chang Gung University International Genetically Machine (iGEM) Team, <i>Advisor</i>	Jan 2016 – Dec 2016

## Selected Certificates

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Introduction to multiomics data integration and visualization at EMBL-EBI workshop	Mar 2022
Patenting in Biotechnology by Coursera from University of Copenhagen	Jun 2021
Design and Interpretation of Clinical Trials by Coursera from John Hopkins	Jun 2021
Entrepreneurial Finance Specialization by Coursera from Duke University	Apr 2021
Good Manufacturing Practice Basic Course by GMP Academy	Mar 2021
Drug Development Product Management Specialization by Coursera from UCSD	Feb 2021

## Languages

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**Chinese** native, **English** professional proficiency, **Malay** working proficiency, **Indonesian** elementary, **German** elementary