

## Personal Information

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## International Researcher IDs

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## Education

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, Moleculer Biology of Cancer, Protein Engineering

## Academic Positions

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

## Journal articles indexed in SCI, SSCI, and AHCI

- I. 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)
- II. **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)
- III. **Expression and characterization of recombinant IL-1Ra in < i > Aspergillus oryzae </ i > 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**  
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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., Guinter 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. **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)
- X. **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)
- 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.  
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- 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 Algea Extracts**  
Arslan B. A., Yilancioglu K., Kalkan Z., Atalay V. E., Gur H., Isik F. B., Deniz E., ERMAN M. B., Cetiner S.  
ACTA PHYSIOLOGICA, pp.15, 2015 (SCI-Expanded)
- XXIII. **PATZ1 Is a DNA Damage-Responsive Transcription Factor That Inhibits p53 Function**  
Keskin N., Deniz E., Eryilmaz J., Un M., Batur T., Ersahin T., Atalay R. C., Sakaguchi S., Ellmeier W., Erman B.  
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**  
Tai X., ERMAN M. B., Alag A., Mu J., Kimura M., Katz G., Guinter T., McCaughey T., Etzensperger R., Feigenbaum L., et al.  
IMMUNITY, vol.38, no.6, pp.1116-1128, 2013 (SCI-Expanded)
- 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. **Conditional deletion of cytokine receptor chains reveals that IL-7 and IL-15 specify CD8 cytotoxic lineage fate in the thymus**  
McCaughtry T. M., Etzensperger R., Alag A., Tai X., Kurtulus S., Park J., Grinberg A., Love P., Feigenbaum L., ERMAN M. B., et al.  
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- XXVIII. 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)
- 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., McCaughtry 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., Guinter 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., Guinter T. I., Sharroo 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.  
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- 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., Guinter T., Sharroo S., Feigenbaum L., Wildt K., Ellmeier W., Singer A.  
 IMMUNITY, vol.23, no.1, pp.75-87, 2005 (SCI-Expanded)
- 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)
- XLI. 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., Bhandoola A., Sharrow S., Singer A.  
 JOURNAL OF EXPERIMENTAL MEDICINE, vol.197, no.4, pp.475-487, 2003 (SCI-Expanded)
- XLII. 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)
- XLIII. 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)
- XLIV. 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)
- XLV. 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)
- XLVI. 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)
- XLVII. 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**  
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 TURKISH JOURNAL OF IMMUNOLOGY, vol.8, no.2, pp.73-88, 2020 (ESCI)
- III. Nanocomposite Bioinks Based on Agarose and 2D Nanosilicates with Tunable Flow Properties and Bioactivity for 3D Bioprinting**  
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 ACS APPLIED BIO MATERIALS, vol.2, no.2, pp.796-806, 2019 (ESCI)

## Papers Presented at Peer-Reviewed Scientific Conferences

- 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, (Summary Text)

- 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, (Summary Text)
- 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, (Summary Text)
- 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, (Full Text)
- 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, (Summary Text)
- 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, (Summary Text)
- VII. 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, (Summary Text)
- VIII. 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, (Summary Text)
- 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, (Summary Text)

## Patent

Müftüoğlu M., Erman B., Erman M. B., Novel Dna polymerase gamma inhibitor and uses thereof, Patent, CHAPTER A Human Needs, The Invention Registration Number: TR 2024 004765 T4 , 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 Registration Number: US11752172B2 , Standard Registration, 2018, 2023

## Metrics

Publication: 59  
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H-Index (Scopus): 24

### **Non Academic Experience**

Professional Association, Moleküler Biyoloji Derneği, Moleküler Biyoloji Derneği, President