ON-LINE FIG 1. Sample MR imaging facet synovitis scores based on axial fat-suppressed T2-weighted and axial fat-suppressed T1 post-contrast-weighted images. Right greater than left T2-hyperintense fluid signal (A) correlates with areas of abnormal enhancement (B) confined to the intra-articular space in the bilateral facet joints at L4–L5 in a patient with bilateral grade 1 facet synovitis at this level. Symmetric bilateral grade 2 facet synovitis is observed in another patient with perifacet T2 hyperintense edema (C) and enhancement (D) along the inferior aspect of the bilateral L3–L4 facet joints, involving <50% of the facet perimeter. In a third patient, a sample left-sided grade 3 facet synovitis is seen with T2 hyperintense perifacet edema (E) and enhancement (F), involving >50% of the joint perimeter. Arrows identify areas of pathologic T2 hyperintense edema (A, C, and E) and enhancement (B, D, and F) secondary to facet synovitis. No grade 4 facet joints were present in our patient cohort.

ON-LINE FIG 2. Methods for dynamic PET analysis. A. Axial [18F]-NaF PET image with circles outlining the approximate location of bilateral facet joint VOIs used for quantitative and semiquantitative PET analysis. B. Three-compartment kinetic model using plasma concentration (Cp), extravascular concentration (Ce), and target tissue concentration (Ct). K1, k2, k3, and k4 are the kinetic rates among compartments.
**ON-LINE FIG 3.** $K_{i\text{Patlak}}$ has a strong correlation with SUV$_{\text{mean}}$ and SUV$_{\text{max}}$. A, $K_{i\text{Patlak}}$ for all facet joints plotted against their respective SUV$_{\text{max}}$ ($r = 0.58, P < .0001$). B, $K_{i\text{Patlak}}$ for all facet joints plotted against their respective SUV$_{\text{mean}}$ ($r = 0.7, P < .0001$). Data from all 6 patients were used for a total of $n = 60$ facet joints.