Meisam Yousefi

CONTROLOW VITAE	CURRICULUM	VITAE
-----------------	------------	-------

Meisam You	ısefi CUI	RRICULUM VITAE			
Contact	Duke-NUS Medical School, 8 College Road, Singapore, 169857	🞓 🖬 🔰 🗘 🖹			
INFORMATION	https://MeisamYSF.github.io	yousefi@nus.edu.sg			
Personal Statement	My passion is to leverage my molecular and computational expertise t infection, especially for emerging and re-emerging viral pathogens. I molecular biology, genetics, virology, and bioinformatics, and am abl both wet and dry lab researchers and teammates.	ssion is to leverage my molecular and computational expertise to reveal the genetic basis of on, especially for emerging and re-emerging viral pathogens. I have a strong foundation in lar biology, genetics, virology, and bioinformatics, and am able to effectively engage with ret and dry lab researchers and teammates.			
Education	National University of Singapore, Singapore, Singapore Doctor of Philosophy (<i>Joint Ph.D.</i>), Integrated Biology and Medicine	2019 - 2024			
	Duke University , Durham, NC, USA Doctor of Philosophy (<i>Joint Ph.D.</i>), Integrated Biology and Medicine	2019 - 2024			
	University of Tehran , Tehran, Iran Continuous Master of Science (B.Sc./M.Sc.), Biotechnology	2012 - 2019			
Experience	Duke-NUS Medical School , Singapore, Singapore - Doctoral candidate at Dr. Yaw Shin Ooi lab. Genome-scale CRISPR/Ca host dependency factors.	Feb 2020 - Mar 2024 as9 screening to discover viral			
	Duke University School of Medicine , Durham, NC, USA - Visiting graduate student at Dr. Dennis Ko lab. Studying the allele diver bility to flaviviruses.	Sep 2023 - Oct 2023 sities impacting host suscepti-			
	ROYAN Institute , Tehran, Iran - Visiting graduate student researcher at Dr. Hossein Baharvand lab. Me primed human pluripotent stem cells.	Sep 2016 - Feb 2019 etabolic profiling of naïve and			
	University of Tehran School of biology , Tehran, Iran - Undergraduate researcher at Dr. Elahe Elahi lab. Studying the genetic d closure Glaucoma.	Jul 2015 - Aug 2016 eterminants of primary angle-			
Honors & Awards	Duke-NUS Achievement Prize (Official NUS University-Level Award) - Most Outstanding PhD or MD-PhD Student Class of 2024, Duke-NUS Me	May 2024 edical School			
	Student Representative of NUS at Global Young Scientists Summit (C - Awarded by National University of Singapore	GYSS) Jan 2024			
	Best Oral Presentation Award - Awarded by International Vector-borne Diseases Conference (IVBDC), Sin	Nov 2021			

Rank 55^{th} at the Nation-wide Entrance Exam of Iranian Universities Aug 2012 - Among +600K participants (Top 0.01%), held by Iran Ministry of Science, Research, and Technology.

Silver Medal at 21st National Chemistry Olympiad - Among +20K participants (Top 0.1%), held by Iran Ministry of Education.

Skills

- Cell culture (animal, bacterial)
- Microscopy(optical, confocal)
- RNA/DNA/Protein extraction and quantification
- PCR/qPCR

Wet lab:

- Gel electrophoresis and extraction
- Cloning (traditional, gibson assembly)
- NGS library preparation
- SDS-PAGE and western blotting
- Plaque assay

Dry lab:

OS: Windows, MacOS, Linux

Programming and Scripting: R, Shell, Python (basic)

Softwares: Microsoft Office, Graphpad Prism, Adobe Illustrator, IATFX, Geneious

Bioinformatics pipelines:

- CRISPR/Cas9 genetic screen analysis (MAGeCK)

- NGS analysis (FastQC, HISAT2/STAR, BBtools, BAMtools, BEDtools, SubRead/HTSeq, edgeR/limma/DESeq2, Seurat)

- Gene ontology and pathway enrichment analysis (GSEA/ClusterProfiler/Enrichr/gProfiler)

- Data dashboarding and visualization (Shiny, ggplot2, plotly)

- Metabolic network reconstruction (COBRA toolbox, RAVEN toolbox)

Languages:

- English: Full Proficiency
- Farsi/Persian: Native

 $PUBLICATIONS \quad \ \ * \ \ denotes \ \ co-first \ \ authors \ \ , \ \ \# \ \ denotes \ \ co-corresponding \ \ authors \ \ \\$

[10.] See, W. R., Yousefi, M., and Ooi, Y. S. (2024). A review of virus host factor discovery using CRISPR screening. *mBio* 0:e03205-23. *[IF=5.1]*

[9.] Yousefi, M.#, See, W. R., Aw-Yang, K. L., Lee, W. S., Yong, C. L., Fanusi, F., Smith, G. J. D., Ooi, E. E., Li, S., Ghosh, S., and Ooi, Y. S.# (2024). GeneRaMeN enables integration, comparison, and meta-analysis of multiple ranked gene lists to identify consensus, unique, and correlated genes. *Briefings in Bioinformatics*, 25(5), bbae452. [IF=6.8]

Aug 2011

[8.] Yousefi, M.*, Lee, W. S.*, Chan, W. O. Y.*, He, W., Mah, M. G., Yong, C. L., Deerain, J. M., Wang, L., Arcinas, C., Yan, B., Tan, D., Sia, W. R., Gamage, A. M., Yang, J., Hsu, A. C-. Y., Li, S., Linster, M., Yang, X., Ghosh, S., Anderson, D. E., Smith, G. J. D., Tan, C. W., Wang, L-. F., and Ooi, Y. S. (2023). Betacoronaviruses SARS-CoV-2 and HCoV-OC43 infections in IGROV-1 cell line require aryl hydrocarbon receptor. *Emerging Microbes & Infections*, 12(2), 2256416. *[IF=8.4]*

[7.] Cui, L., Yousefi, M., Yap, X., Koh, C. W., Tay, K. S. L., Ooi, Y. S., and Chan, K. R. (2023). Mass Spectrometry-based Lipidomics, Lipid Bioenergetics, and Web Tool for Lipid Profiling and Quantification in Human Cells. *Bio-protocol*, 13(16). *[IF=1.0]*

[6.] Ng, W. C., Kwek, S. S., Sun, B., **Yousefi, M.**, Ong, E. Z., Tan, H. C., Puschnik, A. S., Chan, K. R., Ooi, Y. S., and Ooi, E. E. (2022). A fast-growing dengue virus mutant reveals a dual role of STING in response to infection. *Open Biology*, 12220227220227. *[IF=4.5]*

[5.] Yousefi, M., Lee, W. S., Yan, B., Cui, L., Yong, C. L., Yap, X., Tay, K. S. L., Qiao, W., Tan, D., Nurazmi, N. I., Linster, M., Lee, Y. H., Smith, G. J., Carette, J. E., Ooi, E. E., Chan, K. R. and Ooi, Y. S. (2022). TMEM41B and VMP1 modulate cellular lipid and energy metabolism for facilitating dengue virus infection. *PLoS Pathogens*, 18(8), e1010763. [IF=5.5]

[4.] Lee, W. S.*, Yousefi, M.*, Yan, B., Yong, C. L., and Ooi, Y. S. (2021). Know your enemy and know yourself – the case of SARS-CoV-2 host factors. *Current Opinion in Virology*, 50, 159-170. [*IF*=5.7]

- Featured on the journal cover

[3.] Yousefi, M., Marashi, S. A., Sharifi-Zarchi, A. and Taleahmad, S., (2019). The metabolic network model of primed/naive human embryonic stem cells underlines the importance of oxidation-reduction potential and tryptophan metabolism in primed pluripotency. *Cell & Bioscience*, 9(1), p.71. [*IF=6.1*]

[2.] Taleahmad, S., Alikhani, M., Mollamohammadi, S., Yousefi, M., Taei, A., Hassani, S. N., Baharvand, H. and Salekdeh, G. H., (2019). Inhibition of Human Y Chromosome Gene, SRY, Promotes Naive State of Human Pluripotent Stem Cells. *Journal of Proteome Research*, 18(12), pp.4254-4261. [IF=3.8]

[1.] Sababi, M., Marashi, S. A., Pourmajidian, M., Pourtabatabaei, S. S., Darki, F., Sadrzadeh, M. R., Dehghani, M., Zandieh, A., Zim, M. K., **Yousefi, M.**, Jamalkhah, M., Tabatabaei, S. K., Safaeifard, F., Talaei, A., Sobat, M., Moakedi, F., and Nejadi, P., (2017). How accessibility influences citation counts: The case of citations to the full text articles available from ResearchGate. *RT. A Journal on Research Policy and Evaluation*, 5(1).

PRESENTATIONS[Poster] Identification of AHR as a pro-viral host factor of human betacoronaviruses SARS-CoV-2& POSTERSand HCoV-OC43 using IGROV-1 cells. Molecular Genetics and Microbiology (MGM) Department
Retreat, Duke University School of Medicine, NC, USA (Sep 2023)

[Poster + 3 min rapid-fire oral presentation (8 posters selected out of +120)] TMEM41Band VMP1 modulate cellular lipid and energy metabolism for facilitating dengue virus infection. 11th Australasian Virology Society (AVS) Meeting, Gold Coast, Australia (Dec 2022)

[Workshop] Using genome-wide CRISPR/Cas9 screening to unravel viral host factors. Depart-

[Talk] Dengue virus infection requires TMEM41B and VMP1 for evading innate immunity and modulating cellular lipid metabolism. International Vector-Borne Diseases Conference (IVBDC), Singapore (Nov 2021)

[**Poster**] Functional genetic dissection of Chikungunya virus host dependency factors through genome-wide CRISPR screens. Duke-NUS PhD Students Research Symposium, Singapore (Oct 2020)

PROFESSIONAL	Membership at Australasian Virology Society (AVS)	2022 - J	present
& Volunteer Activities	Membership at American Society of Virology (ASV)	2021 - ₁	present
	Chief Executive Director, 4^{th} International Students Biotechnology Congress, 7	Fehran	2019
	Elected Member of Biotechnology Students' Society, University of Tehran	2014 an	d 2016
	Chemistry Olympiad Teacher at Tehran High Schools	2012	- 2016