# SPEAKER CV

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| **Name** | Ayoosh Pareek, MD |
| **Current Position & Affiliation** | **Orthopedic Surgeon, Sports Medicine**<br>**Medical Director of Artificial Intelligence and Digital Health**<br>Hospital for Special Surgery (HSS), New York, NY |
| **Country** | United States of America |

## Educational Background

**Brown University, Providence, RI**
B.Sc., Applied Mathematics-Biology • 2008–2012

**University of Pennsylvania, Perelman School of Medicine, Philadelphia, PA**
Doctor of Medicine (M.D.) • 2012–2017

**Mayo Clinic, Rochester, MN**
Resident Physician, Orthopedic Surgery • 2017–2022

**Hospital for Special Surgery, New York, NY**
Sports Medicine Fellow (2-Year) • 2022–2024
*1 year dedicated to Machine Learning / Artificial Intelligence research; 1 year Clinical Sports Medicine*

**Traveling Fellowship, Europe**
3-month fellowship in Complex Knee Preservation • 2024
*With Drs. Williams, Wilson, Kley, Niemeyer, Peterson, Ollivier, Fayard, Sonnery-Cottet*

*Ph.D. Application in Progress — University of Oslo*
*Proposed focus: Deep learning for automation of radiograph and MRI imaging analysis*

## Professional Experience

**Hospital for Special Surgery, New York, NY**
- Orthopedic Surgeon, Sports Medicine (2024–Present)
- Medical Director, Artificial Intelligence & Digital Health (2025–Present)
- Registry Steering Committee, Knee Registry (2024–Present)
- Research Assistant Supervisor (2024–Present)

**Mayo Clinic, Rochester, MN**
- Orthopedic Surgery Resident (2017–2022)
- Sports Medicine Research Fellow, Dept. of Orthopaedic Surgery (2015–2016)
- Orthopedic Research Review Committee (ORRC), Reviewer (2019–2022)

**Team Physician Coverage**
- New York Knicks (NBA) • 2022–2023
- New York Mets (MLB) / Brooklyn Cyclones (MiLB) / Dominican Summer League • 2023–2024
- Rochester Grizzlies (NA3HL) / Southland High School Football • 2018, 2021–2022

**Leadership & Editorial**
- Associate Editor in Artificial Intelligence — Knee Surgery, Sports Traumatology, Arthroscopy (KSSTA) (2024–Present)
- AAOS Resident Assembly Research Committee, Chair (2019–2021)
- AOSSM Research Committee (2021–Present)
- ESSKA Artificial Intelligence in Sports Medicine Working Group (2022–Present)

- Reviewer: Arthroscopy, CORR, AJSM (2019–Present)

## Selected Scientific Publications (>120 peer-reviewed; selected highlights)

- Pareek A et al. Machine Learning/Artificial Intelligence in Sports Medicine: State of the Art and Future Directions. J ISAKOS. 2024.
- Martin RK, Wastvedt S, Pareek A et al. Predicting ACL Reconstruction Revision: A Machine Learning Analysis of the Norwegian Knee Ligament Register. J Bone Joint Surg Am. 2021.
- Oeding JF, Varady NH, Fearington FW, Pareek A et al. Platelet-Rich Plasma vs. Alternative Injections for Knee OA: A Systematic Review and Fragility Index–Based Meta-Analysis. Am J Sports Med. 2024. [2025 AJSM Systematic Review Award]
- Pareek A et al. Spontaneous Osteonecrosis/Subchondral Insufficiency Fractures of the Knee: High Rates of Conversion to Surgical Treatment and Arthroplasty. J Bone Joint Surg Am. 2020.
- Pareek A et al. The SIFK Score: A Validated Predictive Model for Arthroplasty Progression after Subchondral Insufficiency Fractures of the Knee. KSSTA. 2019.
- Oeding JF, Kunze KN, Messer CJ, Pareek A et al. Diagnostic Performance of AI for Detection of Scaphoid and Distal Radius Fractures: A Systematic Review. J Hand Surg Am. 2024. [JHS Editor's Choice Award]
- Lu Y, Pareek A et al. AKIRA: Deep Learning Tool for Radiographic Registry Establishment in ACL Patients. KSSTA. 2025.
- Pareek A et al. Long-Term Outcomes After Osteochondral Autograft Transfer: A Systematic Review at Mean 10.2 Years. Arthroscopy. 2016.
- Martin RK, Marmura H, Wastvedt S, Pareek A et al. External Validation of the Norwegian ACL Revision Prediction Model (STABILITY 1 Trial). KSSTA. 2024. [COA Global Impact Award]

## Selected Grants & Awards

- ISAKOS Translational Research Grant — $20,000 • Deep Learning Digital Twin for PTOA Detection after ACL Injury (2022)
- Foderaro-Quattrone Grant for AI Innovation in Orthopedic Surgery — $50,000 • Mayo Clinic (2021–2022)
- Norwegian Centennial Chair (NOCC) Transatlantic Project Grant — $150,000 • ACL Reconstruction ML Outcomes (2020–2022)
- Mayo Clinic Wendel Translational Research Award — $75,000 • AI Predictive Algorithms for Proximal Humerus Fractures (2021–2023)
- ON Education Grant — $25,000 • PI • Hip OA Progression via Multi-Model AI Pipeline (2025)
- ISHA Research Grant — $20,000 • PI • Deep Learning for Hip Imaging Synthesis and Morphology (2025)
- AOSSM Herodicus Award, Winner (2017 & 2022) | ISAKOS Jan Gillquist Best Scientific Paper, Winner (2021)
- AJSM 2025 Systematic Review Award | COA Global Impact Award (2024) | COA Best Poster Award (2022)