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RECEIVED 18 July 2023  
ACCEPTED 31 July 2023  
PUBLISHED 11 August 2023

CITATION  
Ahn J (2023) Editorial: Insights in orthopaedic surgery: 2021.  
Front. Surg. 10:1261106.  
doi: 10.3389/fsurg.2023.1261106

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# Editorial: Insights in orthopaedic surgery: 2021

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## KEYWORDS

future, evidence, advances, information, knowledge

## Editorial on the Research Topic [Insights in orthopedic surgery: 2021](#)

When we opened up this topic in just past 2020, orthopaedic surgery was moving at a pace and in ways that we could not have predicted even a few decades ago. Certainly, the way we examine, evaluate and investigate our thoughts, behaviors and results continues to change year to year, even month to months. Some of our most spirited debates now incorporate psychosocial nuances of care, honest solutions around preventing opioid-induced deaths and...artificial intelligence [Zhou et al.](#) all topics that constituted background noise at the turn of the 21st century. In this context, we thought it would be informative to open up a topic with an open editorial agenda; we asked our thinkers to provide us with a glimpse of orthopaedics today.

What we found was that some issues that have plagued our patients continue to do so although some of the ways we evaluate and treat them have changed dramatically over the years: back pain and symptoms from lumbar disc herniation [Wan et al.](#) shoulder dysfunction from rotator cuff tears [Zhou et al.](#) and [Jin et al.](#) hip fractures and frailty of our older family members [Yu et al.](#) and our never ending dance with our microbial co-habitants [Kankilic et al.](#) But besides the new knowledge and skills gained over time, the way we analyze what we have done continues to make progress in ways difficult to predict. In addition to the standard clinical study methodologies, systematic review and meta-analyses, our compendium now includes modalities such as the aforementioned artificial intelligence and modern ways of conceptualizing our research trends and attention through bibliometric analysis, be it for ankle fractures, patellar instability or rotator cuff disease [Zeng et al.](#), [Zheng et al.](#) and [Jin et al.](#)

As we progress through this decade and beyond, what will we see? AI assembled meta-analyses and registry reports? A dashboard that provides live bibliometric data on-demand? A decision aid phone app that is up-to-the-second current on the literature? Will the lines between “research” and data-driven patient care blur? What kind of “knowledge” will we be reporting on in 2050? Bone glue that supports weight-bearing, adaptive surgical implants that guide tissue healing, a cell-programming biologic that requires no surgery at all? I am excited to not only find out but to participate and contribute; and hope that you are too.

## Author contributions

JA: Conceptualization, Writing—original draft, Writing—review & editing.

## Conflict of interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

The author declared that they were an editorial board member of Frontiers, at the time of submission. This had no impact on the peer review process and the final decision.

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