

ZE5 Cell Analyzer Publications List



Flow Cytometry

Bulletin 7215



Immunology

2017

McCubbrey AL et al. (2017).

Promoter specificity and efficacy in conditional and inducible transgenic targeting of lung macrophages.
Front Immunol 8, 1,618.



Wu SJ et al. (2017).

A critical analysis of the role of SNARE protein SEC22B in antigen cross-presentation.
Cell Rep 19, 2,645–2,656.



2018

Borlido J et al. (2018).

Nuclear pore complex-mediated modulation of TCR signaling is required for naïve CD4⁺ T cell homeostasis.
Nat Immunol 19, 594–605.



Palmer VL et al. (2018).

IL10 restrains autoreactive B cells in transgenic mice expressing inactive RAG1.
Cell Immunol 331, 110–120.



Schabla NM et al. (2018).

VprBP (DCAF1) regulates RAG1 expression independently of dicer by mediating RAG1 degradation.
J Immunol 201, 930–939.



Staser KW et al. (2018).

OMIP-042: 21-color flow cytometry to comprehensively immunophenotype major lymphocyte and myeloid subsets in human peripheral blood.
Cytometry A 93, 186–189.



**Zhao M et al. (2018).**

Altered thymic differentiation and modulation of arthritis by invariant NKT cells expressing mutant ZAP70.
Nat Commun 9, 2,627.

**2019****Apavaloaei A et al. (2019).**

PSMB11 orchestrates the development of CD4 and CD8 thymocytes via regulation of gene expression in cortical thymic epithelial cells.
J Immunol 202, 966–978.

**Edgar LJ et al. (2019).**

Targeted delivery of antigen to activated CD169⁺ macrophages induces bias for expansion of CD8⁺ T cells.
Cell Chem Biol 26, 131–136.

**Holbrook AK et al. (2019).**

CD4⁺ T cell activation and associated susceptibility to HIV-1 infection in vitro increased following acute resistance exercise in human subjects.
Physiol Rep 7, e14234.

**Marro BS et al. (2019).**

Macrophage IFN-I signaling promotes autoreactive T cell infiltration into islets in type 1 diabetes model.
JCI Insight 4, e125067.

**Svensson MN et al. (2019).**

Reduced expression of phosphatase PTPN2 promotes pathogenic conversion of Tregs in autoimmunity.
J Clin Invest 129, 1,193–1,210.

**Voss JE et al. (2019).**

Reprogramming the antigen specificity of B cells using genome-editing technologies.
eLife 8, e42995.

**2020****Benhammadi M et al. (2020).**

IFN- λ enhances constitutive expression of MHC class I molecules on thymic epithelial cells.
J Immunol 205, 1,268–1,280.

**Chen Q et al. (2020).**

CD19⁺CD24^{hi}CD38^{hi} B cell dysfunction in primary biliary cholangitis.
Mediators Inflamm 2020, 3019378.



**Godbersen-Palmer C et al. (2020).**

Toxicity induced by a bispecific T cell–redirecting protein is mediated by both T cells and myeloid cells in immunocompetent mice.
J Immunol 204, 2,973–2,983.

**Hagan N et al. (2020).**

CSF1R signaling is a regulator of pathogenesis in progressive MS.
Cell Death Dis 11, 904.

**Hanamsagar R et al. (2020).**

An optimized workflow for single-cell transcriptomics and repertoire profiling of purified lymphocytes from clinical samples.
Sci Rep 10, 2,219.

**Hsieh WC et al. (2020).**

PTPN2 links colonic and joint inflammation in experimental autoimmune arthritis.
JCI Insight 5, e141868.

**Labarta-Bajo L et al. (2020).**

CD8 T cells drive anorexia, dysbiosis, and blooms of a commensal with immunosuppressive potential after viral infection.
Proc Natl Acad Sci USA 117, 24,998–25,007.

**Labarta-Bajo L et al. (2020).**

Type I IFNs and CD8 T cells increase intestinal barrier permeability after chronic viral infection.
J Exp Med. 217, e20192276.

**Lee BJ et al. (2020).**

Generation of cell-derived matrices that support human NK cell migration and differentiation.
J Leukoc Biol [published ahead of print May 11, 2020]. Accessed November 30, 2020.

**Lin JD et al. (2020).**

Rewilding Nod2 and Atg16l1 mutant mice uncovers genetic and environmental contributions to microbial responses and immune cell composition.
Cell Host Microbe 27, 830–840.

**Nasrallah R et al. (2020).**

A distal enhancer at risk locus 11q13.5 promotes suppression of colitis by T_{reg} cells
Nature 583, 447–452.

**Pasciuto E et al. (2020).**

Microglia require CD4 T cells to complete the fetal-to-adult transition.
Cell 182, 625–640.



**Rai V et al. (2020).**

The immune response after noise damage in the cochlea is characterized by a heterogeneous mix of adaptive and innate immune cells.
Sci Rep 10, 15,167.

**Sule G et al. (2020).**

Increased adhesive potential of antiphospholipid syndrome neutrophils mediated by $\beta 2$ integrin Mac-1.
Arthritis Rheumatol 72, 114–124.

**Svensson MND et al. (2020).**

Synoviocyte-targeted therapy synergizes with TNF inhibition in arthritis reversal.
Sci Adv 6, eaba4353.

**Ural BB et al. (2020).**

Identification of a nerve-associated, lung resident interstitial macrophage subset with distinct localization and immunoregulatory properties.
Sci Immunol 5, eaax8756.

**Wang J et al. (2020).**

Genetic variability of T cell responses in hypersensitivity pneumonitis identified using the BXD genetic reference panel.
Am J Physiol Lung Cell Mol Physiol 318, L631–L643.

**Yeung F et al. (2020).**

Altered immunity of laboratory mice in the natural environment is associated with fungal colonization.
Cell Host Microbe 27, 809–822.



Cancer Biology and Immunotherapy

2017

Oweida A et al. (2017).

Ionizing radiation sensitizes tumors to PD-L1 immune checkpoint blockade in orthotopic murine head and neck squamous cell carcinoma.
Oncoimmunology 6, e1356153.



2018

Cooper ML et al. (2018).

An “off-the-shelf” fratricide-resistant CAR-T for the treatment of T cell hematologic malignancies.
Leukemia 32, 1,970–1,983.



**Goldsmith ZK et al. (2018).**

Targeting the platelet-derived growth factor-beta stimulatory circuitry to control retinoblastoma seeds.

Invest Ophthalmol Vis Sci 59, 4,486–4,495.

**Oweida A et al. (2018).**

Resistance to radiotherapy and PD-L1 blockade is mediated by TIM-3 upregulation and regulatory T-cell infiltration.

Clin Cancer Res 24, 5,368–5,380.

**2019****Arnst KE et al. (2019).**

X-ray crystal structure guided discovery and antitumor efficacy of dihydroquinoxalinone as potent tubulin polymerization inhibitors.

ACS Chem Biol 14, 2,810–2,821.

**Bhatia S et al. (2019).**

Inhibition of EphB4-ephrin-B2 signaling reprograms the tumor immune microenvironment in head and neck cancers.

Cancer Res 79, 2,722–2,735.

**Borot F et al. (2019).**

Gene-edited stem cells enable CD33-directed immune therapy for myeloid malignancies.

Proc Natl Acad Sci USA 116, 11,978–11,987.

**Bullock BL et al. (2019).**

Tumor-intrinsic response to IFN γ shapes the tumor microenvironment and anti-PD-1 response in NSCLC.

Life Sci Alliance 2, e201900328.

**Chan SM et al. (2019).**

The HERV-K accessory protein Np9 controls viability and migration of teratocarcinoma cells.

PLoS One 14, e0212970.

**Cheng G et al. (2019).**

Targeting lonidamine to mitochondria mitigates lung tumorigenesis and brain metastasis.

Nat Commun 10, 2,205.

**Goldsmith ZK et al. (2019).**

Sirtuin inhibitor as a novel cell cycle checkpoint and regulator of the TP53-MDM2 pathway in uveal melanoma.

Ophthalmol Open J 3, 21–30.



**Kansal R et al. (2019).**

Sustained B cell depletion by CD19-targeted CAR T cells is a highly effective treatment for murine lupus.

Sci Transl Med 11, eaav1648.

**Kashyap VK et al. (2019).**

Therapeutic efficacy of a novel β III/IV-tubulin inhibitor (VERU-111) in pancreatic cancer.

J Exp Clin Cancer Res 38, 29.

**Kessler BE et al. (2019).**

Resistance to Src inhibition alters the BRAF-mutant tumor secretome to promote an invasive phenotype and therapeutic escape through a FAK>p130Cas>c-Jun signaling axis.

Oncogene 38, 2,565–2,579.

**Lennon S et al. (2019).**

Pancreatic tumor microenvironment modulation by EphB4-ephrinB2 inhibition and radiation combination.

Clin Cancer Res 25, 3,352–3,365.

**Michmerhuizen NL et al. (2019).**

Rationale for using irreversible epidermal growth factor receptor inhibitors in combination with phosphatidylinositol 3-kinase inhibitors for advanced head and neck squamous cell carcinoma.

Mol Pharmacol 95, 528–536.

**Narayanan JSS et al. (2019).**

Irreversible electroporation combined with checkpoint blockade and TLR7 stimulation induces antitumor immunity in a murine pancreatic cancer model.

Cancer Immunol Res 7, 1,714–1,726.

**Zhao Y et al. (2019).**

miR-141 inhibits proliferation, migration and invasion in human hepatocellular carcinoma cells by directly downregulating TGF β R1.

Oncol Rep 42, 1,656–1,666.

**2020****Bi X et al. (2020).**

METTL3-mediated maturation of miR-126-5p promotes ovarian cancer progression via PTEN-mediated PI3K/Akt/mTOR pathway.

Cancer Gene Ther [published ahead of print September 16, 2020]. Accessed November 30, 2020.

**Chen W et al. (2020).**

Discovery of mitochondrial transcription inhibitors active in pancreatic cancer cells.

ChemMedChem [published ahead of print August 3, 2020]. Accessed November 30, 2020.



**Deng S et al. (2020).**

An orally available tubulin inhibitor, VERU-111, suppresses triple-negative breast cancer tumor growth and metastasis and bypasses taxane resistance.

Mol Cancer Ther 19, 348–363.

**Evgin L et al. (2020).**

Oncolytic virus-derived type I interferon restricts CAR T cell therapy.

Nat Commun 11, 3,187.

**Hatami E et al. (2020).**

Gambogic acid potentiates gemcitabine induced anticancer activity in non-small cell lung cancer.

Eur J Pharmacol 888, 173,486.

**Kieffer Y et al. (2020).**

Single-cell analysis reveals fibroblast clusters linked to immunotherapy resistance in cancer.

Cancer Discov 10, 1,330–1,351.

**Lupien LE et al. (2020).**

Endocytosis of very low-density lipoproteins: An unexpected mechanism for lipid acquisition by breast cancer cells.

J Lipid Res 61, 205–218.

**Mahmud F et al. (2020).**

Orally available tubulin inhibitor VERU-111 enhances antitumor efficacy in paclitaxel-resistant lung cancer.

Cancer Lett 495, 76–88.

**Mehta RK et al. (2020).**

Low-dose Hsp90 inhibitor selectively radiosensitizes HNSCC and pancreatic xenografts.

Clin Cancer Res 26, 5,246–5,257.

**Neuwelt AJ et al. (2020).**

Cancer cell-intrinsic expression of MHC II in lung cancer cell lines is actively restricted by MEK/ERK signaling and epigenetic mechanisms.

J Immunother Cancer 8, e000441.

**Park SR et al. (2020).**

Single-cell transcriptome analysis of colon cancer cell response to 5-fluorouracil-induced DNA damage.

Cell Rep 32, 108,077.

**Ricci B et al. (2020).**

Osterix-Cre marks distinct subsets of CD45– and CD45+ stromal populations in extra-skeletal tumors with pro-tumorigenic characteristics.

Elife 9, e54659.



**Tan J et al. (2020).**

Ultrasound-assisted enzymatic extraction of anthocyanins from grape skins: Optimization, identification, and antitumor activity.
J Food Sci 85, 3,731–3,744.

**Zaslavsky AB et al. (2020).**

Platelet PD-L1 suppresses anti-cancer immune cell activity in PD-L1 negative tumors.
Sci Rep 10, 19,296.

**Zhu Z et al. (2020).**

Tumour-reprogrammed stromal BCAT1 fuels branched-chain ketoacid dependency in stromal-rich PDAC tumours.
Nat Metab 2, 775–792.



Antibody Engineering/Drug Delivery/Drug Screening

2018

Betker JL et al. (2018).

Nanoparticle uptake by circulating leukocytes: A major barrier to tumor delivery.
J Control Release 286, 85–93.

**Datta A et al. (2018).**

High-throughput screening identified selective inhibitors of exosome biogenesis and secretion: A drug repurposing strategy for advanced cancer.
Sci Rep 8, 8,161.



2019

Julian MC et al. (2019).

Nature-inspired design and evolution of anti-amyloid antibodies.
J Biol Chem 294, 8,438–8,451.

**Marro BS et al. (2019).**

Discovery of small molecules for the reversal of T cell exhaustion.
Cell Rep 29, 3,293–3,302.

**McGuire TR et al. (2019).**

Effects of novel pyrrolomycin MP1 in MYCN amplified chemoresistant neuroblastoma cell lines alone and combined with temsirolimus.
BMC Cancer 19, 837.



2020

Jiang J et al. (2020).

A novel corona core-shell nanoparticle for enhanced intracellular drug delivery.
Mol Med Rep 21, 1,965–1,972.



**Notaro A et al. (2020).**

A maltol-containing ruthenium polypyridyl complex as a potential anticancer agent.
Chemistry 26, 4,997–5,009.

**Notaro A et al. (2020).**

Increasing the cytotoxicity of Ru (II) polypyridyl complexes by tuning the electronic structure of dioxo ligands.
J Am Chem Soc 142, 6,066–6,084.

**Notaro A et al. (2020).**

Ruthenium(II) complex containing a redox-active semiquinonate ligand as a potential chemotherapeutic agent: From synthesis to *in vivo* studies.
J Med Chem 63, 5,568–5,584.

**Ramkumar P et al. (2020).**

CRISPR-based screens uncover determinants of immunotherapy response in multiple myeloma.
Blood Adv 4, 2,899–2,911.

**COVID-19 Studies****Grifoni A. et al. (2020).**

Targets of T cell responses to SARS-CoV-2 coronavirus in humans with COVID-19 disease and unexposed individuals.
Cell 181, 1,489–1,501.

**Houlihan CF et al. (2020).**

Pandemic peak SARS-CoV-2 infection and seroconversion rates in London frontline health-care workers.
Lancet 396, e6–e7.

**Mateus J et al. (2020).**

Selective and cross-reactive SARS-CoV-2 T cell epitopes in unexposed humans.
Science 370, 89–94.

**Ng KW et al. (2020).**

Preexisting and de novo humoral immunity to SARS-CoV-2 in humans.
Science [published ahead of print November 6, 2020]. Accessed November 30, 2020.

**Piccoli L et al. (2020).**

Mapping neutralizing and immunodominant sites on the SARS-CoV-2 spike receptor-binding domain by structure-guided high-resolution serology.
Cell 183, 1,024–1,042.

**Pinto D et al. (2020).**

Cross-neutralization of SARS-CoV-2 by a human monoclonal SARS-CoV antibody.
Nature 583, 290–295.



**Russell E et al. (2020).**

Adapting to the coronavirus pandemic: Building and incorporating a diagnostic pipeline in a shared resource laboratory.

Cytometry A [published ahead of print October 29, 2020]. Accessed November 30, 2020.

**Stem Cell Biology****2018****Kadle RL et al. (2018).**

Microenvironmental cues enhance mesenchymal stem cell-mediated immunomodulation and regulatory T-cell expansion.

PLoS One 13, e0193178.

**Upadhaya S et al. (2018).**

Kinetics of adult hematopoietic stem cell differentiation in vivo.

J Exp Med 215, 2,815–2,832.

**2019****Zhao M et al. (2019).**

N-cadherin-expressing bone and marrow stromal progenitor cells maintain reserve hematopoietic stem cells.

Cell Rep 26, 652–669.

**2020****Cao C et al. (2020).**

Characterization of the immunomodulatory properties of alveolar bone-derived mesenchymal stem cells.

Stem Cell Res Ther 11, 102.

**Paniza T et al. (2020).**

Pluripotent stem cells with low differentiation potential contain incompletely reprogrammed DNA replication.

J Cell Biol 219, e201909163.

**Tao F et al. (2020).**

β -catenin and associated proteins regulate lineage differentiation in ground state mouse embryonic stem cells.

Stem Cell Reports 15, 662–676.

**Zondervan RL et al. (2020).**

Thrombospondin-2 spatiotemporal expression in skeletal fractures.

J Orthop Res Sci [published ahead of print May 21, 2020]. Accessed November 30, 2020.





Cell and Molecular Biology

2018

Good RJ et al. (2018).

MicroRNA dysregulation in lung injury: The role of the miR-26a/EphA2 axis in regulation of endothelial permeability.

Am J Physiol Lung Cell Mol Physiol 315, L584–L594.

**Suganuma T et al. (2018).**

MPTAC determines APP fragmentation via sensing sulfur amino acid catabolism.

Cell Rep 24, 1,585–1,596.



2019

Allawzi A et al. (2019).

Redistribution of EC-SOD resolves bleomycin-induced inflammation *via* increased apoptosis of recruited alveolar macrophages.

FASEB J 33, 13,465–13,475.

**Holliday MJ et al. (2019).**

Structures of autoinhibited and polymerized forms of CARD9 reveal mechanisms of CARD9 and CARD11 activation.

Nat Commun 10, 3,070.

**Maitra D et al. (2019).**

Oxygen and conformation dependent protein oxidation and aggregation by porphyrins in hepatocytes and light-exposed cells.

Cell Mol Gastroenterol Hepatol 8, 659–682.

**Oko LM et al. (2019).**

Multidimensional analysis of Gammaherpesvirus RNA expression reveals unexpected heterogeneity of gene expression.

PLoS Pathog 15, e1007849.

**Peterson BG et al. (2019).**

Cycles of autoubiquitination and deubiquitination regulate the ERAD ubiquitin ligase Hrd1.

Elife 8, e50903.

**Sandoval J et al. (2019).**

Toxic acetaminophen exposure induces distal lung ER stress, proinflammatory signaling, and emphysematous changes in the adult murine lung.

Oxid Med Cell Longev 2019, 7595126.



**Seifert LL et al. (2019).**

The ETS transcription factor ELF1 regulates a broadly antiviral program distinct from the type I interferon response.
PLoS Pathog 15, e1007634.

**Venkatesan S et al. (2019).**

Detecting and characterizing protein self-assembly in vivo by flow cytometry.
J Vis Exp 149, e59577.

**Wu Q et al. (2019).**

Translation affects mRNA stability in a codon-dependent manner in human cells.
eLife 8, e45396.

**2020****Li M et al. (2020).**

Aconitine induces cardiotoxicity through regulation of calcium signaling pathway in zebrafish embryos and in H9c2 cells.
J Appl Toxicol 40, 780–793.

**Li M et al. (2020).**

Macrophage polarization plays roles in bone formation instructed by calcium phosphate ceramics.
J Mater Chem B 8, 1,863–1,877.

**Nuckolls NL et al. (2020).**

The *wtf4* meiotic driver utilizes controlled protein aggregation to generate selective cell death.
Elife 9, e55694.

**Pardo M et al. (2020).**

Mechanisms of lung toxicity induced by biomass burning aerosols.
Part Fibre Toxicol 17, 4.

**Roberts S et al. (2020).**

Optoacoustic imaging of glucagon-like peptide 1 receptor with a near-infrared exendin-4 analog.
J Nucl Med [published ahead of print October 23, 2020]. Accessed November 30, 2020.

**Scruggs AM et al. (2020).**

The role of KCNMB1 and BK channels in myofibroblast differentiation and pulmonary fibrosis.
Am J Respir Cell Mol Biol 62, 191–203.



**Su S et al. (2020).**

An IFT20 mechanotraficking axis is required for integrin recycling, focal adhesion dynamics, and polarized cell migration.

Mol Biol Cell 31, 1,917–1,930.

**Tracy AN et al. (2020).**

Genome to phenome tools: In vivo and in vitro transfection of *Crassostrea virginica* hemocytes.

Fish Shellfish Immunol 103, 438–441.

**Wen Y et al. (2020).**

RPTP α phosphatase activity is allosterically regulated by the membrane-distal catalytic domain.

J Biol Chem 295, 4,923–4,936.

**Wu H et al. (2020).**

Copper sulfate-induced endoplasmic reticulum stress promotes hepatic apoptosis by activating CHOP, JNK and caspase-12 signaling pathways.

Ecotoxicol Environ Saf 191, 110236.

**Wu Q et al. (2020).**

Translation of small downstream ORFs enhances translation of canonical main open reading frames.

EMBO J 39, e104763.

**Yang S et al. (2020).**

PTPN22 phosphorylation acts as a molecular rheostat for the inhibition of TCR signaling.

Sci Signal 13, eaaw8130.

**Yeung J et al. (2020).**

Omega-6 DPA and its 12-lipoxygenase-oxidized lipids regulate platelet reactivity in a nongenomic PPAR α -dependent manner.

Blood Adv 4, 4,522–4,537.



Microbiology, Parasitology, and Virology

2018

Mishek HP et al. (2018).

Development of a chemically-defined minimal medium for studies on growth and protein uptake of *Gemmata obscuriglobus*.

J Microbiol Methods 145, 40–46.

**Todd RT et al. (2018).**

Flow cytometry analysis of fungal ploidy.

Curr Protoc Microbiol 50, e58.





2019

Chandrasekaran A et al. (2019).

Age-dependent effects of immunoproteasome deficiency on mouse adenovirus type 1 pathogenesis.
J Virol 93, e00569-19.

**Chen QW et al. (2019).**

Direct and indirect inhibition effects of resveratrol against *Toxoplasma gondii* tachyzoites *in vitro*.
Antimicrob Agents Chemother 63, e01233-18.

**Cohen D et al. (2019).**

Cyclic GMP-AMP signalling protects bacteria against viral infection.
Nature 574, 691–695.

**Gudde LR et al. (2019).**

Sterol synthesis is essential for viability in the planctomycete bacterium *Gemmata obscuriglobus*.
FEMS Microbiol Lett 366, fnz019.

**Mushnikov NV et al. (2019).**

Inducible asymmetric cell division and cell differentiation in a bacterium.
Nat Chem Biol 15, 925–931.

**Todd RT et al. (2019).**

Genome plasticity in *Candida albicans* is driven by long repeat sequences.
eLife 8, e45954.



2020

Crocker DR et al. (2020).

Biological influence on $\delta^{13}\text{C}$ and organic composition of nascent sea spray aerosol.
ACS Earth Space Chem 4, 1,686–1,699.

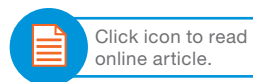
**Franke JD et al. (2020).**

Erythrosin B: A versatile colorimetric and fluorescent vital dye for bacteria.
Biotechniques 68, 7–13.

**Hasenecz ES et al. (2020).**

Marine bacteria affect saccharide enrichment in sea spray aerosol during a phytoplankton bloom.
ACS Earth Space Chem 4, 1,638–1,649.



**Nair N et al. (2020).**

A mouse model of sublethal leptospirosis: Protocols for infection with *Leptospira* through natural transmission routes, for monitoring clinical and molecular scores of disease, and for evaluation of the host immune response.
Curr Protoc Microbiol 59, e127.

**Navaratna T et al. (2020).**

Directed evolution using stabilized bacterial peptide display.
J Am Chem Soc 142, 1,882–1,894.

**Ngono AE et al. (2020).**

CD8⁺ T cells mediate protection against Zika virus induced by an NS3-based vaccine.
Sci Adv 6, eabb2154.

**Painter MM et al. (2020).**

Concanamycin A counteracts HIV-1 Nef to enhance immune clearance of infected primary cells by cytotoxic T lymphocytes.
Proc Natl Acad Sci USA 117, 23,835–23,846.

**Woehl JL et al. (2020).**

An irreversible inhibitor to probe the role of *Streptococcus pyogenes* cysteine protease SpeB in evasion of host complement defenses.
ACS Chem Biol 15, 2,060–2,069.



Extracellular Vesicles and Nanoparticles

Dekel E et al. (2020).

Antibody-free labeling of malaria-derived extracellular vesicles using flow cytometry.
Biomedicines 8, 98.

**Lo TW et al. (2020).**

Microfluidic device for high-throughput affinity-based isolation of extracellular vesicles.
Lab Chip 20, 1,762–1,770.



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