

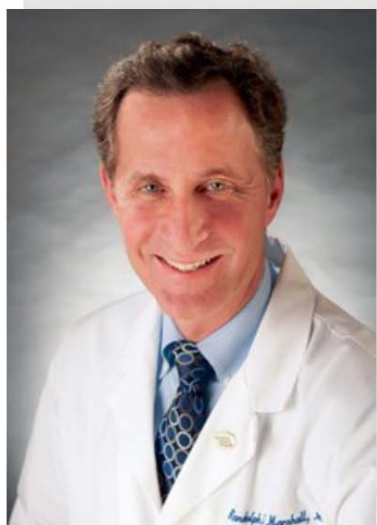


Carotid Revascularization Endarterectomy and Stent Trial - Hemodynamics

(an ancillary study to CREST-2)



CREST-H Investigators



Randolph Marshall, MD, MS
Study PI



E. Sander Connelly, MD
Study PI



Ronald Lazar, PhD
Study PI



David Liebeskind, MD
Study PI



**George Howard,
Dr. PH**
Data
Management
and Statistics



Brajesh Lal, MD
Image
Management



John Huston III, MD
Image Analysis



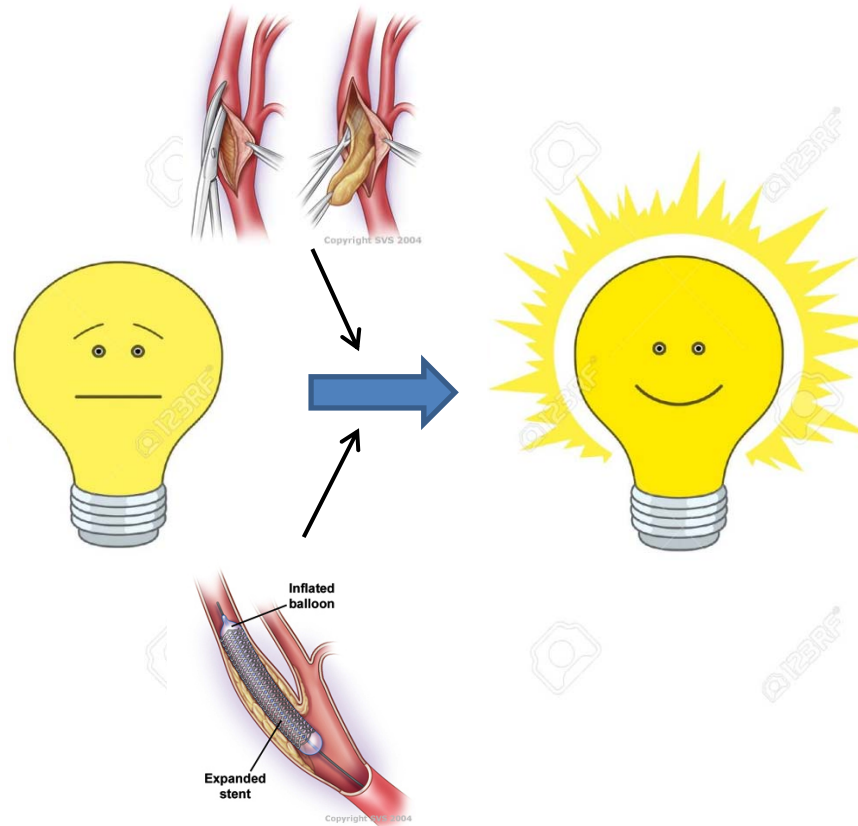
Thomas Brott, MD
CREST-2 PI



James Meschia, MD
CREST-2 Co-PI

CREST-H Study Question

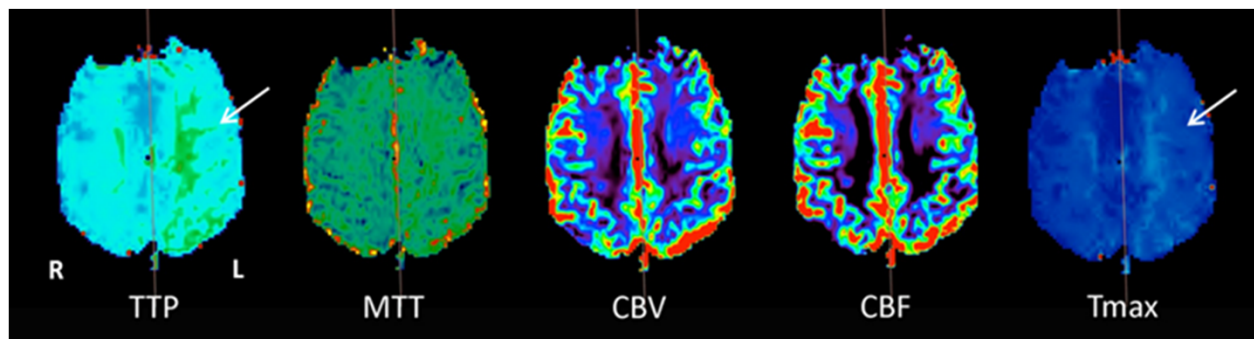
- Can revascularization (CEA or CAS) improve cognitive impairment among a subset of CREST-2 patients with cerebral hemodynamic impairment?



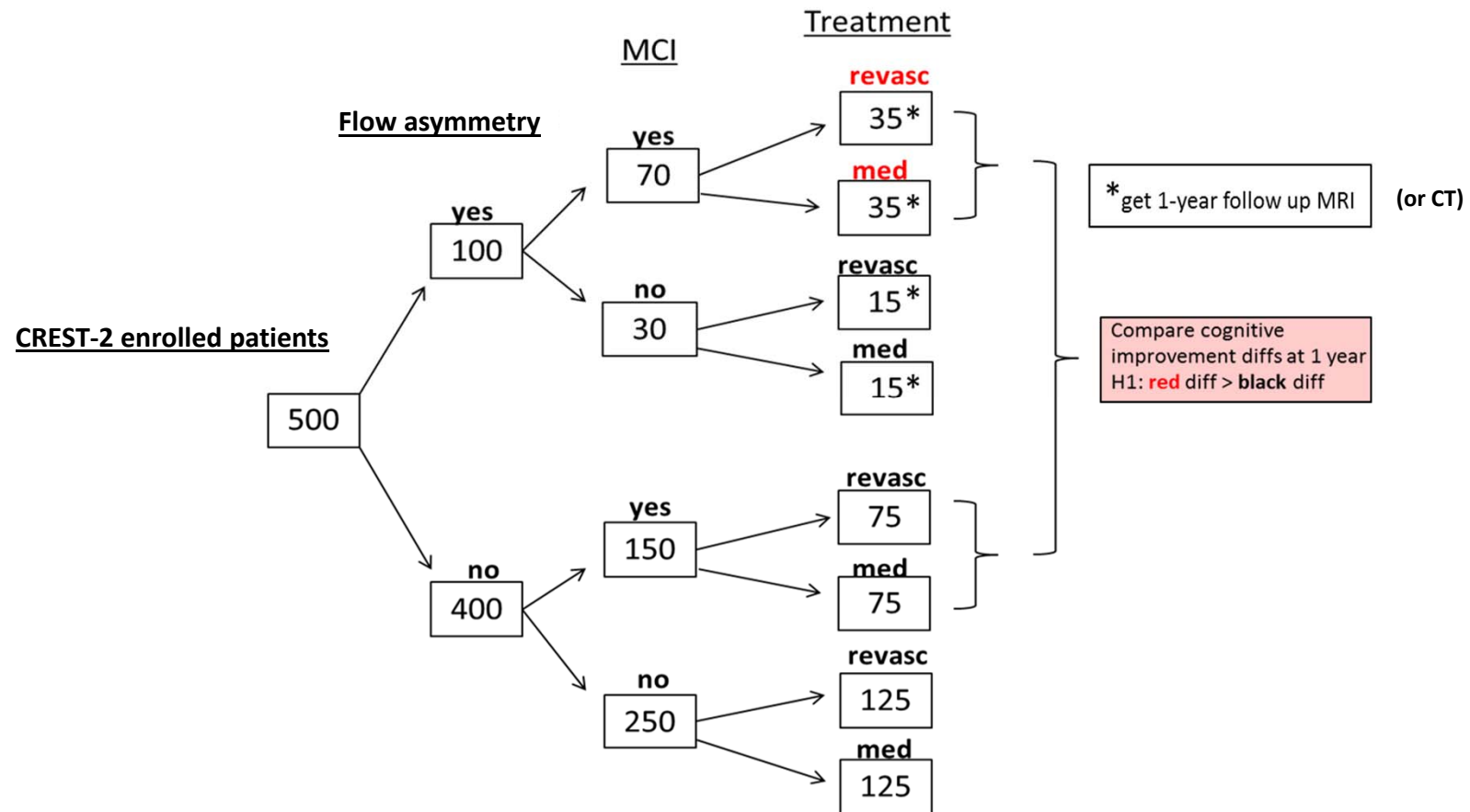


CREST-H Study Overview (cont'd)

- **Enrollment goal:** 500 patients across 75 CREST-2 sites
- **Unique testing as part of CREST-H:**
MRI perfusion (MRP) or CT perfusion (CTP) scan to look for hemodynamic flow failure at baseline. (We also acquire DWI, MRA, GRE, FLAIR, Hi-res T1 with MRI)
 - 1.5 T or 3.0T MRI acceptable, but 3.0T preferred
 - Patients who have baseline flow failure will receive a 1 year follow up MRI scan



Study Design

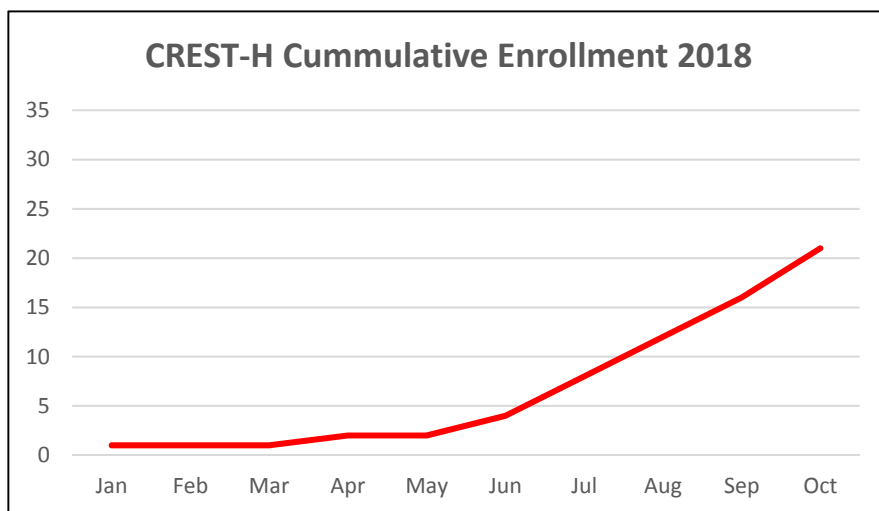




CREST-H Protocol Update

1. CTP added in V3.0, approved 10/1/18
 - V3.0 ICF template
 - New protocol
 - Upload new test scans for CTP
2. Increased reimbursement
 - new subcontracts or ammendments
3. Revised power calculations allow lower total patients to 350.

CREST-H Patients and Sites



Target: 500 (power ok for 350)

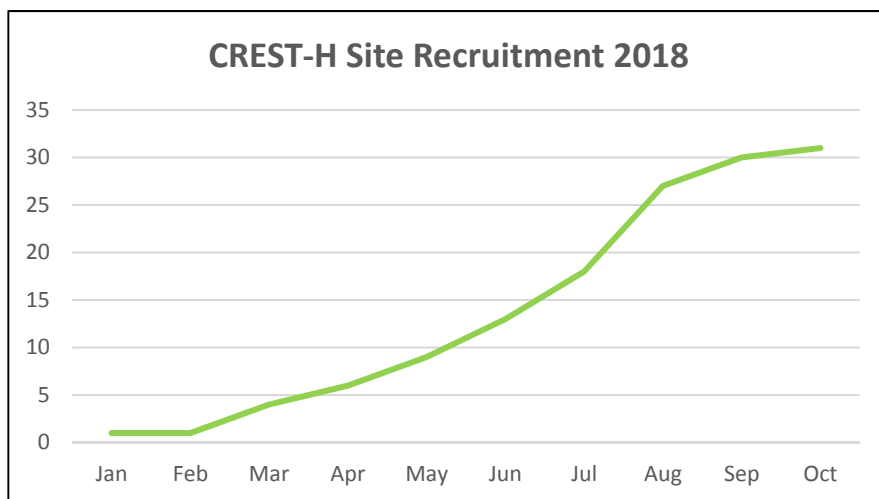
Enrolled: 22

Pending consent: 3

Refused: 10 (most claustrophobia)

Ineligible: 5 (educ, contr occl, metal)

Total screened: 37



Target: 75

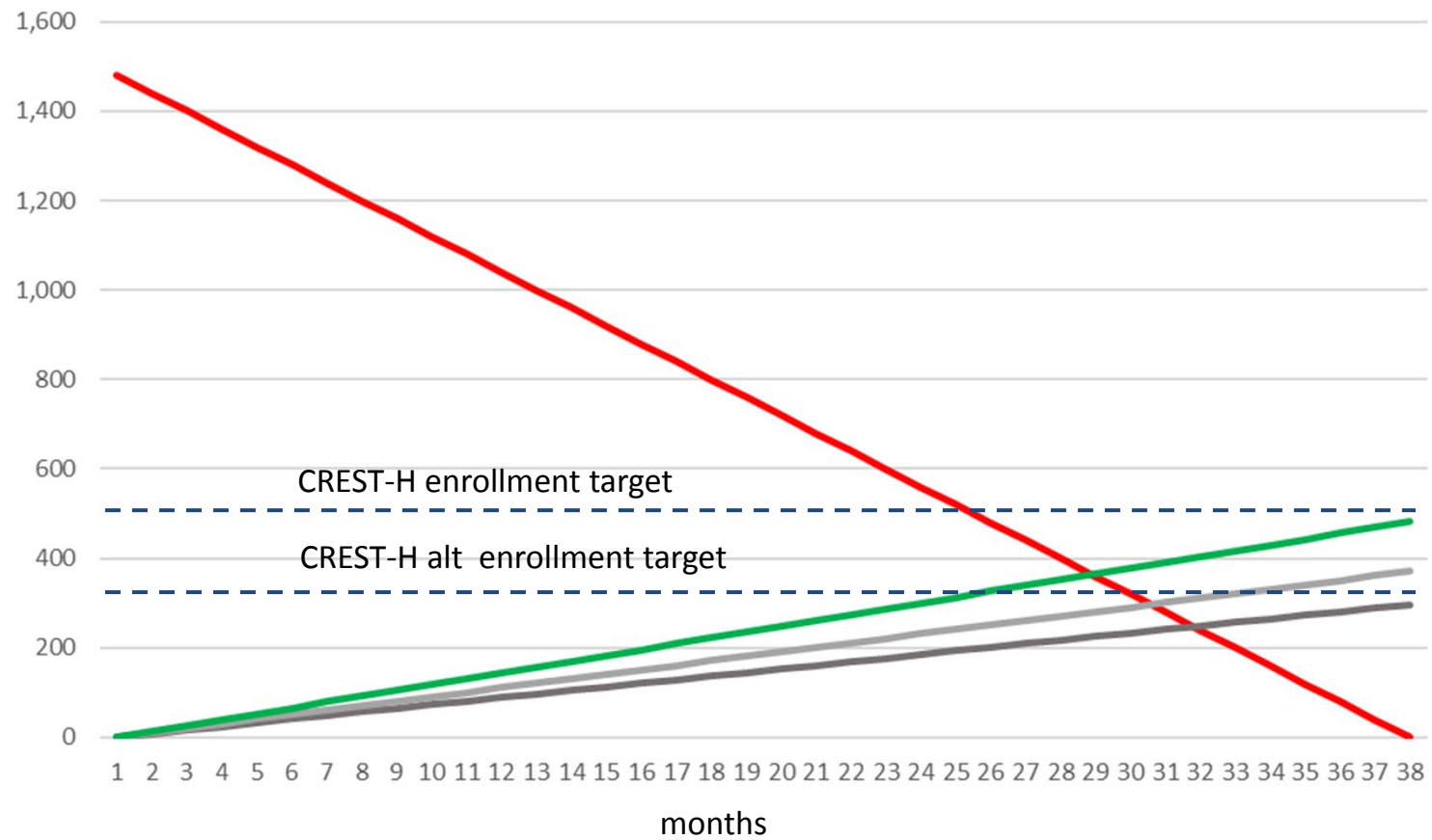
Green lighted: 31

Close to green light: 4

Total in pipeline: 63

Withdrawn: 3

The Ancillary Study Challenge



CREST-2 remaining

CREST-H enrolled (10/mo)

CREST-H enrolled (8/mo)

CREST-H enrolled (13/mo)

Participating sites –Thank you!

- UPMC (5)
- Iowa (3)
- Columbia (3)
- Michigan Vascular (3)
- Weill Cornell (1)
- SUNY Buffalo (1)
- North Central Heart (1)
- Gundersen (1)
- Maine Medical (1)
- Mayo Clinic Rochester (1)
- U Florida Shands (1)
- U Washington Harborview (1)
- USC/Keck (1)
- U Penn
- Houston Methodist
- Mayo Clinic Florida
- MUSC
- Mercy Medical St Louis
- Northwestern
- Overlake Hospital
- Tennova Turkey Creek
- UCLA
- U Miami
- Utah
- U Wisconsin
- VA Puget Sound
- Vancouver General
- Yale
- Intermountain Health
- Kaiser Perm Los Angeles
- Huntsville Heart