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From the Editor

Artificial intelligence in musculoskeletal rehabilitation

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Dear colleagues,

I hope this message finds you well. In this From the Editor, I wanted to draw your attention to the recent surge of artificial intelligence (AI) tools that have been introduced in the free market. These disruptive tools, such as Chat GPT from Open AI, are poised to have a profound impact on various aspects of our daily lives. They will revolutionize the way we approach education, examinations, research, and even grant proposals. In fact, there is even an app called Hereafter AI that promises digital immortality, allowing relatives to interact with a person's digital self even after they have passed away.

On national levels, governments are actively developing new legislation to ensure the ethical and conscious use of these tools in society, aiming to prevent issues such as discrimination, profiling and maleficence. At our university, we think about how we can and should live with these new tools. One major advantage is that they provide students with significant opportunities to assist with writing theses and assignments. As a consequence, the role of plagiarism scanners may diminish, leading us to consider individual interviews with students as a "new" form of examination.

On the other hand, we might all see the boundless opportunities that generative AI will bring. The excitement among many colleagues stems from the potential for AI to guide us in both inductive and deductive reasoning, offering a substantial leap forward and an abundance of information. While it is crucial to rigorously test the validity of these tools at present, they provide us with a glimpse into what the future holds.

Furthermore, we are witnessing the emergence of tools focused on low back pain and the rehabilitation of musculoskeletal health issues. Although most of these tools are still in the experimental phase, they offer promising advancements. However, current tools, particularly those that incorporate biopsychosocial information obtained from patients' self-reports, do not appear to outperform traditional linear statistical methods like regression in predicting future functioning. While these AI tools may still be in their infancy, researchers must address questions regarding their validity and ethics to ensure their successful and accepted integration.

For the *Journal of Back and Musculoskeletal Rehabilitation* (BMR), AI has prompted us to reflect on how to incorporate it into our clinical research output and publishing policies. When it comes to the first, we endorse AI tools to support clinical decision making, diagnostics or personalizing of treatment. We endorse research groups to study not only the validity and effectiveness of such tools, but also to reflect on their ethical and human sides. When it comes to our own publishing policy, we added the following to our author guidelines: *"Text generated from artificial intelligence (AI), machine learning, or similar algorithmic tools cannot be*

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the original content in papers submitted to the journal. Nor does the journal accept figures, images, or graphics produced by such tools. However, AI tools can be used in the writing process to improve the readability and language. A disclosure should be added to the paper in case AI tools were used. AI programs should not be included in the author list, nor should they be cited. The authors are ultimately responsible for the contents of the paper"

In this issue, we are delighted to present you with twenty excellent articles. The Editor's Choice article, which is freely accessible, is awarded to Adenis and colleagues (BMR 220370) for their impactful study on pain neuroscience education. The authors are applauded for their important work to reveal the concept of this education program on patients with persistent low back pain. They concluded that, compared to other cognitive approaches, pain neuroscience education differs by changing the pain concept from a tissue injury marker to a neurobiological perspective to increase adherence to biopsychosocial rehabilitation. For those patients, who frequently seemed to be 'unmotivated' to change behaviors, pain neuroscience education may be a worthy instrument to reconceptualize their thoughts and feelings.

On behalf of the editorial board, enjoy reading this issue.

Remko Soer, PhD
Editor-in-Chief