

Targeted Ablation of Sympathetic Neurons Reduces Ventricular Arrhythmias and Autonomic Dysreflexia

(continued from page 1)

afferent neurons. These structural neuroplastic changes were associated with a decreased susceptibility to ischemia-induced sustained ventricular tachycardia.

Furthermore, CTB-SAP injected into the celiac ganglion reduced the number of sympathetic post-ganglionic neurons in the celiac ganglia and virtually eliminated sympathetic pre-ganglionic neurons of spinal cord segments T5-T12 without altering afferent function. Similarly, these neuroplastic changes were associated with a reduced AD.

Thus CTB-SAP retrogradely transported from the peripheral ganglia is effective at ablating specific sympathetic neurons and reducing the susceptibility to ventricular arrhythmias and AD. Additional studies are required to further characterize the physiological responses to this procedure as well as determine if this new approach is safe and efficacious for the treatment of conditions associated with excess sympathetic activity.

References

1. Lujan HL, Palani G, Peduzzi JD and DiCarlo SE. Targeted ablation of mesenteric projecting sympathetic neurons reduces the hemodynamic response to pain in conscious, spinal cord-transected rats. *Am J Physiol Regul Integr Comp Physiol* 298: R1358-R1365, 2010.
2. Lujan HL, Palani G, Zhang L and DiCarlo SE. Targeted Ablation of Cardiac Sympathetic Neurons Reduces the Susceptibility to Ischemia-Induced Sustained Ventricular Tachycardia in Conscious Rats. *Am J Physiol Heart Circ Physiol* 2010.

SfN 2010 Poster of the Year Award

Send your Abstract info to ATS for consideration for this year's award. The winner contributes the cover article in the January 2011 *Targeting Trends* issue, receives \$500 product credit and a number of other special ATS gifts. We look forward to seeing your wonderful work.

See you in San Diego!



Starting a new lab? Waiting for equipment?

Let us test your materials for you. ATS is expert at conducting *in vitro* assays with targeted toxins.

Send us your primary antibody, peptide or protein, ligand, or lectin. When the *in vitro* results confirm the desired specificity, ATS can prepare a custom saporin conjugate.

Email ATS (ats@ATSbio.com) or call toll-free (877) 889-2288

\$3 Million Award to Develop Cancer Pain Drug

(continued from page 2)

human health, help advance the mission of NIH and its Institutes and Centers, and create significant value and economic stimulus. The BRDG-SPAN pilot is intended to help address the funding gap, often called the "Valley of Death", between innovative promising research and development (R&D) and transitioning those innovations to the market, by contributing to the critical funding needed by applicants to carry out later stage research activities and to pursue the next appropriate milestone(s) necessary to move a product/technology along a promising commercialization pathway. This program also aims to foster partnerships among a variety of research and development (R&D) collaborators.

About Advanced Targeting Systems (San Diego, CA)

Advanced Targeting Systems was founded in 1994 as a research reagent company. It has pioneered the use of Molecular Neurosurgery, the use of cell-specific targeting to Activate, Terminate or Stun cells for therapeutic or research purposes. The same principles are now being used by workers studying diabetes, immunology, cancer and other disease states.

About Scott & White Cancer Research Institute (Temple, TX)

The Scott & White Cancer Research Institute (CRI), a

non-profit arm of Scott & White Healthcare, is designed to accelerate the development of new therapies for human diseases. Dr. Arthur Frankel heads CRI and is the leading expert on the use of targeted toxins in cancer, having served for more than 20 years in their clinical use.

About M.D. Anderson Cancer Center (Houston, TX)

M.D. Anderson Cancer Center has been selected by US News and World Report, again, as the leading hospital in the United States for cancer treatment. Dr. Allen Burton is Professor and Chair of the Department of Pain Medicine at M.D. Anderson Cancer Center with over 60 publications on cancer chronic pain. He has joined the team to assist in protocol design and to direct the Phase 1/2 clinical study. Dr. Burton's department saw over 10,000 patients last year for cancer-related pain.

About Cato Research (HQ: Durham, NC with locations worldwide)

Cato Research is a full-service contract research organization with 20 years of experience. Their highly-qualified team offers integrated drug development services, including CMC, nonclinical, clinical and regulatory strategies as well as clinical trial support for drugs, biologics, diagnostics and medical devices.