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April 3, 2025

UCSF AI/ML Learning Demonstration Project Review Committee **UCSF** Health

Re: Letter of Support for Automated Knee Osteoarthritis Grading Decision Support Tool

## **Dear Project Review Committee Members:**

I am writing to express my strong enthusiastic support for the pilot project on clinical evaluation and deployment of a deep learning-based Kellgren-Lawrence (KL) grading decision support tool for knee osteoarthritis into the clinical radiology workflow at UCSF led by Drs. Ma and Ozhinsky.

As a Professor in the Department of Radiology and Biomedical Imaging, Chief of Musculoskeletal Imaging, and the Clinical Director of the Musculoskeletal Quantitative Imaging Research group my overarching goal is to translate novel imaging technologies to the study of the musculoskeletal system and eventually to clinical practice.

The Kellgren-Lawrence grading system is a routine and essential task performed on every knee radiograph at UCSF to assess the severity of knee osteoarthritis. However, this process is inherently subjective, time-intensive, and prone to variability based on the clinician's experience. A deep learning-based decision support tool offers transformative potential by addressing these challenges.

I believe this tool will provide significant benefits in terms of efficiency, diagnostic accuracy, and educational opportunities within our department. Given these advantages, I am confident that this project will not only lead to optimization of our clinical radiology workflow but also has the potential to elevate the quality of care we provide to patients with knee osteoarthritis.

Sincerely,

Thomas M. Link, MD, PhD

Professor of Radiology

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The following recommendation represents my personal perspective working with Drs. Ma and Ozhinsky and does not represent the viewpoints of the University of California, San Francisco, or the University of California System."