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Personal Information

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International Researcher IDs
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Education Information

Doctorate, Gazi University, Tıp Fakültesi, Fizyoloji, Turkey 1994 - 2000
Undergraduate, Hacettepe University, Tıp Fakültesi, Turkey 1984 - 1991

Dissertations

Doctorate, Epidermal büyüme faktörünün jel taşıyıcı içinde korneal kesi yarası oksidatif durumuna etkisi, Gazi Üniversitesi, Tıp Fakültesi, Temel Tıp Bilimleri Bölümü, 2000

Research Areas

Medicine, Health Sciences, Fundamental Medical Sciences, Human Physiology

Academic Titles / Tasks

Associate Professor, Hacettepe University, Tıp Fakültesi (İngilizce), Temel Tıp Bilimleri Bölümü, 2014 - Continues
Assistant Professor, Hacettepe University, Tıp Fakültesi, Temel Tıp Bilimleri Bölümü, 2012 - 2014
Expert, University of Pennsylvania, Tıp, Cerrahi, 2006 - 2014
Assistant Professor, University of Pennsylvania, Tıp, Cerrahi, 2010 - 2012
Expert, University of Pennsylvania, Tıp, Cell And Developmental Biology, 2005 - 2006
Research Assistant, University of Pennsylvania, Tıp, Cell And Developmental Biology, 2003 - 2005
Research Assistant, New York University, Tıp, Göz, 1999 - 2003

Courses

FZY704 Moleküler Fizyolojide Temel Laboratuvar Teknikleri, Doctorate, 2016 - 2017
FZY703 İleri Hücre ve Vücut Sıvıları Fizyolojisi, Doctorate, 2016 - 2017
FZY714 Kas Fizyolojisi, Doctorate, 2016 - 2017

Published journal articles indexed by SCI, SSCI, and AHCI

I. **Evaluation of the Relationship between Aromatase/Sirtuin1 Interaction and miRNA Expression in Human Neuroblastoma Cells.**
KARTAL Y., Tokat U. M., Kelicen-Ugur P., YILMAZ S., KARAHAN S., BUDAK M. T.
Current molecular pharmacology, vol.16, no.6, pp.609-628, 2023 (SCI-Expanded)

II. **A Comparison of Cystic Fibrosis and Primary Ciliary Dyskinesia Patients with Healthy Controls in Terms of Anaerobic Hemodynamics**
KARTAL Y., BOZDEMİR ÖZEL C., SONBAHAR ULU H., ÇAKMAK A., İNAL İNCE D., Tural D. A., Polat S. E., Hizal M. G., Ozcelik U., BUDAK M. T., et al.
ACTA PHYSIOLOGICA, vol.234, pp.89, 2022 (SCI-Expanded)

III. **Investigation of the effect of isolated mitochondria transplantation on renal ischemia-reperfusion injury in rats**
Kubat G. B., Kartal Y., Atalay Ö., Ulger O., Ekinci O., Celik E., Safali M., Urkan M., Karahan S., Ozler M., et al.
Toxicology and Applied Pharmacology, vol.433, 2021 (SCI-Expanded)

IV. **The effects of mesenchymal stem cell mitochondrial transplantation on doxorubicin-mediated nephrotoxicity in rats**
Kubat G. B., Ozler M., Ulger O., Ekinci O., ATALAY Ö., Celik E., Safali M., BUDAK M. T.
JOURNAL OF BIOCHEMICAL AND MOLECULAR TOXICOLOGY, vol.35, no.1, 2021 (SCI-Expanded)

V. **Investigation of the Effect of Melatonin Administration on Calpain-1 Expression and Atrophic Morphology in Atrophy of Mouse Myoblast Cell Line Exposed to Hydrogen Peroxide**
Karimi N., KARTAL Y., BUDAK M. T.
ACTA PHYSIOLOGICA, vol.227, pp.34, 2019 (SCI-Expanded)

VI. **Electrophysiological Assessment of the Effects of Obstructive Sleep Apnea on Cognition**
GELİR E., BASARAN C., BAYRAK S., Yagcioglu S., BUDAK M. T., FIRAT H., Ungan P.
PLOS ONE, vol.9, no.2, 2014 (SCI-Expanded)

VII. **The Relationship between CPAP Usage and Corneal Thickness**
GELİR E., BUDAK M. T., ARDIC S.
PLOS ONE, vol.9, no.1, 2014 (SCI-Expanded)

VIII. **Intrinsic apoptosis in mechanically ventilated human diaphragm: linkage to a novel Fos/FoxO1/Stat3-Bim axis**
Tang H., Lee M., Budak M. T., Pietras N., Hittinger S., Vu M., Khuong A., Hoang C. D., Hussain S. N. A., Levine S., et al.
FASEB JOURNAL, vol.25, no.9, pp.2921-2936, 2011 (SCI-Expanded)

IX. **Inactivity-induced diaphragm dysfunction and mitochondria-targeted antioxidants: New concepts in critical care medicine**
Levine S., Budak M. T., Dierov J., Singhal S.
CRITICAL CARE MEDICINE, vol.39, no.7, pp.1844-1845, 2011 (SCI-Expanded)

X. **Increased Proteolysis, Myosin Depletion, and Atrophic AKT-FOXO Signaling in Human Diaphragm Disuse**
Levine S., Biswas C., Dierov J., Barsotti R., Shrager J. B., Taitan Nguyen T. N., Sonnad S., Kucharchzuk J. C., Kaiser L. R., Singhal S., et al.
AMERICAN JOURNAL OF RESPIRATORY AND CRITICAL CARE MEDICINE, vol.183, no.4, pp.483-490, 2011 (SCI-Expanded)

XI. **Identification of the Neuromuscular Junction Transcriptome of Extraocular Muscle by Laser Capture Microdissection**
Ketterer C., Zeiger U., Budak M. T., Rubinstein N. A., Khurana T. S.
INVESTIGATIVE OPHTHALMOLOGY & VISUAL SCIENCE, vol.51, no.9, pp.4589-4599, 2010 (SCI-Expanded)

XII. **Gene expression in the lamellar dermis-epidermis during the developmental phase of carbohydrate overload-induced laminitis in the horse**
Budak M. T., Orsini J. A., Pollitt C. C., Rubinstein N. A.
VETERINARY IMMUNOLOGY AND IMMUNOPATHOLOGY, vol.131, pp.86-96, 2009 (SCI-Expanded)

XIII. **Influence of hyperthyroid conditions on gene expression in extraocular muscles of rats**
Postler T. S., Budak M. T., Khurana T. S., Rubinstein N. A.
PHYSIOLOGICAL GENOMICS, vol.37, no.3, pp.231-238, 2009 (SCI-Expanded)

XIV. **Transcriptional and functional differences in stem cell populations isolated from extraocular and limb muscles**
Pacheco-Pinedo E. C., Budak M. T., Zeiger U., Jorgensen L. H., Bogdanovich S., Schroder H. D., Rubinstein N. A., Khurana T. S.
PHYSIOLOGICAL GENOMICS, vol.37, no.1, pp.35-42, 2009 (SCI-Expanded)

XV. **Mechanical ventilation and disuse atrophy of the diaphragm - Reply**
Levine S., Budak M. T., Shrager J. B.
NEW ENGLAND JOURNAL OF MEDICINE, vol.359, no.1, pp.91-92, 2008 (SCI-Expanded)

XVI. **A Role for Forkhead Transcription Factors (FOXOs) in Disuse Atrophy of the Human Diaphragm (DIA) Associated with Mechanical Ventilation (MV)**
Budak M. T., Nguyen T., Zhu J., Rothenberg P., Shrager J., Levine S.
FASEB JOURNAL, vol.22, 2008 (SCI-Expanded)

XVII. **Rapid disuse atrophy of diaphragm fibers in mechanically ventilated humans**
Levine S., Nguyen T., Taylor N., Friscia M. E., Budak M. T., Rothenberg P., Zhu J., Sachdeva R., Sonnad S., Kaiser L. R., et al.
NEW ENGLAND JOURNAL OF MEDICINE, vol.358, no.13, pp.1327-1335, 2008 (SCI-Expanded)

XVIII. **Ets-2 repressor factor silences extrasynaptic utrophin by N-box-mediated repression in skeletal muscle**
Perkins K. J., Basu U., Budak M. T., Ketterer C., Baby S. M., Lozynska O., Lunde J. A., Jasmin B. J., Rubinstein N. A., Khurana T. S.
MOLECULAR BIOLOGY OF THE CELL, vol.18, no.8, pp.2864-2872, 2007 (SCI-Expanded)

XIX. **Form-deprivation myopia in chick induces limited changes in retinal gene expression**
McGlinn A. M., Baldwin D. A., Tobias J. W., Budak M. T., Khurana T. S., Stone R. A.
INVESTIGATIVE OPHTHALMOLOGY & VISUAL SCIENCE, vol.48, no.8, pp.3430-3436, 2007 (SCI-Expanded)

XX. **Comparative analysis of human conjunctival and corneal epithelial gene expression with oligonucleotide microarrays**
Turner H. C., Budak M. T., Akinci M. A. M., Wolosin J. M.
INVESTIGATIVE OPHTHALMOLOGY & VISUAL SCIENCE, vol.48, no.5, pp.2050-2061, 2007 (SCI-Expanded)

XXI. **Identification of the A(3) adenosine receptor in rat retinal ganglion cells**
Zhang M., Budak M. T., Lu W., Khurana T. S., Zhang X., Laties A. M., Mitchell C. H.
MOLECULAR VISION, vol.12, pp.937-948, 2006 (SCI-Expanded)

XXII. **Definition of the unique human extraocular muscle allotype by expression profiling**
Fischer M., Budak M. T., Bakay M., Gorospe J., Kjellgren D., Pedrosa-Domellof F., Hoffman E., Khurana T.
PHYSIOLOGICAL GENOMICS, vol.22, no.3, pp.283-291, 2005 (SCI-Expanded)

XXIII. **Ocular surface epithelia contain ABCG2-dependent side population cells exhibiting features associated with stem cells**
Budak M. T., Alpdogan O., Zhou M., Lavker R., Akinci M., Wolosin J.
JOURNAL OF CELL SCIENCE, vol.118, no.8, pp.1715-1724, 2005 (SCI-Expanded)

XXIV. **Layer-specific differences of gene expression in extraocular muscles identified by laser-capture microscopy**
Budak M. T., Bogdanovich S., Wiesen M., Lozynska O., Khurana T., Rubinstein N.
PHYSIOLOGICAL GENOMICS, vol.20, no.1, pp.55-65, 2004 (SCI-Expanded)

XXV. **Ocular surface epithelial and stem cell development**
Wolosin J., Budak M. T., Akinci M.
INTERNATIONAL JOURNAL OF DEVELOPMENTAL BIOLOGY, vol.48, pp.981-991, 2004 (SCI-Expanded)

XXVI. **Different cell sizes in human limbal and central corneal basal epithelia measured by confocal microscopy and flow cytometry**
Romano A., Espana E., Yoo S., Budak M. T., Wolosin J., Tseng S.

INVESTIGATIVE OPHTHALMOLOGY & VISUAL SCIENCE, vol.44, no.12, pp.5125-5129, 2003 (SCI-Expanded)

XXVII. **Changes in connexin43 in early ocular surface development**
Wolosin J., Schutte M., Zieske J., Budak M. T.
CURRENT EYE RESEARCH, vol.24, no.6, pp.430-438, 2002 (SCI-Expanded)

XXVIII. **Effects of epidermal growth factor in artificial tear on vitamin C levels of corneal wounded eye tissues**
Gonul G., Kaplan B., Bilgihan K., Budak M. T.
EYE, vol.15, pp.213-216, 2001 (SCI-Expanded)

XXIX. **Expansion of clonogenic cell pool in explants of rabbit limbus.**
Budak M. T., Xiong X., Wolosin J.
INVESTIGATIVE OPHTHALMOLOGY & VISUAL SCIENCE, vol.42, no.4, 2001 (SCI-Expanded)

XXX. **Species dependent expression of connexin50 in the corneal epithelium.**
Xiong X., Budak M. T., Wolosin J.
INVESTIGATIVE OPHTHALMOLOGY & VISUAL SCIENCE, vol.41, no.4, 2000 (SCI-Expanded)

Refereed Congress / Symposium Publications in Proceedings

I. **Investigation of the Effect of Melatonin Administration on Calpain-1 Expression and Atrophic Morphology in Atrophy of Mouse Myoblast Cell Line Exposed to Hydrogen Peroxide**
Karimi N., Kartal Y., Budak M. T.
"Türk Fizyolojik Bilimler Derneği 45. Ulusal Fizyoloji Kongresi", Aydın, Turkey, 31 October - 03 November 2019, pp.34

II. **Identification and characterization of stem cells in extraocular muscle (EOM)**
Budak M. T., Rubinstein N., Khurana T.
Meeting of the Association-for-Research-in-Vision-and-Ophthalmology (ARVO 2005), Florida, United States Of America, 1 - 05 May 2005, vol.46

III. **Identification of the A(3) adenosine receptor in rat retinal ganglion cells**
Zhang M., Budak M. T., Lu W., Khurana T., Zhang X., Laties A., Mitchell C.
Meeting of the Association-for-Research-in-Vision-and-Ophthalmology (ARVO 2005), Florida, United States Of America, 1 - 05 May 2005, vol.46

IV. **Ocular surface epithelial cells express the MDR transporter ABCG2 and thus can be isolated as a side population following staining with bisbenzimide**
Budak M. T., Akinci M., Wolosin J.
Annual Meeting of the Association-for-Research-in-Vision-and-Ophthalmology, FT LAUDERDALE, FLORIDA, 01 May 2003, vol.44

V. **Identification of limbal genes by differential display**
Akinci M., Budak M. T., Wolosin J.
Annual Meeting of the Association-for-Research-in-Vision-and-Ophthalmology, FT LAUDERDALE, FLORIDA, 01 May 2003, vol.44

VI. **Downregulation of Cx43 identifies earliest stages of limbo-corneal, conjunctival and stem cell development**
Wolosin J., Budak M. T.
42nd Annual Meeting of the American-Society-for-Cell-Biology, San-Francisco, Costa Rica, 14 - 18 December 2002, vol.13

VII. **Delayed proliferative start allows isolation of epithelial stem cells**
Budak M. T., Alpdogan S., Wolosin J.
42nd Annual Meeting of the American-Society-for-Cell-Biology, San-Francisco, Costa Rica, 14 - 18 December 2002, vol.13

VIII. **Effect of phorbol ester on clone initiation by corneal and limbal epithelial cells**
Budak M. T., Wolosin J.

Annual Meeting of the Association-for-Research-in-Vision-and-Ophthalmology, FT LAUDERDALE, FLORIDA, 5 - 10 May 2002, vol.43

Supported Projects

BUDAK M. T., KARTAL Y., URKAN M., ÜLGER Ö., KUBAT G. B., ÖZLER M., ATALAY Ö., Project Supported by Higher Education Institutions, "Ratlarda Böbrek İskemiReperfüzyon Hasarına İzole Edilmiş Mitokondri Transplantasyonunun Etkisinin Araştırılması", 2020 - 2022

BUDAK M. T., KOCAEFE Y. Ç., KELİCEN UĞUR E. P., TOKAT Ü. M., KARTAL Y., Project Supported by Higher Education Institutions, Hücre Kültüründe Aromataz/Sirtuin-1 Etkileşiminin miRNA İfade Düzeyine Olan Etkisinin Araştırılması, 2019 - 2022

SABUNCUOĞLU S., ÖZÇELİK H. U., İNAL İNCE D., ATİLLA P., SONBAHAR ULU H., ADEMHAN TURAL D., ERYILMAZ S., BOZDEMİR ÖZEL C., KAYA Z. B., KARAHAN S., et al., Project Supported by Higher Education Institutions, Primer Siliyer Diskinezili Hastalarda Solunum Fonksiyonları Egzersiz Kapasitesi ve Yaşam Kalitesindeki Değişimlerin Oksidan ve Antioksidan Cevaptaki Rolleri, 2019 - 2022

BUDAK M. T., Project Supported by Higher Education Institutions, Dunchenne Müsküler Distrofisinin Tedavisinde Utrophin Genom Düzenlenmesinin Kullanımı, 2020 - 2020

BUDAK M. T., Karimi Sakhvidi N., KARTAL Y., Project Supported by Higher Education Institutions, Hidrojen Peroksite Maruz Kalan Fare Miyoblast Hücre Hattında Oluşan Atrofide Melatonin Uygulanması ve Kalpain1 İnhibisyonunun Etkisinin Morfolojik İncelenmesi, 2017 - 2019

BUDAK M. T., Project Supported by Higher Education Institutions, Hidrojen Peroksite Maruz Kalan Fare Miyoblast Hücre Hattında Oluşan Atrofide Melatonin Uygulanması ve Kalpain1 İnhibisyonunun Etkisinin Morfolojik İncelenmesi 2, 2017 - 2018

Metrics

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Citation (WoS): 1592
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H-Index (Scopus): 14