A Report of Scientific Program in ASCI 2019

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The 13th Congress of the Asian Society of Cardiovascular Imaging (ASCI 2019) was successfully held from 21st March (Thu) to 23rd March (Sat) 2019 in Taipei, Taiwan. The theme of ASCI 2019 is “Precision cardiovascular imaging: learning from the heart for a better life.” Accordingly, the scientific program was designed to emphasize enhanced understanding of the heart through cardiovascular imaging to improve personalized treatment of cardiovascular disease. The Scientific Program Committee invited 89 speakers and moderators from 17 countries, with 52 lectures arranged in 17 scientific sessions. The conference attracts 403 attendees from 21 countries, and 171 submissions encompassing scientific abstracts, case reports, and educational posters. Table 1 lists the numbers of the attendees, submissions, invited lectures, invited speakers and moderators. The sequence is sorted by numbers to appreciate the levels of participation from different countries. The invited lectures were arranged and placed in 6 scientific sessions including plenary session, update lecture, “ASCI Meets” session, educational course, refresher course and joint symposium. Table 2 lists the detailed topics of each scientific session.

As the technology and experience in coronary CT angiography become mature, demands in using cardiac CT to differentiate flow-limiting and non-flow-limiting coronary lesions are rising. Therefore, one of the hot topics of ASCI 2019 is applications of CT-fractional flow reserve based on computational fluid dynamics and CT myocardial perfusion imaging to patients with ischemic heart disease. This is evidenced from two plenary speeches entitled “Personalized precision medicine: functional CT imaging of the heart” delivered by Dr. Joseph Schoepf, and “State of art of cardiac CT: from plaque imaging to ischemia detection” by Dr. Gianluca Pontone. In the era of artificial intelligence (AI), another hot topic of the meeting is the application of AI to cardiovascular imaging. For this, we invited four speakers to the update lecture entitled “AI in cardiovascular imaging” to introduce recent advance in AI applications in leading medical centers in USA, Korea, Taiwan and China. In addition, there were three presentations on AI in the Best Young Presentation Award (BYPA) session, ASCI-SCCT Taiwan Joint Symposium and Fast Poster Presentation. Aging society is becoming a tremendous healthcare burden as human lifespan increases. To address this challenge, active research has been undergoing to study the impact of aging on cardiovascular structure and function. For this, we arranged another update lecture entitled “CVI in age-associated cardiovascular disorder” and provided three speeches on CVI findings in diabetes mellitus, lipid disorder and hypertension. As for cardiac MR, we are pleased to learn substantial progress in 4D flow MRI, multi-parametric mapping of the myocardium, and accelerated coronary MRA using compressed sensing, especially how these novel CMR techniques provide clinical benefits to patients with various cardiovascular diseases.

The awardees of ASCI 2019 included Dr. Yung-Liang Wan receiving ASCI Outstanding Award, and Dr. Hyun Woo Goo receiving ASCI Gold Medal. The conference was culminated by announcing BYPA in the closing ceremony. The award went to Dr. Zhennan Li to recognize his works on “Predictive models for early adverse aorta-related events in patients with type A intramural hematoma: a clinical and CT based analysis.”

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Table 1. Numbers of attendee, submissions, lectures and speakers/moderators in ASCI 2019

Country	Attendee	Country	Submission	Country	Lectures	Country	Speakers or moderators
Taiwan	225	Taiwan	69	USA	12	Korea	24
Korea	42	China	61	Taiwan	9	Taiwan	23
China	28	Korea	12	Korea	9	USA	10
Japan	22	Japan	11	Japan	5	Japan	7
Hong Kong	19	Hong Kong	4	China	3	China	6
Vietnam	13	Indonesia	4	Germany	3	Hong Kong	4
USA	12	Vietnam	3	Hong Kong	2	Singapore	3
Singapore	10	Singapore	3	Singapore	2	Indonesia	2
Philippines	7	USA	1	UK	2	UK	2
Thailand	7	Philippines	1	Kazakhstan	2	Vietnam	1
Malaysia	4	Australia	1	Switzerland	2	Thailand	1
Indonesia	3	Macau	1	Italy	1	Australia	1
Australia	2	Thailand	0	Vietnam	0	Germany	1
Macau	2	Malaysia	0	Philippines	0	India	1
UK	2	UK	0	Thailand	0	Italy	1
Germany	1	Germany	0	Malaysia	0	Kazakhstan	1
India	1	India	0	Indonesia	0	Switzerland	1
Italy	1	Italy	0	Australia	0	Philippines	0
Kazakhstan	1	Kazakhstan	0	Macau	0	Malaysia	0
Switzerland	1	Switzerland	0	India	0	Macau	0
Portugal	0	Portugal	0	Portugal	0	Portugal	0
Total	403	Total	171	Total	52	Total	89

Table 2. Topics of scientific sessions in ASCI 2019

Sessions	Topics
Plenary Session	Cardiac CT & MR: Precision cardiovascular imaging
Update Lecture	AI in cardiovascular imaging CVI in age-associated cardiovascular disorder
“ASCI Meets” Session	“ASCI meets SCMR”: Novel CMR technologies in precision medicine “ASCI meets ESCR”: CT and MR of coronary artery disease “ASCI meets EACVI”: Congenital heart disease: assessment before and after treatment “ASCI meets NASCI”: Arrhythmogenic heart disease: challenges and values
Educational Course	Clinical assessment of myocardial blood flow Clinical assessment of cardiac structure and function Clinical assessment of TAVR The latest clinical experience and technology of coronary CTA All about dual energy CT imaging for cardiovascular disease Clinical Diagnosis of hypertrophic cardiomyopathy & MR application
Refresher Course	State of the art vessel imaging Morphology and function of the coronary arteries CVI of myocardial lesions
Joint Symposium	ASCI-SCCT Taiwan Joint Symposium: Cardiac imaging in preventive cardiology