

First quinquennium completed: highlights from *EHJ Open* 2025

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In this editorial, the Editors present some of the scientific highlights from the past year that, in different ways, illustrate the breadth, diversity, and ongoing momentum of *EHJ Open*. These examples are not intended as an exhaustive catalogue of all the exceptional work published over the year but rather serve as a representative reflection of the journal's scientific scope and its place in today's cardiology landscape. Since many equally important contributions are not included here, we invite you to fully explore the journal's content, which is all open access and available to all.

Structural heart disease and valve innovation

Recent advances in structural heart disease that were published in *EHJ Open* last year highlighted a deepened integration of imaging, biology, genetics, and clinical decision-making.

Valvular heart disease is a fast-evolving branch of interventional cardiology, driven by innovation and cumulating clinical evidence. The timing of intervention in asymptomatic severe aortic stenosis is one of the topics for which benefits in truly low-risk individuals remain nuanced and require individualized interpretation.¹ After the EARLY TAVR trial showing that earlier intervention in asymptomatic severe aortic stenosis reduced major cardiovascular events by 50%,² current ESC/EACTS Guidelines state that intervention should be considered in asymptomatic

severe, high-gradient AS with preserved LVEF as an alternative to close active surveillance when procedural risk is low.³

Findings from the Atherosclerosis Risk in Communities (ARIC) study⁴ reported on associations of ankle brachial index (ABI), a marker of subclinical atherosclerosis, with coronary artery and extra-coronary vascular and valvular calcification in 1420 older participants.⁵ A low ABI (≤ 0.9) had the strongest association with coronary calcium calcification and weakest with cardiac valve calcification, whereas a high ABI (≥ 1.3) tended to be more strongly associated with valvular calcification than with vascular calcification.⁵ This suggests distinct pathophysiology of calcification across vascular beds and cardiac valves.⁶ For the future perspectives in this area, medical treatments for aortic stenosis to control disease progression are now moving forward into true translation of experimental and observational studies into clinical trials.⁷ The vitamin K-dependent matrix Gla-protein prevents calcium phosphate precipitation and crystallization and anticoagulant vitamin K antagonists have been associated with valvular calcifications, thereby raising the notion of vitamin K to prevent valvular calcification.⁸ The randomized clinical trial PASSPORT evaluates vitamin K1 supplementation as a potential disease-modifying therapy for non-severe calcific aortic stenosis using CT-based quantification of valve calcium as the primary endpoint.⁹ This opens up for novel avenues towards a long-awaited effective medical therapy to complement the present interventional solutions.

The opinions expressed in this article are not necessarily those of the Editors of the *European Heart Journal Open* or of the European Society of Cardiology.

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A complete understanding of pathophysiological process and the identification of future therapeutic targets need to be taken into consideration because of the spatial heterogeneity of valvular disease-driving processes.¹⁰ To this end, combining CUBIC and SWITCH histological techniques¹¹ allows to render of calcified tissues transparent.¹² Application of the latter protocol to human calcified aortic valves revealed organized and heterogeneous valvular neuronal networks,¹² which represents a previously inaccessible anatomical layer for morphological analyses that expands the valvular pathobiology to neuro-immune biology.

Beyond the aortic valve, structural interventions for mitral regurgitation were clarified in a comprehensive meta-analysis comparing surgical mitral valve repair with mitral transcatheter edge-to-edge repair (m-TEER). Although mortality was comparable, surgery was associated with lower rates of heart failure rehospitalization and significantly fewer mitral valve reinterventions.¹³ Finally, LTBP2 mutations were shown in both humans and mice to drive myxomatous mitral valve degeneration via dysregulated TGF- β signalling,¹⁴ providing a clear molecular anchor for future perspectives in mitral regurgitation in addition to current precision strategies, advanced imaging, and novel transcatheter technologies.

Cardio-oncology complexities of bleeding risk in antithrombotic treatments

The Special Cardio-oncology Article Collection in the fifth volume of *EHJ Open* covered a breadth of how malignancies and their treatments may reshape both acute and chronic cardiovascular trajectories, as previously highlighted.¹⁵ One of today's major cardio-oncological challenges is the bleeding risk, which may represent a key clinical determinant guiding antithrombotic decisions.¹⁶ Among patients admitted for STEMI receiving percutaneous coronary intervention in the UK between 2005 and 2019, cancer conferred a 50% increased risk of major bleeding compared with non-cancer patients after adjustment for baseline differences, pointing to mitigating bleeding risk in STEMI with cancer is of paramount importance to improve outcomes.¹⁷ Complementing these findings, adding cancer as a binary variable to the five-point PRECISE-DAPT score¹⁸ was recently shown to improve its discrimination ability.¹⁹ In the first external validation cohort however, although PRECISE-DAPT Cancer Score categorized more cancer patients at high bleeding risk, this resulted in only marginal improvement for the discrimination of bleeding events compared with the original PRECISE-DAPT score without taking cancer into consideration.²⁰

Inflammation and its resolution

In atherosclerotic cardiovascular disease (ASCVD), a residual inflammatory risk may exceed cholesterol-related risk in patients treated with statins.²¹ Consistent with this, a real-world analysis of 39 638 adults with ASCVD who underwent routine hsCRP and LDL-C testing showed that elevated inflammatory risk, either alone or in combination with high LDL-C, was a stronger predictor of adverse outcomes than elevated cholesterol alone.²² Advances in inflammation biology have extended the role of specialized pro-resolving mediators beyond the resolution of ASCVD-associated inflammatory processes,²³ to showing a similar orchestrating role in cardiac healing.²⁴

Dysregulation of these lipid-derived pathways may lead to a pathophysiological shift from adaptive cardiac repair to progression into heart failure.²⁴ These findings position inflammation-resolution as a therapeutic frontier extending beyond traditional anti-inflammatory strategies.

Heart failure, cardiomyopathies, and arrhythmias

Heart failure and cardiomyopathy research published in the fifth volume of *EHJ Open* highlighted the increasingly complex interplay between inflammation, electrophysiology, and metabolic derangements. Electrophysiologic remodelling also emerged as a crucial determinant of heart failure trajectories. In patients with heart failure, atrial fibrillation was associated with impaired VO₂ peak, potentially due to reduced stroke volume and/or arterio-venous oxygen difference, reinforcing atrial fibrillation as not only a comorbidity but also a direct amplifier of heart failure severity and a potential target for earlier rhythm-control strategies in selected patients.²⁵ In adult congenital heart disease (ACHD), secondary hyperparathyroidism²⁶ emerged as a surprisingly common comorbidity, observed in nearly 15% across the spectrum of ACHD and most common in complex and more severe disease, particularly those with predominant right heart involvement in the CHD-HYPER-study.²⁷ The 2025 ESC Guidelines for the management of cardiovascular disease and pregnancy endorsed the modified WHO (mWHO) classification for risk stratification,²⁸ a recommendation which received support from contemporary national registry data demonstrating an association between higher mWHO class and adverse maternal and obstetric outcomes in women with ACHD.²⁹

In summary, the articles highlighted in this editorial underline the importance of gathering all cardiology subspecialties in one common forum to not only connect basic science and clinical research but also illustrate common pathways, for example, connecting heart failure with arrhythmias, the inflammation paradigm in atherosclerosis, and valvular heart disease at the intersection with imaging, interventional cardiology, and genetics. Having completed its first quinquennium, *EHJ Open* now confidently steps towards the horizon of a decade.

Data availability

There are no new data associated with this article.

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References

- Lancellotti P, Coisne A, Cosyns B, Dulgheru R, Garbi M, Hong G-R, Hanzevacki JS, Moscarelli M, Sugimoto T, Donal E, Fattouch K, Habib G, Vannan M, Pibarot P. Early aortic valve intervention in asymptomatic severe aortic stenosis: a clinical dilemma in evolution. *Eur Heart J Open* 2025;5:oeaf114.
- Genereux P, Schwartz A, Oldemeyer JB, Pibarot P, Cohen DJ, Blanke P, Lindman BR, Babaliaros V, Fearon WF, Daniels DV, Chhatrwalla AK, Kavinsky C, Gada H, Shah P, Szerlip M, Dahle T, Goel K, O'Neill W, Sheth T, Davidson CJ, Makkar RR, Prince H, Zhao Y, Hahn RT, Leipsic J, Redfors B, Pocock SJ, Mack M, Leon MB. Transcatheter aortic-valve replacement for asymptomatic severe aortic stenosis. *N Engl J Med* 2025;392:217–227.
- Praz F, Borger MA, Lanz J, Marin-Cuartas M, Abreu A, Adamo M, Ajmone Marsan N, Barili F, Bonaros N, Cosyns B, De Paulis R, Gamra H, Jahangiri M, Jeppsson A, Klautz RJM, Mores B, Pérez-David E, Pöss J, Prendergast BD, Rocca B, Rossello X, Suzuki M, Thiele H, Tribouilloy CM, Wojakowski W; ESC/EACTS Scientific Document Group. 2025 ESC/EACTS guidelines for the management of valvular heart disease. *Eur Heart J* 2025;46:4635–4736.
- The ARIC investigators. The Atherosclerosis Risk in Communities (ARIC) study: design and objectives. *Am J Epidemiol* 1989;129:687–702.
- Bansah EC, Ejiri K, Kim E, Mok Y, Cainzos-Achirica M, Tanaka H, Howard-Claudio CM, Butler KR, Hughes TM, Van't Hof JR, Meyer ML, Blaha MJ, Matsushita K. Association of ankle-brachial Index with coronary and extra-coronary calcification in older adults: ARIC study. *Eur Heart J Open* 2025;5:oeaf133.
- Petri MH, Haftbaradaran Esfahani P, Plunde O, Bäck M. Decoding the ankle-brachial index in peripheral artery disease: coronary versus valvular calcification. *Eur Heart J Open* 2025;5:oeaf134.
- Blaser MC, Bäck M, Luscher TF, Aikawa E. Calcific aortic stenosis: omics-based target discovery and therapy development. *Eur Heart J* 2025;46:620–634.
- Bäck M, Michel JB. From organic and inorganic phosphates to valvular and vascular calcifications. *Cardiovasc Res* 2021;117:2016–2029.
- Courtney WA, Walker J, Dorai-Raj A, Gilbert T, Rajwani A, Bellinge JW, Hodgson JM, Hillis GS, Schultz CJ. Testing if vitamin K1 reduces the progression of non-severe calcific aortic stenosis: design and rationale of the Prevention of Aortic Stenosis Progression Phylloquinone Ossification Reduction Trial (PASSPORT). *Eur Heart J Open* 2025;5:oeaf144.
- Schlotter F, Halu A, Goto S, Blaser MC, Body SC, Lee LH, Higashi H, DeLaughter DM, Hutcheson JD, Vyas P, Pham T, Rogers MA, Sharma A, Seidman CE, Loscalzo J, Seidman JG, Aikawa M, Singh SA, Aikawa E. Spatiotemporal multi-omics mapping generates a molecular atlas of the aortic valve and reveals networks driving disease. *Circulation* 2018;138:377–393.
- Tainaka K, Murakami TC, Susaki EA, Shimizu C, Saito R, Takahashi K, Hayashi-Takagi A, Sekiya H, Arima Y, Nojima S, Ikemura M, Ushiku T, Shimizu Y, Murakami M, Tanaka KF, Iino M, Kasai H, Sasaoka T, Kobayashi K, Miyazono K, Morii E, Isa T, Fukayama M, Kakita A, Ueda HR. Chemical landscape for tissue clearing based on hydrophilic reagents. *Cell Rep* 2018;24:2196–2210.e2199.
- Bergeon J, Hupin D, Hu J, Le Guyader S, Franco-Cereceda A, Bäck M. 3D immunolabelling of human aortic valves by optimized CUBIC tissue clearing and its application for neural mapping in aortic stenosis. *Eur Heart J Open* 2026;6:oeaf156.
- Di Pietro G, Improta R, Lattanzio A, Roscioli A, Birtolo LI, Tocci M, Colantonio R, Sardella G, Fedele S, Pavone N, Saade W, Miraldi F, Mancone M. Mitral Transcatheter edge-to-edge repair rivals surgery for survival despite less complete correction: a systematic review and meta-analysis of randomized and propensity score matching studies. *Eur Heart J Open* 2025;5:oeaf135.
- Shpitzen S, Rosen H, Ben-Zvi A, Meir K, Levin G, Gudgold A, Ben Dor S, Haffner R, Zwas DR, Leibowitz D, Slaugenhaupt SA, Banin E, Mizrahi R, Obolsky A, Levine RA, Gilon D, Leitersdorf E, Tessler I, Reshef N, Durst R. Characterization of LTBP2 mutation causing mitral valve prolapse. *Eur Heart J Open* 2025;5:oeaf106.
- Herrmann J. Advance at a glance: contributions to cardio-oncology. *Eur Heart J Open* 2025;5:oeaf075.
- Lyon AR, Lopez-Fernandez T, Couch LS, Asteggiano R, Aznar MC, Bergler-Klein J, Boriani G, Cardinale D, Cordoba R, Cosyns B, Cutter DJ, de Azambuja E, de Boer RA, Dent SF, Farmakis D, Gevaert SA, Gorog DA, Herrmann J, Lenihan D, Moslehi J, Moura B, Salinger SS, Stephens R, Suter TM, Szmit S, Tamargo J, Thavendiranathan P, Tocchetti CG, van der Meer P, van der Pal HJH; ESC Scientific Document Group. 2022 ESC Guidelines on cardio-oncology developed in collaboration with the European Hematology Association (EHA), the European Society for Therapeutic Radiology and Oncology (ESTRO) and the International Cardio-Oncology Society (IC-OS). *Eur Heart J* 2022;43:4229–4361.
- Dafaalla M, Costa F, Jia H, Wijesundera H, Rashid M, Graham MM, Wojakowski W, Chieffo A, Mintz GS, Mamas MA. Ischaemic and bleeding risk after ST-elevation myocardial infarction in patients with active cancer: a nationwide study. *Eur Heart J Open* 2025;5:oeaf012.
- Costa F, van Klaveren D, James S, Heg D, Raber L, Feres F, Pilgrim T, Hong M-K, Kim H-S, Colombo A, Steg PG, Zanchin T, Palmerini T, Wallentin L, Bhatt DL, Stone GW, Windecker S, Steyerberg EW, Valgimigli M. Derivation and validation of the predicting bleeding complications in patients undergoing stent implantation and subsequent dual antiplatelet therapy (PRECISE-DAPT) score: a pooled analysis of individual-patient datasets from clinical trials. *Lancet* 2017;389:1025–1034.
- Dafaalla M, Costa F, Kontopantelis E, Araya M, Kinnaird T, Micari A, Jia H, Mintz GS, Mamas MA. Bleeding risk prediction after acute myocardial infarction-integrating cancer data: the updated PRECISE-DAPT cancer score. *Eur Heart J* 2024;45:3138–3148.
- von Koch S, Mamas MA, Dafaalla M, Costa F, Koul S, Jernberg T, Erlinge D, Mohammad MA. Prediction of major bleeding events for patients with dual antiplatelet therapy after myocardial infarction—a validation of the PRECISE-DAPT cancer score. *Eur Heart J Open* 2025;5:oeaf137.
- Ridker PM, Bhatt DL, Pradhan AD, Glynn RJ, MacFadyen JG, Nissen SE; PROMINENT, REDUCE-IT, and STRENGTH Investigators. Inflammation and cholesterol as predictors of cardiovascular events among patients receiving statin therapy: a collaborative analysis of three randomised trials. *Lancet* 2023;401:1293–1301.
- Mazhar F, Capodanno D, Hjemdahl P, Sjolander A, Gerward S, Mathisen J, Plunde O, Kunadian V, Jernberg T, Carrero J-J. Inflammatory and cholesterol

- risks and rates of major cardiovascular events among patients with atherosclerotic cardiovascular disease in routine care. *Eur Heart J Open* 2026;**6**:oeag023.
23. Bäck M, Yurdagul A Jr, Tabas I, Oorni K, Kovanen PT. Inflammation and its resolution in atherosclerosis: mediators and therapeutic opportunities. *Nat Rev Cardiol* 2019;**16**:389–406.
24. Halade GV, Bäck M, Kain V. Inflammation-resolution signalling in cardiac repair, remodelling, and heart failure. *Eur Heart J Open* 2025;**5**:oeaf157.
25. Schmid V, Foulkes SJ, Dziano JK, Wang J, Verwerft J, Elliott AD, Haykowsky MJ. The impact of atrial fibrillation on oxygen uptake and haemodynamics in patients with heart failure: a systematic review and meta-analysis. *Eur Heart J Open* 2025;**5**:oeaf003.
26. Fraser WD. Hyperparathyroidism. *Lancet* 2009;**374**:145–158.
27. Löffler F, Garlich JC, Linhorst K, Silber-Peest AS, Uehlein S, Leitolf H, Terkamp C, Deterding K, Bauersachs J, Westhoff-Bleck M. Secondary hyperparathyroidism in adult congenital heart disease: the CHD-HYPER-study. *Eur Heart J Open* 2025;**5**:oeaf141.
28. De Backer J, Haugaa KH, Hasselberg NE, de Hossou M, Brida M, Castelletti S, Cauldwell M, Cerbai E, Crotti L, de Groot NMS, Estensen M-E, Goossens ES, Haring B, Kurpas D, McEniery CM, Peters SAE, Rakisheva A, Sambola A, Schlager O, Schoenhoff FS, Simoncini T, Steinbach F, Sudano I, Swan L, Valente AM; ESC Scientific Document Group. 2025 ESC Guidelines for the management of cardiovascular disease and pregnancy. *Eur Heart J* 2025;**46**:4462–4568.
29. Jonsson S, Johansson B, Wikström AK, Dahlqvist JA, Christersson C, Sorensson P, Trzebiatowska-Krzynska A, Dellborg M, Thilén U, Sundström-Poromaa I, Bay A. The modified WHO class is associated with maternal complications in women with congenital heart disease. *Eur Heart J Open* 2025;**5**:oeaf081.