

CRITICAL REVIEWS™ IN IMMUNOLOGY

CONTENTS VOLUME 39, 2019

Page Range of Issues

Issue 1: 1–81; Issue 2: 83–149; Issue 3: 151–221; Issue 4: 223–311; Issue 5: 313–408; Issue 6: 409–510

ISSUE 1

RNA-Based Adjuvants: Immunoenhancing Effect on Antiviral Vaccines and Regulatory Considerations	1
<i>A. Ziegler, T. Hinz, & U. Kalinke</i>	
Mechanical Cues for T Cell Activation: Role of Piezo1 Mehanosensors	15
<i>C.S. Chen Liu & D. Ganguly</i>	
Interleukin 4–Induced Gene 1 as an Emerging Regulator of B-Cell Biology and Its Role in Cutaneous Melanoma	39
<i>A. Prévost-Blondel & Y. Richard</i>	
TAOK3, a Regulator of LCK–SHP-1 Crosstalk during TCR Signaling	59
<i>J.V.S. Ormonde, Y. Nie, & J. Madrenas</i>	

ISSUE 2

The Critical Role of the Antimicrobial Peptide LL-37/CRAMP in Protection of Colon Microbiota Balance, Mucosal Homeostasis, Anti-Inflammatory Responses, and Resistance to Carcinogenesis	83
<i>M. Zhang, W. Liang, W. Gong, T. Yoshimura, K. Chen, & J.M. Wang</i>	
Beta-Adrenergic Signaling in Tumor Immunology and Immunotherapy	93
<i>W. Wang & X. Cao</i>	
T Cell Receptors for Gene Transfer in Adoptive T Cell Therapy	105
<i>P. Sharma & D.M. Kranz</i>	
Chronic Lung Allograft Dysfunction: Immune Responses Induced by Circulating Exosomes with Lung-Associated Self-Antigens	123
<i>M. Rahman, A. Sureshbabu, S. Tokman, & T. Mohanakumar</i>	
Eosinophils, Pin1 and the Response to Respiratory Viral Infection and Allergic Stimuli	135
<i>Z.-J. Shen & J.S. Malter</i>	

ISSUE 3

The Human Immune System against <i>Staphylococcus epidermidis</i>	151
<i>M. Rasoul, M. Rokhsareh, S.M. Mohammad, K. Sajad, & M. Ahmadreza</i>	
Back to the Light Side: The Role of Mechanotransduction in the Paradoxical Response to Checkpoint Inhibitors in Cancer Patients	165
<i>E. Abbas, & T.Z. Salem</i>	
CD4+ T Lymphocytes Subsets in Early Life: Does Exclusive Breastfeeding Promote Allergy?	175
<i>A.L. Konrath, F.S. Adamo, I. Carreno, A.A. da Silva, & R.B. de Oliveira</i>	
Prevalence of Autoimmune Diseases and Its Challenges in Diagnosis	189
<i>R. Chauhan, V. Raina, & S.P. Nandi</i>	
Evaluation of Serum Free Light Chain in Diagnosis and Monitoring of Plasma Cell Disorders	203
<i>A.A. Ansari, H.N. Tipu, D. Ahmed, & M. Farhan</i>	
Immunotherapy for Triple-Negative Breast Cancer: Latest Research and Clinical Prospects	211
<i>R.F. Ahmed, F. Jameel, & M. Irfan</i>	

ISSUE 4

Gut Microbiota and Metabolic Disorders: Advances in Therapeutic Interventions	223
<i>M.S.H. Akash, F. Fiayyaz, K. Rehman, S. Sabir, & M.H. Rasool</i>	
Pathophysiology, Etiology, Epidemiology of Type 1 Diabetes and Computational Approaches for Immune Targets and Therapy	239
<i>B. Dariya, G. Chalikonda, G. Srivani, A. Alam, & G.P. Nagaraju</i>	
Mast Cells Mediate Rheumatoid Arthritis—Inhibitory Role of IL-37	267
<i>P. Conti, D. Lauritano, A. Caraffa, C.E. Gallenga, F. Carinci, G. Ronconi, S.K. Kritas, P. Di Emidio, S. Martinotti, & F. Pandolfi</i>	
Pyrin and Hematopoietic Interferon-Inducible Nuclear Protein Domain Proteins: Innate Immune Sensors for Cytosolic and Nuclear DNA	275
<i>M.R. Atashzar, G. Daryabor, D. Kabelitz, & K. Kalantar</i>	
Pattern Recognition Receptors and Liver Failure	289
<i>J. Wu, M. Han, J. Li, X. Yang, X. Zhen, J.F. Schlaak, D. Yang, & M. Lu</i>	

ISSUE 5

Impact of the Microbiome on the Immune System	313
<i>C.B. Lambring, S. Siraj, K. Patel, U.T. Sankpal, S. Mathew, & R. Basha</i>	
Defining Early Life Stress as a Precursor for Autoimmune Disease	329
<i>J.Y. Choe, M. Nair, R. Basha, B.-J. Kim, & H.P. Jones</i>	
Clinical and Immunogenetic Aspects of Systemic Lupus Erythematosus	343
<i>L.V.K.S. Bhaskar & G.P. Nagaraju</i>	
Pathogenesis of Psoriatic Arthritis	361
<i>F. Caso, L. Costa, M.S. Chimenti, L. Navarini, & L. Punzi</i>	
New Clinical Approaches and Emerging Evidence on Immune-Checkpoint Inhibitors as Anti-Cancer Therapeutics: CTLA-4 and PD-1 Pathways and Beyond	379
<i>M.-I. Christodoulou & A. Zaravinos</i>	

ISSUE 6

Advances in the Study of CD8⁺ Regulatory T Cells	409
<i>X. Tang & V. Kumar</i>	
Identifying Crosstalk between Raf Kinase Inhibitor Protein and Systemic Lupus Erythematosus	423
<i>I. Navasardyan & B. Bonavida</i>	
Upside and Downside of Tumor Necrosis Factor Blockers for Treatment of Immune/Inflammatory Diseases	439
<i>A.B. Kunnumakkara, K.K. Thakur, V. Rana, B. Bora, K. Banik, E. Khatoon, B.L. Sailo, B. Shabnam, S. Girisa, S.C. Gupta, & B.B. Aggarwal</i>	
Is Adipose Tissue an Immunological Organ?	481
<i>R. Vadde, M.K. Gupta, & G.P. Nagaraju</i>	
Involvement of Yin Yang 1 (YY1) Expression in T-Cell Subsets Differentiation and Their Functions: Implications in T Cell-Mediated Diseases	491
<i>F.R. Kosasih & B. Bonavida</i>	
Index, Volume 39, 2019	511

CRITICAL REVIEWS™ IN IMMUNOLOGY

AUTHOR INDEX, VOLUME 39, 2019

Page Range of Issues		
Issue 1: 1–81; Issue 2: 83–149; Issue 3: 151–221; Issue 4: 223–311; Issue 5: 313–408; Issue 6: 409–510		
Abbas, E., 165	Gong, W., 83	Patel, K., 313
Adami, F.S., 175	Gupta, S.C., 439	Prévost-Blondel, A., 39
Aggarwal, B.B., 439	Gupta, M.K., 481	Punzi, L., 361
Ahmadreza, M., 151	Han, M., 289	Rahman, M., 123
Ahmed, D., 203	Hinz, T., 1	Raina, V., 189
Ahmed, R.F., 211	Irfan, M., 211	Rana, V., 439
Akash, M.S.H., 223	Jameel, F., 211	Rasool, M.H., 223
Alam, A., 239	Jones, H.P., 329	Rasoul, M., 151
Ansari, A.A., 203	Kabelitz, D., 275	Rehman, K., 223
Atashzar, M.R., 275	Kalantar, K., 275	Richard, Y., 39
Banik, K., 439	Kalinke, U., 1	Rokhsareh, M., 151
Basha, R., 313, 329	Khatoon, E., 439	Ronconi, G., 267
Bhaskar, L.V.K.S., 343	Kim, B.-J., 329	Sabir, S., 223
Bonavida, B., 423, 491	Konrath, A.L., 175	Sailo, B.L., 439
Bora, B., 439	Kosasih, F.R., 491	Sajad, K., 151
Cao, X., 93	Kranz, D.M., 105	Salem, T.Z., 165
Caraffa, A., 267	Kritas, S.K., 267	Sankpal, U.T., 313
Carinci, F., 267	Kumar, V., 409	Schlaak, J.F., 289
Carreno, I., 175	Kunnumakkara, A.B., 439	Shabnam, B., 439
Caso, F., 361	Lambring, C.B., 313	Sharma, P., 105
Chalikonda, G., 239	Lauritano, D., 267	Shen, Z.-S., 135
Chauhan, R., 189	Li, J., 289	Siraj, S., 313
Chen Liu, C.S., 15	Liang, W., 83	Srivani, G., 239
Chen, K., 83	Lu, M., 289	Sureshbabu, A., 123
Chimenti, M.S., 361	Madrenas, J., 59	Tang, X., 409
Choe, J.Y., 329	Malter, J.S., 135	Thakur, K.K., 439
Christodoulou, M-I., 379	Martinotti, S., 267	Tipu, H.N., 203
Conti, P., 267	Mathew, S., 313	Tokman, S., 123
Costa, L., 361	Mohammad, S.M., 151	Vadde, R., 481
da Silva, A.A., 175	Mohanakumar, T., 123	Wang, J.M., 83
Dariya, B., 239	Nagaraju, G.P., 239, 343, 481	Wang, W., 93
Daryabor, G., 275	Nair, M., 329	Wu, J., 289
de Oliveira, R.B., 175	Nandi, S.P., 189	Yang, D., 289
Di Emidio, P., 267	Navarini, L., 361	Yang, X., 289
Farhan, M., 203	Navasardyan, I., 423	Yoshimura, T., 83
Fiayyaz, F., 223	Nie, Y., 59	Zaravinos, A., 379
Gallenga, C.E., 267	Ormonde, J.V.S., 59	Zhang, M., 83
Ganguly, D., 15	Pandolfi, F., 267	Zhen, X., 289
Giris, S., 439		Ziegler, A., 1

CRITICAL REVIEWS™ IN IMMUNOLOGY

SUBJECT INDEX, VOLUME 39, 2019

Page Range of Issues		
Issue 1: 1–81; Issue 2: 83–149; Issue 3: 151–221; Issue 4: 223–311; Issue 5: 313–408; Issue 6: 409–510		
acute liver failure, acute-on-chronic liver failure, 289 adaptive immunity, 175, 313, 361 adipose tissue, 481 adoptive T cell therapy, 105 allergy, 135 allogeneic hematopoietic cell transplantation, 93 allorecognition, 123 allostatic load, 329 angiopoietin-like 4, 223 anti-B7-H3, 379 antibody, 343 anti-CTLA-4, 379 anti-IDO-1, 379 anti-LAG-3, 379 anti-PD-1, 379 anti-PD-L1, 379 anti-PVRIG, 379 anti-TIGIT, 379 anti-TIM-3, 379 antiviral, 1 asthma, 135 autoantibodies, 189 autoimmune disease, 343, 423, 491 autoimmunity, 189, 329 B cells, 39 beta-adrenergic receptor, 93 biofilm, 151 bioinformatics, 239 biomarkers, 239 breast feeding, 175 cancer immunotherapy, 93 cancer treatment, 211 cancer, 83, 105, 379 CD122, 409 CD8 α , 409 checkpoint inhibitors, 165 chronic allograft rejection, 123 clinical manifestation, 343 clinical trials, 105, 379 colitis, 83 complications, 239 CRAMP, 83 crosstalk, 423 C-type lectin receptors, 289 cutaneous melanoma, 39 cytoskeleton, 15	cytosolic DNA sensors, 289 docking, 239 early life stress, 329 eczema, 175 eosinophils, 135 epidemiology, 239 epigenetic, 361 etiology, 239 exosomes, 123 fasting induced adipose factor, 223 Fc-gamma receptor, 165 fecal microbiota transplantation, 223 G protein coupled receptors, 223 genes, 343 genetic, 361 graft-versus-host disease, 93 graft-versus-tumor effect, 93 HLA-E, 409 homeostasis, 83 hyperglycemia, 239 hyperprogressive disease, 165 hypersensitivity, 175 IL-37, 267 IL4I1, 39 immune cells, 481 immune checkpoint blockade/inhibition, 379 immune checkpoint, 211 immune system, 151 immunity, 267 immunological organ, 481 immunological synapse, 15 immunomodulation, 329 immunopathogenesis, 343 immunosuppression, 39 immunotherapy, 211 inflammasome, 289 inflammation, 267, 423 inflammatory diseases, 439 infliximab, 439 inhibition, 267 inhibitory natural killer cell receptors, 409 innate immunity, 313, 361 insulin resistance, 481 insulin, 239 LCK, 59 lung self-antigen, 123	lung transplantation, 123 Ly49, 409 mast cell, 267 mechanosensor, 15 metabolic disorders, 481 microbiome interplay, 313 microbiome, 313 microbiota, 83 multiple myeloma, 203 neutrophil, 151 nuclear receptor, 275 nucleotide-binding oligomerization domain-like receptors, 289 pathogen-associated molecular pattern, 275 pathogenesis, 361 pattern recognition receptor, 275 PD-1, 165 phenol soluble modulin, 151 Piezo1, 15 Pin1, 135 plasma cell disorders, 203 PLZF, 409 polysaccharide intercellular adhesin, 151 psoriasis, 439 psoriatic arthritis, 361 pyrin and HIN domain, 275 Qa-1, 409 rheumatoid arthritis, 267, 439 RNA-based adjuvants, 1 serum free light chain assay, 203 short chain fatty acids, 223 SHP-1, 59 signal transduction, 59 signaling, 423 <i>Staphylococcus epidermidis</i> , 151 sympathetic nervous system, 329 systemic lupus erythematosus, 189, 343 T cell activation, 59 T cell receptor, 15, 105 T cells, 15 T lymphocytes, 329, 491 TAOK3, 59 T-cells, 165

- TCR signaling regulation, 59
Th1/Th2, 491
Th17/Treg, 491
thymus gland, 329
TLR7, 135
TNF blockers, 439
- Toll-like receptors, 289
triple-negative breast cancer, 211
tumor immune-escape, 165
tumor microenvironment, 39
tumor necrosis factor, 439
- tumor-associated macrophages, 165
type 1 diabetes, 239
vaccines, 1
virus, 135
 β -cells, 239