

## Table of Contents

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### In Memoriam

- 623 Wilfred Gordon Bigelow (1914-2005)**  
*Tirone E. David, MD, Toronto, Ontario, Canada*
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### Cardiopulmonary Support and Physiology (CSP)

- 624 Gene transfection with human hepatocyte growth factor complementary DNA plasmids attenuates cardiac remodeling after acute myocardial infarction in goat hearts implanted with ventricular assist devices**  
*Yukitoshi Shirakawa, MD, Yoshiki Sawa, MD, Yoshiaki Takewa, MD, Eisuke Tatsumi, MD, Yasufumi Kaneda, MD, Yoshiyuki Taenaka, MD, and Hikaru Matsuda, MD, PhD, Osaka, Japan*

There have been several efforts to look for alternatives to increase the chance of “bridge to recovery” in the impaired heart supported with an LVAD. We performed gene therapy with hHGF-cDNA plasmids in the impaired goat heart with LVAD support. This strategy may enhance the chance of bridge to recovery.

- 633 Effects of off-pump versus on-pump coronary artery bypass grafting on function and viability of circulating endothelial progenitor cells**  
*Marc Ruel, MD, MPH, Erik J. Suuronen, PhD, Jianming Song, MD, MSc, Varun Kapila, BSc, Derek Gunning, MD, Geeta Waghray, BSc, Fraser D. Rubens, MD, MSc, and Thierry G. Mesana, MD, PhD, Ottawa, Ontario, Canada*

The systemic responses of endothelial progenitor cells (EPCs) to off-pump versus on-pump CABG have not been previously examined. We prospectively studied the number, migratory function, and viability of EPCs after off-pump and on-pump CABG in 20 patients and observed that both off-pump and on-pump CABG elicit mobilization of EPCs into the peripheral blood. However, only on-pump CABG significantly impairs the migratory function and viability of these vascular repair cells after surgery. Further work is necessary to determine whether the function and viability of EPCs correlate with vascular outcomes and whether their therapeutic modulation may one day benefit CABG patients.

- 640 Endoplasmic reticulum stress induced in motor neurons by transient spinal cord ischemia in rabbits**  
*Masahiro Sakurai, MD, PhD, Goro Takahashi, MD, PhD, Koji Abe, MD, PhD, Takashi Horinouchi, MD, PhD, Yasuto Itoyama, MD, PhD, and Koichi Tabayashi, MD, PhD, Sendai and Okayama, Japan*

We demonstrated that immunoreactivities for both Grp78 and caspase12 were induced in the same motor neuron that eventually dies. These results suggest that endoplasmic reticulum stress was induced in motor neurons by transient spinal cord ischemia in rabbits.

*(continued on page 12A)*