Z. Melek BOR-KUCUKATAY

CURRICULUM VITAE

(Updated, November 2021)

Z. Melek BOR-KUCUKATAY, MD, PhD

Professor in Physiology

**Date/Place of Birth:** July 3, 1970/Ankara-TURKEY

**Education:**

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| **Degree** | **Field of Study** | **Institution and Location** | **Year** |
| MD | Medical Faculty | Gazi University, Ankara-TURKEY | 1996 |
| PhD | Department/Physiology | Akdeniz University, Antalya-TURKEY | 2003 |

**PhD Thesis:**

“Effect of nitric oxide on red blood cell mechanical properties”

**Supervisor:** Prof. Dr. Oguz K. Baskurt (MD, PhD)

**Positions Held:**

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| Research Assistant | Akdeniz University, School of Medicine, Department of Physiology, Antalya-TURKEY | 1997-2003 |
| Visiting Research Assistant | KECK School of Medicine, University of Southern California, Physiology and Biophysics Department Los Angeles, California | 2000-2001 |
| Post Doc | Akdeniz University, School of Medicine, Department of Physiology, Antalya-TURKEY | 2003 |
| Instructor | Pamukkale University, School of Medicine, Department of Physiology, Denizli-TURKEY | 2004 |
| Assistant Professor | Pamukkale University, School of Medicine, Department of Physiology, Denizli-TURKEY | 2004-2006 |
| Associate Professor | Pamukkale University, School of Medicine, Department of Physiology, Denizli-TURKEY | 2006-2012 |
| Professor | Pamukkale University, School of Medicine, Department of Physiology, Denizli-TURKEY | 2012- |

**Important Academic and Administrative Positions:**

Dean of Pamukkale University, Medical Faculty 2021-

Head of Graduate School of Health Sciences 2011-2016.

Member of Senate 2011-2016, 2021

Board Member, Pamukkale University 2021-

Deputy Dean of Medical Faculty 2016.

Head of Physiology Department 2020-

Head of Sports Physiology 2014-

International Affairs Department Coordinator of Physiology Department 2009.

Board Member of Health Sciences Faculty 2015-2018.

Member of Strategic Plan Commission, Faculty of Medicine 2007.

Member of Self Assessment Committee, Medical Faculty, 2010.

Member of Scientific Research Projects Commission, Pamukkale University 2011-2016, 2020-2021.

Member of Preparation of Instructions Committee, Medical Faculty, 2008-2012.

Member of Laboratory Practice Committee, Medical Faculty, 2014-2016.

Member of the program evaluation commission, Faculty of Medicine, 2015-2016.

Member of the Assessment and Evaluation and Question Review Committee, Faculty of Medicine, 2016-2021.

Scientific Committee Secretary of Turkish Physiological Sciences Association 2016-2020.

Scientific Committee Membership of Pamukkale University (Medicine-Health field) 2017.

Member of Academic Incentive Application and Review Committee, Faculty of Medicine, 2018-

Member of Faculty Journal Editorial Board 2019-2021.

Member of the Occupational Health and Safety Board, Pamukkale University 2019-

**Membership of Professional Bodies**:

1998- Turkish Society of Physiological Sciences

1999- International Society for Clinical Hemorheology

2003- The American Physiological Society

2004- Turkish Doctor’s Union

**AWARDS & SCHOLARSHIPS:**

2000: NATO-A2 Scholarship for InternationalResearch

2005: Best Poster Award of Turkish Society of Physiological Sciences with the poster titled "The relationship between angiotensin converting enzyme I/D polymorphism and hemorheological parameters"

2008: Pamukkale University Academic Achievement Award of 2007

2010: Pamukkale University Academic Productivity Award -Physiology, “Most Productive Department” of 2008-2009 Award-

2015: Pamukkale University Annual Citation 2nd Prize in Health Sciences

2015: Turkish Society of Physiological Sciences Poster Second Prize with the poster titled "Investigation of hemorheological parameters in children with subclinical hypothyroidism and their relationship with carotid intima-media thickness" (Emine Kılıç-Toprak Ph.D. Student)

2016: Turkish Thoracic Society Clinical Problems Working Group Poster Award with the poster named “Increased erythrocyte aggregation and oxidative stress in patients with idiopathic interstitial pneumonia”

2017: The American College of Cardiology highest-ranking abstract submitted from Turkey (Dr. Yalin Yaylali)

2017: The American College of Cardiology fourth highest-ranking abstract submitted from participating Middle East countries (Dr. Yalin Yaylali)

2017: The American College of Cardiology Best Poster Award (Dr. Yalin Yaylali)

2018: Poster 'I-131 ablation/metastasis treatment may lead protective effects on lymphocyte DNA by activating repair mechanisms in patients with differentiated thyroid cancer', the winner of the Saturday 15 September Early Career poster competition for the 'Metabolism & Endocrinology' Theme. Federation of European Physiological Societies, Europhysiology 2018, London, UK (Özgen Kılıç-Erkek Ph.D. Student)

2018: Turkish Society of Physiological Sciences Poster Second Prize with the poster titled "The Effects of Exercise and Detraining Processes on Kidney Arylesterase Enzyme Activity in Spontaneous Hypertensive Rats"

2019 Turkish Society of Physiological Sciences Oral presentation First Prize (Özgen Kılıç-Male PhD thesis student) with a statement titled "Identification of the pathways involved in the process with time-dependent muscle damage and regeneration in response to swimming exercise in mice"

**Scientific Projects (Last 5 years):**

Investigation of Oxidative Stress Responses and DNA Damage in Patients Diagnosed with Senile Macular Degeneration, Pamukkale University Scientific Research Unit, Project No: 2016HZDP019 Researcher, 2016

The Effect of Exercise and Detraining Processes on Aortic Heme Oxygenase 2 (HO-2) Protein Levels in Spontaneous Hypertensive Rats, Pamukkale University Scientific Research Unit, Project No: 2016HZDP018 Project Coordinator, 2016

Changes in Hemorrheological Parameters in Acromegaly Patients, Oxidative Stress and DNA Damage, Pamukkale University Scientific Research Project Project, Project No: 2016HZDP017. Researcher, 2016

The Effects of I-131 Ablation Metastasis Treatment on Hemorrheological Parameters on Oxidative Stress and DNA Damage in Patients Diagnosed with Differentiated Thyroid Cancer, Pamukkale University Scientific Research Unit, Project No: 2017HZDP002 Researcher, 2017

Investigation of the effects of major autohemotherapy ozone application on erythrocyte deformability and aggregation, Pamukkale University Scientific Research Unit Researcher, 2017

Hemorrology, Oxidative Stress and DNA Damage Responses of Wingate Anaerobic Strength and Capacity Test (WANT) Applied in a Single Session on the Upper Extremity, Pamukkale University Scientific Research Unit, Project No: 2017HZDP028. Researcher, 2017

Determining the pathways involved in muscle regeneration in response to swimming exercise, Pamukkale University Scientific Research Unit Project, Project No: 2017SABE014 Project Coordinator, 2017

Investigation of hemorheological parameters, oxidative stress responses and peripheral DNA damage in patients with pulmonary hypertension. Pamukkale University Scientific Research Unit, Project No: 2016HZDP003 Researcher, 2017

Body composition analysis, basal metabolic rate, VO2 max, evaluation of general health status of Pamukkale University Team Athletes and examination of their changes over the years, Pamukkale University Scientific Research Unit Project, Project No: 2018KRM010 Project Coordinator, 2018

The effects of swimming exercise and detraining processes on hemorheological parameters and oxidative stress in rats with metabolic syndrome, Pamukkale University Scientific Research Unit Project, Project No: 2018SABE033 Project Coordinator, 2018

Investigation of the effects of 10-week Nordic Hamstring exercise training and subsequent detraining processes on plasma viscosity and oxidative stress levels in young, healthy men, Pamukkale University Scientific Research Unit Project, Project No: 2018SABE034 Project Coordinator, 2018

Examination of the effectiveness of 12-week Nordic Walking exercise in prediabetic individuals Pamukkale University Scientific Research Unit Project, Project No: 2019SABE006 Project Coordinator, 2019

Examination of myokine responses to acute and chronic swimming exercise in mice Pamukkale University Scientific Research Unit Project, Project No: 2019TIPF023 Project Coordinator, 2019

Investigation of the effects of 'coil', a bronchoscopic volume-reducing surgical procedure, on hemorheological parameters, oxidative stress, inflammation parameters and DNA damage in COPD patients Pamukkale University Scientific Research Unit Project, Project No: 2019HZDP023 Project Staff, 2019

Examination of time-dependent changes in gastrocnemius-soleus muscle complex and plasma myokine responses following short and long-term swimming exercise Pamukkale University Scientific Research Unit Project, Project No: 2020SABE005 Project Coordinator, 2020

Investigation of time-dependent changes in adipokine responses to laparoscopic sleeve gastrectomy Pamukkale University Scientific Research Unit Project, Project No: 2020TIPF025 Project Coordinator, 2020

The effects of different types of intermittent fasting protocols on endoplasmic reticulum stress, physiological and metabolic parameters in rats fed a high fructose diet Pamukkale University Scientific Research Unit Project, Project No: 2021HZDP011 Project Coordinator, 2021

**PUBLICATIONS**

**Original Articles:**

**1.** Baskurt, O. K., **M. Bor-Kucukatay** ve O. Yalcin, “The effect of red blood cell aggregation on blood flow resistance,” *Biorheology*, 36, 447-452 (1999).

**2.** Baskurt, O. K., **M. Bor-Kucukatay**, O. Yalcin, H. J. Meiselman ve J. K. Armstrong, “Standard aggregating media to test the “aggregability’’ of rat red blood cells,” *Clin. Hemorheol. Microcirc.,* 22, 161-166 (2000).

**3.** Yalcin, O., **M. Bor-Kucukatay**, U. K. Senturk, ve O. K. Baskurt, “Effects of swimming exercise on red blood cell rheology in trained and untrained rats,” *J. Appl. Physiol.*, 88, 2074-2080 (2000).

**4.** **Bor-Kucukatay, M**., O. Yalcin, H. J. Meiselman ve O. K. Başkurt, “Erythropoietin induced rheological changes of rat erythrocytes,” *Br. J. Haematol.,* 110, 82-88 (2000).

**5.** **Bor-Kucukatay, M.,** O. Yalcin, O. Gokalp, D. Kipmen-Korgun, A. Yesilkaya, A. Baykal, M. Ispir, U. K. Senturk, I. Kaputlu ve O. K. Baskurt, “Red blood cell rheological alterations in hypertension induced by chronic inhibition of nitric oxide synthesis in rats,” *Clin. Hemorheol. Microcirc.,* 22, 267-275 (2000).

**6.** Brun, J. F., C. Bouchahda, A. Aisa-Benhaddad, C. Sagnes, M. C. Granat, **M. Bor-Kucukatay,** O. K. Baskurt ve J. Mercier, “Hemorheological aspects of leuko-platelet activation in atheromatous diseases: clinical applications,” *J. Mal. Vasc.,* 25, 349-355 (2000).

**7.** Başkurt, O. K., **M. Bor-Kucukatay,** O. Yalcin ve H. J. Meiselman, “Aggregation behavior and electrophoretic mobility of red blood cells in various mammalian species,” *Biorheology,* 37, 417-428 (2000).

**8.** Senturk, U. K., F. Gunduz, O. Kuru, M. R. Aktekin, D. Kipmen, O. Yalcin, **M. Bor-Kucukatay,** A. Yesilkaya ve O. K. Baskurt, “Exercise-induced oxidative stress affects erythrocytes in sedentary rats but not exercise-trained rats,” *J. Appl. Physiol.,* 91, 1999-2004 (2001).

**9.** Hacioglu, G., O. Yalcin, **M. Bor-Kucukatay,** G. Ozkaya ve O. K. Baskurt, “Red blood cell rheological properties in various rat hypertension models,” *Clin. Hemorheol. Microcirc.,* 26, 27-32 (2002).

**10.** Yalcin, O., A. Erman, S. Muratli, **M. Bor-Kucukatay** ve O. K. Baskurt, “Time course of hemorheological alterations after heavy anaerobic exercise in untrained human subjects,” *J. Appl. Physiol.,* 94, 997-1002 (2003).

**11.** **Bor-Kucukatay, M.**, R. B. Wenby, H. J. Meiselman ve O. K. Baskurt, “Effects of nitric oxide on red blood cell deformability,” *Am. J. Physiol. Heart. Circ. Physiol.,* 284, H1577-84 (2003).

**12.** **Bor-Kucukatay, M.,** V. Kucukatay, A. Agar ve O. K. Baskurt, “Effect of sulfite on red blood cell deformability ex vivo and in normal and sulfite oxidase-deficient rats in vivo,” *Arch. Toxicol.,* 79, 542-6 (2005).

**13.** Senturk, U. K., F. Gunduz, O. Kuru, G. Kocer, Y. G. Ozkaya, A. Yesilkaya, **M. Bor-Kucukatay,** M. Uyuklu, O. Yalcin ve O. K. Baskurt, “Exercise-induced oxidative stress leads hemolysis in sedentary but not trained humans,” *J. Appl. Physiol.,* 99, 1434-41 (2005).

**14.** **Bor-Kucukatay, M.,** H. J. Meiselman ve O. K. Baskurt, “Modulation of density-fractionated RBC deformability by nitric oxide,” *Clin. Hemorheol. Microcirc.,* 33, 363-7 (2005).

**15.** **Bor-Kucukatay, M.,** S. Turgut, G. Emmungil, G. Turgut ve V. Kucukatay, “Increased deformability of red blood cells is associated with a deletion polymorphism of the angiotensin-converting enzyme gene”, *Tohoku J. Exp. Med.,* 208, 147-55 (2006).

**16.** Turgut, S., **M. Bor-Kucukatay,** G. Emmungil, P. Atsak ve G. Turgut, “The effects of low dose aluminum on hemorheological and hematological parameters in rats”, *Arch. Toxicol.,* 81,11-7 (2007).

**17.** Adiguzel, E., V. Kucukatay, G. Erken, N. Yonguc ve **M. Bor-Kucukatay, “**Effect of penicillin G-induced epileptic seizures on hemorheological parameters in rats”, *Life Sci.,* 79, 2382-6 (2006).

**18.** Kucukatay, V., S. Turgut, E. Kocamaz, G. Emmungil, **M. Bor-Kucukatay,** G. Turgut, H. Akca ve H. Bagcı, “Effect of sulfite exposure on zinc, iron and copper levels in rat liver and kidney tissues”, *Biol. Trace Elem. Res.,* 114, 185-95 (2006). Erratum in: *Biol Trace Elem Res*., 115, 303-5 (2007).

**19.** Kucukatay, V., **M. Bor-Kucukatay,** P. Atsak ve A. Agar, “Effect of ingested sulfite on hippocampus antioxidant enzyme activities in sulfite oxidase competent and deficient rats” *Int. J. Neurosci.*, 117, 971-83 (2007).

**20.** Erken, G., **M. Bor Kucukatay**, H.A. Erken, R. Kursunluoglu ve O. Genc, “Influence of classical and rock music on red blood cell rheological properties in rats” *Med Sci Monit.*, 14, BR28-33 (2008).

**21.** Herken, E.N., E. Kocamaz, **M.B. Kucukatay**, H. Vural, H. Demirin ve V. Kucukatay, “Ceruloplasmin, Copper, Selenium, Iron, Zinc, and Manganese Levels in Normal and Sulfite Oxidase Deficient Rat Plasma: Effects of Sulfite Exposure” *Biol Trace Elem Res.*, 123, 202-10 (2008).

**22. Bor-Küçükatay, M.**, A. Keskin, H. Akdam, S. Kabukçu-Hacıoğlu, G. Erken, P. Atsak ve V. Küçükatay**,** “Effect of Thrombocytapheresis on Blood Rheology in Healthy Donors: Role Of Nitric Oxide,” *Transfus. Apher. Sci.,* 39, 101-8 (2008).

**23**. Cakir-Atabek, H., P. Atsak, N. Gunduz ve **M. Bor-Kucukatay,** “Effects of resistance training intensity on deformability and aggregation of red blood cells,” *Clin. Hemorheol. Microcirc.,* 41,251-61 (2009).

**24**. Halis, H., **M. Bor-Kucukatay,** M. Akin, V. Kucukatay, I. Bozbay ve A. Polat, “[Hemorheological parameters in children with iron-deficiency anemia and the alterations in these parameters in response to iron replacement,”.](http://www.ncbi.nlm.nih.gov/pubmed/19382032?itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum&ordinalpos=3) *Pediatr. Hematol. Oncol*., 26, 108-18. (2009).

**25**. **Bor-Kucukatay, M**., S. Demir, R. Akbay, D. Dursunoglu, B. Akdag ve E. Semiz, “Relationship between hemorheology and Glu(298)Asp polymorphism of endothelial nitric oxide synthase gene in patients with coronary artery disease,” *Mol. Biol. Rep*., 37, 171-8 (2010).

**26.** Kucukatay, V., G. Erken, **M. Bor-Kucukatay**, ve E. Kocamaz “Effect of Sulfite Treatment on Erythrocyte Deformability in Young and Aged Rats,” *Toxicol. Mech. Methods.,* 19, 19-23 (2009).

**27. Bor-Kucukatay, M.,** H. Atalay, N. Karagenc, G. Erken ve V. Kucukatay,” [The effect of carbon monoxide poisoning on hemorheological parameters in rats and the alterations in these parameters in response to three kinds of treatments.](http://www.ncbi.nlm.nih.gov/pubmed/20203363)” *Clin. Hemorheol. Microcirc.,* 44, 87-96 (2010).

**28.** Erken, G., H. A. Erken, **M. Bor-Kucukatay**, V. Kucukatay ve O. Genç, “The effects of in vivo and ex vivo various degrees of cold exposure on erythrocyte deformability and aggregation,” *Med. Sci. Monit.,* 17, BR209-15 (2011).

**29.** Erken, G., **M. Bor-Kucukatay,** S. Turgut, H. Erken, S. Comlekci, U. Divrikli ve O. Genç, “The effects of electromagnetic field generated from 1800 MHz cell phones on erythrocyte rheological parameters and zinc level in rats,” *Balkan Med. J*., 29, 139-43 (2012).

**30.** Kilic-Toprak, E., F. Ardic, G. Erken, F. Unver-Kocak, V. Kucukatay ve **M. Bor-Kucukatay**, “Hemorheological responses to progressive resistance exercise training in healthy, young males,” *Med. Sci. Monit.,* 18, CR351-60 (2012).

**31.** Kucukatay, V., **M. Bor-Kucukatay,** G. Gundogdu, G. Erken, T. O. Ozcan, F. D. Mıloglu ve Y. Kadıoglu, “Vitamin E Treatment Enhances Erythrocyte Deformability in Aged Rats” *Folia Biol (Praha),* 58, 157-165 (2012).

**32.** Yaylali, Y.T., I. Susam, E. Demir, **M. Bor-Kucukatay**, B. Uludag, E. Kilic-Toprak, G. Erken ve D. Dursunoglu, “[Increased red blood cell deformability and decreased aggregation as potential adaptive mechanisms in the slow coronary flow phenomenon”.](http://www.ncbi.nlm.nih.gov/pubmed/23111584) *Coron. Artery Dis.,* Jan; 24(1), 11-5 (2013).

**33.** Kursunluoglu-Akcilar, R., E. Kilic-Toprak, O. Kilic-Erkek, S. Turgut ve **M. Bor-Kucukatay**, “Apelin induced hemorheological alterations in DOCA-salt hypertensive rats”, *Clin. Hemorheol. Microcirc.,* Jan; 1 56(1), 75-82. (2014).

**34. Bor-Kucukatay, M.**, R. Colak, G. Erken, E. Kilic-Toprak ve V. Kucukatay, “[Altitude training induced alterations in erythrocyte rheological properties: A controlled comparison study in rats.](http://www.ncbi.nlm.nih.gov/pubmed/23514970)” *Clin. Hemorheol. Microcirc*., Jan; 1 58(4), 479-88 (2014).

**35.** Tancer-Elci, H., Y. Isik-Balci, **M. Bor-Kucukatay**, E. Kilic-Toprak, O. Kilic-Erkek, H. Senol ve H. Aybek, “[Investigation of hemorheological parameters at the diagnosis and the follow-up of nutritional vitamin b12 deficient children.](http://www.ncbi.nlm.nih.gov/pubmed/23719423)” *Clin. Hemorheol. Microcirc*., 60(3), 273-82 (2015).

**36.** Erken, G., **M. Bor-Kucukatay**, E. KilicToprak, B. Akdag ve V. Kucukatay, “[The effect of L-carnosine on erythrocyte deformability and aggregation according to the cell age in young and aged rats.](http://www.ncbi.nlm.nih.gov/pubmed/23909051)” *Acta Medica (Hradec Kralove),* 56(1), 23-8 (2013).

**37.** Isik-Balci Y., H. Tancer-Elci, **M. Bor-Kucukatay**, O. Kilic-Erkek, E. Kilic-Toprak, H. Senol ve S. Rota, “[Investigation of hemorheological parameters at the diagnosis and follow up of children with iron deficiency anemia and mixed anemia.](http://www.ncbi.nlm.nih.gov/pubmed/24448733)” *Clin. Hemorheol. Microcirc*., 60(2), 179-89 (2015).

**38.** Gürses D, N. Parlaz, **M. Bor-Kucukatay**, V. Kucukatay ve G. Erken, “Evaluation of Oxidative Stress and Erythrocyte Properties in Children with Henoch-Shoenlein Purpura” *Iran J. Pediatr.,* Apr; 24(2), 166-72 (2014).

**39.** Kilic-Toprak E, A. Yapici, O. Kilic-Erkek, Y. Köklü, V. Tekin, U. Alemdaroglu ve **M**. **Bor-Kucukatay**, “[Acute effects of Yo-Yo intermittent recovery test level 1 (Yo-YoIR1) on hemorheological parameters in female volleyball players.](http://www.ncbi.nlm.nih.gov/pubmed/24840339)” *Clin. Hemorheol. Microcirc*., 60(2), 191-9 (2015).

**40.** Findikoglu G, E. Kilic-Toprak, O. Kilic-Erkek, H. Senol ve **M. Bor-Kucukatay**, “Acute effects of continuous and intermittent aerobic exerises on hemorheological parameters: A pilot study” *Biorheology,* 51(4-5), 293-303 (2014).

**41.** Kilic-Erkek O, E. Kilic-Toprak, V. Kucukatay ve **M. Bor-Kucukatay**, “Exercise Training and Detraining Modify Hemorheological Parameters of Spontaneously Hypertensive Rats” *Biorheology,* 51(6), 355-67 (2014).

**42.** Kilic-Erkek O, M. Mergen-Dalyanoglu, E. Kilic-Toprak, S. Ozkan ve **M. Bor-Kucukatay**, S. Turgut, “Exercise training and detraining process affects plasma adiponectin level in healthy and spontaneously hypertensive rats” *Bratisl. Lek. Listy.*,116(12), 741-5 (2015).

**43.** Kilic-Erkek O, E. Kilic-Toprak, S. Caliskan, Y. Ekbic, İ.H. Akbudak, V. Kucukatay ve **M. Bor-Kucukatay,** “Detraining reverses exercise-induced improvement in blood pressure associated with decrements of oxidative stress in various tissues in spontaneously hypertensive rats” *Mol. Cell. Biochem.,* Jan; 412(1-2), 209-19 (2016)*,* DOI 10.1007/s11010-015-2627-4.

**44.** Isik-Balci Y, S. Agladioglu, K. Agladioglu, E. Kilic-Toprak, O. Kilic-Erkek, B. Ozhan, A. Polat ve **M. Bor-Kucukatay**,”[Impaired Hemorheological Parameters and Increased Carotid Intima-Media Thickness in Children with Subclinical Hypothyroidism.](http://www.ncbi.nlm.nih.gov/pubmed/26934063)” *Horm. Res. Paediatr*., 85(4), 250-6 (2016), doi: 10.1159/000444363.

**45.** Kilic-Toprak E, I. Toprak, O. Kilic-Erkek, V. Kucukatay ve **M. Bor-Kucukatay,”** [Increased erythrocyte aggregation in patients with primary open angle glaucoma.](http://www.ncbi.nlm.nih.gov/pubmed/27102870)” *Clin. Exp. Optom.,* 99(6), 544-9 (2016). doi: 10.1111/cxo.12388

**46.** Ugurlu E, E. Kilic-Toprak, G. Altinisik, O. Kilic-Erkek, B. Cengiz, V. Kucukatay, H. Senol, I.H. Akbudak, Y. Ekbic ve **M**.**Bor-Kucukatay, “**[Increased erythrocyte aggregation and oxidative stress in patients with idiopathic interstitial pneumonia](http://www.mattioli1885journals.com/index.php/sarcoidosis/article/view/5031)” *Sarcoidosis Vasc Diffuse Lung Dis.,* 33, 308-16 (2016).

**47.** Kilic-Toprak E, O. Yaylali, Y.T. Yaylali, Y. Ozdemir, D. Yuksel, H. Senol, T. Sengoz ve **M. Bor-Kucukatay,”** [Hemorheological dysfunction in cardiac syndrome X.](https://www.ncbi.nlm.nih.gov/pubmed/28889793)” *Acta Cardiol.,* Jun 73 (3), 257-265. (2018). doi: 10.1080/00015385.2017.1373967.

**48.** Ugurlu E, E. Kilic-Toprak, I. Can, O. Kilic-Erkek, G. Altinisik ve **M. Bor-Kucukatay,**”[Impaired Hemorheology in Exacerbations of COPD.](https://www.ncbi.nlm.nih.gov/pubmed/29089816)” *Can. Respir. J.*, 2017:1286263. (2017). doi: 10.1155/2017/1286263.

**49.** Akbudak I.H., V. Kucukatay, O. Kilic-Erkek, Y. Ozdemir, ve **M. Bor-Kucukatay,** “[Investigation of the effects of major ozone autohemotherapy application on erythrocyte deformability and aggregation.](https://www.ncbi.nlm.nih.gov/pubmed/29914015)” *Clin. Hemorheol. Microcirc*., 71(3):365-372 (2019) doi: 10.3233/CH-180417.

**50.** Kilic-Toprak E., O. Kilic-Erkek, G. Abban-Mete, V. Caner, I.C. Baris, G. Turhan, V. Kucukatay, H. Senol, O. Kuru ve **M. Bor-Kucukatay,**” [Contribution of Heme Oxygenase 2 to Blood Pressure Regulation in Response to Swimming Exercise and Detraining in Spontaneously Hypertensive Rats.](https://www.ncbi.nlm.nih.gov/pubmed/30132448)” *Med. Sci. Monit.,* Aug 22;24:5851-58592018 (2018) doi: 10.12659/MSM.908992.

**51.** Yaylali Y.T., E. Kilic-Toprak, Y. Ozdemir, H. Senol ve **M**.**Bor-Kucukatay,** “[Impaired Blood Rheology in Pulmonary Arterial Hypertension.](https://www.ncbi.nlm.nih.gov/pubmed/30253971)” *Heart Lung Circ.,* Jul;28(7):1067-1073 (2019) doi: 10.1016/j.hlc.2018.07.014.

**52.** Unver F., E. Kilic-Toprak, O. Kilic-Erkek, H. Korkmaz, O. Yasin, B. Oymak, A. Oskay ve **M**. **Bor-Kucukatay,** “Hemorheological alterations following an acute bout of nordic hamstring exercise in active male participants1.” *Clin. Hemorheol. Microcirc.,* 71(4):463-473 (2019) doi: 10.3233/CH-180402.

**53.** Kilic-Toprak, E., F. Unver, O. Kilic-Erkek, H. Korkmaz, Y. Ozdemir, B. Oymak, A. Oskay ve **M**.**Bor-Kucukatay,** “[Increased erythrocyte aggregation following an acute bout of eccentric isokinetic exercise does not exceed two days](https://content.iospress.com/articles/biorheology/bir180175) “[*Biorheology*](https://content.iospress.com/journals/biorheology), 55 (1), 15-24, (2018) doi: 10.3233/BIR-180175

**54.** Sengoz, T., E. Kilic-Toprak, O. Yaylali, O. Kilic-Erkek, Y. Ozdemir, B. Oymak, H. Senol, D. Yuksel, V. Kucukatay, ve **M**.**Bor-Kucukatay,** “[Hemorheology and oxidative stress in patients with differentiated thyroid cancer following I-131 ablation/metastasis treatment.](https://www.ncbi.nlm.nih.gov/pubmed/31884456)” *Clin. Hemorheol. Microcirc.,* 74 (2), 209-221 (2020). doi: 10.3233/CH-190717. PMID: 31884456

**55.** Kilic-Erkek, O., [V. Caner](https://pubmed.ncbi.nlm.nih.gov/?term=Caner+V&cauthor_id=33626393), [G. Abban-Mete](https://pubmed.ncbi.nlm.nih.gov/?term=Abban-Mete+G&cauthor_id=33626393)[I. C. Baris](https://pubmed.ncbi.nlm.nih.gov/?term=Baris+IC&cauthor_id=33626393), ve **M.Bor-Kucukatay**, “Determination of the pathways of potential muscle damage and regeneration in response to acute and long-term swimming exercise in mice” Life Sci. May 1;272:119265.(2021) doi: 10.1016/j.lfs.2021.119265.

**Total number of citations:** **1716**

**H index according to Web of Science: 16**

**H index according to Google Scholar data: 18**

**International Conference Presentations (Last 5 years);**

**1.** Alemdaroglu, U., E. Kılıç-Toprak, Y. Köklü, Ö. Kılıç-Erkek, F. Ünver-Koçak, Y. Ozdemir, A. Yapıcı, Y. Ekbic ve **M. Bor-Küçükatay**,”Time dependent hemorheological and oxidative stress responses to repeated sprint test and wingate anaerobic power and capacity test” Joint meeting of the Federation of European Physiological Societies and the French Physiological Society, Paris, France, Abstract # PO.088, 29 June-1 July, 2016. ACTA PHYSIOLOGICA ACTA PHYSIOLOGICA Volume: 217  Special Issue: SI  Supplement: 708  Pages: 67-67 Meeting Abstract: PO.088  Published: JUN 2016.

**2.** Kilic-Toprak, E., Y.T. Yaylali, Y., Ekbic, Y. Ozdemir, V. Kucukatay, H. Senol, N. Dursunoglu ve **M. Bor-Kucukatay**,”Investigation of DNA damage with comet assay in patients with pulmonary hypertension” Joint meeting of the Federation of European Physiological Societies and the French Physiological Society, Paris, France, Abstract # PO.024, 29 June-1 July, 2016. ACTA PHYSIOLOGICA Volume: 217  Special Issue: SI  Supplement: 708  Pages: 40-40 Meeting Abstract: PO.024  Published: JUN 2016.

**3.** Kilic-Toprak, E., O.Yaylali, Y.T. Yaylali, Y. Ozdemir, Y., Ekbic, V. Kucukatay, D. Yuksel, H. Senol, T. Sengoz ve **M. Bor-Kucukatay**,” Investigation of hemorheological parameters and oxidative stress in patients with cardiac syndrome X”, Joint meeting of the Federation of European Physiological Societies and the French Physiological Society, Paris, France, Abstract # PO.017, 29 June-1 July, 2016. ACTA PHYSIOLOGICA Volume: 217  Special Issue: SI  Supplement: 708  Pages: 37-37 Meeting Abstract: PO.017  Published: JUN 2016.

**4.** Yaylali, Y.T., E. Kilic-Toprak, Y. Ekbic, Y. Ozdemir, V. Kucukatay, H. Senol, N. Dursunoglu ve **M. Bor-Kucukatay**,”Decreased erthyrocyte deformability and increased erythrocyte aggregation in patients with pulmonary hypertension” Joint meeting of the Federation of European Physiological Societies and the French Physiological Society, Paris, France, Abstract # PO.018, 29 June-1 July, 2016. ACTA PHYSIOLOGICA Volume: 217  Special Issue: SI  Supplement: 708  Pages: 38-38 Meeting Abstract: PO.018 Published: JUN 2016.

**5.** Yaylali, Y. T, E. Kilic-Toprak, Y. Ekbic, Y. Ozdemir, V. Kucukatay, H. Senol, N. Dursunoglu ve **M. Bor-Kucukatay**, “Increased Erythrocyte Aggregation and Decreased Erythrocyte Deformability in Patients with Pulmonary Arterial Hypertension” 66th Annual Scientific Session and expo of American College of Cardiology, Washington DC, USA, Abstract #1269-004 / 004 -, 17-19 March, 2017.

**6.** Kilic-Toprak, E., F. Unver, Ö. Kilic-Erkek, H. Korkmaz, Y. Ozdemir, B. Oymak, A. Oskay ve **M. Bor-Kucukatay**, ”Time Course of Hemorheological Alterations Following an Acute Bout of Isokinetic Exercise in Avtive Male Subjects” Joint Meeting of The Federation of European Physiological Societies and the Austrian Physiological Society With Participation of the Czech, French, Italian, Slovak, Slovenian, Swiss and Turkish Physiological Societies, Vienna, Austria, Abstract # B05-5, 13-17 September, 2017.

**7.** Akbudak İ.H., V. Küçükatay, Ö. Kılıç-Erkek, Y. Özdemir ve **M. Bor-Küçükatay**, “Investigation of the Effects of Major Autohemotherapy Ozone Application on Erythrocyte Deformability and Aggregation” Joint Meeting of The Federation of European Physiological Societies and the Austrian Physiological Society With Participation of the Czech, French, Italian, Slovak, Slovenian, Swiss and Turkish Physiological Societies, Vienna, Austria, Abstract # D11-3 , 13-17 September, 2017.

**8.** Unver F., E. Kilic-Toprak, O. Kılıç-Erkek, H. Korkmaz, Y. Ozdemir, B. Oymak, A. Oskay ve **M. Bor-Kucukatay,** “Hemorheological Alterations Following an Acute Bot of Nordic Hamstring Exercise in Active Male Subjects” Joint Meeting of The Federation of European Physiological Societies and the Austrian Physiological Society With Participation of the Czech, French, Italian, Slovak, Slovenian, Swiss and Turkish Physiological Societies, Vienna, Austria, Abstract # B05-7, 13-17 September, 2017.

**9.** Kılıç-Toprak E., Y. Özdemir, Ö. Kılıç-Erkek, E.B. Tuzcu, İ. Türkçüer, **M. Bor-Küçükatay,** “Pamukkale Üniversitesi Futbol ve Hentbol sporcularının vücut kompozisyonu ve bazal metabolizma hızlarının karşılaştırılması” 1st International Congress of Physical Education, Sport, Recreation and Dance, İstanbul, Turkey, 26-28 April, 2018.

**10.** Özdemir Y., Ö. Kılıç-Erkek, E. Kılıç-Toprak, E.B. Tuzcu, İ. Türkçüer**, M. Bor-Küçükatay,** “Pamukkale Üniversitesi Bayan Futsal takımı spocularının bazal metabolizma hızı ve vücut kompozisyonunun değerlendirilmesi” 1st International Congress of Physical Education, Sport, Recreation and Dance, İstanbul, Turkey, 26-28 April, 2018.

**11.** Kılıç-Toprak E., T. Sengoz, O. Yaylalı, Ö. Kılıç-Erkek, Y. Özdemir, B. Oymak, H. Senol, D. Yuksel, V. Kucukatay, **M. Bor-Küçükatay,** “I-131 ablation/metastasis treatment may lead protective effects on lymphocyte DNA by activating repair mechanisms in paitents with differentiated thyroid cancer” Federation of European Physiological Societies, Europhysiology 2018, London, UK, Abstract # PCB217, 14-16 September, 2018.

**12.** Kılıç-Toprak E., Y. Yaylalı, Y. Özdemir, V. Kucukatay, H. Senol, **M. Bor-Küçükatay,** “Increased DNA damage with comet assay in patients with pulmonary hypertension” Federation of European Physiological Societies, Europhysiology 2018, London, UK, Abstract # PCB008, 14-16 September, 2018.

**13.** Kılıç-Toprak E., I. Toprak, V. Yaylalı, Y. Özdemir, B. Oymak, **M. Bor-Küçükatay,** “V. Kucukatay, “Increased systemic oxidative stress index and DNA damage in patients with age-related macular degeneration” Federation of European Physiological Societies, Europhysiology 2018, London, UK, Abstract # PCB061, 14-16 September, 2018.

**14.** Sengoz T., E. Kılıç-Toprak, O. Yaylalı, Ö. Kılıç-Erkek, Y. Özdemir, B. Oymak, H. Senol, D. Yuksel, V. Kucukatay, **M. Bor-Küçükatay,** “Dose-Dependent Hemorheological Impairment in Patients with Differentiated Thyroid Cancer Following I-131 Ablation/Metastasis Treatment” Federation of European Physiological Societies, Europhysiology 2018, London, UK, Abstract # PCB216, 14-16 September, 2018.

**15.** Sengoz T., E. Kılıç-Toprak, O. Yaylalı, Ö. Kılıç-Erkek, Y. Özdemir, B. Oymak, H. Senol, **M. Bor-Küçükatay**, V. Kucukatay, **,** D. Yuksel, “Dose-Dependent Hemorheological Impairment in Patients with Differentiated Thyroid Cancer Following I-131 Ablation/Metastasis Treatment” 31st Annual Congress of the European-Association-of-Nuclear-Medicine (EANM), Dusseldorf, GERMANY, Abstract # EP-0756, 13-17 October, 2018., European Journal of Nuclear Medicine and Molecular Imaging 45 (S1) S603, 2018.

**16.** Kılıç-Toprak E., T. Sengoz, O. Yaylalı, Ö. Kılıç-Erkek, Y. Özdemir, B. Oymak, H. Senol, **M. Bor-Küçükatay**, V. Kucukatay, **,** D. Yuksel, “Effects of I-131 ablation/metastasis treatment on DNA damage parameters in patients with differentiated thyroid cancer” 31st Annual Congress of the European-Association-of-Nuclear-Medicine (EANM), Dusseldorf, GERMANY, Abstract # EP-0745, 13-17 October, 2018., European Journal of Nuclear Medicine and Molecular Imaging 45 (S1) S599, 2018.

**17.** Akbudak I., Ö. Kılıç-Erkek, E.B. Tuzcu, H. Pakyürek, **M. Bor-Küçükatay,** “Effects of Ketamine-Xylazine anesthesia on hemorheological parameters: A rat model” Joint Meeting of the Federation of European Physiological Societies (FEPS) and the Italian Physiological Society (SIF) A joint International Meeting Celebrating the 70th Anniversary of the Italian Physiological Society, Bologna, ITALY, Abstract # PP.81, 10-13 September, 2019., ACTA PHYSIOLOGICA 227 (S1) 164, 2019.

**18.** Ozdamar H.C., Ö. Kılıç-Erkek, H.E. Akkaya, E. Kılıç-Toprak, **M. Bor-Küçükatay,** “Investigation of the Effects of 10-week Nordic Hamstring Exercise Training and Subsequent Detraining on Plasma Viscosity and Oxidative Stress Levels in Healthy Young Men” ICEIMISM 2020: 22nd International Conference on Exercise-Induced Muscle Injury to Skeletal Muscle, New York, USA, Abstract # 819, 23-24 April, 2020., IX. International research conference proceedings, Part IX, page 1528.

**19. M. Bor-Küçükatay,** “Demands and requirements of medical students: Turkish experiences” European Physiology Day Virtual meeting FEPS teaching symposium12 October, 2021.

**Written/Translated national/international books or chapters in books:**

Unit IV editor of the Human Physiology book and the author of Unit IV, Chapter 16, “Composition, Physical Properties and Function of Blood“. 2020 Turkish Physiological Sciences Association, Editorial Board Chairman Prof. Dr. Erdal Agar, Istanbul Medical Bookstores

TRANSLATION Medical Physiology Book of Fundamentals of Clinical Medicine Rodney A. Rhoades, David R. Bell 4th Edition Chapter 10 Translation of Immune Science, Organ Interactions, and Internal Balance. 2017 Translation Editor Prof. Dr. Erdal Agar, Istanbul Medical Bookstores

TRANSLATION Ganong's Medical Physiology Exam Preparation and Review Kim E Barrett, Susan M. Barman, Scott Boitano, Jane F. Reckelhoff Part VI Respiratory Physiology Section Translation Editor. 2018 Translation Editors Erdal Agar, İnci Allican, Güneş Medical Bookstores

TRANSLATION Ganong's Medical Physiology Kim E Barrett, Susan M. Barman, Scott Boitano, Heddwen L. Brooks Chapter 32 Cardiovascular Regulatory Mechanisms Translation. 2018 Translation Editor Prof. Dr. Ümmühan İşoğlu-Alkaç, Nobel Medicine Bookstores

**AREAS OF INTEREST:** Exercise, hemodynamics, hemorheology, metabolism

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