



# AMERICAN COLLEGE of PERIOPERATIVE MEDICINE

**THE COMPETITIVE EDGE**  
Insight. Innovation. Outcomes.


## INSIGHT OF THE WEEK

REVIEW

Open Access

### Artificial intelligence in orthopedics: fundamentals, current applications, and future perspectives



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AI is now moving mainstream and this month I want to highlight a review which explores how artificial intelligence (AI) is revolutionizing orthopedic practice by transforming diagnosis, treatment planning, and rehabilitation through data-driven precision. It traces the evolution of AI and showcases cutting-edge applications—from image interpretation and disease prediction to surgical guidance and personalized therapy—that are redefining orthopedic care. The paper also addresses key challenges such as data quality and model validation, while envisioning a future where AI becomes an indispensable partner in advancing musculoskeletal health.

[ARTICLE HERE](#)

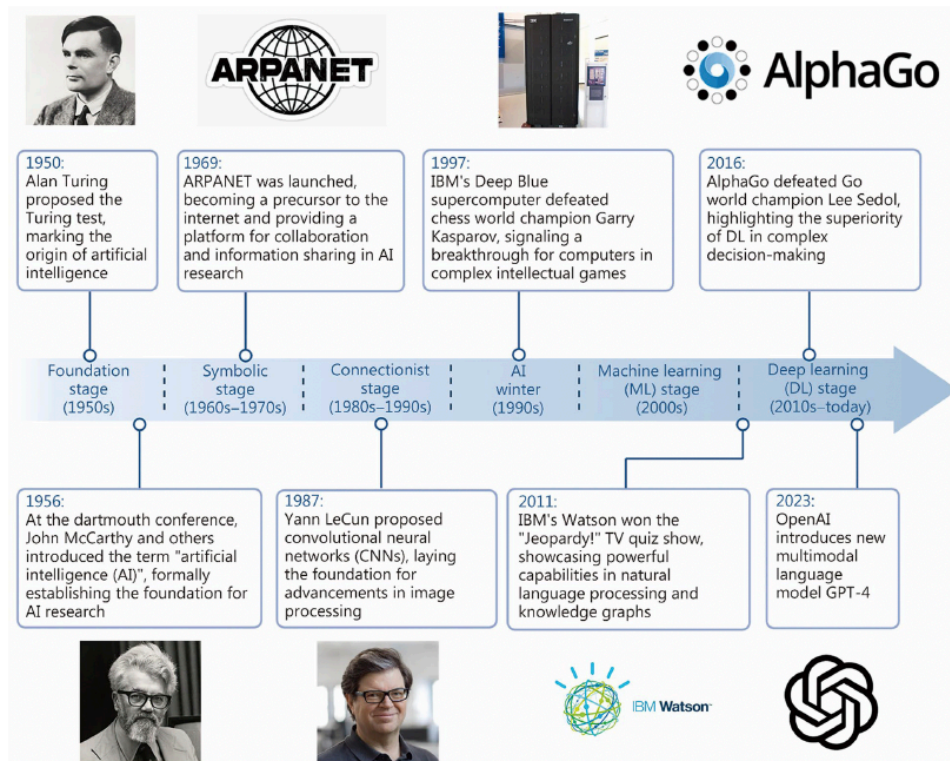


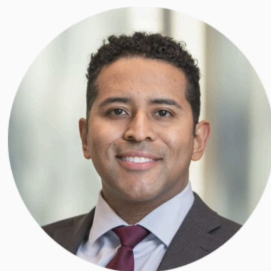
Fig. 1 A brief history of AI development. GPT-4 generative pre-trained transformer 4

## FROM THE OVBC-ACPM STAGE

This week, we are pleased to highlight a session on Opportunities and Challenges in Leveraging Generative AI for Orthopedic Value-Based Care given by Dr. Christean Pean who is the Executive Director of Artificial Intelligence and IT Innovation for the Department of Orthopedic Surgery at Duke University School of Medicine and core faculty at the Duke-Margolis Institute for Health Policy.

As CEO of RevealAI Health, Dr. Pean leverages generative AI to address social drivers of health, reduce disparities, and expand transformative population health care models.

### A New Frontier: Opportunities and Challenges in Leveraging Generative AI for Orthopedic Value-Based Care



**Christian Pean, MD, MS**

**Executive Director of Artificial Intelligence and IT  
Duke University School of Medicine**

**OVBC 2025**

9<sup>th</sup> ANNUAL INTERDISCIPLINARY CONFERENCE  
ON ORTHOPEDIC VALUE-BASED CARE

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## OVBC IS COMING BACK IN 2027!

The American College of Perioperative Medicine has decided to not have the Annual Orthopedic Value Based Care Conference (OVBC) in 2026. However, we are happy to announce we will be returning for 2027. We are currently finalizing the location and date so please register in order to be updated on OVBC 2027!  
We will see you in 2027!

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