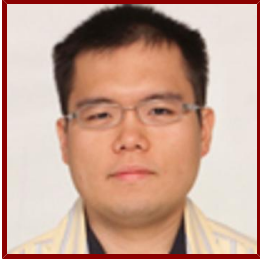


Stanford



Yu-Chen Lo

Research Data Analyst, Pediatrics - Hematology/Oncology

Bio

BIO

My primary research interest are in the development and application of computational approaches to drug discovery, drug design and target prediction. I have pioneered new computational approaches to determine drug actions based on chemical networks (<https://services.mbi.ucla.edu/CSNAP/>) and applied this method to discover new drugs inhibiting cell divisions and cancers. My current research at the Altman's lab focuses on developing novel computational methods for predicting drug actions, interactions, side-effects and drug repurposing. By correlating low-level structural data with high-level functional biology and clinical outcomes, I will apply system-based approach to engineer safe and effective medicine for disease treatments.

HONORS AND AWARDS

- Certificate of Recognition, American Chemical Society (2021)
- CERSI Postdoctoral Fellowship, Stanford University (2018-2019)
- Stanford School of Medicine Dean's Postdoctoral Fellowship, Stanford University (2017-2018)
- Genentech Early Research and Development (gERD) Postdoctoral Fellowship, Genentech Inc. (2016)
- CINF Scholarship for Scientific Excellence Award, American Chemical Society (2016)
- Final Paper, Annual Review of Translational Bioinformatics (2016)
- Featured Paper, PLOS Computational Biology (2015)
- HHMI Awards Nominee, UCLA (2013)
- IDRE Scholarship Award, UCLA (2011)
- Honor in Bioengineering, UC Berkeley (2006)
- Member of Bioengineering Honor Society, UC Berkeley (2004-2006)

EDUCATION AND CERTIFICATIONS

- Doctor of Philosophy, University of California Los Angeles , Biomedical Engineering (2016)
- Master of Science, University of California Los Angeles , Biomedical Engineering (2010)
- Bachelor of Science, University of California Berkeley , Biomedical Engineering (2006)

PATENTS

- Lo Y.C., Senese S., Damoiseaux R., Torres J.Z.. "United States Patent 62/022.976 Microtubins: a novel class of anticancer agents", UCLA
- Lo Y.C., McNamara D., Senese S., Yeates T.O., Damouseux R., Torres Z. J.. "United States Mi-181: A novel microtubule targeting agent", UCLA

LINKS

- CNSAP Web Server for Target Prediction: <https://services.mbi.ucla.edu/CSNAP/>
- ResearchGate: https://www.researchgate.net/profile/Ben_Lo2
- Google Scholar: <https://scholar.google.com/citations?user=zay5wNkAAAAJ&hl=en>
- Personal Website: <https://bennyloblog.wordpress.com/>

Professional

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

- Judge, ACS ENVR Certificate of Merit (2017 - present)
- Committee Member, ISMB/ECCB (2017 - present)
- Member, American Chemical Society (2010 - present)
- Member, American Association of Clinical Chemistry (2008 - present)
- Member, Biomedical Engineering Society (2004 - present)

Publications

PUBLICATIONS

- **Leukemia Cell Cycle Chemical Profiling Identifies the G2-Phase Leukemia Specific Inhibitor Leusin-1.** *ACS chemical biology*
Xia, X. n., Lo, Y. C., Gholkar, A. A., Senese, S. n., Ong, J. Y., Velasquez, E. F., Damoiseaux, R. n., Torres, J. Z.
2019; 14 (5): 994–1001
- **Pocket similarity identifies selective estrogen receptor modulators as microtubule modulators at the taxane site.** *Nature communications*
Lo, Y. C., Cormier, O. n., Liu, T. n., Nettles, K. W., Katzenellenbogen, J. A., Stearns, T. n., Altman, R. B.
2019; 10 (1): 1033
- **In Silico Repurposing of Cell Cycle Modulators for Cancer Treatment** *In Silico Drug Design: Repurposing Techniques and Methodologies*
Lo, Y., Torres, J. Z.
Academic Press.2019; 1
- **Computational Analysis of Kinase Inhibitor Selectivity using Structural Knowledge.** *Bioinformatics (Oxford, England)*
Lo, Y., Liu, T., Morrissey, K. M., Kakiuchi-Kiyota, S., Johnson, A. R., Broccatelli, F., Zhong, Y., Joshi, A., Altman, R. B.
2018
- **Machine learning in chemoinformatics and drug discovery.** *Drug discovery today*
Lo, Y., Rensi, S. E., Torng, W., Altman, R. B.
2018
- **Computational Cell Cycle Profiling of Cancer Cells for Prioritizing FDA-Approved Drugs with Repurposing Potential.** *Scientific reports*
Lo, Y. C., Senese, S. n., France, B. n., Gholkar, A. A., Damoiseaux, R. n., Torres, J. Z.
2017; 7 (1): 11261
- **Microtubins: a novel class of small synthetic microtubule targeting drugs that inhibit cancer cell proliferation.** *Oncotarget*
Senese, S. n., Lo, Y. C., Gholkar, A. A., Li, C. M., Huang, Y. n., Mottahedeh, J. n., Kornblum, H. I., Damoiseaux, R. n., Torres, J. Z.
2017; 8 (61): 104007–21
- **The X-Linked-Intellectual-Disability-Associated Ubiquitin Ligase Mid2 Interacts with Astrin and Regulates Astrin Levels to Promote Cell Division** *CELL REPORTS*
Gholkar, A. A., Senese, S., Lo, Y., Vides, E., Contreras, E., Hodara, E., Capri, J., Whitelegge, J. P., Torres, J. Z.
2016; 14 (2): 180-188
- **Fatostatin inhibits cancer cell proliferation by affecting mitotic microtubule spindle assembly and cell division.** *The Journal of biological chemistry*
Gholkar, A. A., Cheung, K. n., Williams, K. J., Lo, Y. C., Hamideh, S. A., Nnebe, C. n., Khuu, C. n., Bensinger, S. J., Torres, J. Z.

2016

- **3D Chemical Similarity Networks for Structure-based Target Prediction and Scaffold Hopping.** *ACS chemical biology*
Lo, Y. C., Senese, S. n., Damoiseaux, R. n., Torres, J. Z.
2016
- **Large-Scale Chemical Similarity Networks for Target Profiling of Compounds Identified in Cell-Based Chemical Screens** *PLOS COMPUTATIONAL BIOLOGY*
Lo, Y., Senese, S., Li, C., Hu, Q., Huang, Y., Damoiseaux, R., Torres, J. Z.
2015; 11 (3)
- **Chemical dissection of the cell cycle: probes for cell biology and anti-cancer drug development** *CELL DEATH & DISEASE*
SENESE, S., Lo, Y. C., Huang, D., Zangle, T. A., Gholkar, A. A., Robert, L., Homet, B., Ribas, A., Summers, M. K., Teitell, M. A., Damoiseaux, R., Torres, J. Z.
2014; 5
- **The STARD9/Kif16a Kinesin Associates with Mitotic Microtubules and Regulates Spindle Pole Assembly** *CELL*
Torres, J. Z., Summers, M. K., Peterson, D., Brauer, M. J., Lee, J., Senese, S., Gholkar, A. A., Lo, Y., Lei, X., Jung, K., Anderson, D. C., Davis, D. P., Belmont, et al
2011; 147 (6): 1309-1323
- **Chemical Similarity Networks for Drug Discovery** *Special Topics in Drug Discovery [ISBN 978-953-51-2800-7]*
Lo, Y., Torres, J. Z.
edited by Chen, T.
InTech .2016; 1
- **Quantitative Methods in System-Based Drug Discovery** *Complex Systems, Sustainability and Innovation [ISBN: 978-953-51-2842-7]*
Lo, Y., Gui, R., Honda, H., Torres, J. Z.
edited by Thomas, C.
InTech.2016; 1
- **Computer-Aided Biosensor Design** *Computer-aided Technologies - Applications in Engineering and Medicine [ISBN: 978-953-51-2788-8]*
Lo, Y., Ren, G., Honda, H., Torres, J. Z.
edited by Udriou, R.
Intech.2016; 1
- **Tctex1d2 associates with short-rib polydactyly syndrome proteins and is required for ciliogenesis** *CELL CYCLE*
Gholkar, A. A., Senese, S., Lo, Y., Capri, J., Deardorff, W. J., Dharmarajan, H., Contreras, E., Hodara, E., Whitelegge, J. P., Jackson, P. K., Torres, J. Z.
2015; 14 (7): 1116-1125
- **A unique insertion in STARD9's motor domain regulates its stability** *MOLECULAR BIOLOGY OF THE CELL*
Senese, S., Cheung, K., Lo, Y., Gholkar, A. A., Xia, X., Wohlschlegel, J. A., Torres, J. Z.
2015; 26 (3): 440-452

PRESENTATIONS

- CSNAP: a new chemoinformatics approach for target identification using chemical similarity networks - ACS Expo
- New approaches to immobilize cancer cells by using engineered scaffolds - ACS Expo
- Development of biosensor and their measurements - ACS Expo
- Enzymatic optimization for in-vitro serum triglyceride level determination using Q-Steps biometer - AACCS Expo
- Total temporomandibular joint replacement for the elderly - LHS Medical Device Conference
- Structural prediction and functional analysis of vitronectin - Protein Informatics Presentation Session