Editorial

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Noteworthy Developments in the *Korean Journal of Radiology* in 2023 and for 2024

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In 2023, the *Korean Journal of Radiology* (*KJR*) continued to solidify its standing as one of the prestigious journals in the field of radiology and medical imaging, maintaining its Q1 journal status as per the Journal Citation Reports by Clarivate [1]. This accomplishment can be attributed to the unwavering dedication of our authors, reviewers, editorial board members, editors, and publishing staff. *KJR* is committed to enhancing the experiences of both its readers and authors by continuously implementing a range of changes within the journal. In 2023, several noteworthy developments and modifications took place, which will remain important points for *KJR* in the upcoming year of 2024. Consequently, our authors and readers are encouraged to consider these advancements. This editorial aims to summarize them.

As COVID-19 was in the rearview mirror, the predominant theme in radiology research and scientific publications for 2023 centered around artificial intelligence (AI), mirroring the trend from the previous year [2]. Despite this shift, *KJR* published four articles on COVID-19 [3-6]. However, these articles, which address delayed or prolonged sequelae and related medical and societal management, distinguish themselves from the myriad papers generated in the earlier stages of the COVID-19 pandemic, which contributed to unusual citation patterns and an unprecedented acute surge in the journal impact factor [7-11]. In the realm of AI publications, 2023 witnessed a noteworthy difference from previous years. A significant development was the introduction of a new category of deep learning models known as large language models (LLMs), which utilize the transformer architecture and foundation model technique [12]. Specifically, the emergence of ChatGPT by OpenAI (https://chat.openai.com/) in early 2023 caught the field by surprise. While the transformer architecture and foundation model technique can be applied to various data types, including radiological images (as demonstrated by a study developing AI for interpreting chest radiographs using transformers [13]), the capability of LLMs to respond to diverse radiological or other medical queries has garnered considerable attention from researchers and authors, which has led to a plethora of published research studies [14-21].

LLMs are also capable of generating text that closely resembles human writing, including academic writing, and are easily accessible to the public. Consequently, the use of LLMs in scientific publications is expanding rapidly, creating ethical and legal concerns [22-26]. This concern prompted the issuance of policy statements and guidelines regarding the use of LLMs in scientific publications by numerous journals and authoritative bodies [22,23,27-35]. Recognizing the significance of this matter, *KJR* has proactively published guidelines preceding many other journals in this regard [35,36]. *KJR*'s policy expressly prohibits assigning authorship to AI and permits the use of LLMs to enhance the linguistic quality of submissions and review comments but not for content creation, aligning with guidelines from other authoritative sources. Despite the ethical and legal concerns associated with the use of LLMs in academic writing, when used properly, LLMs can be particularly

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beneficial for researchers for whom English is a non-native language [24,37-39]. According to a survey conducted by Amano et al. [40] among 908 environmental scientists, non-native English speakers need 51% more time to write a paper, face a 12.5 times higher frequency of English-related paper revisions, and encounter a 2.6 times higher frequency of language-related paper rejection. In another survey by *Nature* encompassing 1659 researchers, language assistance for researchers who did not have English as their first language was chosen as the most significant benefit of LLMs in science [39]. LLMs, when used ethically and responsibly, have the potential to lower language barriers in science, promoting equity. I strongly encourage the authors and reviewers to adhere to the aforementioned guidelines to ensure compliance with the required ethical standards.

In 2023, *KJR* published more articles focusing on perspectives and ideas within the Asian-Oceanian region than in previous years [41-54]. Given *KJR*'s strong presence in the Asian-Oceanian region, I am confident that *KJR*, compared to other prominent radiology journals from other regions, such as America or Europe, is in a unique position, allowing it to foster the exchange of diverse perspectives and ideas within the Asian-Oceanian region and share information with a broader international readership. *KJR* is committed to this function, and in 2023, *KJR* actively endeavored to enhance its role. Notably, we published a series of concise articles addressing the growing problem of radiologist shortages in Asia-Oceania, featuring contributions from 12 countries or representative radiological societies [43-54], based on discussions held at the eighth Asian-Oceanian Radiology Forum meeting [55]. I also extend a warm invitation for suggestions from national and regional academic representatives for special editorial articles of a similar nature.

As foreseen in early 2023 [2], *KJR* expanded its repertoire of brief articles in 2023 by publishing a more diverse array of articles addressing various up-to-date topics. These brief pieces are poised to be more effective in addressing rapidly evolving topics than traditional comprehensive full-length articles. In addition, the brevity of these articles aligns with readers' preferences in the mobile era, providing a more accessible format. Noteworthy among these additions are two new brief article types, each limited to 1000 words or fewer: "Uncover This Tech Term" and "Emerging Rad Dx." "Uncover This Tech Term" aims to serve as a quick and convenient reference for up-to-date technology-related terms and concepts covering areas such as AI, imaging techniques, and statistical analysis. Meanwhile, "Emerging Rad Dx" focuses on elucidating novel or emerging diseases and conditions that hold significant radiological relevance and health implications, illustrated through exemplary cases. Further details regarding these additions can be found in the introductory editorial [56], with examples available in the form of previously published articles [3,12,57-59].

KJR recently upgraded its web platform (https://kjronline.org/) to a responsive web. The journal webpage automatically changes the display to match the format and screen size of the reader's device. This upgrade will provide a better experience for readers, given that they now use various viewing devices besides traditional computer screens such as phones and tablets. This upgrade reflects *KJR*'s commitment to provide a seamless and optimal reading experience for its audience.

Finally, I am pleased to introduce new section editors for the Genitourinary and Neurointervention sections. The Oncologic Imaging section has also newly been established. The introduction of the section editor for the Oncologic Imaging section is separately provided in another editorial featured in the January issue.

Dr. Sung Bin Park, the newly appointed section editor for the Genitourinary section, is a highly accomplished radiologist with an extensive background. Having earned his medical degree from Chung-Ang University College of Medicine in 1997, Dr. Park completed his residency at the Department of Radiology at Asan Medical Center, subsequently obtaining fellowship training in genitourinary imaging. Demonstrating a remarkable commitment to the field, Dr. Park assumed the role of professor in September 2015 in Chung-Ang University College of Medicine, driven by his prolific research contributions to genitourinary imaging. Despite the challenges posed by the COVID-19 pandemic, Dr. Park has recently made noteworthy academic achievements, participating in 52 SCI(E) scientific publications over the last 5 years. Additionally, he has secured over eight research grants and authored two chapters of radiology textbooks.

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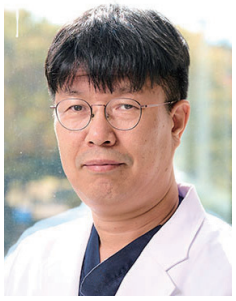

Dr. Hyo Sung Kwak, the recently appointed section editor for the Neurointervention section, is a distinguished neuroradiologist who earned his medical degree from Jeonbuk National University College of Medicine in 1996. Following his residency in the Department of Radiology at Jeonbuk National University Hospital, he pursued a fellowship in neurointervention and neuroimaging. Subsequently, in 2001, he joined the faculty of the Department of Radiology at the same hospital. Dr. Kwak assumed the position of academic professor in September 2008 based on his extensive research contributions to neurointervention and neuroimaging. Dr. Kwak has actively contributed to academic research, publishing approximately 40 SCI(E) scientific articles and securing several research grants just over the past few years. This significant body of work underscores his commitment to advancing the field.

Conflicts of Interest

The author has no potential conflicts of interest to disclose.

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