

# Interim Analysis from CAMPSTIM – A Multicenter, Prospective, Randomized Controlled Modified Platform Trial Assessing the Efficacy of Multiple Human Placental-Based Skin Substitutes and Standard of Care versus Standard of Care Alone in the Treatment of Hard-to-Heal Diabetic Foot Ulcers



Stephen Frania, DPM<sup>1</sup>; William Namen, DPM<sup>2</sup>; Hayley Iosue, DPM<sup>3</sup>; Rami Shaarawy<sup>4</sup>, MD; Keyur Patel, DO<sup>5</sup>; Glenn York, DPM<sup>6</sup>; Meghan Neil, NP-C<sup>7</sup>; George Silver, DPM<sup>8</sup>; Sherocko Gatlin-James, FNP<sup>9</sup>; Michael Calderone, DPM<sup>10</sup>; Mohammad Salameh, MD<sup>11</sup>; Elizabeth Goldstein<sup>12</sup>; Thomas Serena, MD<sup>13</sup>; Brianna Tramelli, BS<sup>13</sup>; Emily King, MS<sup>13</sup>; Dereck Shi, MS<sup>13</sup>; Zwelithini Tunyiswa, BA<sup>14</sup>; Kristy Breisinger, BS<sup>13</sup>

## INTRODUCTION

- Diabetic foot ulcers (DFUs) are chronic wounds with high morbidity, mortality, and economic burden.
- Cellular, acellular, and matrix-like products (CAMPs) are a broad category of biomaterials, synthetic materials, and biosynthetic matrices that support the repair and/or regeneration of injured tissues.
- Here we present an interim analysis of CAMPSTIM (NCT06449638), a multicenter, prospective, randomized clinical trial utilizing a modified platform design. Patients with non-healing DFUs are randomized into two groups: SOC alone or SOC plus a dehydrated complete human placental membrane (dCHPM) allograft product.
- Release<sup>®</sup> is a fenestrated dCHPM allograft product (Q4257) – **Figure 1**.



Figure 1: Image of Release<sup>®</sup>.

## GOAL

To evaluate the efficacy of dCHPM allograft products compared to SOC alone in the treatment of non-healing diabetic foot ulcers (DFUs).

## METHODOLOGY

- Eligible subjects: 18 years old, type 1 or 2 diabetes mellitus, target ulcer area 1.0cm<sup>2</sup> to <25.0cm<sup>2</sup>; wound age >4 weeks and <52 weeks, Wagner grade 1&2. All patients had <20% wound size reduction in 2-week historical run-in and 2-week screening run-in.
- July 2024 to April 2025, 113 patients at 15 wound care centers across the U.S. were randomized into dCHPM+SOC vs SOC alone with n=82 meeting the Per-Protocol criteria (PP) for the interim analysis – **Figure 2**.

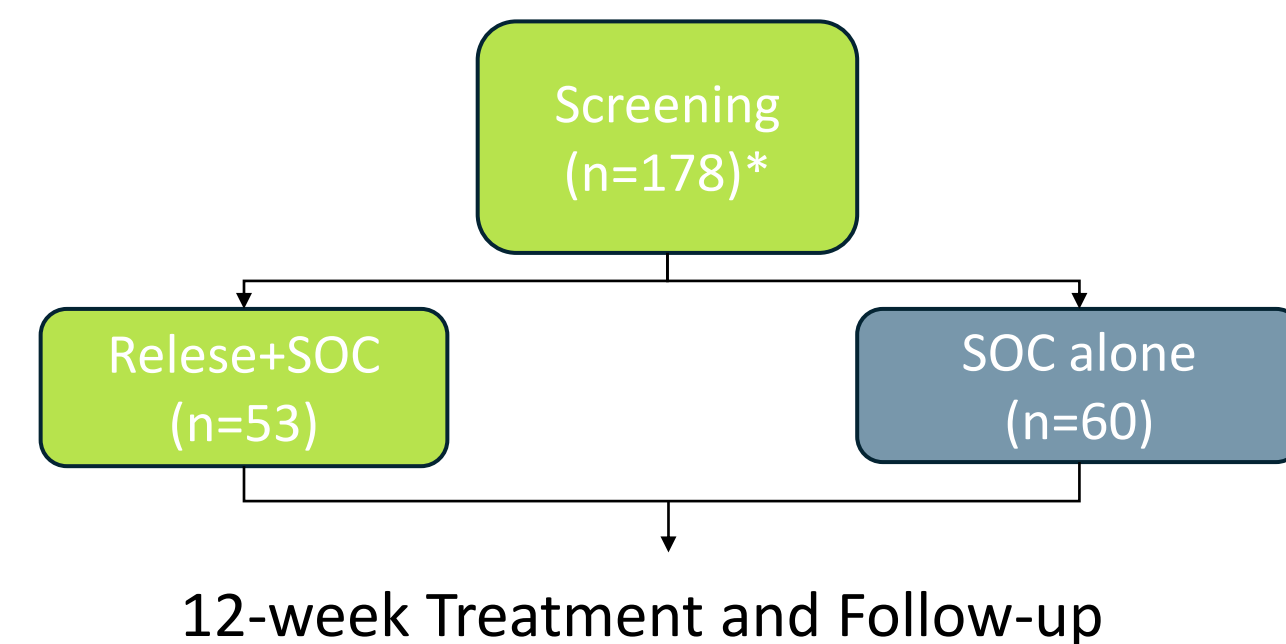


Figure 2: Consort flow diagram (\*28% screen fail rate, n=15 subjects enrolled in Revita<sup>®</sup> arm of trial).

- Treatment included weekly applications for up to 12 weeks and 2-week healing confirmation (HCV).
- Primary objective is percent of ulcers achieving complete closure in 12 weeks
- Secondary objectives include time-to-closure, percent area reduction (PAR), and safety.
- Data analysis also employed a Bayesian Mixed Model for Repeated Measures (MMRM) using Hurdle-Gamma likelihood to further analyze the primary endpoint.

Table 1: Baseline wound characteristics.

Group	Wound size at TV1				Wagner Grade		Age of Wound	
	Min (cm <sup>2</sup> )	Max (cm <sup>2</sup> )	Median (cm <sup>2</sup> )	Mean (SD) (cm <sup>2</sup> )	No. Grade 1	No. Grade 2	Median (weeks)	Mean (SD) (weeks)
Release (n=53)	1.00	24.58	2.08	4.16 (5.34)	33 (62%)	20 (38%)	12	18 (16)
SOC (n=60)	1.00	22.17	1.98	4.06 (4.75)	39 (65%)	21 (35%)	12	20 (24)

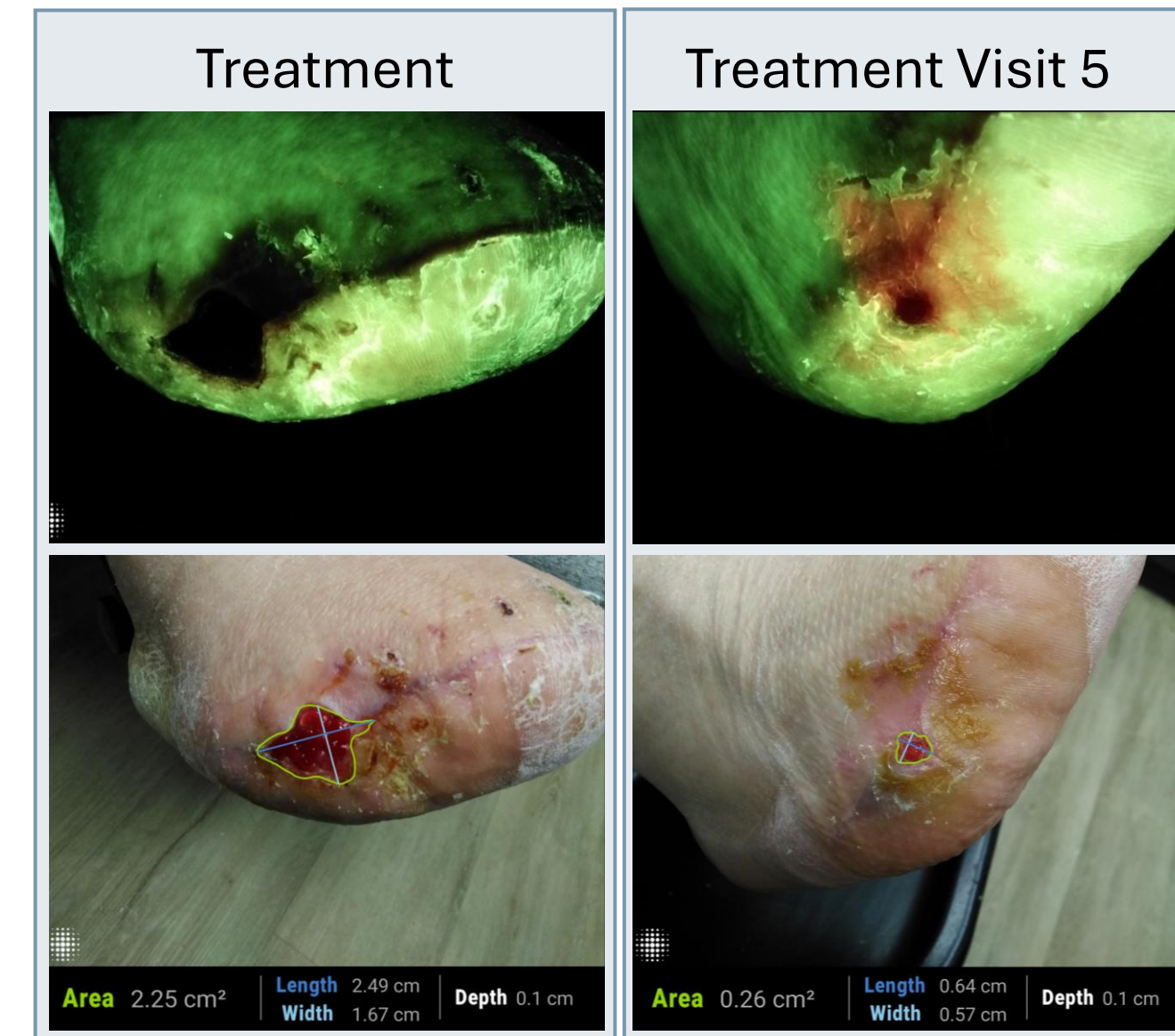


Figure 3: Moleculight fluorescent images and photographs of wound healing progression from the first and last treatment visit and HCV for Subject 007-013 treated with Release+SOC.

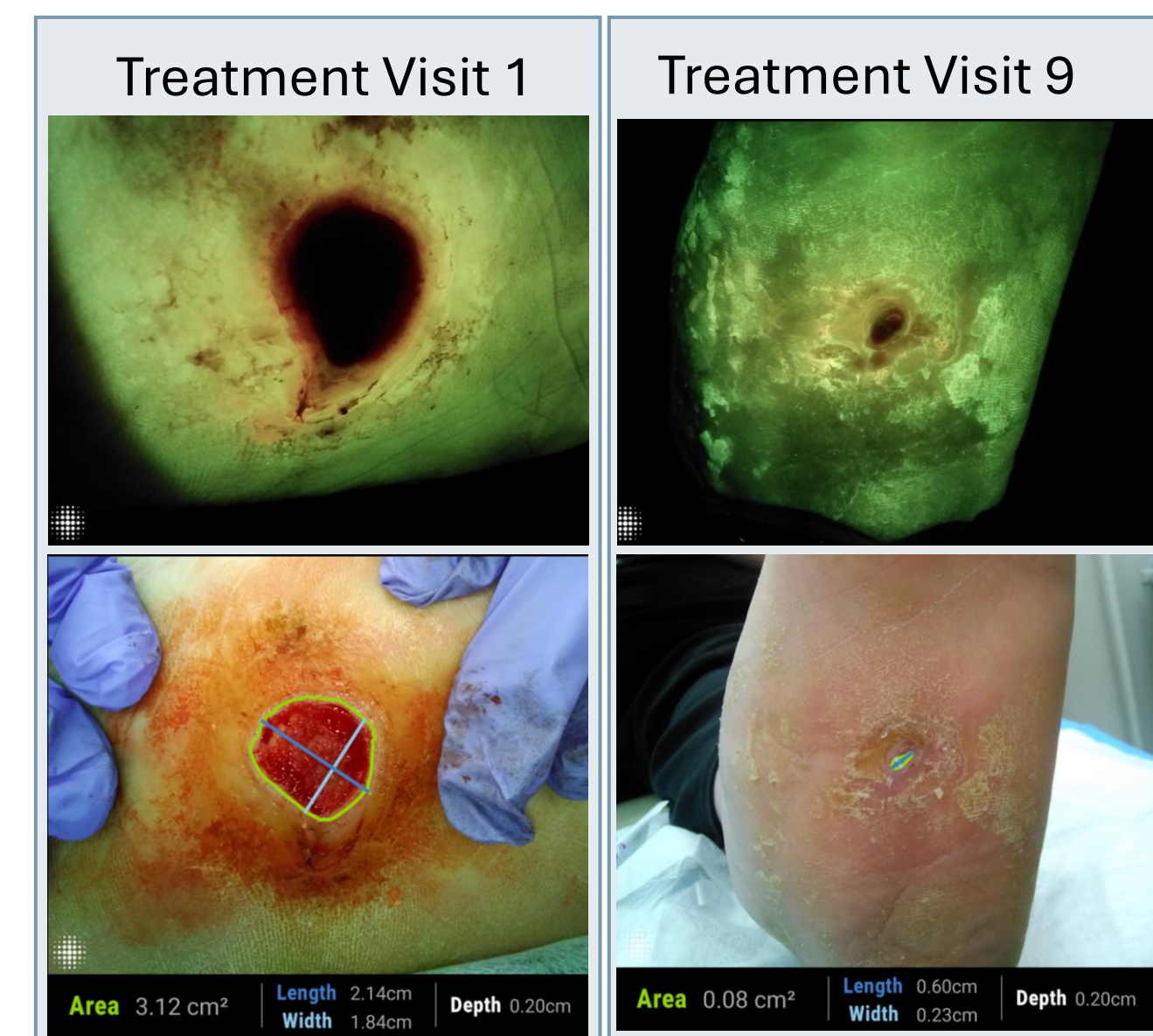


Figure 4: Moleculight fluorescent images and photographs of wound healing progression from the first and final treatment visit and HCV for Subject 005-014 treated with Release+SOC.

## RESULTS

- Baseline patient demographics were well-balanced between groups. Mean wound size was 4.2±5.3cm<sup>2</sup> – dCHPM+SOC and 4.1±4.8cm<sup>2</sup> – SOC – **Table 1**.
- Wound healing progression with dCHPM+SOC is demonstrated in **Figure 3** and **Figure 4**.
- Interim analyses shows 17% would healing Treatment Effect for dCHPM+SOC (RR = 1.74) at 12 weeks versus SOC alone for the PP population (95% CI 0.89-3.40, p=0.10). Intent-to-Treat (ITT) shows 12% Treatment effect for dCHPM+SOC (RR = 1.70, 95% CI 0.84-3.45, p=0.14).
- Median PAR (ITT) trended better for Release+SOC versus SOC alone out to 12 weeks (71% vs 47%) – **Figure 5**.
- Utilizing Bayesian statistical methods, posterior mean risk ratio for wound closure when comparing the dCHPM+SOC arm (n=53) to SOC only arm (n=60) was 1.6 (94% HDI 0.88-2.5). The posterior probability that the dCHPM+SOC increased wound closure compared with SOC only (RR > 1) was 96.2% – **Figure 6**.
- Safety was comparable between groups, with no product-related adverse events reported.

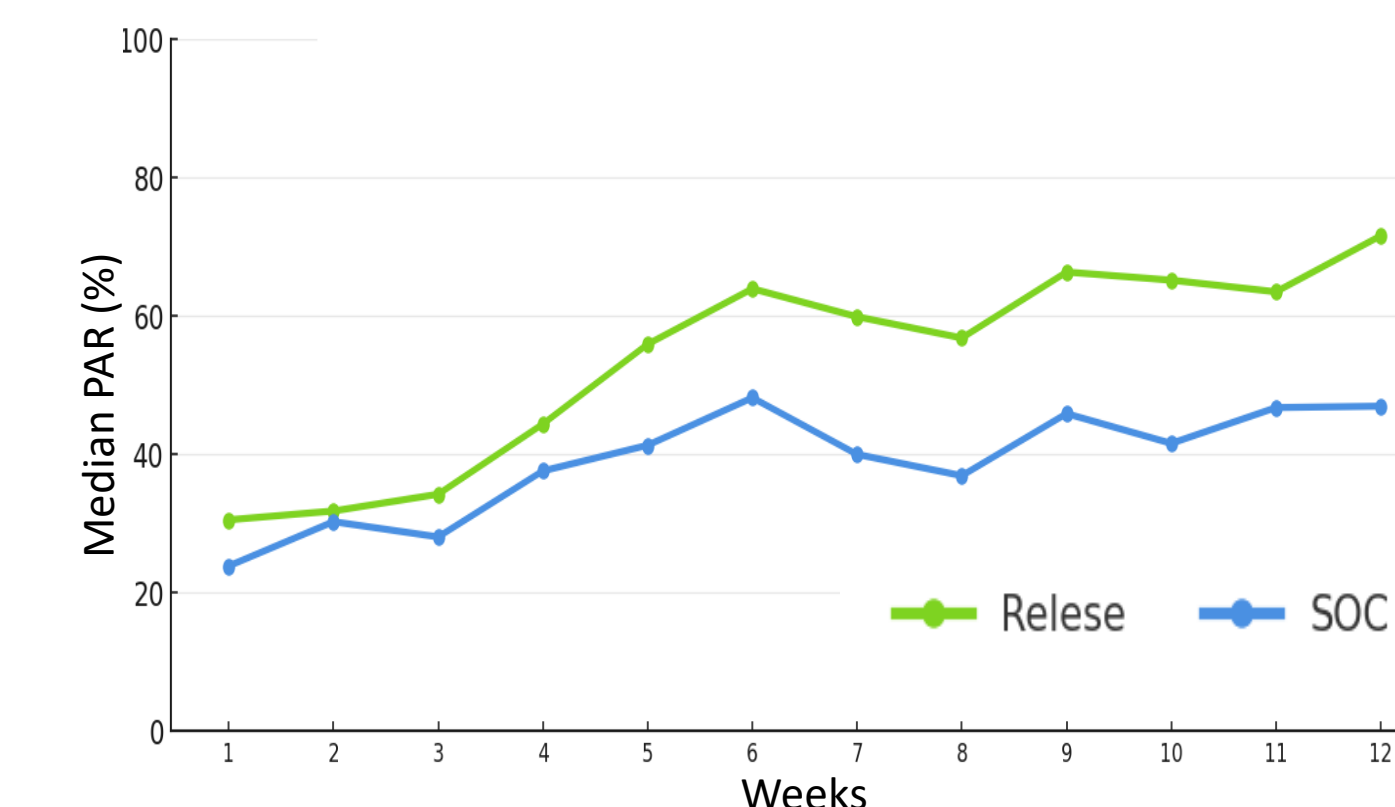


Figure 5: Median PAR (%) over time for Release+SOC and SOC alone over 12-week treatment (PP).

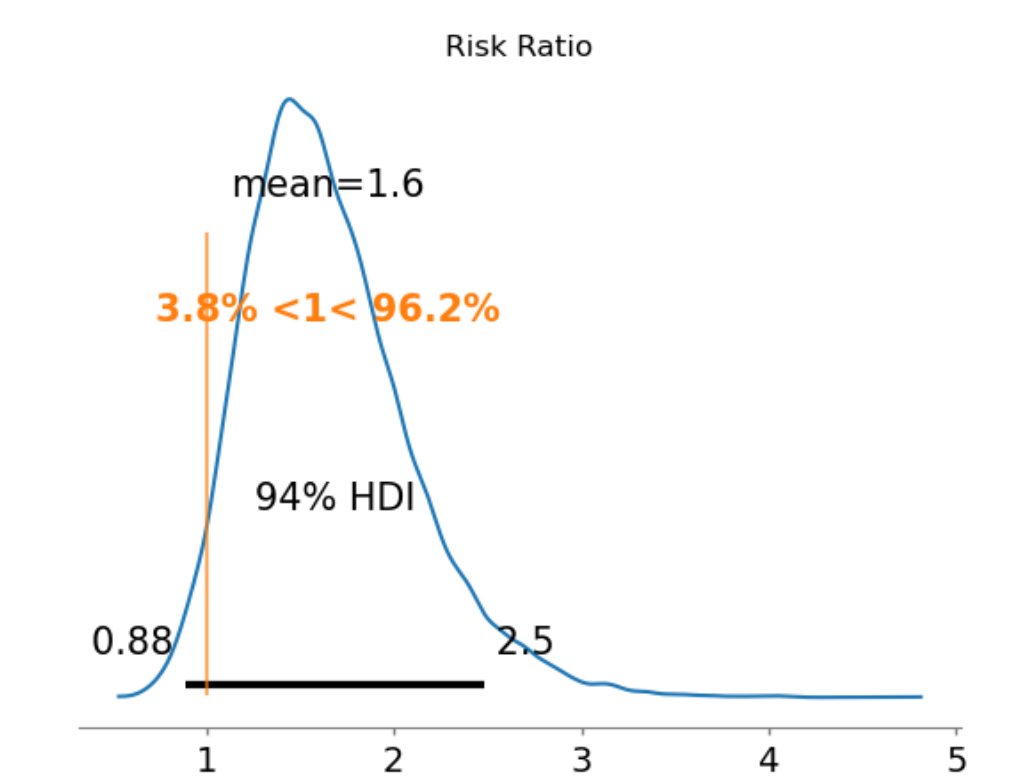


Figure 6: Posterior mean risk ratio for wound closure comparing dCHPM+SOC to SOC alone.

## CONCLUSIONS

The interim analysis demonstrates a favorable trend in treatment effect for the fenestrated dCHPM product (Release) with a high posterior probability of 96.2% supporting that dCHPM+SOC improves wound closure compared with SOC alone. Continued enrollment and follow-up are necessary to refine effect estimates and determine whether the observed probability of benefit is confirmed with full trial completion.

<sup>1</sup>Ohio Foot & Ankle Specialists, Mentor, OH; <sup>2</sup>Namen Podiatry, Symphony Research, Jacksonville, FL; <sup>3</sup>Ohio Foot & Ankle Specialists, Mentor, OH; <sup>4</sup>Valiance, Northridge, CA; <sup>5</sup>Three Rivers Wound and Hyperbaric Center, North Port, FL; <sup>6</sup>CHI Health Lakeside, SerenaGroup, Inc., Omaha, NE; <sup>7</sup>SerenaGroup, Inc., Monroeville, PA; <sup>8</sup>Greater Orange Foot Care, Orange, TX; <sup>9</sup>Health Clinical, Lilburn, GA; <sup>10</sup>Inspira Medical Center, Vineland, NJ; <sup>11</sup>Three Rivers Wound and Hyperbaric Center, North Port, FL; <sup>12</sup>Stimlabs LLC; <sup>13</sup>SerenaGroup, Inc., Cambridge, MA; <sup>14</sup>Open Wound Research, Puyallup, WA. Medical writing and statistical analysis supported by SerenaGroup®, LLC. This study was funded by Stimlabs LLC.

