

Aerospace Medicine and Human Performance

JANUARY 2022 VOLUME 93 NUMBER 1

EDITORIAL

- 1 Future Directions**

F. Bonato

PRESIDENT'S PAGE

- 3 MMXXII**

J. R. DeVoll

RESEARCH ARTICLES

- 4 Predictive Biomathematical Modeling Compared to Objective Sleep During COVID-19 Humanitarian Flights**

J. K. Devine, C. R. Garcia, A. S. Simoes, M. R. Guelere, B. de Godoy, D. S. Silva, P. C. Pacheco, J. Choynowski, and S. R. Hursh

- 13 Repeated Ischemic Preconditioning Effects on Physiological Responses to Hypoxic Exercise**

K. Chopra, O. Jeffries, J. Tallent, S. Heffernan, L. Kilduff, A. Gray, and M. Waldron

- 22 Total Flight Hours and Other Factors Associated with Hyperuricemia in Civilian Pilots**

S. C. Tisera, A. Agustina, and D. S. Soemarko

- 26 Migraine History and Outcomes in Military Pilots and Flight Surgeons**

R. R. Hesselbrock and J. T. Haynes

REVIEW ARTICLE

- 32 Optimization of Exercise Countermeasures to Spaceflight Using Blood Flow Restriction**

L. Hughes, K. J. Hackney, and S. D. Patterson

SHORT COMMUNICATIONS

- 8 46 Intra-Individual Test-Retest Variation Regarding Venous Gas Bubble Formation During High Altitude Exposures**

R. Ånell, M. Grönkvist, O. Eiken, A. Elia, and M. Gennser

- 50 Understanding Sleepiness and Fatigue in Cabin Crew Using COVID-19 to Dissociate Causative Factors**

C. C-Y. Wen, C. L. Nicholas, M. E. Howard, J. Trinder, and A. S. Jordan

TECHNICAL NOTE

- 8 54 Inter- and Intra-Rater Level of Agreement in Ultrasonic Video Grading of Venous Gas Emboli**

A. Elia, R. Ånell, O. Eiken, M. Grönkvist, M. Gennser

FEATURES

- 58 Aerospace Medicine Clinic—C. N. Crain and R. L. Holmes**

- 61 Focus on Aerospace Medicine History: The Skylab Metabolic Rate Experiments: How We Conducted the M-171 Biomedical Project—J. Rummell and C. Sawin**

- 66 This Month in Aerospace Medicine History: January—W. W. Dalitsch III**

ASSOCIATION NEWS

- 68 2022 Annual Scientific Meeting Registration**

- 68 FAA News**