ZHIYUAN HU

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MRC Weatherall Institute of Molecular Medicine ⋄ Oxford OX3 9DS, UK

EDUCATION

University of Oxford, United Kingdom *Oct 2015 - Sep 2019*
D.Phil in Clinical Medicine
Thesis title: *Functional genomics studies of cancer and cells of origin: from pan-cancer to single-cell*
Supervisors: Dr Christopher Yau and Prof Ahmed Ahmed

Peking University, China *Sep 2011 - July 2015*
B.S. in Biological Science
Undergraduate Honors Program in Biology
Cumulative GPA: 3.86/4.00 (ranking: 1st out of 108)

WORK EXPERIENCE

MRC Weatherall Institute of Molecular Medicine/Nuffield department of Women's & Reproductive Health, University of Oxford *Oct 2019 - Present*
Postdoctoral research assistant
Research field: *Cancer genomics, single-cell transcriptomics and initiation of ovarian cancer*
Supervisor: Prof Ahmed Ahmed

SCHOLARSHIPS, AWARDS & GRANTS

WHG Public Engagement Seed Award, University of Oxford	*2019*
NIHR Oxford Biomedical Research Centre Small Grants in Health Sciences (£24,395)	*2019*
AACR-Margaret Foti Scholar-in-Training Award, American Association for Cancer Research	*2019*
Travel and Research Fund, St Cross College, University of Oxford	*2019*
Poster Prize, CRUK Oxford Centre 2018 Symposium	*2018*
NDM Graduate Student Prize, University of Oxford	*2017*
Shen Tong Outstanding Undergraduate Award, Peking University	*2015*
China National Scholarship	*2014*
Li & Fung Scholarship, Victor and William Fung Foundation	*2014*
Arawana Scholarship, Yihai Kerry, Wilmar China	*2013*
Robin Li Scholarship, Robin Li Foundation	*2012*

PUBLICATIONS

Z. Hu, M. Artibani, A. Alsaadi, N. Wietek, M. Morotti, L. Santana Gonzalez, S. El-Sahhar, M. KaramiNejadRanjbar, G. Mallett, T. Shi, K. Masuda, Y. Zheng, K. Chong, S. Damato, S. Dhar, R. Garruto Campanile, H. Soleymani majd, V. Cerundolo, T. Sauka-Spengler, C. Yau*, A. A. Ahmed*. The repertoire of serous ovarian cancer non-genetic heterogeneity revealed by single-cell sequencing of normal fallopian tube epithelial cells. *Cancer Cell* (In Press) (* co-corresponding authors)

R. Ma*, K. P. Capobianco, N. T. Buchanan, **Z. Hu**, J. M. Oakman*. Etiologic and Treatment Conceptualizations of Disordered Eating Symptoms among Mainland Chinese Therapists. *International Journal of Eating Disorders* (2019). https://doi.org/10.1002/eat.23204

M. P. Menden, D. Wang, M. J. Mason, B. Szalai, K. C. Bulusu, Y. Guan, T. Yu, J. Kang, M. Jeon, R. Wolfinger, T. Nguyen, M. Zaslavskiy, **AstraZeneca-Sanger Drug Combination DREAM Consortium**, I. Sock Jang, Z. Ghazoui, M. Eren Ahsen, R. Vogel, E. Chaibub Neto, T. Norman, E. K. Y. Tang, M. J. Garnett, G. Y. Di Veroli, S. Fawell, G. Stolovitzky, J. Guinney*, J. R. Dry* J. Saez-Rodriguez*. Community assessment to advance computational prediction of cancer drug combinations in a pharmacogenomic screen. *Nature Communications* **10**, 2674 (2019). https://www.nature.com/articles/s41467-019-09799-2

T. Motohara, K. Masuda, M. Morotti, Y. Zheng, S. El-Sahhar, K. Chong, N. Wietek, A. Alsaadi, M. Karaminejadranjbar, **Z. Hu**, M. Artibani, L. Santana Gonzalez, H. Katabuchi, H. Saya and A. Ahmed. An evolving story of the metastatic voyage of ovarian cancer cells: cellular and molecular orchestration of the adipose-rich metastatic microenvironment. *Oncogene*, 38, 2885−2898 (2019).

Z. Hu, C. Yau* and A. Ahmed*. A pan-cancer genome-wide analysis reveals tumour dependencies by induction of non-sense mediated decay. *Nature Communications* **8**, 15943 (2017).
doi: 10.1038/ncomms15943.

CONFERENCE ABSTRACT

Z. Hu, A. Alsaadi, N. Wietek, L. Santana González, C. Yau* and A. Ahmed*. Deep single-cell RNA-seq of the putative cell of origin revealed a novel molecular subtype of high-grade serous ovarian cancer with poor prognosis [abstract]. In: *Proceedings of the American Association for Cancer Research Annual Meeting 2019* (Accepted) (* co-corresponding authors)

PREPRINT

Z. Hu, M. Artibani, A. Alsaadi, N. Wietek, M. Morotti, L. Santana Gonzalez, S. El-Sahhar, M. KaramiNejadRanjbar, G. Mallett, T. Shi, K. Masuda, Y. Zheng, K. Chong, S. Damato, S. Dhar, R. Garruto Campanile, H. Soleymani majd, V. Cerundolo, T. Sauka-Spengler, C. Yau*, A. A. Ahmed*. The repertoire of serous ovarian cancer non-genetic heterogeneity revealed by single-cell sequencing of normal fallopian tube epithelial cells. *BioRxiv*. January 2019: 672626. http://biorxiv.org/content/early/2019/06/17/672626

PATENT

UK Patent Application No. 1902653.3 Ovarian Cancer Biomarkers. Date of filing: 27 February 2019

R PACKAGE

Z. Hu, C. Yau and A. Ahmed (2017). masonmd: making sense of nonsense mediated decay. MIT License. doi: 10.5281/zenodo.546698
The R package masonmd we developed can predict the genomic mutations that can elicit nonsense-mediated decay and may cause loss-of-function of the mutated genes.

LABORATORY EXPERIENCE

I have been working in the wet lab for more than four years.
Experienced in single-cell RNA-seq, handling human/mouse samples, flow cytometry/FACS, Confocal microscope, next-generation sequencing and and basic laboratory skills (e.g. RT, PCR, qPCR, electrophoresis, fluorescent staining, cell culturing).

COMPUTING AND STATISTICAL EXPERIENCE

Proficient in: R (daily usage), Shell (regular usage), Git (daily usage), analysing of next-generation sequencing data
Familiar with: Python (improving now), C (used extensively during undergrad) and MATLAB (used for a course project)
Also familiar with statistical learning and Bayesian inference.

RELEVANT SKILLS

Language English (fluent) and Mandarin Chinese (native)
Softwares LaTeX, Fiji *etc.*