

CV of Prof. Dr. Hasan Birol Çotuk

Current Title and Affiliation

Professor, Dr. Med.

Sport Health Sciences Department
School of Physical Education and Sport
Marmara University



Contact

BESYO, Marmara Üniversitesi Anadoluhisarı Yerleşkesi, Cumayolu caddesi,
34810 Beykoz, İstanbul, Türkiye
Phone: +90 216 332 37 01
Mobile phone: +90 533 432 64 14
Fax: +90 216 332 16 20
Email: hbcotuk@marmara.edu.tr

Education

1977 - 1984 Medicine - Medical Faculty, RWTH Aachen (Germany)
1993 - 1996 Doctor of Medicine – Institute of Physiology, RWTH Aachen (Germany)
Supervisor: Prof. Dr. Med. Holger Schmid-Schönbein
Thesis: Dilatancy and rheopexy of flow of myeloma blood after injection of radio contrast media

Work Experience

2005 - current Head of Sport Health Sciences Department
2011 - 2015 Director of School of Physical Education and Sport, Marmara University
2008 - 2014 Board Member of Institute of Health Sciences, Marmara University
1993 - current Scholar, Sport Health Sciences Department
1984 - 1993 Physician in Community, Psychiatry and Military

Research Topics

The guiding topic of research is to investigate psycho-physiological processes in the context of dynamic systems theories as Synergetics. The complex interaction of environmental contingencies with body systems, especially in extreme conditions is one major focus. Environmental physiology, neuroscience, psychophysiology and exercise/sport sciences are the major areas of research activities.

Academic Activities related to Space Life Sciences

Corresponding Member of Turkey for Life Sciences of the IAA since July 2015

- Organizer of the** 1st International Symposium on Space Life Sciences - UBM 2014
November 21 - 22, 2014 Marmara University, Istanbul, Turkey (ubm2014.etkinlik.marmara.edu.tr)
- Organizer of the** Transdisciplinary Day 2011
Meeting of Civil, Marine and Air Force Institutions on Air Force & Space Medicine, Biomedical Engineering, Underwater & Hyperbaric Medicine, and Exercise Sciences.
January 29, 2011 Marmara University, Istanbul, Turkey
- Presenter at the** 20th IAA Humans in Space Symposium
June 29 – July 3, 2015 Prague, Czech Republic
- Presenter at the** 6th International Congress of Medicine in Space and Extreme Environments (ICMS) - Spacearth
September 16 - 19, 2014 Berlin, Germany
- Participant at the** 19th IAA Humans in Space Symposium
Linking the Challenges of Space Exploration with Medicine on Earth
July 7-12, 2013, Cologne, Germany
- Participant at the** 5th International Congress of Medicine in Space and Extreme Environments (ICMS)
October 18 - 21, 2010 Berlin, Germany
- Member of the** NATIONAL SCIENTIFIC ADVISORY BOARD of the Turkish Arctic & Antarctic Research Program

Research Publications on Extreme Environments

Çotuk HB, Duru AD, Pelvan SO, Karagozoglu C, Ates O, Bereket S, Perlitz V
Four-dimensional recording of autonomous nervous system activity
20th IAA Humans in Space Symposium, June 29 – July 3, 2015 Prague, Czech Republic

Ates O, Ööpik V, Jagomägi K, Talts J, Raamat J, **Çotuk HB**.
Cardiovascular regulation during orthostatic challenge in the heat after exercise-heat acclimation.
6th International Congress of Medicine in Space and Extreme Environments (ICMS) - Spacearth
September 16 - 19, 2014 Berlin, Germany

Jagomägi K, Ates O, Talts J, Raamat R, **Çotuk HB**, Burk A, Karelson K, Ööpik V, Traks T, Kivastik J.
Effects of heat stress on blood pressure and heart rate variability in young men.
International Symposium on Biomedical Engineering and Medical Physics,
10-12 October, 2012, Riga, Latvia. IFMBE Proceedings Volume 38, 2013, pp 103-106

Hoffmann U, Dräger T, Özen Ş, **Çotuk HB**.
Cardiovascular responses to apnea during dynamic exercise and breath-hold underwater swimming.
Proceedings of the International Conference on Diving and Hyperbaric Medicine, 2005. Desola J (Ed). Barcelona, S. 42-44

Research Publications on Neuroscience and Psychophysiology

Perlitz V, **Çotuk HB**, Besting A, Müller G, Lambertz M, Maass N, Heindrichs U.

Synergetik der autogenen psychophysischen Entspannung.

In: Neurobiologie der Psychotherapie. Schiepek G (Hrsg). Schattauer, Stuttgart-New York 2011; S. 211-232

Perlitz V, **Çotuk HB**, Lambertz M.

Die dynamische Koordination zentraler und vegetativer Prozesse bei Entspannung und Autogenem Training.

In: Synergetik in der Psychologie. Selbstorganisation Verstehen und Gestalten. Haken H, Schiepek G (Hrsg). Hogrefe, Göttingen 2006; S 343-356

Perlitz V, Lambertz M, **Çotuk HB**, Flatten G, Petzold ER, Schmid-Schönbein H, Langhorst P.

Drive dependent neural functional of the self-organisation of global drive reduction: an interspecies comparison.

Psychotherapie Psychosomatik Medizinische Psychologie FEB 2006 Volume: 56 Issue: 2 Pages: 100-100

Ernst JP, Besting A, **Çotuk HB**, Schiepek G, Petzold ER, Perlitz V.

Neuronal pattern of forehead-skin blood circulation - The 0.15-Hz-rhythm band as indicator of acoustic induced vegetative stress reactions.

Psychotherapie Psychosomatik Medizinische Psychologie FEB 2005 Volume: 55 Issue: 2 Pages: 97-98

Besting A, Ernst JP, **Çotuk HB**, Lambertz M, Perlitz V.

Quantification of vegetative time-frequency pattern. A methodical study.

Psychotherapie Psychosomatik Medizinische Psychologie FEB 2005 Volume: 55 Issue: 2 Pages: 120-121

Ernst JP, Besting A, **Çotuk HB**, Grebe R, Lambertz M, Perlitz V.

Synchronization of neuronal hemoperfusion pattern in forehead skin circulation: a methodical PPG study.

Psychotherapie Psychosomatik Medizinische Psychologie FEB 2005 Volume: 55 Issue: 2 Pages: 126-126

Lampmann V, **Çotuk HB**, Lambertz M, Petzold ER, Schmid-Schonbein H, Perlitz V.

Studying pain: Identification of nociceptive vegetative reactions with the help of the 0,15-Hz-rhythm band in blood circulation of the forehead.

Psychotherapie Psychosomatik Medizinische Psychologie FEB 2005 Volume: 55 Issue: 2 Pages: 139-139

Perlitz V, Lampmann M, Ernst JP, Besting A, **Çotuk HB**, Schmid-Schönbein H, Petzold ER.

Teaching pain: Physiology and psychosomatics of nociception. Rhythms of forehead blood circulation in acute toothache. - An integrative pain internship,

Psychotherapie Psychosomatik Medizinische Psychologie Feb 2005 Volume: 55 Issue: 2 Pages: 144-144

Perlitz V, **Çotuk HB**, Lambertz M, Grebe R, Schiepek G, Petzold Er, Schmid-Schönbein H, Flatten G.

Coordination dynamics of circulatory and respiratory rhythms during psychomotor relaxation.

Autonomic Neuroscience 115 (1-2), 2004, S. 82-93

Perlitz V, **Çotuk HB**, Schiepek G, Sen A, Haberstock S, Schmid-Schönbein H, Petzold Er, Flatten G.

Synergetik der Hypnoiden Relaxation.

Psychother. Psych. Med. 54 (6), 2004, S.250-258

Perlitz V, Lambertz M, **Çotuk HB**, Grebe R, Vandenhouten R, Flatten G, Petzold ER, Schmid-Schönbein H, Langhorst P. Cardiovascular rhythms in the 0.15 hz band: common origin of identical phenomena in man and canine in the reticular formation of the brain stem.

Pflügers Archiv – European Journal of Physiology 448 (6), 2004, S. 579-592

Perlitz V, **Çotuk HB**, Haberstock S, Petzold ER.

Selbstorganisation kutaner Perfusionsrhythmik bei therapeutisch Induzierter psychovegetativer Entspannung.

In: Neurobiologie der Psychotherapie. Schiepek G (Hrsg). Schattauer, Stuttgart-New York 2003; S. 325-348

Çotuk HB, Perlitz V, Petzold ER, Schmid-Schönbein H.

N: M phase synchronization between respiration and cutaneous hemoperfusion - Intracorporal harmonization of naive relaxation and hypnoid relaxation (autogenic training).

Psychotherapie Psychosomatik Medizinische Psychologie Volume: 53 Issue: 2 Pages: 101-101 FEB 2003

Çotuk HB, Perlitz V, Petzold ER, Schmid-Schönbein H.

Validation of the Hildebrandt cycle - cardiac-respiratory 1:4 rhythms in psychomotor relaxation.

Psychotherapie Psychosomatik Medizinische Psychologie

FEB 2003 Volume: 53 Issue: 2 Pages: 102-102

Perlitz V, **Çotuk HB**, Flatten G, Schiepek G, Petzold ER.

Visualization of psychophysical phase transitions by plot analysis: dynamics of naive relaxation and hypnoid relaxation (autogenic training).

Psychotherapie Psychosomatik Medizinische Psychologie FEB 2003 Volume: 53 Issue: 2 Pages: 129-129

Perlitz V, Flatten G, **Çotuk HB**, Pestinger M, Krautstrunk G, Arin T, Petzold ER.

PTSD as an example of synergetic symptom formation: vegetation dissociation as expression of disharmonic linking.

Psychotherapie Psychosomatik Medizinische Psychologie

Volume: 53 Issue: 2 Pages: 129-129 FEB 2003

Çotuk HB, Perlitz V, Kahn N, Haberstock S, Sen A, Schmid-Schönbein H, Petzold ER, Grebe R.

Nichtlineare Differenzierung der Hämö- und Neurodynamik kutaner Mikrozirkulation.

Psychotherapie , Psychosomatik, Medizinische Psychologie 52 (2), S 83, 2002

Perlitz V, Kahn N, **Çotuk HB**, Haberstock S, Sen A, Schmid-Schönbein H, Petzold ER.

Das Konzept der respiratorischen Sinusarrhythmie: Visualisierung der trophotropen Reaktion und Kopplung Respirations-Herzfrequenzvariabilität während naiver und mit Autogenem Training getriggelter Relaxation.

Psychotherapie, Psychosomatik, Medizinische Psychologie 52 (2), S 108, 2002

Research Publications on Exercise and Sport Science

Hatipoglu E, Topsakal N, Erkut O, Alcalar N, Camliguney F, Ikitimur B, Ugurlu S, Niyazoglu M, **Çotuk HB**, Kadioglu P.
Physical and cardiovascular performance in cases with acromegaly after regular short-term exercise
Clin Endocrinol (Oxf). 2015 Jul;83(1):91-7. doi: 10.1111/cen.12708. Epub 2015 Feb 6

Şaylı Ö, Akın A, **Çotuk HB**.

Correlation analysis between surface electromyography and continuous-wave near-infrared spectroscopy parameters during isometric exercise to volitional fatigue.

Turkish Journal of Electrical Engineering & Computer Sciences 22 (3), 2014, 780-793

Hatipoglu E, Topsakal N, Erkut O, Alcalar N, Camliguney F, Niyazoglu M, **Çotuk HB**, Kadioglu P.

Impact of exercise on quality of life and body-self perception of patients with acromegaly.

Pituitary 17 (1), 2014, 38-43

Uzun S., Sayli O., Tatar Y., Ramazanoglu N., **Çotuk HB**.

EMG evaluation of fatigue during isometric contractions in female rowers.

Journal of Medicine and Biomedical Sciences 2013, 4(2), 7-12

Pinar S, Kaya F, Bicer B, Erzeybek M, Demirel N, **Çotuk HB**.

Recovery strategies and muscle performance after exhausting exercise: comparison of the effects of electrical muscle stimulation and massage.

Biology of Sport 29 (4), 2012, S, 269-275

Sardas S, Omurtag GZ, CMonteiro IF, Beyoglu D, Tozan-Beceren A, Topsakal N, **Çotuk HB**.

Assessment of dna damage and protective role of vitamin e supplements after exhaustive exercise by comet assay in athletes.

J of Clin Toxicology 2012, S5: 001, doi: 10.4172/2161-0495.S5-001

Şayli Ö, Biçer B, Uzun S, Pelvan O, Akın A, **Çotuk HB**.

Muscle fatigue investigation studies using near-infrared spectroscopy and surface electromyography.

MÜSBED 2011; 1(1):17-25

Çotuk HB, Yavuz E.

Recurrence plot analysis of successive passing sequences in 2006 world championship.

Journal of Sport Science and Medicine 6 Suppl 10, S.4, 2007

Ayabakan C, Akalin F, Mengutay S, **Çotuk HB**, Odabaş I, Özüak A.

Athlete's heart in prepubertal male swimmers.

Cardiology in the Young 16 (1), 2006, S. 61-66

Peker I, Ciloglu F, Kavuncuoglu Z, Sahin I, Suel E, **Çotuk HB**, Basoz I, Tangurek B, Pehlivan A.

ACE1 and eNOS T-786C gene polymorphism in elite Turkish athletes.

31st Congress of the Federation-of-European-Biochemical-Societies (FEBS), JUN 24-29, 2006 Istanbul, TURKEY, FEBS JOURNAL, Volume: 273 Suppl. 1 Pages: 350-351