



Name Eric Y. Chuang, Sc.D., EMBA
Current Positions Professor, Master Program for Biomedical Engineering
Dean, College of Biomedical Engineering

Telephone +886-4-22053366*1687
E-mail chuangey@mail.cmu.edu.tw
E-Portfolio Website http://webap.cmu.edu.tw/TchEportfolio/index_3/chuangey
Personal Website

Education

EMBA, National Taiwan University, Taipei, Taiwan (2015-2017)
Sc.D. Cancer Biology, Harvard University, School of Public Health, Boston, MA (1991-1997)
M.S. Biology, Illinois Institute of Technology, Chicago, IL (1990-1991)
B.S. Biology, Tunghai University, Taichung, Taiwan (1982-1986)

Expertise

1. Microarray 2. Next-generation sequencing 3. Bioinformatics 4. Cancer biology
5. Precision medicine 6. Gut microbiota 7. Biomedical Big Data & AI

Research Interests

Radiogenomics, Radiation-induced signaling pathways, Cancer genomics, Bioinformatics, Precision medicine, Intestinal bacteria and Biomedical Big Data & AI

Selected Grants:

Ministry of Science and Technology, Developing a semaphorin 6A derived protein drug for lung cancer Immunotherapy, project period: 08/2021 – 07/2024

National Health Research Institutes, Risk assessment of pollutants by omics approaches in people living near No. 6 Naphtha Cracking Plant, project period: 01/2019 – 12/2021

Ministry of Science and Technology, Metagenomic sequencing analysis to identify potential biomarkers in synchronous multiple primary cancers with esophageal squamous cell carcinoma: 8/2018-07/2021

Ministry of Science and Technology, Characterization of SEMA6A-derived immunity and its potential applications of immunotherapy in lung cancer, project period: 08/2017 – 07/2020

Ministry of Science and Technology, Application of stem cell and tissue engineering in regenerative medicine of the trachea: 05/2017-04/2018

Selected Publications

1. J.M. Jimmy Juang, T.P. Lu, M.W. Su, C.W. Lin, J.H. Yang, H.W. Chu, C.H. Chen, Y.W. Hsiao, C.Y. Lee, L.M. Chiang, Q.Y. Yu, C.H. Kate Hsiao, C.Y. Julius Chen, P.E. Wu, C.H. Pai, **Eric Y. Chuang***, C.Y. Shen, Rare variants discovery by extensive whole-genome sequencing of the Han Chinese population in Taiwan: Applications to cardiovascular medicine, *J ADV RES*(*impact factor: 10.479, journal ranking: 12%*), 7 Dec. 2020, DOI: 10.1016/j.jare.2020.12.003
2. Y.M. Hung, T.P. Lu, M.H. Tsai, L.C. Lai, **Eric Y. Chuang***, EasyMAP: A user-friendly online platform for analyzing 16S ribosomal DNA sequencing data, *New Biotechnology*(*impact factor: 4.674, journal ranking: 13%*), Available

online 9 March 2021, DOI: 10.1016/j.nbt.2021.03.001

3. C.H. Wu, H.T. Yeh, C.S. Hsieh, C.C. Huang, A. Chattopadhyay, Y.C. Chung, S.H. Tu, Y.H. Li, T.P. Lu, L.C. Lai, M.F. Hou, K.J. Chang, M.H. Tsai, **Eric Y. Chuang***, Evolutionary Trajectories and Genomic Divergence in Localized Breast Cancers after Ipsilateral Breast Tumor Recurrence, *CANCERS*(*impact factor: 6.639, journal ranking: 21%*), 11 April 2021, DOI: 10.3390/cancers13081821
4. N.N. Phan, A. Chattopadhyay, T.T. Lee, H.I. Yin, T.P. Lu, L.C. Lai, H.L. Hwa, M.H. Tsai, **Eric Y Chuang***, High-performance deep learning pipeline predicts individuals in mixtures of DNA using sequencing data, *BRIEF BIOINFORM*(*impact factor: 11.622, journal ranking: 3%*), 7 August 2021, DOI: 10.1093/bib/bbab283
5. C.Y. Lee, Y.F. Lee, L.C. Lai, M.H. Tsai, T.P. Lu, **Eric Y. Chuang***, MiDSytem: A comprehensive online system for de novo assembly and analysis of microbial genomes, *NEW BIOTECHNOL*(*impact factor: 5.079, journal ranking: 13%*), 17 August 2021, DOI: 10.1016/j.nbt.2021.08.002

Selected Patents

1. Pei-Chun Chen, Yen-Ching Chen, Liang-Chuan Lai, Mong-Hsun Tsai, Shin-Kuang Chen, Pei-Wen Yang, Jang-Ming Lee, Eric Y. Chuang, Chuhsing K. Hsiao. 2011. Biomarkers for predicting response of esophageal cancer patient to chemoradiotherapy. U.S. Patent No. 8,268,562 B2.