

## Weili Miao

Basic Life Research Scientist, Dermatology

### Bio

---

#### LINKS

- Khavari Lab: <http://khavarilab.stanford.edu>
- Google Scholar: <https://scholar.google.com/citations?user=9fFn-GsAAAAJ&hl=en&oi=ao>

### Publications

---

#### PUBLICATIONS

- **Regulation of RNA-binding proteins by small biomolecules.** *Nature reviews. Molecular cell biology*  
Miao, W., Porter, D. F., Lopez-Pajares, V., Khavari, P. A.  
2025
- **Disease-linked regulatory DNA variants and homeostatic transcription factors in epidermis.** *Nature communications*  
Porter, D. F., Meyers, R. M., Miao, W., Reynolds, D. L., Hong, A. W., Yang, X., Srinivasan, S., Mondal, S., Siprashvili, Z., Fabo, T., Zhou, R., Nguyen, T., Ducoli, et al  
2025; 16 (1): 8387
- **Publisher Correction: irCLIP-RNP and Re-CLIP reveal patterns of dynamic protein assemblies on RNA.** *Nature*  
Ducoli, L., Zarnegar, B. J., Porter, D. F., Meyers, R. M., Miao, W., Riley, N. M., Srinivasan, S., Jackrazi, L. V., Yang, Y. Y., Li, Z., Wang, Y., Bertozzi, C. R., Flynn, et al  
2025
- **irCLIP-RNP and Re-CLIP reveal patterns of dynamic protein assemblies on RNA.** *Nature*  
Ducoli, L., Zarnegar, B. J., Porter, D. F., Meyers, R. M., Miao, W., Riley, N. M., Srinivasan, S., Jackrazi, L. V., Yang, Y. Y., Li, Z., Wang, Y., Bertozzi, C. R., Flynn, et al  
2025
- **Glucose modulates IRF6 transcription factor dimerization to enable epidermal differentiation.** *Cell stem cell*  
Lopez-Pajares, V., Bhaduri, A., Zhao, Y., Gowrishankar, G., Donohue, L. K., Guo, M. G., Siprashvili, Z., Miao, W., Nguyen, D. T., Yang, X., Li, A. M., Tung, A. S., Shanderson, et al  
2025
- **DDX50 cooperates with STAU1 to effect stabilization of pro-differentiation RNAs.** *Cell reports*  
Miao, W., Porter, D. F., Siprashvili, Z., Ferguson, I. D., Ducoli, L., Nguyen, D. T., Ko, L. A., Lopez-Pajares, V., Srinivasan, S., Hong, A. W., Yang, Y. Y., Cao, Z., Meyers, et al  
2025; 44 (1): 115174
- **Glucose binds and activates NSUN2 to promote translation and epidermal differentiation.** *Nucleic acids research*  
Miao, W., Porter, D. F., Li, Y., Meservey, L. M., Yang, Y. Y., Ma, C., Ferguson, I. D., Tien, V. B., Jack, T. M., Ducoli, L., Lopez-Pajares, V., Tao, S., Savage, et al  
2024
- **Mitochondrial Raf1 Regulates Glutamine Catabolism.** *bioRxiv : the preprint server for biology*  
Shanderson, R. L., Ferguson, I. D., Siprashvili, Z., Ducoli, L., Li, A. M., Miao, W., Srinivasan, S., Velasco, M. G., Li, Y., Ye, J., Khavari, P. A.  
2024
- **Glucose dissociates DDX21 dimers to regulate mRNA splicing and tissue differentiation.** *Cell*

Miao, W., Porter, D. F., Lopez-Pajares, V., Siprashvili, Z., Meyers, R. M., Bai, Y., Nguyen, D. T., Ko, L. A., Zarnegar, B. J., Ferguson, I. D., Mills, M. M., Jilly-Rehak, C. E., Wu, et al  
2023; 186 (1): 80

- **Analyzing RNA-Protein Interactions by Cross-Link Rates and CLIP-seq Libraries.** *Current protocols*  
Porter, D. F., Garg, R. M., Meyers, R. M., Miao, W., Ducoli, L., Zarnegar, B. J., Khavari, P. A.  
2023; 3 (1): e659
- **PROBER identifies proteins associated with programmable sequence-specific DNA in living cells.** *Nature methods*  
Mondal, S., Ramanathan, M., Miao, W., Meyers, R. M., Rao, D., Lopez-Pajares, V., Siprashvili, Z., Reynolds, D. L., Porter, D. F., Ferguson, I., Neela, P., Zhao, Y., Meservey, et al  
2022; 19 (8): 959-968
- **The surfaceome of multiple myeloma cells suggests potential immunotherapeutic strategies and protein markers of drug resistance.** *Nature communications*  
Ferguson, I. D., Patiño-Escobar, B., Tuomivaara, S. T., Lin, Y. T., Nix, M. A., Leung, K. K., Kasap, C., Ramos, E., Nieves Vasquez, W., Talbot, A., Hale, M., Naik, A., Kishishita, et al  
2022; 13 (1): 4121
- **Targeted Proteomic Approaches for Proteome-Wide Characterizations of the AMP-Binding Capacities of Kinases.** *Journal of proteome research*  
Miao, W., Yin, J., Porter, D. F., Jiang, X., Khavari, P. A., Wang, Y.  
2022
- **The proximal proteome of 17 SARS-CoV-2 proteins links to disrupted antiviral signaling and host translation.** *PLoS pathogens*  
Meyers, J. M., Ramanathan, M., Shanderson, R. L., Beck, A., Donohue, L., Ferguson, I., Guo, M. G., Rao, D. S., Miao, W., Reynolds, D., Yang, X., Zhao, Y., Yang, et al  
2021; 17 (10): e1009412
- **SARS-CoV-2 B.1.1.7 and B.1.351 spike variants bind human ACE2 with increased affinity.** *The Lancet. Infectious diseases*  
Ramanathan, M., Ferguson, I. D., Miao, W., Khavari, P. A.  
2021
- **easyCLIP analysis of RNA-protein interactions incorporating absolute quantification.** *Nature communications*  
Porter, D. F., Miao, W., Yang, X., Goda, G. A., Ji, A. L., Donohue, L. K., Aleman, M. M., Dominguez, D., Khavari, P. A.  
2021; 12 (1): 1569
- **SARS-CoV-2 B.1.1.7 and B.1.351 Spike variants bind human ACE2 with increased affinity.** *bioRxiv : the preprint server for biology*  
Ramanathan, M., Ferguson, I. D., Miao, W., Khavari, P. A.  
2021
- **The proximal proteome of 17 SARS-CoV-2 proteins links to disrupted antiviral signaling and host translation.** *bioRxiv : the preprint server for biology*  
Meyers, J. M., Ramanathan, M., Shanderson, R. L., Donohue, L., Ferguson, I., Guo, M. G., Rao, D. S., Miao, W., Reynolds, D., Yang, X., Zhao, Y., Yang, Y. Y., Wang, et al  
2021
- **SLIRP Interacts with Helicases to Facilitate 2'-O-Methylation of rRNA and to Promote Translation** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*  
Li, L., Miao, W., Williams, P., Guo, C., Wang, Y.  
2019; 141 (28): 10958-10961