

Accepted as a poster at the International Cartilage Regeneration & Joint Preservation Society (ICRS) Summit 2019, San Diego, California, January 17-18, 2019

Efficacy and Safety from a Phase 2b Trial of SM04690: A Novel, Intra-Articular Wnt Pathway Inhibitor for the Treatment of Knee Osteoarthritis

Yusuf Yazici,¹ John Bergfeld,² Morgan Jones,² Christopher J. Swearingen,¹ Anita DiFrancesco,¹ Jeyanesh Tambiah,¹ Christian Lattermann³

¹Samumed, LLC, San Diego, CA

²Cleveland Clinic, Cleveland, OH

³Brigham and Women's Hospital, Harvard Medical School, Boston, MA

Purpose: In a previous 52-week study, Wnt pathway inhibitor SM04690 showed subgroup improvements in knee osteoarthritis (KOA) pain, function, and joint space width. A 24-week study was conducted to refine patient reported outcomes (PROs), target population, and dose. Weeks 12 and 24 PROs are presented.

Methods: KOA subjects received 2 mls intra-articular SM04690 (0.03, 0.07, 0.15, 0.23 mg) or placebo/sham (PBO). Endpoints included change from baseline compared with PBO at Week 24 in weekly average of daily pain (numerical rating scale (NRS) [0-10], WOMAC Pain [0-100], WOMAC Function [0-100], and Patient Global Assessment (PTGA) [0-100]).

Results: 695 subjects were dosed. SM04690 appeared well tolerated and the following improvements were observed:

Pain NRS	0.07 mg	Week 12 [<i>P</i> =0.001]	Week 24 [<i>P</i> =0.031]
	0.23 mg	Week 12 [<i>P</i> =0.012]	Week 24 [<i>P</i> =0.022]
WOMAC Pain	0.07 mg	Week 12 [<i>P</i> =0.040]	
	0.23 mg	Week 12 [<i>P</i> =0.003]	Week 24 [<i>P</i> =0.031]
WOMAC Function	0.07 mg	Week 12 [<i>p</i> =0.021]	
	0.23 mg	Week 12 [<i>p</i> =0.006]	Week 24 [<i>P</i> =0.017]
PTGA	0.07 mg	Week 12 [<i>P</i> =0.031]	
	0.23 mg	Week 12 [<i>P</i> =0.010]	Week 24 [<i>P</i> =0.033]

Conclusions: SM04690, a potential disease-modifying KOA drug, demonstrated significant improvements from baseline compared with PBO in 0.07 mg and 0.23 mg dose groups for Pain NRS, WOMAC Pain, Function, and PTGA.