

BII – Molecular Innovations and AI Integration

** (Publications sorted: Newest – Oldest)

1	Nicholas Chua, B., Mei Guo, W., Teng Wong, H., Siak-Wei Ow, D., Leng Ho, P., Koh, W., Koay, A., Tian Wong, F. A Sweeter Future: Using Protein Language Models for Exploring Sweeter Brazzein Homologs . <i>Food Chemistry</i> 2023, 426, 136580.
2	Chua, W., Marsh, C. O., Poh, S. E., Koh, W. L. C., Lee, M. L. Y., Koh, L. F., Tang, X.-Z. E., See, P., Ser, Z., Wang, S. M., Sobota, R. M., Dawson, T. L., Yew, Y. W., Thng, S., O'Donoghue, A. J., Oon, H. H., Common, J. E., Li, H. A Malassezia Pseudoprotease Dominates the Secreted Hydrolase Landscape and Is a Potential Allergen on Skin . <i>Biochimie</i> 2023.
3	Koh, W. L. C., Poh, S. E., Lee, C. K., Chan, T. H. M., Yan, G., Kong, K. W., Lau, L., Lee, W. Y. T., Cheng, C., Hoon, S., Seow, Y. Towards a Rapid-Turnaround Low-Depth Unbiased Metagenomics Sequencing Workflow on the Illumina Platforms . <i>Bioengineering</i> 2023, 10 (5), 520.
4	Tiong, E., Koo, Y. S., Bi, J., Koduru, L., Koh, W., Lim, Y. H., Wong, F. T. Expression and Engineering of Unexplored PET Degrading Enzymes from Microbispora, Nonomuraea, Micromonospora Genus . bioRxiv April 17, 2023, p 2023.04.17.537204.
5	Koh, L. C. W., Seow, Y., Kong, K. W., Lau, M. L. L., Kumar, S. K., Yan, G., Lee, C. K., Yan, B., Tambyah, P. A., Hoon, S. Sub Genomic Analysis of SARS-CoV-2 Using Short Read Amplicon-Based Sequencing . <i>Frontiers in Genetics</i> 2023, 14, 1086865.
6	Kho, J., Koh, W., Wong, J. C., Chiu, P.-H., Ooi, C. C. Design of Turing Systems with Physics-Informed Neural Networks . In 2022 IEEE Symposium Series on Computational Intelligence (SSCI); 2022; pp 1180–1186.
7	Tabula Microcebus Consortium, Ezran, C., Liu, S., Ming, J., Guethlein, L. A., Wang, M. F., Dehghannasiri, R., Olivieri, J., Frank, H. K., Tarashansky, A. Mouse Lemur Transcriptomic Atlas Elucidates Primate Genes, Physiology, Disease, and Evolution . bioRxiv 2022, 2022–08.
8	Poh, S. E., Koh, W. L., Lim, S. Y. D., Wang, E. C., Yew, Y. W., Common, J. E., Oon, H. H., Li, H. Expression of Staphylococcus Aureus Virulence Factors in Atopic Dermatitis . <i>JID Innovations</i> 2022, 2 (4), 100130.
9	Mattar, C. N., Koh, W., Seow, Y., Hoon, S., Venkatesh, A., Dashraath, P., Lim, L. M., Ong, J., Lee, R., Johana, N. BNT162B2 COVID-19 mRNA Vaccination Did Not Promote Substantial Anti-Syncytin-1 Antibody Production nor mRNA Transfer to Breast Milk in an Exploratory Pilot Study . <i>Annals of the Academy of Medicine, Singapore</i> 2022, 51 (5), 309–312.
10	Goh, J., Ruchti, F., Poh, S. E., Koh, W. L., Tan, K. Y., Lim, Y. T., Thng, S. T., Sobota, R. M., Hoon, S. S., Liu, C. The Human Pathobiont Malassezia Furfur Secreted Protease Mfsap1 Regulates Cell Dispersal and Exacerbates Skin Inflammation . <i>Proceedings of the National Academy of Sciences</i> 2022, 119 (49), e2212533119.
11	Koh, W., Hoon, S. MapCell: Learning a Comparative Cell Type Distance Metric with Siamese Neural Nets with Applications toward Cell-Type Identification across Experimental Datasets . <i>Frontiers in Cell and Developmental Biology</i> 2021, 9, 767897.
12	Kiat Whye, K., ShyongTai, E., Shabbir, A., Khoo, C. M., Koh, W. Non-Invasive Characterization of the Pancreas During Bariatric Surgery via Circulating Pancreatic Specific Cell-Free Messenger RNA . <i>Frontiers in Genetics</i> 2021, 12, 742496.
13	Koh, W., Wu, A., Penland, L., Treutlein, B., Neff, N. F., Mantalas, G. L., Blumenfeld, Y. J., El-Sayed, Y. Y., Stevenson, D. K., Shaw, G. M., Quake, S. R. Single Cell Transcriptomes Derived from Human Cervical and Uterine Tissue during Pregnancy . <i>Adv Biosyst</i> 2019, 3 (11), e1800336.
14	Ooi, C. C., Mantalas, G. L., Koh, W., Neff, N. F., Fuchigami, T., Wong, D. J., Wilson, R. J., Park, S., Gambhir, S. S., Quake, S. R., Wang, S. X. High-Throughput Full-Length Single-Cell mRNA-Seq of Rare Cells . <i>PLOS ONE</i> 2017, 12 (11), e0188510.
15	Sharon, E., Shi, H., Kharbanda, S., Koh, W., Martin, L. R., Khush, K. K., Valentine, H., Pritchard, J. K., De Vlaminc, I. Quantification of Transplant-Derived Circulating Cell-Free DNA in Absence of a Donor Genotype . <i>PLoS computational biology</i> 2017, 13 (8), e1005629.

16	Kowarsky, M., Camunas-Soler, J., Kertesz, M., De Vlaminck, I., Koh, W., Pan, W., Martin, L., Neff, N. F., Okamoto, J., Wong, R. J. Numerous Uncharacterized and Highly Divergent Microbes Which Colonize Humans Are Revealed by Circulating Cell-Free DNA . <i>Proceedings of the National Academy of Sciences</i> 2017, 114 (36), 9623–9628.
17	Koh, W., Gonzalez, V., Natarajan, S., Carter, R., Brown, P. O., Gawad, C. Dynamic ASXL1 Exon Skipping and Alternative Circular Splicing in Single Human Cells . <i>PLOS ONE</i> 2016, 11 (10), e0164085.
18	Treutlein, B., Lee, Q. Y., Camp, J. G., Mall, M., Koh, W., Shariati, S. A. M., Sim, S., Neff, N. F., Skotheim, J. M., Wernig, M., Quake, S. R. Dissecting Direct Reprogramming from Fibroblast to Neuron Using Single-Cell RNA-Seq . <i>Nature</i> 2016, 534 (7607), 391–395.
19	Gawad, C., Koh, W., Quake, S. R. Single-Cell Genome Sequencing: Current State of the Science . <i>Nature Reviews Genetics</i> 2016, 17 (3), 175–188.
20	Gu, W., Koh, W., Blumenfeld, Y. J., El-Sayed, Y. Y., Hudgins, L., Hintz, S. R., Quake, S. R. Noninvasive Prenatal Diagnosis in a Fetus at Risk for Methylmalonic Acidemia . <i>Genet Med</i> 2014, 16 (7), 564–567.
21	Koh, W., Pan, W., Gawad, C., Fan, H. C., Kerchner, G. A., Wyss-Coray, T., Blumenfeld, Y. J., El-Sayed, Y. Y., Quake, S. R. Noninvasive in Vivo Monitoring of Tissue-Specific Global Gene Expression in Humans . <i>Proceedings of the National Academy of Sciences</i> 2014, 111 (20), 7361–7366.
22	Gawad, C., Koh, W., Quake, S. R. Dissecting the Clonal Origins of Childhood Acute Lymphoblastic Leukemia by Single-Cell Genomics . <i>Proceedings of the National Academy of Sciences</i> 2014, 111 (50), 17947–17952.
23	Voskoboinik, A., Newman, A. M., Corey, D. M., Sahoo, D., Pushkarev, D., Neff, N. F., Passarelli, B., Koh, W., Ishizuka, K. J., Palmeri, K. J. Identification of a Colonial Chordate Histocompatibility Gene . <i>Science</i> 2013, 341 (6144), 384–387.
24	Voskoboinik, A., Neff, N. F., Sahoo, D., Newman, A. M., Pushkarev, D., Koh, W., Passarelli, B., Fan, H. C., Mantalas, G. L., Palmeri, K. J. The Genome Sequence of the Colonial Chordate, <i>Botryllus Schlosseri</i> . <i>elife</i> 2013, 2, e00569.
25	Lim, X., Tan, S. H., Koh, W. L. C., Chau, R. M. W., Yan, K. S., Kuo, C. J., Van Amerongen, R., Klein, A. M., Nusse, R. Interfollicular Epidermal Stem Cells Self-Renew via Autocrine Wnt Signaling . <i>Science</i> 2013, 342 (6163), 1226–1230.
26	Lee, Q. Y., Koh, W., Sampath, P., Tanavde, V. Role of Translationally Regulated Genes in Embryonic Stem Cell Differentiation: Integration of Transcriptome and Translational State Profiling . <i>Computational Biology of Embryonic Stem Cells</i> 2012, 180–192.
27	Zimmer, B., Kuegler, P. B., Baudis, B., Genewsky, A., Tanavde, V., Koh, W., Tan, B., Waldmann, T., Kadereit, S., Leist, M. Coordinated Waves of Gene Expression during Neuronal Differentiation of Embryonic Stem Cells as Basis for Novel Approaches to Developmental Neurotoxicity Testing . <i>Cell Death Differ</i> 2011, 18 (3), 383–395.