# Chariklia K. Deli, Ph.D.

Chariklia (Chara) K. Deli is an Assistant Professor in Exercise Physiology in the Department of Physical Education and Sport Sciences of the University of Thessaly (based in Trikala, Greece) since February 2019. She was born and raised in Trikala (Greece). She studied (1990-1994) Exercise Science in the Department of Physical Education and Sport Sciences of the National and Kapodistrian University of Athens (Athens, Greece) where she was specialized in track and field coaching. She received her Masters of Science (2009) in Exercise Physiology from University of Thessaly (Trikala, Greece) where she completed a thesis on strength imbalances in athletes. She received her Doctor of Philosophy (2016) from the University of Thessaly (Trikala, Greece) in Exercise Science. Her Ph.D. Dissertation was on Exercise Physiology and Exercise Biochemistry (the effect of eccentric exercise and iron supplementation on blood redox status and muscle performance in adults and children). During her studies, she received scholarships for teaching and research.

She has been working in the Hellenic University system since 2011. She started as a lecturer (2011-2016) and continued as an Academic Scholar (2016-2018) in the Department of Physical Education and Sport Sciences of the University of Thessaly (Trikala, Greece). She became an Assistant Professor in the same department in 2019. As a lecturer she taught courses in Exercise Physiology, Laboratory assessment of athletic performance, Teaching of track and field. Currently she teaches courses in Exercise Physiology, Ergometry - Ergospirometry, Resistance Exercise Training, and Strength and Conditioning Specialization. She also teaches in three Masters Programs and is currently the supervisor of two postgraduate and three undergraduate students. She is a reviewer for 11 international academic journals. She has also served as the head lab manager in the "Centre for Research and Evaluation of Physical Performance", University of Thessaly, Greece (2009-2018).

Ass. Prof. Deli also teaches at Non Commissioned Officer Army Academy, Hellenic Army, Higher Education Army Academy, Trikala, Greece (2014-present). She has also worked as Physical education teacher (2010) in the Ministry of Education and Religious Affairs, Secondary Education Directorate (Greece) and Primary Education Directorate (Greece), and in Athletic Departments of Greek General Secretariat of Athletics (2008-2009).

Ass. Prof. Deli has also a long-lasting experience as a track and field athlete and coach (2006 – present). She has also worked extensively in the private sector as a fitness trainer (1995-2010) and performance exercise physiologist (2011-present).

### Research Interests

Ass. Prof. Deli is a member of the Laboratory of Exercise Biochemistry, Physiology and Sport Nutrition (also known as SmArT Lab) which is directed by Professors Fatouros and Jamurtas, and is part of the Center of Evaluation of Physical Performance in the Department of Physical Education and Sport Sciences of the University of Thessaly. The main research interests of Ass. Prof. Deli are:

- Exercise-Induced inflammation. We are studying the events characterizing skeletal muscle damage and healing following various sports and exercise training modalities in an attempt to understand the molecular mechanisms regulating recovery in athletes and non-athletes. We use molecular, histochemical, biochemical and functional methods to understand how the muscle copes with the exercise stress and recovers. As such, the immune system, skeletal muscle redox status, inflammatory markers, adaptations at DNA/RNA level, signaling pathways in muscle, hormones and satellite cell regulation are targets of our research.
- Sports nutrition. We study how administration of various antioxidants affect the process of exercise-induced inflammation and recovery in sports and training. We also investigate how various nutrients affect the anabolic response of skeletal muscle as well as the health of adults with non-communicable diseases.
- Strength and Conditioning. We are studying the recovery kinetics of various sports and exercise modalities in order to better design a training microcycle. We also conduct training studies. We are one of the most active research groups in football science worldwide and have collaborations with the European (UEFA) and the Hellenic Football Federation.
- Exercise and aging. We are studying the short- and long-term effects of exercise on the health of the aged (e.g. sarcopenia, low-grade systemic inflammation) both at molecular and functional level.
- Exercise and obesity. We have a long-term record in studies in adults and children with obesity. We are using various exercise modalities to investigate their effects not only on body mass and body composition but also on their cardiometabolic risk at molecular and functional level.
- *Pediatric exercise science*. We study metabolic, performance and skeletal growth adaptations of pre-adolescents to reduced or increased physical activity and/or sports participation.
- Non-communicable diseases. We investigate how exercise training affects the health of adults with non-communicable diseases.

Our research is based on extensive collaborations with various esteem research groups from abroad and Greece (as seen in our publications). Our international colleagues come from USA, Australia, Spain, UK, Denmark, Hungary, Italy, Switzerland.

# Articles in Refereed Scientific Journals

#### Publications in Strength and Conditioning

1. Tzatzakis T, Papanikolaou K, Draganidis D, Tsimeas P, Kritikos S, Poulios A, Laschou VC, Deli CK, Chatzinikolaou A, Batrakoulis A, Basdekis G, Mohr M, Krustrup P, Jamurtas AZ, Fatouros IG. Recovery kinetics after speed-endurance training in male soccer players. Int J Sports Physiol Perform, 15(3): 395-408, 2020.

Impact factor: 3.979

2. Panagoulis, C, Chatzinikolaou, A, Avloniti, A, Leontsini, D, **Deli**, CK, Draganidis, D, Stampoulis, T, Oikonomou, T, Papanikolaou, K, Rafailakis, L, Kambas, A, Jamurtas, AZ, Fatouros, IG. In-season integrative neuromuscular strength training improves performance of early-adolescent soccer athletes. **J Strength Cond Res**, 34(2): 516-526, 2020.

Impact factor: 3.017

3. Papanikolaou K, Jamurtas AZ, Draganidis D, Chatzinikolaou A, Laschou V, Deli CK, Georgakouli K, Tsimeas P, Batrakoulis A, Fatouros IG. Design and rationale for a clinical trial to investigate the redox-dependent regulation of satellite cells following aseptic muscle trauma. **Trials**, 20(1): 469, 2019.

Impact factor: 1.975

4. Papanikolaou KD, Chatzinikolaou A, **Deli CK**, Pontidis T, Avloniti A, Leontsini D, Draganidis D, Tsimeas P, Jamurtas AZ, Krustrup P, Mohr M, Fatouros. IG. Yo-Yo intermittent endurance level 2 test: reliability of performance scores, physiological responses and overload characteristics in competitive football, basketball and volleyball players. J Hum Kinet, 67: 223-233, 2019.

Impact factor: 1.414

5. Jamurtas AZ, Fatouros IG, Deli CK, Georgakouli K, Poulios A, Draganidis D, Papanikolaou K, Tsimeas P, Chatzinikolaou A, Avloniti A, Tsiokanos A, Koutedakis Y. The effects of acute lowvolume HIIT and aerobic exercise on leukocyte count and redox status. **J Sports Sci Med**, 17(3):501-508, 2018.

Impact factor: 1.774

6. Chatzinikolaou A, Michaloglou K, Avloniti A, Leontsini D, Deli CK, Vlachopoulos D, Gracia-Marco L, Arsenis S, Athanailidis I, Draganidis D, Jamurtas AZ, Williams CA, Fatouros IG. The trainability of adolescent soccer players to brief periodized complex training. **Int J Sport Physiol Perform**, 13(5): 645-655, 2018.

Impact factor: 3.979

7. Ypatios Spanidis, Dimitrios Stagos, Christina Papanikolaou, Konstantina Karatza, Andria Theodosi, Aristidis S. Veskoukis, Chariklia K. Deli, Athanasios Poulios, Sofia D. Koulocheri, Athanasios Z. Jamurtas, Serkos A. Haroutounian, Demetrios Kouretas (2018). Resistance-Trained Individuals Are Less Susceptible to Oxidative Damage after Eccentric Exercise. Oxidative Medicine and Cellular Longevity. 2018:6857190. doi: 10.1155/2018/6857190. eCollection 2018.

Impact factor: 4.868

8. Draganidis D, Chatzinikolaou A, Avloniti A, Barbero-Álvarez JC, Impact factor: 2.776 Mohr M, Malliou P, Gourgoulis V, Deli CK, Douroudos II, Margonis K, Gioftsidou A, Jamurtas AZ, Koutedakis Y, Fatouros IG. Recovery kinetics of Knee Flexor and Extensor Strength after a Football Match. **PLoS ONE** 10(6): e0128072, 2015.

9. Jamurtas AZ, Douroudos II, **Deli CK**, Draganidis D, Chatzinikolaou A, Mohr M, Avloniti A, Barbero-Álvarez JC, Margonis K, Mavropalias G, Stampoulis T, Giannakidou D, Flouris AD, Koutedakis Y, Fatouros IG. Iron status markers are only transiently affected by a football game. **J Sports Sci.** 33(20): 2088 – 2099, 2015.

Impact factor: 2.811

10. Stagos D, Goutzourelas N, Ntontou AM, Kafantaris I, Deli CK, Poulios A, Jamurtas AZ, Bar-Or D, Kouretas D. (2015). Assessment of eccentric exercise-induced oxidative stress using oxidationreduction potential markers. Oxid Med Cell Longev. 2015:204615.

Impact factor: 4.868

11. Deli C.K., Paschalis V., Theodorou A.A., Nikolaidis M.G., Jamurtas A.Z., Koutedakis Y (2011). Isokinetic Knee Joint Evaluation in Track and Field Events. Journal of Strength and Conditioning Research. Sep;25(9):2528-36.

Impact factor: 3.017

### Publications in Sports Nutrition

12. Poulios AS, Georgakouli K, Draganidis D, Deli CK, Tsimeas D, Chatzinikolaou A, Papanikolaou K, Batrakoulis A, Mohr M, Jamurtas AZ, Fatouros IG. Protein-based supplementation to enhance recovery in team sports: what is the evidence? Journal of **Sports Sci Med**, 18(3): 523-536, 2019.

Impact factor: 1.774

13. Yfanti C, Deli CK, Georgakouli K, Fatouros I, Jamurtas AZ. Nutrition, redox homeostasis and toxicity in sport performance. **Curr Opinion Toxicol**, 13: 45-67, 2019.

Impact factor: -

14. Jamurtas AZ, **Deli CK**, Georgakouli K, Fatouros IG. (2019). Glycemic Index, Food Exchange Values and Exercise Performance, In: Debasis Bagchi, Sreejayan Nair, Chandan K. Sen (Eds), Nutrition and Enhanced Performance: Muscle Building, Endurance & Strength (2nd Ed), Elsevier, USA, pp: 11-29.

Impact factor: -

15. Georgakouli K, Fatouros IG, Fragkos A, Tzatzakis T, Deli CK, Papanikolaou K, Koutedakis Y, Jamurtas AZ. Exercise and redox status responses following alpha-lipoic acid supplementation in G6PD deficient individuals. Antioxidants, 7: 162, 2018.

Impact factor: 4.520

16. Poulios A, Fatouros IG, Mohr M, Draganidis D, Deli CK, Papanikolaou K, Sovatzidis A, Nakopoulou T, Ermidis G, Tzatzakis T, Laschou V, Georgakouli K, Koulouris A, Tsimeas P, Chatzinikolaou A, Karagounis L, Batsilas D, Krustrup P, Jamurtas AZ. Protein supplementation improved recovery of football-

Impact factor: 4.171

- specific performance in response to repeated matches: Results from the PRO-FOOTBALL study. Nutrients, 16;10(4). pii: E494, 2018.
- 17. Ypatios Spanidis, Aristidis S. Veskoukis, Christina Papanikolaou, Dimitrios Stagos, Alexandros Priftis, Chariklia K. Deli, Athanasios Z. Jamurtas, and Demetrios Kouretas (2018). Exercise-Induced Reductive Stress Is a Protective Mechanism against Oxidative Stress in Peripheral Blood Mononuclear Cells. Oxidative Medicine and Cellular Longevity, 2018 Oct 11;2018:3053704. doi: 10.1155/2018/3053704. eCollection 2018.

Impact factor: 4.868

18. **Deli CK,** Poulios A, Georgakouli K, Papanikolaou K, Papoutsis A, Selemekou M, Karathanos VT, Draganidis D, Tsiokanos A, Koutedakis Y, Fatouros IG, Jamurtas AZ. The Effect of pre-exercise ingestion of corinthian currant on endurance performance and blood redox status. J Sports Sci, published on line, 36(19): 2172-80, 2018.

Impact factor: 2.811

19. Draganidis D, Chondrogianni N, Chatzinikolaou A, Terzis G, Karagounis L, Sovatzidis A, Avloniti A, Lefaki M, Protopappa M, Deli CK, Papanikolaou K, Jamurtas AZ, Fatouros IG. Protein ingestion preserves proteasome activity during intense aseptic inflammation and facilitates skeletal muscle recovery in humans. Br J Nutr, 118(3): 189-200, 2017.

Impact factor: 3.302

20. Yfanti C, Tsiokanos A, Fatouros IG, Theodorou AA, Deli CK, Koutedakis Y, Jamurtas AZ. Chronic eccentric exercise and antioxidant supplementation: effects on metabolic profile. J Sports Sci Med, 16, 375-382, 2017.

Impact factor: 1.774

21. **Deli CK,** Fatouros IG, Paschalis V, Tsiokanos A, Georgakouli K, Zalavras A, Avloniti A, Koutedakis Y, Jamurtas AZ. Iron supplementation effects on redox status and exercise performance following aseptic skeletal muscle trauma. Oxid Med Cell Longevity, Volume 2017, Article ID 4120421.

Impact factor: 4.868

22. Manthou E, Georgakouli K, **Deli CK**, Sotiropoulos A, Fatouros I, Kouretas D, Matthaiou C, Koutedakis Y, Jamurtas AZ. Effects of pomegranate juice consumption on biochemical parameters and complete blood count. **Exp Ther Med**, 14(2) 1756-1762, 2017.

Impact factor: 1.448

23. Manthou E, Kanaki M, Georgakouli K, **Deli CK**, Kouretas D, Koutedakis Y, Jamurtas AZ. Glycemic response of a carbohydrateprotein bar with ewe-goat whey. Nutrients. 6(6):2240-50. doi: 10.3390/nu6062240. 2014.

Impact factor: 4.171

24. Chariklia K. Deli, Ioannis G. Fatouros, Yiannis Koutedakis and Athanasios Z. Jamurtas. (2013). Iron Supplementation and Physical Performance, In: Michael Hamlin (Ed.), Current-issues-in-sportsand-exercise-medicine, InTech, Rijeka, Croatia; pp. 141-168.

Impact factor: -

25. Georgakouli K, **Deli CK**, Zalavras A, Fatouros IG, Kouretas D, Koutedakis Y, Jamurtas AZ. α-Lipoic acid supplementation upregulates antioxidant capacity in adults with G6PD deficiency. Food **Chem Toxicol**, 61:69-73, 2013.

Impact factor: 3.775

#### Publications in Exercise for Non-Communicable diseases and Aging

26. Batrakoulis A, Loules G, Tsimeas P, Draganidis D, Chatzinikolaou Impact factor: 2.376 A, Papanikolaou K, **Deli CK**, Georgakouli K, Syrou N, Theodorakis Y, Comoutos N, Jamurtas AZ, Fatouros IG. High-intensity interval neuromuscular training promotes behavioral modification, weight loss and adherence in previously inactive obese women. Eur J Sport Sci, 16:1-10. doi: 10.1080/17461391.2019.1663270, epub, 2020.

27. Georgakouli K, Stamperna A, **Deli CK**, Syrou N, Draganidis D, Fatouros IG, Jamurtas AZ. The effects of postprandial resistance exercise on blood glucose and lipids in prediabetic, beta-thalassemia major patients. **Sports**, 26(8): 57, 2020.

Impact factor: -

28. Batrakoulis A, Fatouros IG, Jamurtas AZ, Chatzinikolaou A, Draganidis D, Papanikolaou K, Georgakouli K, Deli CK, Tsimeas P. Dose-response effects of high-intensity interval neuromuscular training on weight loss, performance, health and quality of life in inactive obese adults: Study rationale, design and methods of the DoIT trial. Contemp Clin Trials Commun, 23;15:100386, 2019.

Impact factor: 2.280

29. Tofas T, Draganidis D, Deli CK, Georgakouli K, Fatouros IG, Jamurtas AZ. Exercise-induced regulation of redox status in cardiovascular diseases: The role of exercise training and detraining. **Antioxidants**, 9(1): 13, 2019.

Impact factor: 4.520

30. Georgakouli K, Fatouros IG, Draganidis D, Papanikolaou K, Tsimeas P, **Deli CK**, Jamurtas AZ. Exercise in glucose-6-phosphate dehydrogenase deficiency: harmful or harmless? a narrative review. Oxid Med Cell Longevity, 2019:8060193, 2019.

Impact factor: 4.868

31. Draganidis D, Jamurtas AZ, Stampoulis T, Laschou V, Deli CK, Georgakouli K, Papanikolaou K, Chatzinikolaou A, Michalopoulou M, Tsimeas P, Papadopoulos C, Chondrogianni N, Koutedakis Y, Karagounis LG, Fatouros IG. Disparate habitual physical activity and dietary intake profiles of elderly men with low and elevated systemic inflammation. **Nutrients**, 4;10(5). pii: E566, 2018.

Impact factor: 4.171

32. Batrakoulis A, Jamurtas AZ, Georgakouli K, Draganidis D, Deli CK, Papanikolaou K, Avloniti A, Chatzinikolaou A, Leontsini D, Tsimeas P, Komoutos N, Bouglas V, Michalopoulou M, Fatouros IG. High intensity, circuit-type integrated neuromuscular training alters energy balance and reduces body mass and fat in obese women: A 10-month training-detraining randomized controlled trial. **PLOS** One, 13(8):e0202390, 2018.

Impact factor: 2.776

33. Georgakouli K, Fatouros IG, Fragkos A, Tzatzakis T, Deli CK, Papanikolaou K, Koutedakis Y, Jamurtas AZ. Exercise and redox status responses following alpha-lipoic acid supplementation in G6PD deficient individuals. Antioxidants, 7: 162, 2018.

Impact factor: 4.520

34. Georgakouli K, Manthou E, Fatouros I, Georgoulias P, Deli CK, Koutedakis Y, Theodorakis Y, Jamurtas AZ. Enhanced erythrocyte

Impact factor: 2.006

- antioxidant status following an 8-week aerobic exercise training program in heavy drinkers. Alcohol, 69: 57-62, 2018.
- 35. Georgakouli K, Manthou E, Fatouros IG, **Deli CK**, Spandidos DA, Tzatzakis AM, Kouretas D, Koutedakis Y, Theodorakis Y, Jamurtas AZ. Effects of acute exercise on liver function and blood redox status in heavy drinkers. Exp Ther Med, 10(6):2015-2022, 2015.

Impact factor: 1.448

36. Antonios Stavropoulos-Kalinoglou, Chariklia K. Deli, George D Kitas, Athanasios Z Jamurtas (2014). Muscle wasting in rheumatoid arthritis: The role of oxidative stress. **World J Rheumatol.** 12; 4(3): 44-53. doi: 10.5499/wjr.v4.i3.44.

Impact factor: -

37. Panayiotou G, Paschalis V, Nikolaidis MG, Theodorou AA, Deli CK, Fotopoulou N, Fatouros IG, Koutedakis Y, Sampanis M, Jamurtas AZ. No adverse effects of statins on muscle function and health-related parameters in the elderly: An exercise study. Scand J **Med Sci Sports,** 23(5): 556-567, 2013.

Impact factor: 3.631

38. Jamurtas AZ, Garyfallopoulou A, Theodorou AA, Zalavras A, Paschalis V, Deli CK, Nikolaidis MG, Fatouros IG, Koutedakis Y. A single bout of downhill running transiently increases HOMA-IR without altering adipokine response in healthy adult women. Eur J **Appl Physiol**, 113(12): 2925-2932, 2013.

Impact factor: 3.055

39. Vassilis Paschalis, Michalis G. Nikolaidis, Anastasios A. Theodorou, Chariklia K. Deli, Athanasios Z. Jamurtas, Giannis Giakas, Yiannis Koutedakis. The Effects of Eccentric Exercise on Muscle Function and Proprioception of Individuals Being Overweight and Underweight. Journal of Strength and **Conditioning Research.** Sep;27(9):2542-51. 2013.

Impact factor: 3.017

#### Publications in Pediatric Exercise Science

40. Ubago-Guisado E, Vlachopoulos D, Moreno L, Courteix, D, Fatouros IG, Deli CK, Leontsini D, Gracia-Marco L. Longitudinal determinants of 12-month changes on bone health in adolescent male athletes. **Arch Osteoporosis**, 10;13(1):106, 2018.

Impact factor: 2.469

41. Avloniti A, Chatzinikolaou A, Deli CK, Vlachopoulos D, Gracia-Marco L, Leontsini D, Mastorakos G, Jamurtas A, Fatouros IG. Exercise-induced oxidative stress responses in the pediatric population. **Antioxidants** (Basel). 2017 Jan 17;6(1).

Impact factor: 4.520

42. **Deli, C.K.,** Fatouros, I.G., Paschalis, P., Georgakouli, K., Zalavras, A., Avloniti, A., Koutedakis, Y., & Jamurtas A.Z. A Comparison of exercise-induced muscle damage following maximal eccentric contractions in men and boys. Ped Exerc Sci, 29(3): 316-325, 2017.

Impact factor: 1.707

43. Zalavras A, Fatouros, IG, Deli CK, Draganidis D, Soulas D, Koutsioras Y, Theodorou AA, Koutedakis Y, Jamurtas AZ. Agerelated responses in circulating markers of redox status in healthy Impact factor: 4.868

adolescents and adults during the course of a training macrocycle. **Oxid Med Cell Longevity**, Volume 2015: article ID 283921, 2015.

#### CUMULATIVE DATA ON SCIENTIFIC PUBLICATIONS

Total number of publications (accepted and published manuscripts)	43
Total impact factor	~124.19 <sup>a</sup>
Impact factor per publication	3.268
• Total citations	414 <sup>b</sup>
Citations per publication	~12
• H-index	12

<sup>&</sup>lt;sup>a</sup> most recent five-year impact factor assigned to journals by Thompson ISI Yearly Reports <sup>b</sup> Sources: Google Scholar (include book citations as well)

# **Book Chapters**

- 1. Jamurtas AZ, Deli CK, Georgakouli K, Fatouros IG. Glycemic Index, Food Exchange Values and Exercise Performance, In: Debasis Bagchi, Sreejayan Nair, Chandan K. Sen (Eds), Nutrition and Enhanced Performance: Muscle Building, Endurance & Strength (2nd Ed), Elsevier, USA, pp: 11-29. 2019.
- 2. Deli CK, Fatouros IG, Koutedakis Y, Jamurtas AZ. Iron Supplementation and Physical Performance (accepted for publication, Book ISBN 980-953-307-834-7). In Hamlin M, Draper N, Kathiravel Y. (Eds), Sports Medicine and Sports Injuries (pp. 142-168), Rijeka, Croatia: InTech Publications, 2013.