Phase Ib safety study in stable SCD patients:
- Assessed 2 dose levels of SANGUINATE as compared to hydroxyurea in 24 patients with stable SCD (low dose of 160 mg/kg of SANGUINATE or HU 15 mg/kg or high dose of 320 mg/kg of SANGUINATE or HU 15 mg/kg).
- Adverse Effects: Musculoskeletal and connective tissue disorder-related AEs were the most commonly reported. Transient troponin I levels increased in 3 patients, and one of whom had an increase in tricuspid regurgitant jet velocity (TRV); however, no clinical signs or symptoms of concern were noted.
- This trial established the pharmacokinetics and safety of SANGUINATE at both dose levels and permitted its advance into phase II trials (Figure 3).

Phase II Leg Users:
- The study was conducted in Panama and the Dominican Republic. This was an escalating, repeated-dose, open-label, Phase 2 study to test SANGUINATE at 320 mg/kg (8 mL) in subjects suffering from leg ulceration associated with SCD. All enrolled subjects underwent a 3-week Run-In Period; Cohort 1 received once-weekly, 2-hr IV infusions of SANGUINATE 320 mg/kg for 4 weeks and cohort 2 received once-weekly infusions for 6 weeks.
- The administration of once-weekly infusions of SANGUINATE was well tolerated. 2/10 patients report treatment emergent adverse events considered related to study drug. Changes in ECG intervals were seen in a few subjects, but those changes were not considered clinically meaningful. There were no clinically meaningful changes in laboratory values, physical examinations, or concomitant medications.
- The administration of 4 or 6 once-weekly infusions of SANGUINATE at a dose of 320 mg/kg was generally well tolerated. Slight improvements in total and individual VCSS are promising and may warrant further study.

Phase II Vaso-Oclusive Crisis:
- The study was conducted in Panama and the Dominican Republic. This was an escalating, repeated-dose, open-label, Phase 2 study to test SANGUINATE at 320 mg/kg (8 mL) in subjects suffering from leg ulceration associated with SCD. All enrolled subjects underwent a 3-week Run-In Period; Cohort 1 received once-weekly, 2-hr IV infusions of SANGUINATE 320 mg/kg for 4 weeks and cohort 2 received once-weekly infusions for 6 weeks.
- The administration of once-weekly infusions of SANGUINATE was well tolerated. 2/10 patients report treatment emergent adverse events considered related to study drug. Changes in ECG intervals were seen in a few subjects, but those changes were not considered clinically meaningful. There were no clinically meaningful changes in laboratory values, physical examinations, or concomitant medications.
- The administration of 4 or 6 once-weekly infusions of SANGUINATE at a dose of 320 mg/kg was generally well tolerated. Slight improvements in total and individual VCSS are promising and may warrant further study.

Life-Threatening Anemia In Patients With Hyperhemolysis And Acute Chest Syndrome:
- Over 5 patients with hemoglobin levels below 5 g/dL have received SANGUINATE. Under a Phase I safety study in patients who are unable to receive blood transfusions.
- Patients have received multiple doses.
- No serious adverse effects have been reported.

For more info: www.prolongpharma.com
The Conflict of Interest disclosure forms for above authors have been satisfied.