

DR. RADÁK ZSOLT

Intézetvezető egyetemi tanár, az MTA doktora, s jelenleg tudományos dékánhelyettes a Semmelweis Egyetem Testnevelési és Sporttudományi Karán, edzéselméletet és életciklusok tantárgyakat tanít magyar és angol nyelven.

Jelenleg 7 PhD hallgató dolgozik az irányítása alatt, de szívesen végez önmaga is vizsgálatokat. Tudományos érdeklődési területe meglehetősen széles, de elsősorban a testedzés biokémiai, molekuláris aspektusait vizsgálja az oxidatív stressz függvényében. A vizsgálati területek kiterjednek az öregedés folyamatára, annak oxidatív stresszel kapcsolatos viszonyára. Az oxidatív fehérje sérülések (karbonil csoportok, nitrotyrosine) mérése, azok lebontása a proteasome rendszer segítségével, valamint az oxidatív DNS sérülés (8-hydroxydeoxyguanosine) és annak javítását végző a BER enzimek (OGG1, endo-III, MUG) területén számos cikket publikált. A legutóbbi vizsgálatai a jelzőrendszer (NF-kB, AP-1), és az edzés idegrendszerre gyakorolt hatásait célozta. Táplálkozással kapcsolatosan a csalán és kakaó antioxidáns, gyulladás csökkentő hatásait vizsgáló témákat vezetett. Új szerelme a kutatásokban a sirtuin fehérje család és az általuk szabályozott sejti folyamatok sok ismeretlenes mozaikja. Elsősorban japán, dél-koreai, amerikai, francia és finn egyetemekkel áll szoros tudományos kapcsolatban.



Kulcsszavak: testedzés, oxidatív stressz, öregedés, DNS sérülés és javítás, oxidatív fehérje sérülés és javítás

Publikációk (teljes lista a Magyar Tudományos Művek Tára oldalán [>>>>](#))

Nemzetközi tudományos közlemények

1. Radak, Z., K. Lee, W. Choi, S. Sunoo, T. Kizaki, S. Oh-Ishi, K. Suzuki, N. Taniguchi, H. Ohno and K. Asano. Oxidative stress induced by intermittent exposure at a simulated altitude of 4000 m decreases mitochondrial superoxide dismutase content in soleus muscle of rats. Eur. J. Appl. Physiol. 1994. 69: 392-395, **I.F.: 0.924**,
2. Ohno, H., S. Oh-ishi, T. Kizaki, H. Yamashita, D. Saitoh, Z. Radak, K. Asano, M.Inoue, K. Suzuki, N. Taniguchi. Physical exercise and antioxidant enzymes: with emphasis on manganese-superoxide dismutase. Pathophysiology 1994. 1: 477-479. [>>>](#)

3. Radak, Z., K. Lee, W. Choi, K. Asano, T. Kizaki, S. Oh-Ishi, H. Ohno, K. Suzuki, N. Taniguchi. Oxidative stress induced by intermittent exposure at a simulated altitude of 4000 m decreases mitochondrial superoxide dismutase activity in muscle of rats. *Jap. J. Mount. Med.* 1994. 14: 109-113.
4. Ohno, S. Oh-Ishi, Radak, Z., and K. Asano. Superoxide in exercise and aging: relation to SOD. *Jp. J. Physic. Fitt. Sport Med.* 1995. 44: 31-33. (Japanese)
5. Radak, Z., K. Asano, M. Inoue, T. Kizaki, S. Oh-Ishi, K. Suzuki, N. Taniguchi, and H. Ohno. Superoxide dismutase derivative reduces oxidative damage in skeletal muscle of rats during exhaustive exercise. *J. Appl. Physiol.* 1995. 79: 129-135. **IF: 1.947,**
6. Radak, Z., K. Asano, M. Inoue, T. Kizaki, S. Oh-Ishi, and H. Ohno. Acute bout of exercise does not alter the antioxidant enzyme status and lipid peroxidation of rat hippocampus and cerebellum. *Pathophysiology* 1995. 2: 243-245.
7. Radak, Z., K. Asano, M. Inoue, T. Kizaki, S. Oh-Ishi, K. Suzuki, N. Taniguchi, and H. Ohno. Superoxide dismutase derivative prevents oxidative damage in liver and kidney of rats induced by exhaustive exercise. *Eur. J. Appl. Physiol.* 1996. 72:189-194, **IF.: 1.119,**
8. Radak, Z., H. Ohno, K. Lee, K. Asano, S. Nakamura, H. Nakamoto and S. Goto. High altitude training increases reactive carbonyl derivatives but not lipid peroxidation in skeletal muscle of rats. *Free Rad. Biol.Med.* 1997. 22: 1109-1114. **IF: 3.528, >>>**
9. Kizaki, T., T. Ookawara, T. Izawa, J. Nagasawa, S. Haga, Z. Radak, H. Ohno. Relationship between cold tolerance and generation of suppressor macrophages under acute cold stress. *J. Appl. Physiol.* 1997:83-1116-1122 **IF: 1.770, >>>**
10. Radak, Z., K. Asano, H. Ohno, A. Nakamura, H. Nakamoto, S. Goto. Period of anaerobe interval exercise encreases accumulation of reactive carbonyl derivatives in lungs of rats. *Pflugler Archiv Eur. J. Physiol.* 1998: 435:439-441. **IF: 2.529, >>>**
11. Radak, Z., K. Asano, Y. Fu, A. Nakamura, H. Nakamoto, S. Goto. The effect of high altitude and caloric restriction on reactive carbonyl derivatives and activity of glutamine synthetase in rat brain. *Life Sciences* 1998 62:1317-1322. **IF: 1.937, >>>**
12. Ohno H, S. Oh-ishi, T. Ookawara, T. Kizaki, H. Miyazaki, S. Haga and Z. Radak. Physical exercise and superoxide dismutases. *Medicina Sportiva* 1998. 2:219-229. **IF: 0.169**
13. Sato, A., M-Z, Huang, S. Watanabe, H. Okuyama, H. Nakamoto, Z. Radak, and S. Goto. Protein carbonyl content roughly reflects the unsaturation of lipids in muscle but not in other tissues of stroke-prone spontaneously hypertensive strain (SHRSP) rats fed different fats and oils. *Biol. Bull.* 1998: 21:1271-1276, **IF: 0.766,**
14. Goto, S., A. Nakamura, Z. Radak, H. Nakamoto, R. Takahashi, K. Yasuda, Y. Sakurai, N. Ishii. Carbonylated proteins in aging and exercise: Immunoplot approaches. *Mech. Ageing Dev.* 107: 1999: 245-253 **IF: 1.788, >>>**
15. Radak Z., J. Pucso, S. Mecseki, T. Csont, P. Ferdinandy. Muscle soreness-induced reduction in force generation is accompanied by increased nitric oxide content and DNA damage in human skeletal muscle. *Free Rad. Biol. Med.* 1999: 26: 1059-1063. **IF: 4.079, >>>**

16. Radak, Z. T. Kaneko, S. Tahara, H. Nakamoto, H. Ohno, M. Sasvari, C. Nyakas, S. Goto. The effect of exercise training on oxidative damage of lipids, proteins, and DNA in rat skeletal muscle: evidence for beneficial outcomes. *Free Rad. Biol. Med.* 1999; 27:69-74. **IF: 4.079** >>>
17. Lee, K., Asano, K., Hu, Y., Sunoo, S., Radak, Z., Mimura, T., Mizuno, K. Effects of combining of an exercise training and an exposure to hypoxia on growth rate, food intake, oxygen transporting capacity, muscle oxidative capacity and exercise performance in rats. *Adv. Exerc. Sports Physiol.* 1999; 5:71-77
18. Radak, Z., Pucsok, J., Boros, S., Jofjai, L., Taylor, A.W. Changes in urine 8-hydroxydeoxyguanosine levels of super-marathon runners during a four-day race period. *Life Sciences* 2000; 66: 1763-1767, **IF: 1.774** >>>
19. Radak, Z., Sasvari, M., Nyakas, C., Pucsok, J., H. Nakamoto, Goto S. Exercise preconditioning against hydrogen peroxide induced oxidative damage in proteins of rat myocardium. *Arch. Biochem. Biophys.* 2000; 376:248-251, **IF: 2.576**, >>>
20. Radak Z, Sasvari M, Nyakas C, Taylor AW, Ohno H, Nakamoto H, Goto S. Regular training modulates the accumulation of reactive carbonyl derivatives in mitochondrial and cytosolic fractions of rat skeletal muscle. *Arch. Biochem. Biophys.* 2000; 383: (1) 114-118 , **IF: 2.576**, >>>
21. Radak Z, Kaneko T, Tahara S, Nakamoto H, Sasvari M, Nyakas C, Goto S. Regular exercise improves cognitive function and decreases oxidative damage in rat brain. *Neurochem. Int.* 2001; 38:17-23, **IF: 3.04** >>>
22. Goto S, Takahashi R, Kumiyama A, Radak Z, Hayashi H, Takenouchi M, Abe R. Implication of protein degradation in aging. *Ann. New York Acad Sci.*, 2001, 928:54-64. **IF: 1.593**, >>>
23. Radak Z, Sasvari M, Nyakas C, Kaneko T, Tahara S, Hideki Ohno, Goto S. Single bout of exercise eliminates the immobilization-induced oxidative stress rat brain. *Neurochem. Int.* 2001; 39:33-38, **IF: 3.04** >>>
24. Radak Z, Taylor AW, Sasvari M, Ohno H, Horkay B, Furesz J, Gaal D. Telomerase activity is not altered by regular strenuous exercise in skeletal muscle or by sarcoma in liver of rats. *Redox Report* 2001, 6:99-103, **IF: 1.017**,
25. Radak Z, A.W. Taylor, H. Ohno, S. Goto. Adaptation to oxidative stress. *Exercise Immun. Rev.* 2001, 7:90-97 **IF: 2.80**
26. Radak, Z. , H. Ogonovszky, A.W. Taylor and S. Goto. Exercise-induced alteration of oxidative DNA damage. *Adv. Exerc. Sports Physiol.* 2001; 7: 43-46.
27. Radak Z, Gaal D, Taylor AW, Kaneko T, Tahara S, Nakamoto H, Goto H. Attenuation of the development of murine solid leukemia tumor by physical exercise. *Antioxid. Redox Signal.* 2002, 4:213-219 >>>
28. Radak Z, Takahashi R, Kumiyama A, Nakamoto H, Ohno H, Ookawara T, and Goto S. Effect of aging and late onset dietary restriction on antioxidant enzymes and proteasome activities, and protein carbonylation of rat skeletal muscle and tendon. *Exp. Gerontol.* 2002, 37.1423-1430, **IF: 3.535** >>>
29. Radak Z, Naito H, Kaneko T, Tahara S, Nakamoto H, Takahashi T, Cardozo-Pelaez F and Goto S. Exercise training decreases DNA damage and increases DNA repair and resistance against oxidative stress of proteins in aged rat skeletal muscle. *Pflüger Archives Europ. J. Physiol.* 2002, 445: 273-278. **IF: 1.695** >>>

30. Radak Z, Apor P, Pucsuk J, Berkes I, Ogonovszky H, Pavlik G, Nakamoto H, Goto S. Marathon running alters the DNA base excision repair in human skeletal muscle. *Life Sciences* 2003: 1627-1633. **IF: 1.824** >>>
31. Radak Z, Ogonovszky H, Dubecz J, Pavlik G, Sasvari M, Pucsok J, Berkes I, Csont T, Ferdinandy P. Super-marathon race increases serum and urinary nitrotyrosine and carbonyl levels. *Europ. J. Clin. Invest.* 2003. 8: 726-730. **IF: 2.193** >>>
32. Tremblay M, Bussieres LM, Pettigrew FP, Fielding W, Noble EG, Radak Z, Taylor AW. Effect of diazepam on metabolic indices in trained and untrained rats. *Acta Physiol. Hung.* 2004;90:255-61.
33. Ohno, H., Ookawara T, Kizaki T, Hitomi Y, Oh-ishi S, Saitoh D, Kimoto K, Itoh C, Izawa T, Haga S, Suzuki K, Radak Z. Extracellular superoxide dismutase and lifestyle related diseases. *Curr. Top. Pharm. Sci.* 2004. 8:1-15
34. Radak Z, Taylor AW. Exercise and cancer. *J. Aging Physical Activity* 12: 246-248, 2004
35. Ohno H, Kizaki T, Suzuki K, Hitomi Y, Watanabe S, Ookawara T, Suzuki K, Haga S, Radak Z, Ji L. Physical Exercise and Extracellular Superoxide Dismutase: Antiatherogenic Effects. *Adv. Exerc. Sports Physiol.* 2004, 9: 42-49
36. Radak Z, Chung HY, Naito H, Takahashi R, Jung KJ, Kim HJ, Goto S. Age-associated increase in oxidative stress and nuclear factor kappaB activation are attenuated in rat liver by regular exercise. *FASEB J.* 2004 18:749-50. **IF: 6.9** >>>
37. Goto S, Radak Z, Nyakas C, Chung HY, Naito H, Takahashi R, Nakamoto H, Abe R. Regular exercise: an effective means to reduce oxidative stress in old rats. *Ann N Y Acad Sci.* 2004, 1019:471-474. **IF: 1.89** >>>
38. Bakonyi, T., Radak, Z. High altitude and free radicals. *J.Sport.Sci.Med.* 2004. 3:64-69 **IF: 0.29** >>>
39. Radak Z, Goto S, Nakamoto H, Udud K, Papai Z, Horvath I Lung cancer in smoking patients inversely alters the activity of hOGG1 and hNTH1 *Cancer Letter* 2005, 219: 191-195, **IF: 2.61** >>>
40. Ogonovszky H, Sasvári M, Dosek A, Berkes I, Kaneko T, Tahara S, Nakamoto H Goto S Radák Z The effects of moderate-, strenuous- and over-training on oxidative stress markers and DNA repair in rat liver. *Can. J. Appl. Physiol.* 2005, 30:186-195. **IF: 1.21** >>>
41. Radak Z, Chung HY, Goto S. Exercise and hormesis: Oxidative stress related adaptation for successful aging. *Biogerontology.* 2005, 6:71-75., **IF: 2.3** >>>
42. Ogonovszky, Berkes I, Kumagai S, Kaneko T, Tahara S Goto S Radák Z The effects of moderate-, strenuous- and over-training on oxidative stress markers, DNA repair and memory in rat brain. *Neurochem. Inter.* 2005, 46:635-640. **IF: 3.2** >>>
43. Toldy A, Stadler K, Sasvári M, Jakus J, Jung KJ, Chung HY, Berkes I, Nyakas C, Radák Z. The effect of exercise and nettle supplementation on oxidative stress markers in the rat brain. *Brain Res. Bul.* 2005, 65:487-493 **IF: 2.3** >>>
44. Suwa, M., Kisimoto, H., Nofuji, Y., Nakano, H., Sasaki, H., Radak, Z., Kumagai, S.: Serum brain-derived neurotrophic factor level is increased and associated with obesity in newly diagnosed female patients with type II diabetes. *Metabolism* 2006: 55:852-857, **IF: 2.2** >>>
45. Radak, Z., Toldy, A., Szabo, Z., Siamilis, S., Nyakas, C., Silye, G., Jakus, J., Goto, S. The effects of training and detraining on memory, neurotrophins and

- oxidative stress markers in rat brain. *Neurochem. Int.*, 2006, 49: 387-392, **IF:3.0 >>>**
46. Nakamoto H, Kaneko T, Tahara S, Hayashi E, Naito H, Radak Z, Goto S Regular exercise reduces 8-oxodG in the nuclear and mitochondrial DNA and modulates the DNA repair activity in the liver of old rats. *Exp. Gerontology*. 2007, 42: 287-295, **IF. 2.9 >>>**
 47. Radak, Z, Kumagai S, Nakamoto, H, Goto S. 8-oxoguanosine and uracil repair of nuclear and mitochondrial DNA in red and white skeletal muscle of exercise, trained old rats. *J. Appl. Physiol.* 2007, 102: 1696-1701, **IF: 3.6 >>>**
 48. Goto S, Takahashi R, Radak Z, Sharma R. Beneficial biochemical outcomes of late onset dietary restriction in rodents. *Ann NY Acad. Sci* 2007. 1100: 431-441. **IF. 1.8 >>>**
 49. Machefer, G., Groussard C., Vincent, S., Zouhal, H., Faure, H., Cillard, J., Radak, Z., Gratas-Delamarche A Multivitamin-Mineral Supplementation Prevents Lipid Peroxidation during “The Marathon des Sables”. *J Am Coll Nutr.* 2007, 26:111-120 **IF: 2.2 >>>**
 50. Dosek A, Ohno H, Acs Z, Taylor AW., Radak Z. High altitude and oxidative stress. *Resp. Physiol. Neurobiol.* 2007, 158: 128-131, **IF: 2.2 >>>**
 51. Goto S, Radak Z. Regular exercise attenuates oxidative stress in aging rat tissues: A possible mechanism toward anti-aging medicine. *J Exer Sci Fit.* 2007 5: 1-6
 52. Goto S, Kaneko T, Naito T, Chung HY, Radak Z. Hormetic effects of regular exercise in aging: correlation with oxidative stress. *Appl Phys. Nutr. Metab.* 2007, 32: 948-953 **IF: 1.00 >>>**
 53. Radak, Z, Kumagai, S, Taylor, A.W., Goto, . Effects of exercise on brain function: role of free radicals. *Appl. Physiol. Nutr. Metabolism* 2007, 32: 942-946 **IF: 1.00 >>>**
 54. Kumagai S, Nakano H, Nofuji Y, Radak Z. Exercise epidemiology on cognitive function and brain-derived neurotrophic factor. *Research in Exercise Epidemiology*, 2007, 6: 2-8.
 55. Radak, Z, Chung HY, Goto S. Systemic adaptation to oxidative challenge induced by regular exercise. *Free Radic. Biol. Med.* 2008 44:153-159 **IF: 4.8 >>>**
 56. Radak Z, Chung, HY, Koltai E, Taylor AW, Goto S. Exercise, oxidative stress and hormesis. *Aging Res. Rev.* 2008 7:34-42, **IF:6.3 >>>**
 57. Sakurai, T, Nishioka H, Fujii H, Nakano N, Kizaki T, Radak Z, Izawa T, Haga S, Ohno H. Antioxidative effects of a new lychee fruit-derived polyphenol mixture, oligonol, converted into a low-molecular form in adipocytes. *Biosci Biotechnol Biochem* 2008, 72:463-476. , **IF: 1.25 >>>**
 58. Suwa, M, Nakano, H. Radak, Z, Kumagai S. Endurance exercise increases the SIRT1 and PGC-1? protein expressions in rat skeletal muscle. *Metabolism* 2008, 57:986-998. **IF:2.6 >>>**
 59. Nofuji Y, Suwa M, Moriyam Y, Naqkano H, Ichimiya A, Nishichi R, Sasaki H, Radak, Z, Kumagai S. Decreased serum brain-derived neurotrophic factor in trained men. *Neurosci Lett.* 2008, 437:29-32 **IF. 2.1 >>>**
 60. Ji, LL, Radak Z, Goto S Hormesis and exercise: How the cell copes with oxidative stress. *Am. J. Pharm. Toxicol.* 3-41-55, 2008. **>>>**
 61. Savvas S, Jakus, J, Nyakas C, Costa A, Mihalik B, Falus A, Radak Z. The effect of exercise and oxidant-antioxidant intervention on the level of

- neurotrophins and free radicals in spinal cord of rats. *Spinal Cord*, 2008. in press, **IF. 1.59** >>>
62. Toldy A, Atalay M, Stadler K, Sasvári M, Jakus J, Jung KJ, Chung HY, Nyakas C, Radák Z. The beneficial effects of nettle supplementation and exercise on brain lesion and memory in rat. *J. Nutrition. Biochem.* In press, **IF: 3.4** >>>
 63. Radak Z, Atalay M, Jakus J, Boldogh I, Davies KJA, Goto S. Exercise improves import of 8-oxoguanine DNA glycosylase into the mitochondrial matrix of skeletal muscle and enhances the relative activity. *Free Radic. Biol. Med.* In press : **IF. 4.8** >>>
 64. Kinnunen S, Oksala N, Hyyppä S, Sen C K, Radak Z, Laaksonen D E, Szabó B, Jakus J, Atalay M. α -Lipoic acid modulates thiol antioxidant defences and attenuates exercise-induced oxidative stress in standardbred trotters. *Free Radical Research*. 2009. 43: 697-705.
 65. Suwa M, Yamamoto K, Nakano H, Sasaki H, Radak Z, Kumagai S. Brain-derived neurotrophic factor treatment increases the skeletal muscle glucose transporter 4 protein expression in mice. >>>
 66. Kruzel M L, Jeffrey K, Radak Z, Bacsí A, Saavedra-Molina A, Boldogh I. Lactoferrin decreases LPS-induced mitochondrial dysfunction in cultured cells and in animal endotoxemia model. >>>
 67. Szabo Z, Yinga Z, Radak Z, Gomez-Pinilla F. Voluntary exercise may engage proteasome function to benefit the brain after trauma. *Brain Research*. 2009. >>>
 68. Sakurai T, Kitadate K, Nishioka H, Fujii H, Kizaki T, Kondoh Y, Izawa T, Ishida H, Radák Z, Ohno H. Oligomerized grape seed polyphenols attenuate inflammatory changes due to antioxidative properties in coculture of adipocytes and macrophages. *Journal of Nutritional Biochemistry*. 2010. 21: 47–54. >>>
 69. Koltai E, Szabo Z, Atalay M, Boldogh I, Naito H, Goto S, Nyakas C, Radak Z. Exercise alters SIRT1, SIRT6, NAD and NAMPT levels in skeletal muscle of aged rats. *Mechanisms of Ageing and Development* 2010. 131: 21–28. >>>
 70. Goto S, Radak Z. Hormetic effects of reactive oxygen species by exercise: A view from animal studies for successful aging in human. *Dose-Response*. 2010. 8: 68–72. >>>
 71. Radak Z, Hart N, Sarga L, Koltai E, Atalay M, Ohno H, Boldogh I. Exercise plays a preventive role against Alzheimer's disease. *J Alzheimers Dis*. 2010;20(3):777-83. >>>
 72. Suwa M, Nakano H, Radak Z, Kumagai S. Short-term adenosine monophosphate-activated protein kinase activator 5-aminoimidazole-4-carboxamide-1- β -D-ribofuranoside treatment increases the sirtuin 1 protein expression in skeletal muscle. *Metabolism*. 2011 Mar;60(3):394-403. >>>
 73. Marton O, Koltai E, Nyakas C, Bakonyi T, Zenteno-Savin T, Kumagai S, Goto S, Radak Z. Aging and exercise affect the level of protein acetylation and SIRT1 activity in cerebellum of male rats. *Biogerontology*. 2010 Dec;11(6):679-86. >>>
 74. Radak Z, Boldogh I. 8-Oxo-7,8-dihydroguanine: links to gene expression, aging, and defense against oxidative stress. *Free Radic Biol Med*. 2010 Aug 15;49(4):587-96. >>>
 75. Radak Z, Bori Z, Koltai E, Fatouros IG, Jamurtas AZ, Douroudos II, Terzis G, Nikolaidis MG, Chatzinikolaou A, Sovatzidis A, Kumagai S, Naito H,

- Boldogh I. Age-dependent changes in 8-oxoguanine-DNA glycosylase activity are modulated by adaptive responses to physical exercise in human skeletal muscle. *Free Radic Biol Med.* 2011 Jul 15;51(2):417-23. >>>
76. Koltai E, Zhao Z, Lacza Z, Cselenyak A, Vacz G, Nyakas C, Boldogh I, Ichinoseki-Sekine N, Radak Z. Combined exercise and insulin-like growth factor-1 supplementation induces neurogenesis in old rats, but do not attenuate age-associated DNA damage. *Rejuvenation Res.* 2011 Dec;14(6):585-96.
77. Sasvari M, Taylor AW, Gaal D, Radak Z. The effect of regular exercise on development of sarcoma tumor and oxidative damage in mice liver. *Journal of Sport Science and Medicine* 2011 10:(1) pp. 93-96.
78. Radak Z, Zhao Z, Goto S, Koltai E. Age-associated neurodegeneration and oxidative damage to lipids, proteins and DNA. *Mol Aspects Med.* 2011 Aug;32(4-6):305-15. >>>
79. Hajas G, Bacsı A, Aguilera-Aguirre L, German P, Radak Z, Sur S, Hazra TK, Boldogh I. Biochemical identification of a hydroperoxide derivative of the free 8-oxo-7,8-dihydroguanine base. *Free Radic Biol Med.* 2011 Dec 1. >>>
80. Radak Z, Naito H, Taylor AW, Goto S. Nitric oxide: Is it the cause of muscle soreness? *Nitric Oxide.* 2011 Dec 28;26(2):89-94. >>>
81. Bori Z, Zhao Z, Koltai E, Fatouros IG, Jamurtas AZ, Douroudos II, Terzis G, Chatzinikolaou A, Sovatzidis A, Draganidis D, Boldogh I, Radak Z. The effects of aging, physical training, and a single bout of exercise on mitochondrial protein expression in human skeletal muscle. *Exp Gerontol.* 2012 Jun;47(6):417-24. Epub 2012 Mar 17. >>>
82. Degens H, Maden-Wilkinson TM, Ireland A, Korhonen MT, Suominen H, Heinonen A, Radak Z, McPhee JS, Rittweger J. Relationship between ventilatory function and age in master athletes and a sedentary reference population. *Age (Dordr).* 2012 Apr 28. [Epub ahead of print] >>>
83. Boldogh I, Hajas G, Aguilera-Aguirre L, Hegde ML, Radak Z, Bacsı A, Sur S, Hazra TK, Mitra S. Activation of ras signaling pathway by 8-oxoguanine DNA glycosylase bound to its excision product, 8-oxoguanine. *J Biol Chem.* 2012 Jun 15;287(25):20769-73. Epub 2012 May 8. >>>
84. Koltai E, Hart N, Taylor AW, Goto S, Ngo JK, Davies KJ, Radak Z. Age-associated declines in mitochondrial biogenesis and protein quality control factors are minimized by exercise training. *Am J Physiol Regul Integr Comp Physiol.* 2012 Jul;303(2):R127-34. Epub 2012 May 9. >>>
85. Marosi K, Felszeghy K, Mehra RD, Radak Z, Nyakas C. Are the neuroprotective effects of estradiol and physical exercise comparable during ageing in female rats? *Biogerontology.* 2012 Jun 22. [Epub ahead of print] >>>
86. Ogasawara J, Sakurai T, Kizaki T, Ishibashi Y, Izawa T, Sumitani Y, Ishida H, Radak Z, Haga S, Ohno H. Higher Levels of ATGL Are Associated with Exercise-Induced Enhancement of Lipolysis in Rat Epididymal Adipocytes. *PLoS One.* 2012;7(7):e40876. Epub 2012 Jul 16. >>>

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Könyvfejezet

1. Radak, Z. and Goto, S. The effects of exercise, aging and caloric restriction on protein oxidation and DNA damage in skeletal muscle. In *Oxidative Stress and Skeletal Muscle*, Reznick, A.Z eds. Birkhauser, 89-104, Basel, 1998

2. Suzuki, K., H. Ohno, S. Oh-ishi, T. Ookawara, J. Fujii, Z. Radak, N. Taniguchi. Superoxide dismutases in exercise and disease. In. Exercise and Oxygen Toxicity. C.K. Sen, L. Packer, H. Hanninen eds. Elsevier, 243-295, Amsterdam, 2000
3. Radak, Z. and Goto, S. Oxidative modification of proteins and DNA, In; Free Radicals in Exercise and Aging, Radak Z. eds. 177-209, Human Kinetics, Champaign, IL, 2000
4. Oh-ishi, S., Heinecke J.W., Ookawara, T., Kizaki, T., Miyazaki, H., Haga, S., Radak, Z., Ohno, H. Role of lipid and lipoprotein oxidation. In; Free Radicals in Exercise and Aging, Radak Z. eds. 211-258, Human Kinetics, Champaign, IL, 2000
5. Ohno H, Suzuki K, Hitomi Y, Kizaki T, Nukita M, Haga S, Noguchi I, Radak Z, Kobayashi K, Ohnuki Y, Mori S, Miyamura M. Gene expression at high altitude. In. Human Adaptation in Antarctica and Extreme Environments. Edited. Piamo S. Springer Verlag, page 8-17, 2002.
6. Radak Z. DNA damage and repair. In Molecularbiology for Exercise Science, edited by. H. Naito. NAP Limited, 150-165, 2004 (Japanese).
7. Goto S, Radak Z, Takahashi R. Biological implications of protein oxidation. In. Critical Reviews of Oxidative Stress and Aging. Advances in Basic Science, Diagnostics and Intervention. Volume I and II (editors R. G. Cutler and H. Rodriguez, World Scientific Publishing Co. Ltd., 2003) pp. 350-365
8. Radak, Z., Goto S. Protein metabolism. In Molecular and Cellular Exercise Physiology, (edited: Mooren F, Karuse M) 70-91p. Human Kinetics, Champaign, IL, 2005
9. Atlétika (technika, oktatás, edzés) szerkesztő, Takács László, TF. Bp. 1993

Szerkesztett könyvek

1. Szerkesztő : **Free Radicals in Exercise and Aging**, Radak Z. eds. Human Kinetics, Champaign , IL , 2000
2. Szerkesztő: **Exercise and Diseases**. Radak Z, eds. Meyer and Meyer, (2005)
[>>>](#)

Magyar nyelvű publikációk

1. Radák Z., Új erőfejlesztő gép. Atlétika, 1985/6 3-6
2. Radák Z., Felugrásos teszt Atlétika, 1987/9 13-15
3. Radák Z., Erődeficit Atlétika, 1990/6 10-13
4. Radák Z., Változnak a kidobási szögek a dobószámokban. Atlétika, 1994/5 8-11
5. Radák Z., Tanaka, K., Takeda, M. , Mizuno K., Asano, K. A Légzés és szérum káliumszint kapcsolata egyszeri maximális magaslati fizikai terhelés alatt. Testnevelés és sporttudomány 1997. 28:3-7.
6. Radák Z., Magaslati edzés Atlétika, 1997/8 24-26
7. Radák Z., Időszerű kérdések a sportolók táplálkozásában. Atlétika, 1997/10 10-13
8. Radák, Z. Formábahozás mérésének lehetőségei. Magyar edző, 1999/3:9-10.
9. Ogonovszky H., Radák Z. Túledzés. Magyar edző, 2002/1, 4-15
10. Radák Z. Rövid távú regeneráció sajátosságai. Magyar edző, 2002/3, 6-7

11. M, Radak Z. Fájdalom és opioidok. Orvosi Hetilap. 2008. 149: 2363–2370.

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