

## Personal Information

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## International Researcher IDs

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Publons / Web Of Science ResearcherID: AAE-1963-2020

## Education Information

Doctorate, Brandeis University, Faculty of Arts and Sciences, Biology Department, United States Of America 1991 - 1998

Undergraduate, Hamilton College, Biology, United States Of America 1987 - 1991

## Foreign Languages

English, C1 Advanced

## Research Areas

Immunology and Rheumatology, Structural Biophysics, Molecular Biochemistry, Structural Biology, Industrial Biotechnology, Immunology, Genetic Disorders, Genetic Engineering, Genomics, Animal Molecular Genetics, Molecular Biology of Cancer, Protein Engineering

## Academic Titles / Tasks

Professor, Bogazici University, Faculty of Arts and Sciences, Department of Molecular Biology and Genetics, 2021 - 2024

Professor, Sabanci University, Faculty of Engineering and Natural Sciences, Molecular Biology, Genetics and Bioengineering, 2015 - 2021

Associate Professor, Sabanci University, Faculty of Engineering and Natural Sciences, Molecular Biology, Genetics and Bioengineering, 2005 - 2015

## Academic and Administrative Experience

Head of Department, Bogazici University, Faculty of Arts and Sciences, Molecular Biology and Genetics, 2022 - 2024

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. Evaluation of Clinical and Immunological Alterations Associated with ICF Syndrome

Bilgic Eltan S., Nain E., Catak M. C., Ezen E., Sefer A. P., Karimi N., KIYKIM A., Kolukisa B., Baser D., Bulutoglu A., et al.  
JOURNAL OF CLINICAL IMMUNOLOGY, vol.44, no.1, 2024 (SCI-Expanded)

- II. **Dimerization choice and alternative functions of ZBTB transcription factors**  
Barakat S., Ezen E., Devecioglu I., Gezen M., Piepoli S., ERMAN M. B.  
FEBS JOURNAL, vol.291, no.2, pp.237-255, 2024 (SCI-Expanded)
- III. **Expression and characterization of recombinant IL-1Ra in *Aspergillus oryzae* as a system**  
Azar L. M., KARAMAN E., Beyaz B., Goktan I., Eyupoglu A. E., Kizilel S., ERMAN M. B., Guel A., UYSAL S.  
BMC BIOTECHNOLOGY, vol.23, no.1, 2023 (SCI-Expanded)
- IV. **Human ACE2 orthologous peptide sequences show better binding affinity to SARS-CoV-2 RBD domain: Implications for drug design**  
Azar L. M., Oncel M. M., KARAMAN E., Soysal L. F., FATIMA A., Choi S. B., Eyupoglu A. E., ERMAN M. B., KHAN M. A., UYSAL S.  
COMPUTATIONAL AND STRUCTURAL BIOTECHNOLOGY JOURNAL, vol.21, pp.4096-4109, 2023 (SCI-Expanded)
- V. **Sibling rivalry among the ZBTB transcription factor family: homodimers versus heterodimers**  
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LIFE SCIENCE ALLIANCE, vol.5, no.11, 2022 (SCI-Expanded)
- VI. **Targeting mitochondrial DNA polymerase gamma for selective inhibition of MLH1 deficient colon cancer growth**  
Somuncu B., Ekmekcioglu A., Antmen F. M., Ertuzun T., Deniz E., Keskin N., Park J., Yazici I. E., Simsek B., Erman B., et al.  
PLOS ONE, vol.17, no.6 June, 2022 (SCI-Expanded)
- VII. **Reversal of the T cell immune system reveals the molecular basis for T cell lineage fate determination in the thymus**  
Shinzawa M., Moseman E. A., Gossa S., Mano Y., Bhattacharya A., Guintier T., Alag A., Chen X., Cam M., McGavern D. B., et al.  
NATURE IMMUNOLOGY, vol.23, no.5, pp.731-742, 2022 (SCI-Expanded)
- VIII. **Nanobodies as molecular imaging probes**  
Barakat S., Berksoz M., Zahedimaram P., Piepoli S., ERMAN M. B.  
FREE RADICAL BIOLOGY AND MEDICINE, vol.182, pp.260-275, 2022 (SCI-Expanded)
- IX. **Sibling rivalry among the ZBTB transcription factor family: homo vs heterodimerization**  
Piepoli S., Akkose U., Nogay L., Taskiran H., Tolay N., Gezen M., Adebali O., Atilgan C., ERMAN M. B.  
EUROPEAN JOURNAL OF IMMUNOLOGY, pp.67, 2021 (SCI-Expanded)
- X. **The mechanism of LRBA dependent CTLA-4 surface expression in regulatory T cell lymphocytes**  
Zahedimaram P., ERMAN M. B., Baris S.  
EUROPEAN JOURNAL OF IMMUNOLOGY, pp.359, 2021 (SCI-Expanded)
- XI. **Synchronous and Asynchronous Response in Dynamically Perturbed Proteins**  
Hacisuleyman A., Erkip A., ERMAN M. B., Erman B.  
JOURNAL OF PHYSICAL CHEMISTRY B, vol.125, no.3, pp.729-739, 2021 (SCI-Expanded)
- XII. **Structural analysis of the PATZ1 BTB domain homodimer**  
Piepoli S., Alt A. O., Atilgan C., Mancini E. J., ERMAN M. B.  
ACTA CRYSTALLOGRAPHICA SECTION D-STRUCTURAL BIOLOGY, vol.76, pp.581-593, 2020 (SCI-Expanded)
- XIII. **Engineering antigen-specific natural killer cells against the melanoma-associated antigen tyrosinase via TCR gene transfer.**  
Parlar A., Sayitoglu E. C., Pamukcu C., Georgoudaki A., Ozkazanc D., Aras M., Josey B., Chrobok M., Branecki S., Zahedimaram P., et al.  
CANCER IMMUNOLOGY RESEARCH, no.4, pp.49-50, 2020 (SCI-Expanded)
- XIV. **p53 regulates katanin-p60 promoter in HCT 116 cells**  
Kirimtay K., Selcuk E., Kelle D., ERMAN M. B., Karabay Korkmaz A.  
GENE, vol.727, 2020 (SCI-Expanded)
- XV. **Doxorubicin inhibits miR-140 expression and upregulates PD-L1 expression in HCT116 cells, opposite to its effects on MDA-MB-231 cells**

Naba N. M., Tolay N., ERMAN M. B., Sayı Yazgan A.

TURKISH JOURNAL OF BIOLOGY, vol.44, no.1, pp.15-23, 2020 (SCI-Expanded)

- XVI. **The fungal metabolite chaetocin is a sensitizer for pro-apoptotic therapies in glioblastoma**  
Ozyerli-Goknar E., Sur-Erdem I., Seker F., CİNGÖZ A., Kayabolen A., Kahya-Yesil Z., Uyulur F., Gezen M., Tolay N., ERMAN M. B., et al.  
CELL DEATH & DISEASE, vol.10, 2019 (SCI-Expanded)
- XVII. **Approaches to functionally validate candidate genetic variants involved in colorectal cancer predisposition**  
Bonjoch L., Mur P., Arnau-Collell C., Vargas-Parra G., Shamloo B., Franch-Exposito S., Pineda M., Capella G., ERMAN M. B., Castellvi-Bel S.  
MOLECULAR ASPECTS OF MEDICINE, vol.69, pp.27-40, 2019 (SCI-Expanded)
- XVIII. **Engineering antigen-specific NK cell lines against the melanoma-associated antigen tyrosinase via TCR gene transfer**  
Parlar A., Sayitoglu E. C., Ozkazanc D., Georgoudaki A., Pamukcu C., Aras M., Josey B. J., Chrobok M., Branecki S., Zahedimaram P., et al.  
EUROPEAN JOURNAL OF IMMUNOLOGY, no.8, pp.1278-1290, 2019 (SCI-Expanded)
- XIX. **Identification of lineage-specifying cytokines that signal all CD8<sup>+</sup>-cytotoxic-lineage-fate 'decisions' in the thymus**  
Etzensperger R., Kadakia T., Tai X., Alag A., Guinter T. I., Egawa T., ERMAN M. B., Singer A.  
NATURE IMMUNOLOGY, vol.18, no.11, pp.1218-1227, 2017 (SCI-Expanded)
- XX. **Long noncoding RNA (lincRNA), a new paradigm in gene expression control**  
Deniz E., ERMAN M. B.  
FUNCTIONAL & INTEGRATIVE GENOMICS, vol.17, no.2-3, pp.135-143, 2017 (SCI-Expanded)
- XXI. **Screening of new antileukemic agents from essential oils of algae extracts and computational modeling of their interactions with intracellular signaling nodes**  
Ataseyer-Arslan B., Yilancioglu K., Kalkan Z., Timucin A. C., Gur H., Isik F. B., Deniz E., Erman B., Cetiner S.  
EUROPEAN JOURNAL OF PHARMACEUTICAL SCIENCES, pp.120-131, 2016 (SCI-Expanded)
- XXII. **Antileukemic Drug Potentials of Essential Oils of Algae Extracts**  
Arslan B. A., Yilancioglu K., Kalkan Z., Atalay V. E., Gur H., Isik F. B., Deniz E., ERMAN M. B., Cetiner S.  
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- XXIII. **PATZ1 Is a DNA Damage-Responsive Transcription Factor That Inhibits p53 Function**  
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MOLECULAR AND CELLULAR BIOLOGY, no.10, pp.1741-1753, 2015 (SCI-Expanded)
- XXIV. **Oxidative Stress Is a Mediator for Increased Lipid Accumulation in a Newly Isolated *Dunaliella salina* Strain**  
Yilancioglu K., Cokol M., Pastirmaci I., ERMAN M. B., Cetiner S.  
PLOS ONE, vol.9, no.3, 2014 (SCI-Expanded)
- XXV. **Foxp3 Transcription Factor Is Proapoptotic and Lethal to Developing Regulatory T Cells unless Counterbalanced by Cytokine Survival Signals**  
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- XXVI. **Effects of micro environmental factors on natural killer activity (NK) of Beta Thalassemia major patients**  
Arslan B. A., Erdem-Kuruca S., KARAKAŞ Z., ERMAN M. B., ERGEN H. A.  
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- XXVII. **Cd81 Interacts with the T Cell Receptor to Suppress Signaling**  
Cevik S. I., Keskin N., Belkaya S., Ozlu M. I., Deniz E., Tazebay U. H., Erman B.  
PLOS ONE, no.11, 2012 (SCI-Expanded)
- XXVIII. **Conditional deletion of cytokine receptor chains reveals that IL-7 and IL-15 specify CD8 cytotoxic lineage fate in the thymus**

- McCaughy T. M., Etzensperger R., Alag A., Tai X., Kurtulus S., Park J., Grinberg A., Love P., Feigenbaum L., ERMAN M. B., et al.  
JOURNAL OF EXPERIMENTAL MEDICINE, vol.209, no.12, pp.2263-2276, 2012 (SCI-Expanded)
- XXIX. **CD8 Lineage-specific Regulation of Interleukin-7 Receptor Expression by the Transcriptional Repressor Gfi1**  
Ligons D. L., Tuncer C., Linowes B. A., Akcay I. M., Kurtulus S., Deniz E., Arslan B. A., Cevik S. I., Keller H. R., Luckey M. A., et al.  
JOURNAL OF BIOLOGICAL CHEMISTRY, vol.287, no.41, pp.34386-34399, 2012 (SCI-Expanded)
- XXX. **Coreceptor gene imprinting governs thymocyte lineage fate**  
Adoro S., McCaughy T., ERMAN M. B., Alag A., Van Laethem F., Park J., Tai X., Kimura M., Wang L., Grinberg A., et al.  
EMBO JOURNAL, vol.31, no.2, pp.366-377, 2012 (SCI-Expanded)
- XXXI. **Signaling by intrathymic cytokines, not T cell antigen receptors, specifies CD8 lineage choice and promotes the differentiation of cytotoxic-lineage T cells**  
Park J., Adoro S., Guintier T., ERMAN M. B., Alag A. S., Catalfamo M., Kimura M. Y., Cui Y., Lucas P. J., Gress R. E., et al.  
NATURE IMMUNOLOGY, vol.11, no.3, pp.257-264, 2010 (SCI-Expanded)
- XXXII. **Interleukin 7 signaling in dendritic cells regulates the homeostatic proliferation and niche size of CD4<sup>+</sup> T cells**  
Guimond M., Veenstra R. G., Grindler D. J., Zhang H., Cui Y., Murphy R. D., Kim S. Y., Na R., Hennighausen L., Kurtulus S., et al.  
NATURE IMMUNOLOGY, vol.10, no.2, pp.149-157, 2009 (SCI-Expanded)
- XXXIII. **Targeting CD4 Coreceptor Expression to Postselection Thymocytes Reveals That CD4/CD8 Lineage Choice Is neither Error-Prone nor Stochastic**  
Adoro S., ERMAN M. B., Sarafova S. D., Van Laethem F., Park J., Feigenbaum L., Singer A.  
JOURNAL OF IMMUNOLOGY, vol.181, no.10, pp.6975-6983, 2008 (SCI-Expanded)
- XXXIV. **'Coreceptor tuning': cytokine signals transcriptionally tailor CD8 coreceptor expression to the self-specificity of the TCR**  
Park J., Adoro S., Lucas P. J., Sarafova S. D., Alag A. S., Doan L. L., ERMAN M. B., Liu X., Ellmeier W., Bosselut R., et al.  
NATURE IMMUNOLOGY, vol.8, no.10, pp.1049-1059, 2007 (SCI-Expanded)
- XXXV. **Coreceptor signal strength regulates positive selection but does not determine CD4/CD8 lineage choice in a physiologic in vivo model**  
ERMAN M. B., Alag A. S., Dahle O., van Laethem F., Sarafova S. D., Guintier T. I., Sharrow S. O., Grinberg A., Love P. E., Singer A.  
JOURNAL OF IMMUNOLOGY, vol.177, no.10, pp.6613-6625, 2006 (SCI-Expanded)
- XXXVI. **Cytokine signal transduction is suppressed in preselection double-positive thymocytes and restored by positive selection**  
Yu Q., Park J., Doan L., ERMAN M. B., Feigenbaum L., Singer A.  
JOURNAL OF EXPERIMENTAL MEDICINE, vol.203, no.1, pp.165-175, 2006 (SCI-Expanded)
- XXXVII. **Modulation of coreceptor transcription during positive selection dictates lineage fate independently of TCR/coreceptor specificity**  
Sarafova S., ERMAN M. B., Yu Q., Van Laethem F., Guintier T., Sharrow S., Feigenbaum L., Wildt K., Ellmeier W., Singer A.  
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- XXXVIII. **IL-7 receptor signals inhibit expression of transcription factors TCF-1, LEF-1, and ROR $\gamma$ t: Impact on thymocyte development**  
Yu Q., ERMAN M. B., Park J., Feigenbaum L., Singer A.  
JOURNAL OF EXPERIMENTAL MEDICINE, vol.200, no.6, pp.797-803, 2004 (SCI-Expanded)
- XXXIX. **Suppression of IL7R $\alpha$  transcription by IL-7 and other prosurvival cytokines: A novel mechanism for maximizing IL-7-dependent T cell survival**  
Park J., Yu Q., ERMAN M. B., Appelbaum J., Montoya-Durango D., Grimes J., Singer A.  
IMMUNITY, vol.21, no.2, pp.289-302, 2004 (SCI-Expanded)
- XL. **Defined  $\alpha\beta$  T cell receptors with distinct ligand specificities do not require those ligands to signal**

#### **double negative thymocyte differentiation**

ERMAN M. B., Guinter T., Singer A.

JOURNAL OF EXPERIMENTAL MEDICINE, vol.199, no.12, pp.1719-1724, 2004 (SCI-Expanded)

- XLII. **In vitro evidence that cytokine receptor signals are required for differentiation of double positive thymocytes into functionally mature CD8<sup>+</sup> T cells**  
Yu Q., ERMAN M. B., Bhandoora A., Sharrow S., Singer A.  
JOURNAL OF EXPERIMENTAL MEDICINE, vol.197, no.4, pp.475-487, 2003 (SCI-Expanded)
- XLIII. **Early TCR $\alpha$  expression generates TCR complexes that signal the DN-to-DP transition and impair development**  
ERMAN M. B., Feigenbaum L., Coligan J., Singer A.  
NATURE IMMUNOLOGY, vol.3, no.6, pp.564-569, 2002 (SCI-Expanded)
- XLIV. **Transcriptional activation by ETS and leucine zipper-containing basic helix-loop-helix proteins**  
Tian G., Erman B., Ishii H., Gangopadhyay S., Sen R.  
MOLECULAR AND CELLULAR BIOLOGY, vol.19, no.4, pp.2946-2957, 1999 (SCI-Expanded)
- XLV. **ETS-core binding factor: a common composite motif in antigen receptor gene enhancers**  
Erman B., Cortes M., Nikolajczyk B., Speck N., Sen R.  
MOLECULAR AND CELLULAR BIOLOGY, vol.18, no.3, pp.1322-1330, 1998 (SCI-Expanded)
- XLVI. **Context dependent transactivation domains activate the immunoglobulin mu heavy chain gene enhancer**  
Erman B., Sen R.  
EMBO JOURNAL, vol.15, no.17, pp.4665-4675, 1996 (SCI-Expanded)
- XLVII. **REGULATION OF LYMPHOID-SPECIFIC IMMUNOGLOBULIN-MU HEAVY-CHAIN GENE ENHANCER BY ETS-DOMAIN PROTEINS**  
NELSEN B., TIAN G., ERMAN B., GREGOIRE J., MAKI R., GRAVES B., SEN R.  
SCIENCE, no.5117, pp.82-86, 1993 (SCI-Expanded)
- XLVIII. **INFORMATION-THEORETICAL ENTROPY AS A MEASURE OF SEQUENCE VARIABILITY**  
SHENKIN P., ERMAN B., MASTRANDREA L.  
PROTEINS-STRUCTURE FUNCTION AND GENETICS, vol.11, no.4, pp.297-313, 1991 (SCI-Expanded)

### **Articles Published in Other Journals**

- I. **Structure and Function of the LRBA Protein**  
Ezen E., Catak M. C., Catak F. B., Piepoli S., Zahedimaram P., Ultanir E., Barış S., Erman B.  
TURKISH JOURNAL OF IMMUNOLOGY, pp.37-46, 2024 (ESCI)
- II. **Molecular Biology of SARS-CoV-2**  
Piepoli S., Shamloo B., Bircan A., Adebali O., ERMAN M. B.  
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- III. **Nanocomposite Bioinks Based on Agarose and 2D Nanosilicates with Tunable Flow Properties and Bioactivity for 3D Bioprinting**  
Nadernezhad A., Caliskan O. S., Topuz F., Afghah F., ERMAN M. B., Koc B.  
ACS APPLIED BIO MATERIALS, vol.2, no.2, pp.796-806, 2019 (ESCI)

### **Refereed Congress / Symposium Publications in Proceedings**

- I. **Isolation and characterization of nanobodies that bind the BTB domain of the PATZ1 transcription factor**  
Barakat S., De Marko A., ERMAN M. B.  
6th European Congress of Immunology (ECI), ELECTR NETWORK, 1 - 04 September 2021, pp.412
- II. **Identification and strategic targeting of key anti-viral defense mechanisms in Natural Killer cells**

Sayitoglu E. C., Ozkazanc D., Sarac A., Parlar A., Alici E., ERMAN M. B., Duru A. D., SÜTLÜ T.

Annual Meeting of the American-Association-of-Immunologists (AAI), Texas, United States Of America, 4 - 08 May 2018

- III. **Engineering antigen-specific NK cells via TCR gene transfer: A novel source for adoptive immunotherapy**  
Parlar A., Pamukcu C., Ozkazanc D., Aras M., Dahlberg C., Chrobok M., Zahedimaram P., Ikromzoda L., Sayitoglu E. C., Alici E., et al.  
European-Society-of-Gene-and-Cell-Therapy (ESCGT) Congress, Berlin, Germany, 01 January 2017
- IV. **Editing of Long Noncoding RNA DANCR Gene Locus Using Genetic Engineering Tools**  
Baran G., Talug B., Keskin N., TOKCAER KESKİN Z., ERMAN M. B., Deniz E.  
21st National Biomedical Engineering Meeting (BIYOMUT), İstanbul, Turkey, 24 November - 26 December 2017
- V. **Characterization of PATZ1 protein structure and its interaction with the tumor suppressor protein p53**  
Piepoli S., ERMAN M. B., Atilgan C.  
41st FEBS Congress on Molecular and Systems Biology for a Better Life, Kusadasi, Turkey, 3 - 08 September 2016, pp.84
- VI. **Innate immune sensors restrict lentiviral gene delivery to human natural killer cells: novel perspectives on the use of viral vectors**  
Sayitoglu E. C., Duru A. D., Chrobok M., Chiang C., Parlar A., Senturk G. H., Erman B., Alici E., Sutlu T.  
Collaborative Congress of the European-Society-of-Gene-and-Cell-Therapy (ESGCT) and Finnish-Society-of-Gene-Therapy (FSGT), Helsinki, Finland, 17 - 20 September 2015
- VII. **NATURAL KILLER ACTIVITY AND EFFECT OF IL-2 IN PATIENTS WITH  $\beta$ -THALASSEMIA MAJOR**  
KARAKAŞ Z., Atasever B., Kuruca S. E., ERMAN M. B., ERGEN H. A., Isbir T., Agaoglu L.  
14th Annual Meeting of the European-Hematology-Association, Berlin, Germany, 4 - 07 June 2009, pp.502
- VIII. **PHENOTYPIC AND FUNCTIONAL STUDIES OF NATURAL KILLER (NK) CELL SUBSETS IN  $\beta$ -THALASSEMIA MAJOR PATIENTS**  
Atasever B., Kuruca S. E., KARAKAŞ Z., ERMAN M. B., ERGEN H. A., Isbir T., Gunal G.  
14th Annual Meeting of the European-Hematology-Association, Berlin, Germany, 4 - 07 June 2009, pp.500-501
- IX. **Coreceptor tuning: IL-7 signals transcriptionally tailor CD8 coreceptor expression in CD8 T cells to the self-specificity of their TCR**  
Park J., Adoro S., Lucas P. J., Sarafova S. D., Alag A., Doan L. L., ERMAN M. B., Liu X., Ellmeier W., Bosselut R., et al.  
15th Annual Meeting of the International-Cytokine-Society, San-Francisco, Costa Rica, 26 - 30 October 2007, pp.32

## Patent

Müftüoğlu M., ERMAN M. B., Novel Dna Polymerase Gamma Inhibitor and Uses Thereof, Patent, CHAPTER A Human Needs, The Invention Registration Number: EP18880072.6 , Standard Registration, 2024

Sütlü T., ERMAN M. B., Natural killer (nk) cells expressing an antigen-specific functional t cell receptor (tcr) complex, methods for production thereof, and methods for therapeutic use thereof, Patent, CHAPTER A Human Needs, The Invention Recourse Number: PCT/US2018/012403 , Standard Registration, 2018

## Metrics

Publication: 59

Citation (WoS): 1340

Citation (Scopus): 2662

H-Index (WoS): 19

H-Index (Scopus): 24

## **Non Academic Experience**

Professional Association, Moleküler Biyoloji Derneği, Moleküler Biyoloji Derneği