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1887 TNF, but Not IL-6 and IL-17, Is Crucial for the Development of T Cell-Independent Psoriasis-Like
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   Jong G. Kim, Zakaria Y. Abd Elmageed, Shahriar Koouchekpour, Andrew Catling, and A. Hamid Boulah

1903 K DPT, a Tripeptide Derivative of α-Melanocyte–Stimulating Hormone, Suppresses IL-1β–Mediated
   Cytokine Expression and Signaling in Human Sebocytes
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   Mauro Piacardo, Christos C. Zouboulis, Thomas A. Luger, and Markus Böhm

1912 Absence of P-Selectin in Recipients of Allogeneic Bone Marrow Transplantation Ameliorates Experimental
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   David Sub, Christopher King, Adam Kochman, Vanesa M. Hubbard, Uitam K. Rao, Nury Yim, Chen Liu, Alvaro C. Laga,
   George Murphy, Robert R. Jenq, Johannes L. Zakrezewski, Olaf Penack, Lindsay Dykstra, Kevin Bampoe, Lia Perez,
   Bruce Furie, Barbara Furie, and Marcel R. M. van den Brink

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1920 Altered Effector CD4+ T Cell Function in IL-21R−/− CD4+ T Cell-Mediated Graft-Versus-Host Disease
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1927 Immune Dysregulation by the Rheumatoid Arthritis Shared Epitope
   Denise E. De Almeida, Song Ling, Xiujun Pi, Anne M. Hartmann-Scruggs, Paul Pumphrey, and Joseph Holoshitz

1935 Antibodies to HLA-E in Nonalloimmunized Males: Pattern of HLA-Ia Reactivity of Anti–HLA-E–Positive Sera
   Mepur H. Ravindranath, Hugo Kaneki, Nadim El-Awar, Luis E. Morales-Buenrostro, and Paul I. Terasaki

1949 Polymorphic Variants of LIGHT (TNF Superfamily-14) Alter Receptor Avidity and Bioavailability
   Timothy C. Cheung, Ken Coppitiers, Hideki Sanjo, Lisa M. O’borne, Paula S. Norris, Amy Coddington, Steven W. Granger,
   Dirk Elevant, and Carl F. Ware

1959 IL-17 Immunity in Human Type 1 Diabetes
   Jarno Honkanen, Janne K. Nieminen, Ru Gao, Kristiina Luopajarvi, Harri M. Salo, Jorma Ilonen, Mikael Knip,
   Timo Otonkoski, and Outi Vaarala

1968 Inhibition of Glyceraldehyde-3-Phosphate Dehydrogenase Activity by Antibodies Present in the
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   Johanna Kölln, Yiping Zhang, Gabi Thal, Michael Demetriou, Neal Hermanowicz, Pierre Duquette,
   Stanley van den Noort, and Yufen Qin
1976 Ischemia Reperfusion Induces IFN Regulatory Factor 4 in Renal Dendritic Cells, which Suppresses Postischemic Inflammation and Prevents Acute Renal Failure

Saraswati Lassen, Maciej Lech, Christoph Rommele, Hans-Willi Mittruecker, Tak W. Mak, and Hans-Joachim Anders

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1984 Retraction: Activation of Discoidin Domain Receptor 1 Facilitates the Maturation of Human Monocyte-Derived Dendritic Cells Through the TNF Receptor Associated Factor 6/TGF-β-Activated Protein Kinase 1 Binding Protein 1β/p38α Mitogen-Activated Protein Kinase Signaling Cascade

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1985 Correction: Lysophosphatidylcholine Increases Neutrophil Bactericidal Activity by Enhancement of Azurophil Granule-Phagosome Fusion via Glycine-GlyRα2/TRPM2/p38 MAPK Signaling

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