A Phase II Randomized Double-Blind, Placebo Controlled Study in Patients with Critical Limb Ischemia to Evaluate the Safety and Efficacy of hSDF-1 plasmid (JVS-100) Post Open or Endovascular Revascularization (STOP-PAD Trial)

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for the STOP-PAD Investigators
Background – Critical Limb Ischemia

- After over 20 yrs of research we are left with bypass and angioplasty alone to treat this disease.

- However:
  - Only 20-30% of wounds heal within 3 months
  - Wounds are associated with:
    - Low quality of life
    - Depression
    - Increased health care cost
    - Amputations
    - Death

• **JVS-100** is a non-viral DNA plasmid based therapy that encodes stromal cell-derived factor-1 (SDF-1)

• **SDF-1** through binding of the CXCR-4 receptor activates:
  - Endogenous regenerative repair pathways
  - Promotes new blood vessel growth
  - Prevents cell death
  - Causes remodeling of scar tissue
STOP-PAD Trial Design and Patient Disposition

167 Patients Enrolled with Wounds and Evidence of Ischemia

133 Patients Underwent Lower Extremity Revascularization

129 Evaluated for Poor Pedal Hemodynamics

109 Randomized

Placebo N=34

8mg Injection N=34

16mg Injection N=36
Primary Efficacy (P = 0.93)

![Bar chart showing efficacy outcomes for Placebo, 8mg Injections, and 16mg Injections across different healing stages.](image-url)

- **Complete healing**
- **> 50% closure**
- **25-50% closure**
- **New necrosis**
- **Worsening in size**

- **Placebo**: [Bar heights for each category]
- **8mg Injections**: [Bar heights for each category]
- **16mg Injections**: [Bar heights for each category]
Conclusions

• Adjunctive injection of JVS-100 failed to impact wound healing or rates of MALE in patients with Rutherford class V and VI CLI

• Only 25% of wounds healed within 3 months despite advanced revascularization and rigorous follow-up

• A quarter of the wound actually got bigger over 3 months

• Will anxiously await 6 months results; however, future biologic therapies may require addressing multiple pathways