

New publication focuses on molecular imaging and cardiovascular conditions

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The *Journal of Nuclear Medicine* (JNM)—the top-rated medical imaging journal worldwide—has published Multimodality Molecular Imaging of the Cardiovascular System, presenting the state of the art of cardiovascular molecular imaging and discussing opportunities and challenges in advancing cardiovascular molecular imaging to clinical practice.

"Cardiovascular molecular imaging is still a relatively novel field," said Heinrich R. Schelbert, M.D., Ph.D., editor-in-chief of JNM. "The supplement represents a composite of the work being done—which will help us to understand more than we have ever known about the heart and will pave the way for future research."

This peer-reviewed supplement, available in May 2010, provides in-depth research on a broad range of topics related to cardiovascular molecular imaging and combines the work of several scientific communities—including radiology, cardiology and nuclear medicine—to provide a comprehensive overview of this emerging field.

"The creation of multidisciplinary basic and translational research teams that employ cellular and molecular imaging will lead to improved management of [cardiovascular disease](#)," said Albert J. Sinusas, M.D., director of cardiovascular imaging at Yale University in New Haven, Conn., and guest editor of the JNM supplement.

Articles in the new publication investigate topics that cover the entire

spectrum of technology currently used to visualize the heart, including ultrasound, MRI, radiotracers, novel probes and other advances in instrumentation. Some articles discuss the use of intravascular devices that go inside the heart, while others approach the heart from noninvasive imaging perspectives. Also covered are areas of great potential, such as [stem cell therapy](#) and the introduction of [nanoparticles](#) for "theranostics"—the combination of diagnostics and therapy for [drug delivery](#). Several research articles examine multiple methods of imaging the heart as it goes through the repair process following a [heart attack](#) called "remodeling."

The supplement also examines the role of molecular imaging in explaining the cellular processes that underlie prevalent heart diseases, such as atherosclerosis (hardening of the artery walls). With better understanding of the molecular biology of atherosclerosis, researchers hope to be able to diagnose it in its earliest stages.

"These studies were conducted with the goal of understanding how to prevent diseases that affect the heart by detecting them before they manifest," said Sinusas. "Another goal was to identify individual risk factors so that physicians can direct patients to the right therapy and use imaging to evaluate whether that therapy is working."

Provided by Society of Nuclear Medicine

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