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The aim of the journal is to publish original studies of the highest scientific and clinical value in orthopedics, traumatology, and related disciplines. The scope of the journal includes but not limited to diagnostic, treatment, and prevention methods related to orthopedics and traumatology. Acta Orthopaedica et Traumatologica Turcica publishes clinical and basic research articles, case reports, personal clinical and technical notes, systematic reviews and meta-analyses and letters to the Editor. Proceedings of scientific meetings are also considered for publication.

The target audience of the journal includes healthcare professionals, physicians, and researchers who are interested or working in orthopedics and traumatology field, and related disciplines.

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FROM THE EDITOR

Dear AOTT readers,

I am sure you will be surprised while browsing the content of this AOTT issue. As I have briefly mentioned in “from the editor” of previous issue, guest editorial was co-published by more than 100 health journals in anticipation to United Nations meeting of climate change in September.¹ Guest editorial regarding global temperature rise and protecting health is a joint statement of editors of leading health journals that was co-published simultaneously. Being an Orthopedic surgeon you might be asking yourself “How could this matter be related to my specialty?” or “What measure could I take to affect climate change?” Well, answers might not be easy and straightforward however, while reading Susana Galanduiuk’s² editorial I came across MacLeod’s presidential address and Guetter’ papers on “greening the operating room”^{3,4} where you might get some answers.

We were all saddened with the loss of Dr. Freddie Fu, a world wide known orthopedic surgeon that have influenced many of us. He was a Hong Kong-American surgeon and well-known academic with diverse talents and research interests. Apart from sports medicine, arthroscopy and knee surgery publications and contributions as a tutor of more than 100 post-graduate students, he worked closely with anthropologists at Kent State University on the reconstruction of the skeleton of “Lucy”.⁵ You will be reading a tribute to Dr. Freddie Fu written by Demirhan et al.⁶

Haluk Berk M.D.
Editor-in-Chief
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References

1. DOI: 10.5152/j.aott.2021.21060921.
2. Galanduiuk, S. Colorectal Surgeons and Climate Change True, True and a Grain of Salt. *Diseases of the Colon & Rectum*: 2021;64(10):1159. doi: 10.1097/DCR.0000000000002239
3. MacLeod R. ASA Presidential address. Greening the operating room. *Ann. Surg.* 2002; 224:403-405 DOI: 10.1097/SLA.0000000000004995
4. Guetter CR, Williams BJ, Slama E, et al. Greening the operating room. *Am J Surg.* 2018;216:683-688. DOI: 10.1016/j.amjsurg.2018.07.021
5. https://www.pittmed.health.pitt.edu/Winter_2009/wobbly_knee.pdf
6. Demirhan M, Taşkıran E, Kılıçoğlu Ö, Pınar H. A Tribute to Dr. Freddie Fu: Remembering A “Good Friend”. *Acta Orthop Traumatol Turc.* 2021;55(5):371-373.