Alexander Yap Jiawei

Consultant, Department of Radiology, Woodlands Hospital

Research Interests:
- Dual Energy CT (Bone Marrow Edema)
- Value Based Care in Radiology
- DIXON MRI Imaging in MSK
- 3D Advanced Visualisation, Mixed Reality, 3D Printing

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Biography

Dr Alexander Yap is a Consultant Radiologist with a special interest in musculoskeletal imaging and advanced 3D visualisation. He obtained his medical degree and completed his radiology training in 2022, during which he served as Chief Resident for two years and was part of the Singapore Chief Residency Programme (9th Cohort). He received the NHG Education Teaching Award (2022) and was recognised as Outstanding Resident (Junior 2020, Senior 2022) for his leadership and commitment to education.

Dr Yap completed a Musculoskeletal Radiology Fellowship at the University Medical Center Rostock, Germany, under the auspices of the European School of Radiology (ESOR) and the European Society of Skeletal Radiology (ESSR) in 2024. He currently serves as CT Clinical Lead Advisor, Deputy Lead for Musculoskeletal Imaging and Research, and Co-Lead for Artificial Intelligence (AI) in his department.

He leads the establishment of his institution's Radiology 3D Lab, integrating advanced visualisation, cinematic rendering, extended reality (XR), and 3D printing technologies to enhance presurgical planning and patient engagement. He also implemented Dual-Energy CT (DECT)–first bone marrow oedema (BME) protocols, earning multiple accolades including the WH Quality Festival Stellar Project Award, SHBC Clinician Investigator Award (Bronze), MOH Appropriate and Value-Based Care Conference Best Oral Presentation (2025), and the Woodlands Health Service Excellence Award (Special Mention, 2025).

His current work focuses on integrating 3D visualisation, spectral imaging, and AI to advance data-driven, value-based radiology practice.

Selected Publications

- Sim JZT, Yap AJ, Ting YH, et al. Examining the Effect of Deep Learning-Based Image Reconstruction on Accelerating Shoulder Magnetic Resonance Imaging (MRI) and Its Impact on Image Quality. Cureus. Published online October 14, 2025. doi:10.7759/cureus.94561

- Yap JA, Weber MA. Bridging Language Barriers in Radiology: The Role of Large Language Models in Supporting International Trainees. Rofo. 2025;197(07):755-758. doi:10.1055/a-2561-6948

- Yap JA, Tandon A. Imaging Techniques and Procedures: MRI and Arthrography. In: Davies M, Botchu R, Iyengar KarthikeyanP, eds. Imaging of the Shoulder. Medical Radiology. Springer Nature Switzerland; 2025:45-69. doi:10.1007/174_2024_533

- Yap JA, Gummalla KM, H'ng MWC. High-Vacuum Drainage System in Percutaneous Image-Guided Thoracocentesis for Complex Pleural Effusions. Journal of Clinical Interventional Radiology ISVIR. 2023;07(03):159-165. doi:10.1055/s-0043-1761629

- Yap JA, Ong YXN, Weber MA. Pitfalls in Bone Marrow Edema Interpretation on Dual-Energy CT: Challenges and Solutions. Rofo. Published online August 1, 2025:a-2653-9256. doi:10.1055/a-2653-9256

Notable Research and Innovation Awards & Grants from Past 5 Years

Name of Awards & Grants	Year Obtained
NHG Health CMTi CiPP Award	2024
Scholarship grant for European School of Radiology (ESOR)/European Society of Skeletal Radiology (ESSR) Musculoskeletal Radiology Fellowship - University Medical Center Rostock, DE.	2024