

SIgN affiliated publications by Kong Peng LAM

Last updated: 24 Sep 2026

2026

Song W, Kim SS, Yam C, Teo J, Lim JY, Bi X, Lim HH, Lam KP. G3BP1 methylation by PRMT5 facilitates its recruitment of TBK1 for IRF3 activation during host response to foreign ribonucleic acids. *Front Immunol*. 2026 Jul 8;17:1888266.

Zhang M, Li QJ, Lam KP, Xu S. IL-10's contextual role in cytotoxic antitumor immunity: evidence, controversies, and therapeutic translation. *Front Immunol*. 2026 Sep 7;17:1898790.

Zhang M, Leong WF, Huo J, Ngoh EZX, Loh H, Chen Q, Toh SHM, de Mel S, Ooi MG, Soekojo CY, Chng WJ, Yang Y, Lam KP, Xu S. Engineering a TACI×CD3 Bispecific Antibody to Redirect T Cells Against Multiple Myeloma. *Blood Adv*. 2026 Jun 3.

Zhu Z, Zhang R, Kang H, Chen M, Huang H, Wang J, Guo L, Li Y, Chen W, Meng L, Wang R, Li L, Lam KP, Xu S, Ou X. HnRNP A1 and A2B1 enforce Ezh2 mRNA splicing to promote germinal center B cell responses. *Nat Commun*. 2026 Jun 11.

Neo SY, Mei Y, Chong J, Lee KY, Lim JY, Rajapakse MP, Shuen TWH, Zhao J, Tong L, Kajiji T, Cheong HS, Toh C, Neo ZW, Chong LY, Tang WL, Ang N, Tay A, Chen X, Johan H, Howland SW, Yeong JPS, Biswas SK, Lim E, Yu H, Xu S, Toh HC, Liu H, Lam KP. Nur77 agonism invigorates Natural Killer cell immunity against hepatocellular carcinoma. *Nat Commun*. 2026 Jun 30.

Lu L, Chan CY, Than M, Teo S, Lau PY, Lam KP, Ng KH, Yap HK. B-cell activation underpins Rituximab response in focal segmental glomerulosclerosis. *Transl Res*. 2026 Jan 6:S1931-5244(26)00001-0.

2025

Ho WHJ, Lam KP. Possible Roles for Purinergic Receptor P2RX4 in Breast and Prostate Cancers. *Int J Mol Sci*. 2025 Sep 17;26(18):9043.

Morgan D, Zhang B, Fidan K, Pan W, Vaiyapuri TS, Raju A, Hei D, See TY, Sari IN, Chan JW, Majee P, Balachander A, Yu J, Wong AH, Mok MMH, Foo SH, Tang WL, Ang N, Tan I, Peng YF, Jaynes P, Xu S, Ghosh G, Shahabi S, Jeyasekharan AD, Ikawa M, Zhang Y, Howland SW, Lau MC, Wang VY, Lam KP, Tergaonkar V. The transcription complex p52-ETS1 is essential for germinal center formation. *Nat Immunol*. 2025 Jul 25.

Fan X, Gong Y, Liu W, Lam KP, Xu S, Xue S, Nian R. Nanobodies in Immunoanalysis: From Molecular Engineering to Advanced Detection Strategies for Foodborne Natural Toxins. *Chemistry*. 2025 Jul 24:e04431

Cancila V, Bertolazzi G, Chan AS, Medico G, Bastianello G, Morello G, Paysan D, Lai C, Hong L, Shenoy G, Jaynes PW, Schiavoni G, Mattei F, Piconese S, Revuelta MV, Noto F, Businaro L, De Ninno A, Cammarata I, Pagni F, Venkatachalapathy S, Sangaletti S, Di Napoli A, Cicio G, Vacca D, Lonardi S, Lorenzi L, Ferreri AJ, Belmonte B, Liu M, Lakshmanan M, Ong MS, Zhang B, See T, Lam KP, Varano G, Colombo MP, Biciato S, Inghirami G, Cerchiatti L, Ponzoni M, Zappasodi R, Metzger E, Beechem J, Facchetti F, Foiani M, Casola S, Jeyasekharan AD, Tripodo C. Aggressive B-cell lymphomas retain ATR-dependent determinants of T-cell exclusion from the Germinal Center Dark Zone. *J Clin Invest*. 2025 Jul 17:e187371.

Li C, Adamson C, Ng AWR, Liang Y, Hong Z, Loh JT, Ng SK, Kwan JMC, Feng S, Ng EWL, Nair S, Ruedl C, Wong SH, Lam KP, Qiao Y. Gut microbiota-derived GlcNAc-MurNAc is a TLR4 agonist that protects the host gut. *Nat Commun*. 2025 Jul 1;16(1):5577.

Sun Y, Rodgers Furones A, Gultekin O, Khare S, Neo SY, Shi W, Moyano-Galceran L, Lam KP, Dasgupta R, Fuxe J, Salehi S, Lehti K, Sarhan D. Adaptive NK Cells Exhibit Tumor-Specific Immune Memory and Cytotoxicity in Ovarian Cancer. *Cancer Immunol Res*. 2025 Apr 28.

Wang CQ, Leong L, Yang L, Xu S, Lam KP, Choo AB, Tan AH. Nucleofection-based screening of chimeric antigen receptor candidates in human natural killer cells. *Front Immunol*. 2025 Apr 3;16:1557766. doi: 10.3389/fimmu.2025.1557766.

Tan J, Chothani S, Lim HH, Lam KP. Alu-Sc-mediated exonization generated a mitochondrial LKB1 gene variant found only in higher order primates. *Sci Rep*. 2025 Jan 27;15(1):3360.

Neo SY, Shuen TWH, Khare S, Chong J, Lau M, Shirgaonkar N, Chua L, Zhao J, Lee K, Tan C, Ba R, Lim J, Chua J, Cheong HS, Chai HM, Chan CY, Chung AYF, Cheow PC, Jeyaraj PR, Teo JY, Koh YX, Chok AY, Chow PKH, Goh B, Wan WK, Leow WQ, Loh TJZ, Tang PY, Karunanithi J, Ngo NT, Lim TKH, Xu S, Dasgupta R, Toh HC, Lam KP. Atypical memory B cells acquire Breg phenotypes in hepatocellular carcinoma. *JCI Insight*. 2025 Feb 25:e187025.

Zhang M, Loh HP, Goh Fang S, Yang Y, Lam KP, Xu S. Development of BCMA-Targeted Bispecific Natural Killer Cell Engagers for Multiple Myeloma Treatment. *Antibodies (Basel)*. 2024 Nov 29;13(4):97.

2024

Neo SY, Tong L, Chong J, Liu Y, Jing X, Oliveira MMS, Chen Y, Chen Z, Lee K, Burduli N, Chen X, Gao J, Ma R, Lim JP, Huo J, Xu S, Alici E, Wickström SL, Haglund F, Hartman J, Wagner AK, Cao Y, Kiessling R, Lam KP, Westerberg LS, Lundqvist A. Tumor-associated NK cells drive MDSC-mediated tumor immune tolerance through the IL-6/STAT3 axis. *Sci Transl Med*. 2024 May 15;16(747):eadi2952.

Neo SY, Oliveira MMS, Tong L, Chen Y, Chen Z, Cismas S, Burduli N, Malmerfelt A, Teo JKH, Lam KP, Alici E, Girnita L, Wagner AK, Westerberg LS, Lundqvist A. Natural killer cells drive 4-1BBL positive uveal melanoma towards EMT and metastatic disease. *J Exp Clin Cancer Res*. 2024 Jan 9;43(1):13.

2023

Loh JT, Teo JKH, Kannan S, Verma CS, Andiappan AK, Lim HH, Lam KP. DOK3 promotes atopic dermatitis by enabling the phosphatase PP4C to inhibit the T cell signaling mediator CARD11. *Sci Signal*. 2023 Oct 31;16(809):eadg5171.

Tan CW, Zhu F, Chia WN, Young BE, Yan Yeoh AY, Althaus T, Yung CF, Yap WC, Lee Lim B, I-C Chen M, Zhang J, Mah YY, Voiglio E, Sigal A, Huo J, Xu S, Tan YJ, Lam K-P, Lye D, Wang L-F, Distinctive serotypes of SARS-related coronaviruses defined by convalescent sera from unvaccinated individuals, *hLife*. 2023;XXX;1–9.

Zhang M, Lam KP, Xu S. Natural Killer Cell Engagers (NKCEs): a new frontier in cancer immunotherapy. *Front Immunol*. 2023 Aug 9;14:1207276.

Loh JT, Teo JKH, Kannan S, Verma CS, Lim HH, Lam KP. Disrupting the Dok3-Card9 Interaction with Synthetic Peptides Enhances Antifungal Effector Functions of Human Neutrophils. *Pharmaceutics*. 2023 Jun 21;15(7):1780.

Loh HP, Mahfut FB, Chen SW, Huang Y, Huo J, Zhang W, Lam KP, Xu S, Yang Y. Manufacturability and functionality assessment of different formats of T-cell engaging bispecific antibodies. *MAbs*. 2023 Jan-Dec;15(1):2231129.

Loh JT, Lam KP. Fungal infections: Immune defense, immunotherapies and vaccines. *Adv Drug Deliv Rev*. 2023 Mar 14;196:114775.

Neo SY, Xu S, Chong J, Lam KP, Wu J. Harnessing novel strategies and cell types to overcome immune tolerance during adoptive cell therapy in cancer. *J Immunother Cancer*. 2023 Apr;11(4):e006434. doi: 10.1136/jitc-2022-006434.

Wang CQ, Choy FC, Sanny A, Murakami T, Tan AH, Lam KP. An Inhibitory Role for Human CD96 Endodomain in T Cell Anti-Tumor Responses. *Cells*. 2023 Jan 13;12(2):309.

Zhao J, Lee K, Toh HC, Lam KP, Neo SY. Unravelling the role of obesity and lipids during tumor progression. *Front Pharmacol*. 2023 Mar 30;14:1163160.

Zhang B, Zhang B, Lai RC, Sim WK, Lam KP, Lim SK. MSC-sEV Treatment Polarizes Pro-Fibrotic M2 Macrophages without Exacerbating Liver Fibrosis in NASH. *Int J Mol Sci*. 2023 Apr 30;24(9):8092.

Teo KYW, Zhang S, Loh JT, Lai RC, Hey HWD, Lam KP, Lim SK, Toh WS. Mesenchymal Stromal Cell Exosomes Mediate M2-like Macrophage Polarization through CD73/Ecto-5'-Nucleotidase Activity. *Pharmaceutics*. 2023 May 13;15(5):1489.

Tan I, Xu S, Huo J, Huang Y, Lim HH, Lam KP. *J Biol Chem*. 2023 Jun 9:104906.

2022

Loh JT, Lam KP. Neutrophils in the Pathogenesis of Rheumatic Diseases. *Rheumatol Immunol Res*. 2022 Oct 20;3(3):120-127.

Loh JT, Teo JKH, Lam KP. Dok3 restrains neutrophil production of calprotectin during TLR4 sensing of SARS-CoV-2 spike protein. *Front Immunol*. 2022 Sep 12;13:996637.

Kim SSY, Sim DCN, Carissimo G, Lim HH, Lam KP. Bruton's Tyrosine Kinase phosphorylates scaffolding and RNA-binding protein G3BP1 to induce stress granule aggregation during host sensing of foreign ribonucleic acids. *J Biol Chem*. 2022 Jul 4:102231.

Huo J, Huang Y, Zheng Z, Tay XN, Mahfut FB, Zhang W, Lam KP, Yang Y, Xu S. Development of a T cell-redirecting bispecific antibody targeting B-cell maturation antigen for the suppression of multiple myeloma cell growth. *Antib Ther*. 2022 Jun 9;5(2):138-149.

Loh JT, Zhang B, Teo JKH, Lai RC, Choo ABH, Lam KP, Lim SK. Mechanism for the attenuation of neutrophil and complement hyperactivity by MSC exosomes. *Cytotherapy*. 2022 Feb 14:S1465-3249(22)00018-4.

Ruan GX, Li Y, Chen W, Huang H, Zhang R, Chen C, Lam KP, Xu S, Ou X. The spliceosome component Usp39 controls B cell development by regulating immunoglobulin gene rearrangement. *Cell Rep.* 2022 Feb 8;38(6):110338.

Zhang B, Huo J, Huang Y, Teo SY, Duan K, Li Y, Toh LK, Lam KP, Xu S. mRNA Booster Vaccination Enhances Antibody Responses against SARS-CoV2 Omicron Variant in Individuals Primed with mRNA or Inactivated Virus Vaccines. *Vaccines.* 2022; 10(7):1057.

2021

Hang L, Wang Z, Foo ASC, Goh GWY, Choong HC, Thundiyil J, Xu S, Lam KP, Lim KL. Conditional disruption of AMP kinase in dopaminergic neurons promotes Parkinson's disease-associated phenotypes in vivo. *Neurobiol Dis.* 2021 Dec;161:105560.

Loh JT, Lee KG, Lee AP, Teo JKH, Lim HL, Kim SS, Tan AH, Lam KP. DOK3 maintains intestinal homeostasis by suppressing JAK2/STAT3 signaling and S100a8/9 production in neutrophils. *Cell Death Dis.* 2021 Nov 6;12(11):1054.

Sirés A, Turch-Anguera M, Bogdanov P, Sampedro J, Ramos H, Ruíz Lasa A, Huo J, Xu S, Lam KP, López-Soriano J, Pérez-García MJ, Hernández C, Simó R, Solé M, Comella JX. Faim knockout leads to gliosis and late-onset neurodegeneration of photoreceptors in the mouse retina. *J Neurosci Res.* 2021 Oct 28. [Epub ahead of print]

Kumar V, Ramnarayanan K, Sundar R, Padmanbhan N, Srivastava S, Koiwa M, Yasuda T, Koh V, Huang KK, Tay ST, Ho SWT, Tan ALK, Ishimoto T, Kim G, Shabbir A, Chen Q, Biyan Z, Xu S, Lam KP, Lum HYJ, Teh M, Yong WP, So JB, Tan P. Single-cell atlas of lineage states, tumor microenvironment and subtype-specific expression programs in gastric cancer. *Cancer Discov.* 2021 Oct 12:candisc.0683.2021.

Guan D, Wang Z, Huo J, Xu S, Lam KP. Bruton's tyrosine kinase regulates gut immune homeostasis through attenuating Th1 response. *Cell Death Dis.* 2021 Apr 30;12(5):431.

Chan CY, Teo S, Lu L, Chan YH, Lau PY, Than M, Jordan SC, Lam KP, Ng KH, Yap HK. Low regulatory T-cells: A distinct immunological subgroup in minimal change nephrotic syndrome with early relapse following rituximab therapy. *Transl Res.* 2021 Mar 31:S1931-5244(21)00082-7.

Wang X, Lin X, Zheng Z, Lu B, Wang J, Tan AH, Zhao M, Loh JT, Ng SW, Chen Q, Xiao F, Huang E, Ko KH, Huang Z, Li J, Kok KH, Lu G, Liu X, Lam KP, Liu W, Zhang Y, Yuen KY, Mak TW, Lu L. Host-derived lipids orchestrate pulmonary $\gamma\delta$ T cell response to provide early protection against influenza virus infection. *Nat Commun.* 2021 Mar 26;12(1):1914.

Wang Z, Guan D, Huo J, Biswas SK, Huang Y, Yang Y, Xu S, Lam KP. IL-10 Enhances Human Natural Killer Cell Effector Functions via Metabolic Reprogramming Regulated by mTORC1 Signaling. *Front Immunol.* 2021 Feb 23;12:619195.

2020

Tan AH, Tso GHW, Zhang B, Teo PY, Ou X, Ng SW, Wong AXF, Tan SJX, Sanny A, Kim SS, Lee AP, Xu S, Lam KP. TACI Constrains TH17 Pathogenicity and Protects against Gut Inflammation. *iScience.* 2020 Oct 22;23(11):101707.

So JBY, Kapoor R, Zhu F, Koh C, Zhou L, Zou R, Tang YC, Goo PCK, Rha SY, Chung HC, Yoong J, Yap CT, Rao J, Chia CK, Tsao S, Shabbir A, Lee J, Lam KP, Hartman M, Yong WP, Too HP, Yeoh KG. Development and validation of a serum microRNA biomarker panel for detecting gastric cancer in a high-risk population. *Gut*. 2020 Oct 7;gutjnl-2020-322065.

Loh JT, Teo JKH, Lim HH, Lam KP. Emerging Roles of Downstream of Kinase 3 in Cell Signaling. *Front Immunol*. 2020 Sep 29;11:566192.