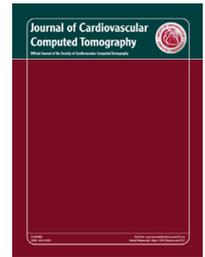


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## From the Desk of the President

# President's page: Ten years of innovation in cardiac CT



Dear colleagues and friends,

It is truly an honor to be the President of the Society of Cardiovascular Computed Tomography (SCCT). It is particularly exciting when the Society prepares to celebrate its 10th anniversary during the next annual meeting in Las Vegas in July 2015. However, I would like to take a step back and look to our past, which will no doubt help us prepare for the future.

It is difficult to pinpoint when the field of cardiac CT was born. The use of coronary CT angiography (CCTA) was first described using electron beam CT in 1995<sup>1</sup> and then further validated against invasive angiography in 1998.<sup>2</sup> Four-slice multidetector CT (MDCT) was first introduced in the year 2000 and the first publications on CCTA appeared soon thereafter in 2001.<sup>3</sup> Sixteen-slice MDCT CCTA was initially validated in the years 2002 to 2003.<sup>4–6</sup> However, it was not until the introduction of 64-slice MDCT in late 2004<sup>7</sup> that the field took off and reliable evaluation of the coronary arteries was made possible with few nonevaluable segments and good correlation with invasive coronary angiography.<sup>8,9</sup>

Since the introduction of 64-slice MDCT 10 years ago, the area of cardiac CT has evolved at an incredible pace: from single-center to multi-center trials; from retrospective studies to prospective randomized trials; from relatively high radiation exposure to low-dose sub-mSv acquisition; from retrospective gating to prospective acquisition; from filtered back projection to iterative reconstruction; from the field of coronary imaging to assessment of left ventricular function, myocardial perfusion, viability, and cardiac valves; from skepticism by some to incorporation in major guidelines; and finally, from clinical research to implementation in routine clinical practice.

Founded in 2005, the SCCT through its dynamic approach has been making a major difference to the development of cardiac CT over the past years. It has certainly achieved its vision of becoming the international professional society representing physicians, scientists, and technologists advocating for research, education, and clinical excellence in the use of cardiovascular CT. This is because of some great leaders in the past, starting with Stephan Achenbach as its first president, and then succeeded by Michael Poon, Dan Berman, Jack Ziffer, Matthew Buddoff, James Min, John Lesser, and



Jeffrey Carr, all of them outstanding representatives, who positively influenced the field of cardiac CT.

So, where do we go from here? I am very optimistic about the present and the future of the Society and of cardiac CT. We have matured as a field. Now it is time to grow. Innovation is in our DNA. The physicians and members attracted to this Society have intrinsic core values of innovation, collaboration, and desire to advance the knowledge of cardiac disease through scientific evidence. We are not comfortable with the status quo. As a field, we are very close to the “one stop shop” for simultaneous assessment of coronary stenosis, left ventricular function, and myocardial perfusion. The field of stress perfusion CT is evolving. Fractional flow reserve CT has rapidly progressed in the recent years. Recent technology developments in CT hardware and software will allow us to bring these advances to clinical practice in the near future. The Journal of Cardiovascular Computed Tomography is the destination for important submissions in the field. The Society continues to foster international expansion through the International Regional Committees, and the field of cardiac CT is

becoming more and more global. Further educational activities are available year round with our winter meeting in Hawaii and several planned webinars and future-dedicated hands-on workshops in transcatheter aortic valve replacement and stress CT perfusion. New guidelines are planned for this upcoming year including recently completed guidelines in the use of CCTA for patients presenting with chest pain to the emergency department and an expert consensus document in congenital heart disease, and 2 new guidelines focus on providing treatment guidance of calcium score results and an expert consensus document in performance and acquisition of stress CT perfusion. Our newly redesigned Web site is a platform for new online educational activities and content. We continue to invest in our future with the engagement of the fellows and residents in training committee, the FIRST committee, who share similar core values and will lead us into the digital age and social media. Finally, in the era of population health and bundled payments, cardiac CT has a major opportunity to determine its value owing to its high diagnostic accuracy, ability to guide clear next steps in patient management, and relatively lower cost. The way ahead for the field of cardiac CT will require accurate assessment of the most efficient use of noninvasive imaging modalities for managing a population and well-defined episodes of care.

As stated in the best seller “Good to Great”, by Jim Collins, first you need to have the right people inside the bus for an organization to prosper. This is the first and most difficult step. I do believe that SCCT has the right members with the right core values. Now it is up to us to continue to expand in this journey and continue to innovate and collaborate.

I am looking forward to working closely with you in the upcoming year with major focus on providing a forum for the involvement of the many talented and diverse individuals attracted to this unique field of cardiac CT.

Please, plan ahead and come to celebrate with us the 10th anniversary of SCCT in Las Vegas in July 2015.

#### REFERENCES

1. Moshage EW, Achenbach S, Seese B, Bachmann K, Kirchgeorg M. Coronary artery stenoses: three-dimensional

- imaging with electrocardiographically triggered, contrast-agent enhanced, electron-beam CT. *Radiology*. 1995;196:707–714.
2. Achenbach S, Moshage W, Ropers D, et al. Value of electron-beam computed tomography for the noninvasive detection of high-grade coronary-artery stenoses and occlusions. *N Engl J Med*. 1998;339:1964–1971.
3. Achenbach S, Giesler T, Ropers D, et al. Detection of coronary artery stenoses by contrast-enhanced, retrospectively electrocardiographically-gated, multislice spiral computed tomography. *Circulation*. 2001;103:2535–2538.
4. Nieman K, Cademartiri F, Lemos PA, Raaijmakers R, Pattynama PMT, Feyter PJ. Reliable noninvasive coronary angiography with fast submillimeter multislice spiral computed tomography. *Circulation*. 2002;106:2051–2054.
5. Ropers D, Baum U, Pohle K, et al. Detection of coronary artery stenosis with thin-slice multi-detector row spiral computed tomography and multiplanar reconstruction. *Circulation*. 2003;107:664–666.
6. Hoffmann U, Moselewski F, Cury RC, et al. Predictive value of 16-slice multidetector spiral computed tomography to detect significant obstructive coronary artery disease in patients at high risk for coronary artery disease: patient-versus segment-based analysis. *Circulation*. 2004;110:2638–2643.
7. Flohr T, Stierstorfer K, Raupach R, Ulzheimer S, Bruder H. Performance evaluation of a 64-slice CT system with z-flying focal spot. *Rofo*. 2004;176(12):1803–1810.
8. Leber AW, Knez A, von Ziegler F, et al. Quantification of obstructive and nonobstructive coronary lesions by 64-slice computed tomography: a comparative study with quantitative coronary angiography and intravascular ultrasound. *J Am Coll Cardiol*. 2005;46(1):147–154.
9. Leschka S, Alkadhi H, Plass A, et al. Accuracy of MSCT coronary angiography with 64-slice technology: first experience. *Eur Heart J*. 2005;26(15):1482–1487.

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