Dear Dr. Michael Schatman, Editor-in-Chief,

I am writing to submit our manuscript entitled "Artificial Intelligence in Anesthesiology over the Past Decade: A Comprehensive Bibliometric Study" for consideration for publication in *Journal of Pain Research*.

This study comprehensively analyzed the global scientific output, research topics, and future research frontiers of artificial intelligence (AI) applications in anesthesiology from 2013 to 2023 through bibliometric analysis. We conducted a comprehensive search in the Scopus and used R and python to analyze the retrieved data.

Our results identified 1,248 records related to AI in anesthesiology from 2013 to 2023. The number of annual publications increased steadily, with the USA and Chinese institutions being the most productive. Three major research topics emerged: machine learning-based anesthetic management, AI-assisted ultrasound in regional anesthesia and pain management, and operating room logistics and scheduling. We also detected potential future research frontiers and paradigm shifts.

To our knowledge, this is the first bibliometric study to provide a bird's-eye view of the research landscape of AI in anesthesiology over the past decade. The findings offer valuable insights into research trends and future directions, which could guide researchers, funding agencies and policymakers to allocate resources strategically.

We believe this manuscript fits well with the scope of your journal and will be of significant interest to your readership. The manuscript has been carefully prepared in accordance with your journal's guidelines. It has not been previously published and is not under consideration by any other journal.

We deeply appreciate your kind consideration of our work. Please feel free to contact me if you have any questions or require further information. I look forward to hearing from you.

Sincerely,

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