Cardiovascular scientific communication: From conferences/clinical to clinical/conferences

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April 19, 2024

Abstract

Good scientific communication is helpful in improvement of cardiovascular health and life due to a number of scientific highlights and conducting the outcomes of both basic studies and clinical trials in cardiovascular disease (CVD). In this article, the author proposed new concepts of scientific communication from conferences/clinical to clinical/conferences (Co2Cl & Cl2Co), discusses related roles in clinical practice and translational studies as well as scientific innovation. Since international scientific conferences or congresses focus on prevention, health promotion, education and training as well as treatment or management and rehabilitation of CVD, Co2Cl & Cl2Co are beneficial to improvement of cardiovascular health and quality of life due to a number of scientific breakthroughs and a series of discoveries in cardiovascular medicine. Both models of Co2Cl & Cl2Co contribute to better cardiovascular scientific communication, excellent clinical practice and translational research as well as better scientific innovation, in particular the pandemic and post-COVID-19 era.

INTRODUCTION

Since the World Health Organization (WHO) announced the end of the COVID-19 pandemic, global economic and social development and various production and life activities have significantly recovered. Although the epidemic has not completely disappeared, many activities that could only be carried out online during the pandemic have begun to shift towards online + offline modes, and even returned to the active offline mode before the COVID-19 pandemic.

CURRENT MAJOR INTERNATIONAL SCIENTIFIC CONFERENCES IN CARDIOVASCULAR MEDICINE

Currently, there are a series of academic activities (such as seminars, forums, and conferences) in the field of biomedicine in the globe, which include not only life science and basic medicine but also pure clinical medicine. For example, there are a series of international scientific conferences or congress in cardiovascular medicine (Table 1) every year from the American College of Cardiology (ACC), American Heart Association (AHA), European Society of Cardiology (ESC)/European Society of Hypertension (ESH), as well as the China Heart Congress (CHC) and Chinese Society of Cardiology (CSC), the Great Wall International Congress of Cardiology (GW-ICC),[1] the Oriental Congress of Cardiology (OCC) and Southern Congress of Cardiology (SCC). Of course, there are also a lot of international conferences or congress on special biomedical topics from locals to nations or regions.

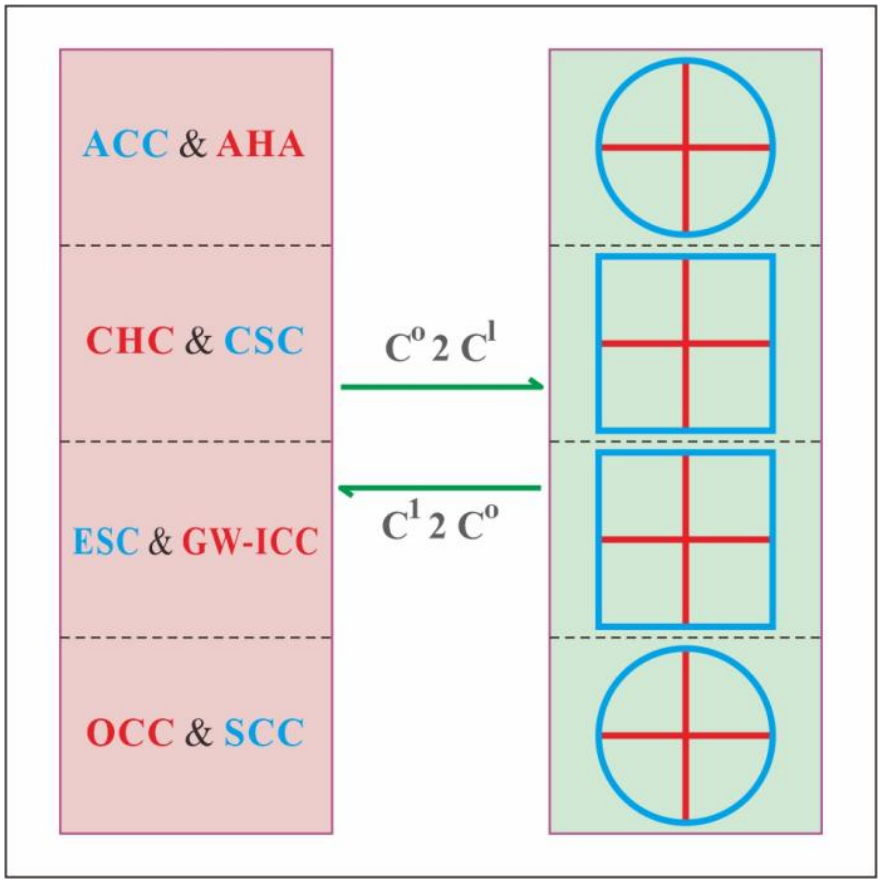

Figure 1 Scientific communication: From conferences/clinical to clinical/conferences ($C^{o}2C^{l}$ & $C^{l}2C^{o}$). Since current international scientific conferences or congresses in the field of cardiovascular medicine focus on prevention, health promotion, education and training as well as treatment or management and rehabilitation of cardiovascular disease (CVD), the new concepts of $C^{o}2C^{l}$ & $C^{l}2C^{o}$ are beneficial to and helpful in improvement of human cardiovascular health and quality of life due to conducting the outcomes of both basic studies and clinical trials in CVD as well as a number of scientific breakthroughs and a series of discoveries in cardiovascular medicine in the new era. Here, ACC: the American College of Cardiology; AHA: the American Heart Association; ESC: the European Society of Cardiology; CHC: the China Heart Congress; CSC: the Chinese Society of Cardiology; GW-ICC: the Great Wall International Congress of Cardiology; OCC: the Oriental Congress of Cardiology; SCC: Southern Congress of Cardiology.

NEW CONCEPTS OF CARDIOVASCULAR SCIENTIFIC COMMUNICATION: FROM CONFERENCES/CLINICA TO CLINICAL/CONFERENCES

Here, the author proposes new concepts of scientific communication: From conferences/clinical to clinical/conferences, which are referred as to $C^{o}2C^{l}$ & $C^{l}2C^{o}$. The former is from conferences to clinical, the latter, of course, is from clinical to conferences (Figure 1). On the one hand, $C^{o}2C^{l}$ can enable participating scholars, researchers, and clinical doctors to more directly and quickly get the latest information, experience, and results of large-scale clinical trials from these conferences, and bring these novel knowledge and information, such as clinical trials in heart failure,[2] hypertension guidelines,[3] expert consensus on COVID-19,[4] and interventional therapeutics[5] to their clinical and labs or experimental rooms, thereby accelerating the translation and application of these academic fruits. On the other hand, $C^{l}2C^{o}$ can bring in time a lot of excellent clinical studies or trials and significant discoveries to famous scientific conferences or forums, and

pass the latest research results and information to international peers, and help carrying out more and better clinical practices. Herein, both the speakers and the online and offline audiences may benefit together from these fresh knowledge and information.

CARDIOVASCULAR SCIENTIFIC COMMUNICATION FOR COOPERATION, INNOVATION AND TRANSLATIONAL APPLICATION

There are some good recommendations on clinical studies,[6] innovation for new treatments and community health needs multilevel cooperation.[7-9] In fact, a series of international scientific conferences focused on better innovation and high effective translation application as well as good cooperation. Herein, the knowledge translation and science communication are important for public outreach in scientific exchange.[10] However, since there aren't enough effective connectivity, it may hamper optimal fast-track implementation of translational research findings into health care. Herein, as good bridges of connectivity, both $C^{o}2C^{l}$& $C^{l}2C^{o}$ play a crucial role in good cooperation, better innovation and high effective translational applications, and in fact, these are also vital goals of scientific communication (Figure 2), and these may contribute to fast-track implementation of translational research findings into routine clinical care.[11]

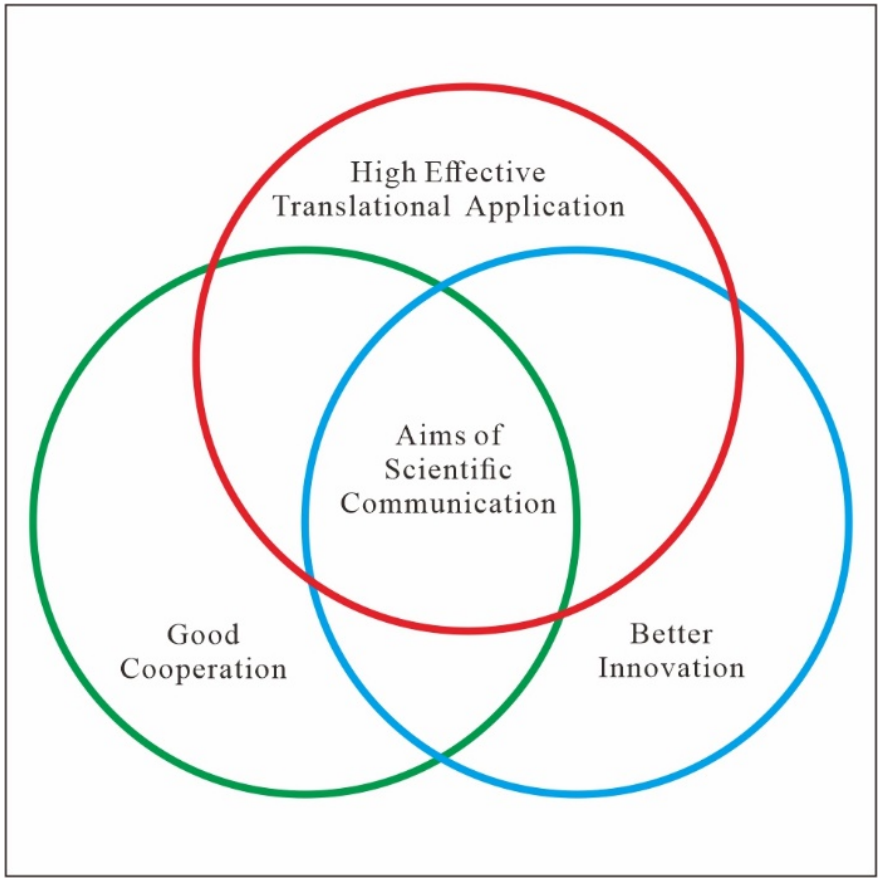

Figure 2 Aims of Scientific Communication. Good cooperation, better innovation, and high effective translational application are crucial goals of major international scientific conferences or congresses. These are also pivotal values of both $C^{o}2C^{l}$ & $C^{l}2C^{o}$.

A series of studies showed that clinical trials may help to select programs and agents for CVD and Covid-19. For example, the coronary artery calcium score had better effect than the polygenic risk score for risk prediction of coronary heart disease.[12] Immediate multivessel percutaneous coronary intervention (PCI) was

noninferior to staged multivessel PCI in hemodynamically stable condition with ST elevation myocardial infarction and multivessel coronary artery disease.[13] Among critically ill cases with COVID-19, initiation of an ACE inhibitor or ARB did not have substantial more benefits.[14] Use of fluvoxamine (twice daily for 10 days) did not improve time to sustained recovery in outpatient case with mild to moderate COVID-19.[15] But VV116 was noninferior to nirmatrelvir-ritonavir for mild-to-moderate COVID-19.[16] In addition, a group-based educational intervention may significantly reduce opioid use for chronic pain.[17] Outcome-based and goal-directed financial incentives were similarly and more effective for weight loss in low-income populations with obesity.[18] These fruits originated from clinical trials may be conducted by both $C^{o}2C^{l}$ & $C^{l}2C^{o}$ models for better communication among international peers and more applications in clinical practice. For example, the theme for the Tenth AORTIC International Conference on Cancer in Africa in Morocco in 2015 was "Road map to Cancer Control in Africa",[19] which called for application of innovative technologies for combating cancer, such as new generation sequencing.[20] International experts at the 8th AFNET/EHRA consensus conference supported that implementation of new evidence-based approaches to AF screening and rhythm management can improve outcomes in patients with AF.[21]

BOTH $C^{o}2C^{l}$ AND $C^{l}2C^{o}$ MODELS IMPROVE CARDIOVASCULAR SCIENTIFIC INNOVASTION

Indeed, more innovative technologies and discoveries will help to improve the control and prevention of CVD. For example, innovative digital health interventions can be an effective strategy to reduce cardiovascular risk,[22] clonal hematopoiesis of indeterminate potential links to an increased risk of CVD due to the role of inflammasomes,[23] polygenic risk scores-triaged coronary artery calcium score for subclinical coronary artery disease.[24] In fact, moderate and severe chronic kidney disease measures may improve CVD risk prediction,[25]and CVD events (such as AF, HF, and stroke) strongly and independently associate with future risk of kidney failure with replacement therapy.[26] As a potential means for CVD risk stratification, artificial intelligence-based ocular image analysis[27] contributes to the identification and prediction of CVD risks and events. Chinese herbal remedies have shown promise in regulating cardiac ion channels and providing new opportunities for developing novel anti-arrhythmic agents,[28] but more high-quality studies like RCTs are needed for further clinical application.[29] However, all these innovative technologies and discoveries also need to translate into clinical application by both $C^{o}2C^{l}$ & $C^{l}2C^{o}$ models. And after ethics approval from the local ethics committees, a series of findings can be disseminated through scientific meetings and peer-reviewed journals and via social media.[22]

CONCLUSIONS

In conclusion, since major international scientific conferences in cardiovascular medicine mainly focus on basic and clinical studies, prevention, health promotion, education and training as well as treatment or management and rehabilitation of CVD, they are beneficial to and helpful in improvement of human cardiovascular health and quality of life due to conducting the outcomes of both basic studies and clinical trials in CVD, a number of scientific highlights and a series of discoveries in cardiovascular medicine. For example, "traditional Chinese medicine Hot Pot"[30] and single-cell RNA sequencing[20] have been novel strategies and new tools for combating both COVID-19 infection and CVD. In addition, $C^{o}2C^{l}$ & $C^{l}2C^{o}$ have more desirable meanings: people can see more significant original innovations from scratch ($C^{o}2C^{l}$, here, C=see) and from existence to nothingness ($C^{l}2C^{o}$), for example, removing CVD, eliminating diabetes, and eradicating cancer. Herein, both $C^{o}2C^{l}$ & $C^{l}2C^{o}$ contribute to better scientific communication, excellent clinical practice and translational studies as well as better scientific innovation, in particular the COVID-19 pandemic and post-COVID-19 era.

Table 1 Major international scientific conferences in cardiovascular medicine in the globe

Conference Names	Countries or Regions	Frequents	Web Address
American College of Cardiology (ACC)	United States	Annual Congress	https://accscientificsession.acc.org/en

American Heart Association (AHA)	United States	Annual Congress	https://professional.heart.org/en/meet sessions
Asian Pacific Society of Cardiology (APSC) Congress	Asia-Pacific region	Annual	https://www.apsc2023singapore.com/
Association of Thoracic and Cardiovascular Surgeons of Asia (ATCSA)	Asia	Annual Meeting	N/A
Canadian Cardiovascular Congress (CCC)	Canada	Annual	https://cardiocongress.ca/ or https://ccs.ca/
China Heart Congress (CHC)	China	Annual	http://www.chinaheartcongress.com/n
Cardiovascular and Interventional Radiological Society of Europe (CIRSE)	Europe	Annual Congress	https://www.cirse.org/
Cardiometabolic Health Congress (CMHC)	United States	Annual	N/A
Cardiovascular Research Technologies (CRT)	United States	Annual Forum	https://www.crtmeeting.org/Default.a
Chinese Society of Cardiology (CSC)	China	Annual Congress	https://csc.cma.org.cn/index.html
European Atherosclerosis Society (EAS)	Europe	Annual Congress	https://eas-congress.com/2023/
European Heart Rhythm Association (EHRA)	Europe	Annual Meeting	https://www.escardio.org/Congresses-&-Events/EHRA-Congress
European Society of Cardiology (ESC)	Europe	Annual Congress	https://www.escardio.org/Congresses-Events/ESC-Congress
ESC-Association for Acute CardioVascular Care (ACVC)	Europe	Annual Congress	https://www.escardio.org/Sub-specialty-communities/Association-for-Acute-CardioVascular-Care-(ACVC)/Congresses-and-Events
ESC-Heart Failure Association (ESC-HFA)	Europe	Annual Congress	https://www.escardio.org/Congresses-Events/Heart-Failure
European Society of Hypertension (ESH)	Europe	Annual Meeting	https://www.eshonline.org/meetingsev meeting/
European Association of Cardiovascular Imaging (EACVI): (EuroEcho)	Europe	Annual Congress	https://www.cv-imaging.org/echo

ESC-European Association for Percutaneous Cardiovascular Interventions (EuroPCR)	Europe	Annual Meeting	https://www.expobeds.com/event/eur pcr
ESC-Frontiers in CardioVascular Biomedicine (FCVB)	Europe	Annual Meeting	https://www.escardio.org/Congresses-Events/Frontiers-in-Cardiovascular-Biomedicine/About-the-congress
Great Wall International Congress of Cardiology (GW-ICC)	China	Annual	http://www.gw-icc.com/
Heart Failure Society of America	United States	Annual Scientific Meeting	https://hfsa.org/
Heart Rhythm Society (HRS)	United States	Annual Scientific Meeting	https://www.hrsonline.org/
International Heart Congress (IHS)	Magnus Group LLC	Annual	https://heart.magnusconferences.com/
Japanese Society for Cardiovascular Surgery (JSCVS)	Japan	Annual Meeting	N/A
Japanese Society for Vascular Surgery (JSVS)	Japan	Annual Meeting	https://www.jsvs.org/en/
Northeastern Cardiovascular Forum (NCF)	China	Annual	http://www.ncforum.cn/NCF/2023/
Oriental Congress of Cardiology (OCC)	China	Annual	https://www.occmd.org/
Society for Cardiovascular Angiography & Interventions (SCAI)	United States	Annual Congress	https://scai.org/education-and-events/events-schedule/socime-annual-congress-joint-scai-sessions
South China International Congress of Cardiology (SCC)	China	Annual	http://www.sc-icc.com
Transcatheter Cardiovascular Therapeutics (TCT)	United States	Annual Global Forum	https://tct2023.crfconnect.com/
TCTAP CardioVasucular Research Foundation (CVRF) & Heart Institute of Asian Medical Center	Asia-Pacific region (Seoul, Korea)	Annual	https://summit-tctap.com/2024/

Acknowledgments

The reviewers and editors are gratefully acknowledged for critical review.

Contributors Concept and design: CH. Acquisition, analysis, or interpretation of data: CH. Drafting of the manuscript: CH. Critical revision of the manuscript for important intellectual content: CH. Administrative, technical, or material support: CH. The author had full access to all of the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis.

Funding No funding for this study was received.

Competing interests None declared.

Patient consent for publication Not applicable.

Ethical approval Not applicable.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement Data are available upon reasonable request.

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