

A short history of the European Association of Preventive Cardiology (EAPC)

Guy De Backer (1) 1*, Joep Perk², David Wood³, Stephan Gielen⁴, Antonio Pelliccia⁵, Diederick Grobbee⁶, Paul Dendale⁷, and Hugo Saner⁸

¹Department of Public Health and Primary Care, Ghent University, University Hospital, C. Heymanslaan 10, Ghent B 9000, Belgium; ²Department of Health and Caring Sciences, Linnaeus University, Kalmar, Sweden; ³National Institute for Prevention and Cardiovascular Health, National University of Ireland Galway, Galway, Ireland; ⁴Klinikum Lippe, Bielefeld University, Detmold, Germany; ⁵Institute of Sport Medicine and Science, Rome, Italy; ⁶Julius Center for Health Sciences and Primary Care and University Medical Center Utrecht, Utrecht, the Netherlands; ⁷Heart Centre Hasselt and Hasselt University, Hasselt, Belgium; and ⁸ARTORG Center for Biomedical Engineering Research, Gerontechnology & Rehabilitation, University of Bern, Bern, Switzerland

Received 3 December 2021; revised 13 January 2022; editorial decision 3 February 2022; accepted 4 February 2022; online publish-ahead-of-print 11 February 2022

Keywords

Preventive cardiology • History • EAPC

It all started with the European Society of Cardiology

In 1946 and 1948, in connection with the Second and Third Inter-American Congresses of Cardiology held in Mexico and Chicago, several leading European cardiologists discussed the creation of a European Society of Cardiology (ESC). In 1949, a preliminary meeting was held in Brussels with representatives from 14 countries (Belgium, Denmark, Finland, France, Greece, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, and Yugoslavia). A provisional Executive Board prepared a draft constitution, and in 1950, in connection with the World Congress of Cardiology, held in Paris, the ESC was officially established.

The first European Congress of Cardiology was held in London in 1952. Subsequently, European Congresses were held every 4 years. However, with the rapid development of cardiology, the ESC began to evolve its strategies, activities and organization in the 1970s. An important part of these plans was the creation of Working Groups (WGs) in the main fields of cardiovascular (CV) medicine. At the ESC Congress held in Amsterdam in 1976, some WGs were then established, including the WG on Epidemiology and Prevention. In 1980, the WG on Exercise Physiology, Physiopathology, and Electrocardiography was founded, and in 1984, the WG on Cardiac Rehabilitation. As a preparation for the shift to the annual European Congresses Joint WG Meetings were held in 1978 in Brighton, UK; in 1981, in Pavia, Italy; in 1983, in Spa, Belgium; in 1985, in Brighton, UK; and in 1987, in Santiago de Compostela, Spain.

A brief history of the ESC has been written in 2008 by its pastpresidents in a booklet. In 2021, the ESC unites 57 national cardiac societies and comprises 29 CV subspeciality communities covering the full spectrum of cardiology including 7 Associations, 15 WGs, and 7 Councils.

Creation and activities of the ESC Working Group on Epidemiology and Prevention

The background leading to the creation of the ESC WG on Epidemiology and Prevention stems from developments in the 1960s within the International Society and Federation of Cardiology (ISFC), now called the World Heart Federation. In 1966, at the World Congress of Cardiology, held in New Delhi, India, eight Scientific Councils were established as official arms of the ISFC to promote scientific life of the Society. One of them was the Scientific Council on Epidemiology and Prevention. The ISFC Council (later called Section) on Epidemiology and Prevention was open to physicians and other scientists interested in the epidemiology and prevention of cardiovascular diseases (CVDs). The annual 10-Day International Teaching Seminars on Cardiovascular Epidemiology and Prevention started in 1968 and became the main undertaking of the ISFC Section on Epidemiology and Prevention to promote training of researchers. K. Pyörälä (Finland) who was the secretary and the late G. Rose (UK) chairman-elect of the ISFC Section on epidemiology and prevention realized in 1976 that the creation of a network of European researchers, working in the field of CVD epidemiology and prevention, could promote collaboration and progress in this field. A proposal was made to create a WG on Epidemiology and Prevention within the

ESC with G. Rose and H. Günther (German Democratic Republic) as founding chairpersons and K. Pyörälä as secretary. This was approved by the ESC Board at the ESC Congress in Amsterdam in 1976.

The central aim of the WG on Epidemiology and Prevention from its very beginning was to get a good representation of epidemiological research in the programmes of the ESC meetings, particularly the ESC Congresses. The underlying thought was that results of epidemiological research on the causes of CVD and results of major prevention trials would reach cardiologists and physicians in clinical practice.

In addition to this, the WG also arranged its own separate meetings which have been scientifically successful and socially rewarding. The first stand-alone meeting of the WG was held in 1979 in Dublin, Ireland and at that meeting the document on organizational arrangements of the WG was accepted. Further separate meetings have been held in different places in Europe.

The ESC WG on Epidemiology and Prevention took a leading role in the development of the Joint European Societies' recommendations on prevention of coronary heart disease in clinical practice, published in 1994 in collaboration with the European Atherosclerosis Society and the European Society of Hypertension, followed by guidelines in 1998 and 2003. The implementation of the guidelines in Europe has been monitored by the Joint European Societies CVD Prevention Committee.

The research projects initiated by the WG included the first ESC registry, the EUROASPIRE survey of secondary prevention of CHD across nine countries in 1995–96 led by D. Wood (UK).² This was the fore runner of the ESC EuroHeart Survey Programme, created in 1999 by M. Simoons (the Netherlands), which progressively evaluated guideline implementation across all cardiology specialities. The second EUROASPIRE survey in 1999–2000 was incorporated in the EuroHeart Survey programme and evaluated secondary prevention across 15 countries.³

The SCORE project⁴ initiated and led by I. Graham (Ireland) developed scoring systems for CVD risk assessment based on European cohort study data and was first incorporated in the third update of the European guidelines on CVD prevention.

The ESC WG on Epidemiology and Prevention served the same stimulatory role as the AHA Council on Epidemiology and Prevention. Among the common undertakings was the Frederick H. Epstein memorial lecture, established by Mrs Epstein in 1998 in memory of her husband who had taken a leading role in preventive cardiology.

Creation and activities of the ESC Working Group on Cardiac Rehabilitation and Exercise Physiology

For many years, patients who suffered an acute myocardial infarction (AMI) were kept in bed for several weeks. On discharge, all strenuous activities were forbidden for at least a year. This recommendation of enforced bedrest was largely based on empiricism rather than on experiment. In the early 1950s, this belief was questioned and the first inpatient progressive physical activity programme, the arm-chair

treatment, for patients after an AMI was reported in 1952.⁵ In the 1960s' with the proliferation of coronary care units earlier mobilization after an AMI became more accepted. At that time 'rehabilitation' was almost exclusively exercise training and given de economic situation of the 'golden sixties' complemented by some vocational readjustments. Later the multidimensional aspects of cardiac rehabilitation (CR) were acknowledged, and a multidisciplinary team approach was strongly recommended.

Among the Scientific Councils established within the ISFC in 1966, the Scientific Council on Cardiac Rehabilitation achieved worldwide recognition as one of the most productive Councils of the ISFC.

H. Denolin (Belgium) who was president of the ESC in 1976–80 had great interest in exercise physiology and CR and promoted the creation of WGs on these topics. A *Working Group on Exercise Physiology, Physiopathology and Electrocardiography* was founded in 1980 by the late J-M. Detry (Belgium) and by B. Caru (Italy).

In 1984, a Working Group on Cardiac Rehabilitation was founded by P. Mathes (Germany) and by the late R. Mulcahy (Ireland). From then on, these WGs were present on every congress of the ESC. In addition, frequent WG meetings took place in many European countries.

In 1994, the WG on Exercise Physiology, Physiopathology and Electrocardiography merged with the WG on Cardiac Rehabilitation into the Working Group on Cardiac Rehabilitation and Exercise Physiology. The aims and goals of the joint WG were multiple including a good acceptance of exercise-based CR by medical professionals, integrate professional education in CR and exercise testing/training for CV patients into the core curriculum of the European cardiologist, organize training courses in CR and exercise testing/training at the European level, start a European CR database, start a Quality-of-Life project and support international multicentre research in CR.

The work of the WG on Cardiac Rehabilitation and Exercise Physiology was very successful and most goals have been achieved. In 1998, the first Spring Meeting of the WG has been organized at the University Hospital Inselspital in Bern, Switzerland (H. Saner) and this was followed by Spring Meetings organized in Udine, Italy (P. Fioretti), Bergen, Norway (H. Björnstad), Leipzig, Germany (R. Hambrecht), and Leuven, Belgium (L. Vanhees). In 2003, the first Position Paper entitled 'Secondary Prevention through Cardiac Rehabilitation' has been published in the European Heart Journal⁶ under the guidance of P. Giannuzzi (Italy) who later became president of the European Association of Preventive Cardiology (EAPC) but sadly died in 2016.

The number of CR programmes and settings increased steadily and the progress has been documented in various surveys in Europe such as the CArdiac Rehabilitation INformation Exchange (CARINEX) survey,⁷ the European Cardiac Rehabilitation Inventory survey (ECRI)⁸ and in a more recent survey by Abreu *et al.*⁹ The ESC Education and Training Programme for Cardiac Rehabilitation and Exercise Training became the ESC Training Course for Cardiovascular Prevention and Rehabilitation and is organized since 2006 at the University Hospital Inselspital, Bern, Switzerland. Other educational courses were organized under the auspices of the EACPR notably on ergospirometry in Veruno, Italy and on research methods in Mürren, Switzerland.

The European CR database has been successfully started and results have contributed to increase the quality of service provision

A short history of the EAPC 1303

around Europe. The Quality-of-Life project has successfully been started with research projects in 22 different countries resulting in a reliable Heart Qol questionnaire which is actually available in 32 languages.

The origin of Sports Cardiology and its merge in the WG on Cardiac Rehabilitation and Exercise Physiology and in the EACPR/EAPC

Sports Cardiology is a relatively younger specialty within the area of preventive cardiology. The recognition of exercise and training as pivotal tools in the primary and secondary prevention of coronary heart disease, other than the massive growth of the exercise programmes and sport participation in the western countries was the main trigger for the development of Sports Cardiology.

Historically, the first scientific society of Sports Cardiology was founded in 1983 in Rome, Italy chaired by A. Venerando, with the aim to investigate and translate into clinical practice the effects of exercise and sport on the CV system.

The first international congress on Sports Cardiology was held in Fiuggi (Italy) in 1984.

A. Biffi (Italy) organized in 2001 at the Heart House the first ESC course on Sports Cardiology, which was seen as the birthday of the Sports Cardiology activities. In 2002, the Group of Sports Cardiology was officially recognized within the ESC and included in the WG on Cardiac Rehabilitation and Exercise Physiology; the organizing committee being H. Bjørnstad, L. Vanhees, A. Pelliccia (Italy), and D. Corrado (Italy),

The targets of Sports Cardiology mission were rooted on both research and clinical practice. Research focused on the understanding of the mechanisms and limits of CV adaptation to training; in the clinical field the interest went into the identification of CVD risk during exercise and into the prevention of sudden cardiac death in athletes.

Over the years from 1990 to present, several investigations, mostly from the group of A. Pelliccia and S. Sharma (UK), have extensively described the physiological and clinical features of the 'athlete's heart' and the differential diagnosis from cardiac diseases.

Indeed, large interest was globally focused on strategies to prevent sudden cardiac death on the athletic field. In this context, a special mention deserves the prolific activity of D. Corrado, who established the first registry on sudden cardiac death in athletes in the 90s with results of the screening strategy reported to the scientific community.

The Sports Cardiology section was both the nest and the amplifier for these scientific achievements and two main European consensus documents were released by the group in 2005: (i) the role of preparticipation screening as strategy to reduce the burden of sudden death in competitive athletes and (ii) the guidelines to advise participation in competitive sport in individuals with CVD.

These consensus documents ^{10,11} represented a milestone in the field of CV medicine. These documents gained international visibility and represented the seed for subsequent consensus documents and

guidelines of the EACPR regarding the exercise and sport programmes in patients with CVD.

From then, Sports Cardiology has been growing exponentially within the cardiology community, thanks also to the multiple educational activities, including dedicated sessions within the Associations' annual congress, as well as webinars, seminars, specialized courses and, more recently, internationally attended master courses in Sports Cardiology implemented in London, UK, Padua, Italy and recently in Siena, Italy.

The development of the European Association for Cardiovascular Prevention and Rehabilitation (EACPR) and its evolution to the European Association of Preventive Cardiology (EAPC)

The creation of the EACPR must be seen within the framework of new developments within the ESC at the turn of the century (see Figure 1). The number of the ESC WGs had increased to 27 and there were large disparities between them in size and activities. Thus, a new organizational concept, Association, was created within the ESC and in 2003–2006 the ESC General Assembly accepted the establishment of five Associations among which the European Association for Cardiovascular Prevention and Rehabilitation (EACPR).

This creation was based on the merger of the WG on Epidemiology and Prevention with the WG on Cardiac Rehabilitation and Exercise Physiology. The ESC Board appointed a planning group to prepare the organizational structure of the EACPR.

Another important step towards a merger of both WGs had been taken in 2003 at the ESC Congress in Vienna (Austria), when these WGs got a joint journal, the European Journal of Cardiovascular Prevention and Rehabilitation (EJCPR), evolved from the Journal of Cardiovascular Risk edited by D. Wood, with H. Saner and D. Wood as the first joint editors-in-chief followed by the late P. Giannuzzi, then by D. Grobbee (the Netherlands) and actually by M. Piepoli (Italy). The journal was renamed in 2012 in the European Journal of Preventive Cardiology (EJPC) more effectively positioning the journal as the first choice for authors to submit high-quality manuscripts related to preventive cardiology. ¹² This move and the sustained editorial leadership resulted in an impact factor of 7.804 in the year 2021.

The creation of the EACPR and its role at the political, professional and scientific levels have been announced in an editorial in the EJCPR in 2004. The creation of the Association was officially accepted in 2004 at the ESC General Assembly, held during the ESC Congress 2004 in Munich. From 2004 to 2006, the Association was led by a provisional Executive Board chaired by J. Perk (Sweden) and G. De Backer (Belgium). The starting model consisted of six sections and after a building phase of 2 years, the EACPR was launched at the first EuroPRevent meeting in Athens in 2006. In preparation for this meeting, a pilot was successfully organized by L. Vanhees and G. De Backer with a first joint meeting in 2005 in Leuven, Belgium. At 2006, EuroPRevent meeting held in Athens election of Officers forming the

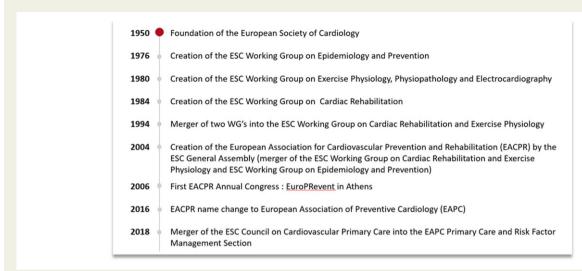


Figure I How and from where did the European Association of Preventive Cardiology start? EACPR, European Association for Cardiovascular Prevention and Rehabilitation; EAPC, European Association of Preventive Cardiology; ESC, European Society of Cardiology; WG, working group

Executive Board of the Association and Officers and Nucleus Members of the Sections took place. H. Saner (from the former WG on Cardiac Rehabilitation and Exercise Physiology) was elected as the President (2006–2008) and D. Wood (from the former WG on Epidemiology and Prevention) as the President-Elect. The main task of the first elected EACPR board was to bring the different interests from the six sections together with one vision, one goal and a common action plan. This was a transitory phase towards a larger common organization focusing on the main and common goal which is preventive cardiology. Following the presidency of D. Wood (2008– 2010) the late P. Giannuzzi took the lead (2010-2012) followed by S. Gielen (Germany) (2012–2014), A. Pelliccia (Italy) (2014–2016), D. Grobbee (2016–2018), P. Dendale (Belgium) (2018–2020) till the actual president M. Halle (Germany) (2020–2022). In 2014, the pastpresidents and the president gave their personal recollections and views in an article published in 2015 in the EJCPR. 14 In 2020, P Dendale summarized the state of the EAPC in the European Heart Journal. 15 The Association is now led by an Executive Board and consists in 2021 of four sections, five committees, and five Task Forces (see Figure 2). The vision of the actual Board has been published recently. 16 In 2016, the General Assembly of the EACPR and the ESC Board approved a name change into 'European Association of Preventive Cardiology' (EAPC). This name change was an important turning point in the history of the Association and represented a landmark shift in focus and positioning of the Association in the ESC. EACPR bore the marks of an Association that was formed from different entities that worked together but still kept their own identities. The name change marked the migration of Preventive Cardiology to centre stage in the ESC. The re-branding of EuroPRevent into ESC Preventive Cardiology Congress in 2020 and the earlier name change of the EJCPR into the European Journal of Preventive Cardiology (EJPC) should be viewed in the same sense.

All this also reflects the Association's adoption of a new strategy comprising all fields of preventive cardiology—primordial, primary, and secondary prevention of CVD—including preventive care in

primary care settings. In August 2018, the ESC General Assembly approved the ESC Council of Cardiovascular Primary Care merging into the new EAPC section of Primary Care and Risk Factor Management. This section is contributing to EAPC's mission by 'investigating, defining standards, and promoting CVD prevention in the primary care setting, including risk factor management for those at risk and those with established CVD'. This section also strengthens existing connections between the EAPC nuclei and other organisations that deal with primary care and risk factor management, such as WONCA-Europe (World Organisation of Family Doctors—Europe) and the European Primary Care Cardiovascular Society (EPCCS).

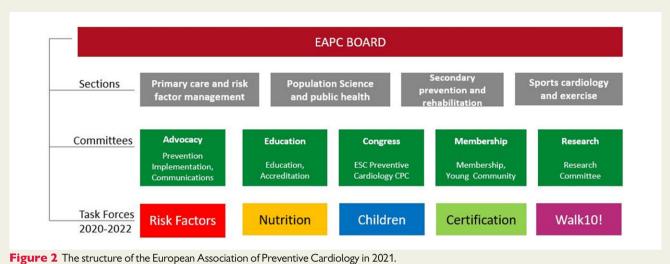
Activities of the EACPR/EAPC 2004–2021

Clinical guidelines and quality indicators in preventive cardiology

The EACPR/EAPC has continued the traditions of the former WGs with special contributions to the development of guidelines on CVD prevention. Exercise recommendations for sports participation in athletes with CV disease were originally published in 2005. 10,11 Updated consensus documents on exercise and sport participation in patients with ischaemic cardiac disease, hypertension and cardiomyopathies were subsequently released in 2018 and 2019 by the Sports Cardiology section of the EAPC. 17–19 In 2021, new guidelines on sport cardiology and exercise in patients with CVD were published under the auspices of the ESC. These guidelines, first in this field, aimed to educate clinical cardiologists on criteria for risk stratification and exercise and sport advice in patients with CVD.

The EACPR/EAPC has also contributed significantly to the 4th, 5th, 6th, and 7th Joint Task Forces that prepared the ESC Guidelines on CVD prevention in clinical practice The 7th Joint Task Force of

1305 A short history of the EAPC



the 2021 ESC Guidelines on CVD prevention in clinical practice comprised experts from different entities of the ESC with a special contribution of the EAPC and representatives of 12 other medical societies.²¹

In alignment with the 2021 ESC Guidelines on CVD prevention, the EAPC co-authored another puzzle piece in the strategy of preventive cardiology by listing quality indicators (Qls) for CVD prevention. 22,23 In total, 17 main and 14 secondary QIs have been defined covering the breadth of CVD prevention including the structural framework, risk assessment, care for people at risk for CVD, care for patients with established CVD, patient education and experience, and outcomes. These QIs offer a mechanism for the evaluation of CVD prevention and outcomes.

Research

The EACPR/EAPC also continued supporting the EUROASPIRE surveys III-V monitoring the implementation of the ESC guidelines on CVD prevention in daily practice in patients with established coronary heart disease and in high-risk subjects seen in primary health care^{24–26} and the EUROACTION demonstration project in which it was shown that a nurse-led, multidisciplinary, preventive cardiology programme could raise standards of preventive care both in hospital and in general practice.²⁷

In 2020, EAPC started collaborating for the first time in their history in a HORIZON 2020 project as a consortium partner. EAPC will play a pivotal role in the dissemination and advocacy of the results of the 'Coroprevention study' (https://coroprevention.eu), consisting of a prospective biomarker-based risk screening study in 12 000 coronary artery disease subjects and in a nested randomised clinical trial in 2000 high-risk coronary artery disease subjects in which a digital health-supported, nurse-led and cardiologist-supervised secondary prevention programme will be tested with a follow-up of 3 years, aiming at an increase of the adaptation of ESC guideline-based secondary prevention.

EAPC is also involved in shaping the digital transformation of preventive cardiology. Digital Cardiology is getting an important spot during the ESC Preventive Cardiology congresses and EAPC is

disseminating the importance of digital tools in prevention and rehabilitation through call-for-action and position papers in the EJPC.

Implementation strategies of CVD prevention

The EACPR was also involved in the leadership of the Joint European Societies CVD Prevention Committee and in the EACPR prevention implementation committee (PIC). A European summit on CVD prevention was organized in 2008 in support of practical and political implementation of the ESC Guidelines on CVD prevention and encouraging the development of national multidisciplinary task forces aimed at strengthening implementation activities. This resulted in a Call for Action and in 2010 political leaders from the EU and from the WHO, opinion leaders, national coordinators for CVD prevention, and representatives of professional partner societies were brought together aiming at the development of an effective clinical and political implementation plan adapted to socio-economic and cultural conditions.

The ESC and in particular the EACPR have worked during the last decades with increasing intensity in collaboration with the European Heart Network (umbrella organization of the European National Heart Foundations/Associations) to get CV health on the agenda of the European Union (EU). The first important step was taken in 2002 under the Spanish Presidency of the European Union, resulting in the first declaration on the importance of CVD prevention in Europe. This became reinforced and expanded in 2004 under the Irish Presidency of the EU by the Council conclusions based on a conference held in Cork, Ireland, 28 and finally led in 2005 under the Luxembourg presidency of the EU to the Luxembourg declaration reiterating the previous conclusions and recommendations on the importance of CV health and prevention of CVD.

A major step was taken on 12 June 2007—the launch of the European Heart Health Charter in Brussels, the venue of the EU Parliament. The European Heart Health Charter is the outcome of a fruitful work process of the Heart Health Charter Steering Group brought together after the Luxembourg declaration.²⁹ The Steering group was composed of members of the ESC, European Heart

Network, WHO Regional Office for Europe, European Commission, Directorate-General Health and Consumer Protection, the EACPR, and the Joint European Societies CVD Prevention Committee.

The main objective of the European Heart Health Charter is to mobilize broad support for CV health promotion and CVD prevention. Numerous European health promotion organizations have agreed to support the European Heart Health Charter.

The emerging role of the EAPC in the international scenario of scientific societies raised the need for more structured actions which has been implemented in 2016 as the Global Affair Policy (GAP) aiming at the promotion of the culture of prevention of CVD and of opportunities for collaboration. Presidents of the EAPC took active part in the congresses and initiatives of the major scientific allied societies including (but not limited to) India, Japan, Brazil, Russia, and Saudi Arabia.

Over the past two decades, the EAPC has coordinated through the PIC a network of dedicated national CVD prevention coordinators (NCPC's). These cardiologists have been appointed by their national cardiac societies with the task to act as a liaison between the EAPC and physicians and allied health workers at their national level. At present, there are 58 NCPC's from 52 ESC member countries in the network. This network is one of the main assets for the association in promoting preventive cardiology in all ESC member countries.

One of the main activities of the network is the creation of an interactive web section where a concise overview of the state of preventive cardiology is published by each national coordinator. The aim of these 'ESC Country of the month' reports at the EAPC web section is to share models of preventive care such as cardiac rehabilitation, population health data, ongoing national prevention projects which thereby may act as a source of inspiration for other countries. The PIC has the ambition to give the web section a global character in the coming years.

From EuroPRevent towards the ESC Preventive Cardiology Congress

The strategy of the EACPR/EAPC has always been to exploit all the best from the wealth of expertise that existed in the six sections of the Association. The major assets were the EJCPR journal and the EuroPRevent congresses. After the first successful EuroPRevent congress in Athens in 2006 annual meetings were organized in Madrid (2007), Paris (2008), Stockholm (2009), Prague (2010), Geneva (2011), Dublin (2012), Rome (2013), Amsterdam (2014), Lisbon (2015), Nice (2016), Malaga (2017), Ljubljana (2018), and Lisbon (2019). The COVID-19 pandemic prevented the meeting that would be called from then onwards the ESC Preventive Cardiology Congress in 2020 in Malaga, Spain. In April 2021, the ESC Preventive Cardiology Congress was to take place in Ljubljana, Slovenia but because of the on-going COVID-19 pandemic, it was organized on a virtual basis.

At the Congresses Young investigator awards are provided; in 2015, the EACPR/EAPC established the Viviane Conraads outstanding achievement award in recognition of the contribution of the late V. Conraads to CR and heart transplantation programmes.

Among the named lectures presented at the annual ESC Congress the 'ESC Geoffrey Rose lecture on population sciences' has covered important aspects of preventive cardiology for more than 25 years.

The Young Community of the EACPR/EAPC

Another relevant achievement in 2015 was the implementation of the Young Community (YC) of the EACPR/EAPC initiated by A. Pelliccia and C. Pfaff (ESC) to increase interaction among young professionals interested in prevention, rehabilitation, and sports cardiology and to share experiences and ideas for new research projects.

Since the first YC meeting at EuroPRevent 2015 in Lisbon YC has grown exponentially led by the dynamism of his first chairman, F. D'Ascenzi (Italy), followed by H. Jorstad (the Netherlands) and nowadays represents one of the major assets of the Association.³⁰

Education and training

Besides its implications in the ESC Guidelines on CVD prevention in clinical practice, the EACPR/EAPC has organized several webinars and other education and training programmes on various topics of preventive cardiology such as master classes in preventive cardiology with a focus on arterial hypertension, on diabetes and on sport cardiology, cardiac rehabilitation courses, and exercise training courses in heart failure. Together with the AHA, the ESC and the American College of Preventive Medicine, the EACPR published in 2015 a policy statement on healthy lifestyle interventions to combat noncommunicable disease. The EACPR/EAPC also collaborated in several consensus papers and position statements on rehabilitation and sports cardiology, on risk factors and prevention. A long list of these topics is available on the web section of the EAPC.

EACPR/EAPC was also strongly implicated in different books. In 2007, J. Perk and colleagues edited a book on 'Cardiovascular prevention and rehabilitation' with contributions by numerous members of the EACPR. 32

In 2015, the 'ESC Textbook on preventive cardiology' was edited by Gielen et al.³³ with an e-update in 2017. In 2016, Jennings et al.³⁴ edited the 'ESC handbook of preventive cardiology: putting prevention into practice'. In 2019, the 'ESC Textbook of sports cardiology', edited by Pelliccia et al.³⁵ was published, and in 2020, the 'ESC Handbook of cardiovascular rehabilitation- a practical clinical guide' edited by Abreu et al.³⁶ was published.

Certification and accreditation

Heterogeneity still persists among different centres in which preventive cardiology is offered despite of evidence-based solid data on its implementation. The EACPR/EAPC has addressed this from its creation including the development of an accreditation system to assess the quality of care at centres providing preventive CV care. This programme has been growing over the subsequent years and nowadays a network of accredited centres is recognized by the EAPC. The accreditation system covers secondary prevention, cardiac rehabilitation, sports cardiology, risk management, and prevention.

In 2020, a position statement was published by the EAPC defining the minimal and optimal standards for secondary prevention and rehabilitation aiming to improve preventive cardiology in clinical practice.³⁷ This work on setting standards, on Qls, on certification and

A short history of the EAPC

accreditation has been at the basis of what is now available as the EAPC Core curriculum for preventive cardiology.³⁸

Summary

The EAPC is now fit to address future challenges with a unified organization and strong multidisciplinary leadership together with the EJPC, the annual ESC Preventive Cardiology Congress, strong representation of preventive cardiology in the annual ESC Congresses, the ESC Textbook and Handbook of Preventive Cardiology, postgraduate educational activities, position papers and involvement in guidelines related to all aspects of preventive cardiology together with accreditations and a core curriculum for preventive cardiology as major assets under a common brand addressing primordial, primary, and secondary prevention of CVD.

Acknowledgements

The past-presidents of the EAPC are particularly indebted to K. Pyörälä (Finland) for his contribution to this document and also to B. Bjarnason (Germany), H. Björnstad (Norway), P. Mathes (Germany), and L. Vanhees (Belgium) who provided additional and interesting information. The authors of this publication, members of the EAPC Honorary Presidents' network, are also indebted to the professional staff members of the ESC who have been of exceptional value in preparing, organizing, and implementing various activities developed by the WGs and the EACPR/EAPC during the past decades.

Conflict of interest: The authors declared no potential conflicts of interest with respect to the authorship and publication of this article.

References

- How did the European Society of Cardiology actually begin? And where is it now? A brief history as remembered by its past-presidents. ESC 2008.
- EUROASPIRE Study group. EUROASPIRE. A European Society of Cardiology survey of secondary prevention of coronary heart disease: principal results. Eur Heart J 1997;18:1569–1582.
- EUROASPIRE Study group. Lifestyle and risk factor management and use of drug therapies in coronary patients from 15 countries. Principal results from EUROASPIRE II. Euro Heart Survey programme. Eur Heart / 2001;22:554–572.
- 4. Conroy RM, Pyörälä K, Fitzgerald AP, Sans S, Menotti A, De Backer G, De Bacquer D, Ducimetière P, Jousilahti P, Keil U, Njølstad I, Oganov RG, Thomsen T, Tunstall-Pedoe H, Tverdal A, Wedel H, Whincup P, Wilhelmsen L, Graham IM; SCORE project group. Estimation of ten-year risk of fatal cardiovascular disease in Europe: the SCORE project. Eur Heart J 2003;24:987–1003.
- Levine SA, Lown B. Armchair treatment of acute coronary thrombosis. JAMA 1952;148:1365.
- 6. Giannuzzi P, Saner H, Björnstad H, Fioretti P, Mendes M, Cohen-Solal A, Dugmore L, Hambrecht R, Hellemans I, McGee H, Perk J, Vanhees L, Veress G; Working Group on Cardiac Rehabilitation and Exercise Physiology of the European Society of Cardiology. Secondary prevention through cardiacrehabilitation: position paper of the Working Group on Cardiac Rehabilitationand Exercise Physiology of the European Society of Cardiology. Eur Heart J 2003;24:1273–1278.
- Vanhees L, McGee H, Dugmore LD, Schepers D, van Daele P. A representative study of cardiac rehabilitation activities in European union member states: the CARINEX survey. J Cardiopulm Rehab 2002;22:264–272.
- Bjarnason-Wehrens B, McGee H, Zwisler A-D, Piepoli MF, Benzer W, Schmid J-P, Dendale P, Pogosova N-GV, Zdrenghea D, Niebauer J, Mendes M; Cardiac Rehabilitation Section European Association of Cardiovascular Prevention and Rehabilitation. Cardiac rehabilitation in Europe: results from the European Cardiac Rehabilitation Inventory Survey. Eur J Cardiovasc Prev Rehabil 2010;17: 410–418.

- 9. Abreu A, Pesah E, Supervia M, Turk-Adawi K, Bjarnason-Wehrens B, Lopez-Jimenez F, Ambrosetti M, Andersen K, Giga V, Vulic D, Vataman E, Gaita D, Cliff J, Kouidi E, Yagci I, Simon A, Hautala A, Tamuleviciute-Prasciene E, Kemps H, Eysymontt Z, Farsky S, Hayward J, Prescott E, Dawkes S, Pavy B, Kiessling A, Sovova E, Grace SL. Cardiac rehabilitation availability and delivery in Europe: how does it differ by region and compare with other high-income countries? Endorsed by the European Association of Preventive Cardiology. Eur J Prev Cardiol 2019:26:1131–1146.
- 10. Corrado D, Pelliccia A, Bjørnstad HH, Vanhees L, Biffi A, Borjesson M, Panhuyzen-Goedkoop N, Deligiannis A, Solberg E, Dugmore D, Mellwig KP, Assanelli D, Delise P, van Buuren F, Anastasakis A, Heidbuchel H, Hoffmann E, Fagard R, Priori SG, Basso C, Arbustini E, Blomstrom-Lundqvist C, McKenna WJ, Thiene G. Cardiovascular pre-participation screening of young competitive athletes for prevention of sudden death: proposal for a common European protocol. Consensus Statement of the Study Group of Sport Cardiology of the Working Group of Cardiac Rehabilitation and Exercise Physiology and the Working Group of Myocardial and Pericardial Diseases of the European Society of Cardiology. Eur Heart J 2005; 26:516–524.
- 11. Pelliccia A, Fagard R, Bjørnstad HH, Anastassakis A, Arbustini E, Assanelli D, Biffi A, Borjesson M, Carrè F, Corrado D, Delise P, Dorwarth U, Hirth A, Heidbuchel H, Hoffmann E, Mellwig KP, Panhuyzen-Goedkoop N, Pisani A, Solberg EE, van-Buuren F, Vanhees L, Blomstrom-Lundqvist C, Deligiannis A, Dugmore D, Glikson M, Hoff Pl, Hoffmann A, Hoffmann E, Horstkotte D, Nordrehaug JE, Oudhof J, McKenna WJ, Penco M, Priori S, Reybrouck T, Senden J, Spataro A, Thiene G; Study Group of Sports Cardiology of the Working Group of Cardiac Rehabilitation and Exercise Physiology; Working Group of Myocardial and Pericardial Diseases of the European Society of Cardiology. Recommendations for competitive sports participation in athletes with cardiovascular disease: a consensus document from the Study Group of Sports Cardiology and the Working Group of Myocardial and Pericardial Diseases of the European Society of Cardiology. Eur Heart J 2005; 26:1422–1445.
- 12. Grobbee DE. The era of preventive cardiology. Eur J Prev Cardiol 2012;19:3-4.
- Saner H, Wood DA. The European Association of Cardiovascular Prevention and Rehabilitation—a new beginning. Eur J Cardiovasc Prev Rehabil 2004;11: 367–368.
- 14. Perk J, DeBacker G, Saner H, Wood D, Giannuzzi P, Gielen S, Pelloiccia A. The 10-year anniversary of the European Association for Cardiovascular prevention and Rehabilitation: achievements and challenges. *Eur J Prev Cardiol* 2015;**22**: 1340–1345
- 15. Dendale P, Janssen A. The European Association of Preventive Cardiology. Eur Heart | 2020;41:2610–2611.
- Halle M, Davos CH, Dendale P, Papadakis M, Pfaff C, Kränkel N. Future of preventive cardiology: EAPC vision 2020-22. Eur | Prev Cardiol 2021;28:356–358.
- 17. Niebauer J, Börjesson M, Carre F, Caselli S, Palatini P, Quattrini F, Serratosa L, Adami PE, Biffi A, Pressler A, Schmied C, van Buuren F, Panhuyzen-Goedkoop N, Solberg E, Halle M, La Gerche A, Papadakis M, Sharma S, Pelliccia A. Recommendations for participation in competitive sports of athletes with arterial hypertension: a position statement from the sports cardiology section of the European Association of Preventive Cardiology (EAPC). Eur Heart J 2018;39: 3664–3671.
- 18. Borjesson M, Dellborg M, Niebauer J, LaGerche A, Schmied C, Solberg EE, Halle M, Adami E, Biffi A, Carré F, Caselli S, Papadakis M, Pressler A, Rasmusen H, Serratosa L, Sharma S, van Buuren F, Pelliccia A. Recommendations for participation in leisure time or competitive sports in athletes-patients with coronary artery disease: a position statement from the Sports Cardiology Section of the European Association of Preventive Cardiology (EAPC). Eur Heart J 2019;40: 13–18.
- 19. Pelliccia A, Solberg EE, Papadakis M, Adami PE, Biffi A, Caselli S, La Gerche A, Niebauer J, Pressler A, Schmied CM, Serratosa L, Halle M, Van Buuren F, Borjesson M, Carrè F, Panhuyzen-Goedkoop NM, Heidbuchel H, Olivotto I, Corrado D, Sinagra G, Sharma S. Recommendations for participation in competitive and leisure time sport in athletes with cardiomyopathies, myocarditis, and pericarditis: position statement of the Sport Cardiology Section of the European Association of Preventive Cardiology (EAPC). Eur Heart J 2019;40:19–33.
- Pelliccia A, Sharma S, Gati S, Bäck M, Börjesson M, Caselli S, Collet J-P, Corrado D, Drezner JA, Halle M, Hansen D, Heidbuchel H, Myers J, Niebauer J, Papadakis M, Piepoli MF, Prescott E, Roos-Hesselink JW, Graham Stuart A, Taylor RS, Thompson PD, Tiberi M, Vanhees L, Wilhelm M; ESC Scientific Document Group. 2020 ESC Guidelines on sports cardiology and exercise in patients with cardiovascular disease. Eur Heart J 2021;42:17–96. Erratum in: Eur Heart J 2021; 42:548–549.
- Visseren F, Mach F, Smulders YM, Carballo D, Koskinas KC, Bäck M, Benetos A, Biffi A, Boavida JM, Capodanno D, Cosyns B, Crawford C, Davos CH, Desormais I, Di Angelantonio E, Franco OH, Halvorsen S, Hobbs FDR, Hollander M, Jankowska EA, Michal M, Sacco S, Sattar N, Tokgozoglu L, Tonstad S, Tsioufis

KP, van Dis I, van Gelder IC, Wanner C, Williams B; ESC Scientific Document Group. 2021 ESC Guidelines on cardiovascular disease prevention in clinical practice: Developed by the Task Force for cardiovascular disease prevention in clinical practice with representatives of the European Society of Cardiology and 12 medical societies With the special contribution of the European Association of Preventive Cardiology (EAPC). Eur Heart J 2021;42:3227–3337.

- 22. Aktaa S, Gencer B, Arbelo E, Davos CH, Désormais I, Hollander M, Abreu A, Ambrosetti M, Bäck M, Carballo D, Crawford C, Deaton C, Dendale P, Eijsvogels TMH, Galbraith M, Piepoli MF, Salzwedel A, Smulders Y, Wilhelm M, Biondi-Zoccai G, Mach F, Visseren FLJ, Gale CP; European Society of Cardiology Quality Indicators for Cardiovascular Disease Prevention: developed by the Working Group for Cardiovascular Disease Prevention Quality Indicators in collaboration with the European Association for Preventive Cardiology of the European Society of Cardiology. Eur J Prev Cardiol 2022;29: 1060–1071.
- Halle M. The ESC quality indicators for cardiovascular disease prevention: another puzzle piece in the strategy of preventive cardiology. Eur J Prev Cardiol 2022;29:1057–1059.
- 24. Kotseva K, Wood D, De Backer G, De Bacquer D, Pyörälä K, Keil U; EUROASPIRE Study Group. EUROASPIRE III: a survey on the lifestyle, risk factors and use of cardioprotective drug therapies in coronary patients from 22 European countries. Eur | Cardiovasc Prev Rehabil 2009;16:121–137.
- 25. Kotseva K, Wood D, De Bacquer D, De Backer G, Rydén L, Jennings C, Gyberg V, Amouyel P, Bruthans J, Castro Conde A, Cífková R, Deckers JW, De Sutter J, Dilic M, Dolzhenko M, Erglis A, Fras Z, Gaita D, Gotcheva N, Goudevenos J, Heuschmann P, Laucevicius A, Lehto S, Lovic D, Miličić D, Moore D, Nicolaides E, Oganov R, Pajak A, Pogosova N, Reiner Z, Stagmo M, Störk S, Tokgözoğlu L, Vulic D; on behalf of the EUROASPIRE Investigators. EUROASPIRE IV: European Society of Cardiology survey on the lifestyle, risk factor and therapeutic management of coronary patients from 24 European countries. Eur J Prev Cardiol 2016;23:636–648.
- 26. Kotseva K, De Backer G, De Bacquer D, Rydén L, Hoes A, Grobbee D, Maggioni A, Marques-Vidal P, Jennings C, Abreu A, Aguiar C, Badariene J, Bruthans J, Castro Conde A, Cifkova R, Crowley J, Davletov K, Deckers J, De Smedt D, De Sutter J, Dilic M, Dolzhenko M, Dzerve V, Erglis A, Fras Z, Gaita D, Gotcheva N, Heuschmann P, Hasan-Ali H, Jankowski P, Lalic N, Lehto S, Lovic D, Mancas S, Mellbin L, Milicic D, Mirrakhimov E, Oganov R, Pogosova N, Reiner Z, Stöerk S, Tokgözoğlu L, Tsioufis C, Vulic D, Wood D; on behalf of the EUROASPIRE Investigators. Lifestyle and impact on cardiovascular risk factor control in coronary patients across 27 countries: results from the European Society of Cardiology ESC-EORP EUROASPIRE V registry. Eur J Prev Cardiol 2019;26: 824–835.
- 27. Wood DA, Kotseva K, Connolly S, Jennings C, Mead A, Jones J, Holden A, De Bacquer D, Collier T, De Backer G, Faergeman O; EUROACTION Study Group. Nurse-coordinated multidisciplinary, family-based cardiovascular disease prevention programme (EUROACTION) for patients with coronary heart dis-

- ease and asymptomatic individuals at high risk of cardiovascular disease: a paired, cluster-randomised controlled trial. *Lancet* 2008;**371**:1999–2012.
- 28. Shelley E. Promoting heart health: building on the European Council conclusions from Cork. Eur | Cardiovasc Prev Rehabil 2004; 11:453–455.
- Rydén L, Martin J, Volqvartz S. The European Heart Health Charter: towards a healthier Europe. Eur J Cardiovasc Prev Rehabil 2007;14:355–356.
- D'Ascenzi F, Adami PE, Eichler S, Castelletti S, Wagenaar KP, Pelliccia A, Dendale P, Grobbee DE. The Young Community of the European Association of Preventive Cardiology: the future in motion. Eur J Prev Cardiol 2018;25:567–568.
- 31. Arena R, Guazzi M, Lianov L, Whitsel L, Berra K, Lavie CJ, Kaminsky L, Williams M, Hivert M-F, Cherie Franklin N, Myers J, Dengel D, Lloyd-Jones DM, Pinto FJ, Cosentino F, Halle M, Gielen S, Dendale P, Niebauer J, Pelliccia A, Giannuzzi P, Corra U, Piepoli MF, Guthrie G, Shurney D, Arena R, Berra K, Dengel D, Franklin NC, Hivert M-F, Kaminsky L, Lavie CJ, Lloyd-Jones DM, Myers J, Whitsel L, Williams M, Corra U, Cosentino F, Dendale P, Giannuzzi P, Gielen S, Guazzi M, Halle M, Niebauer J, Pelliccia A, Piepoli MF, Pinto FJ, Guthrie G, Lianov L, Shurney D; ACPM Writing Group. Healthy lifestyle interventions to combat noncommunicable disease-a novel nonhierarchical connectivity model for key stakeholders: a policy statement from the American Heart Association, European Society of Cardiology, European Association for Cardiovascular Prevention and Rehabilitation, and American College of Preventive Medicine. Eur Heart J 2015;36:2097–2109.
- Perk J, Mathes P, Gohlke H, Monpère C, Hellemans I, McGee H, Sellier Ph, Saner H, eds. Cardiovascular Prevention and Rehabilitation. London, UK: Springer-Verlag London Limited. 2007.
- 33. Gielen S, De Backer G, Piepoli MF, Wood D, eds. The ESC Textbook of Preventive Cardiology. Oxford, UK: Oxford University Press, 2015.
- 34. Jennings C, Graham I, Gielen S, eds. The ESC Handbook of Preventive Cardiology: Putting Prevention into Practice. Oxford, UK: Oxford University Press, 2016.
- Pelliccia A, Heidbuchel H, Corrado D, Borjesson M, Sharma S, eds. The ESC Textbook of Sports Cardiology. Oxford, UK: Oxford University Press, 2019.
- Abreu A, Schmid JP, Piepoli M, eds. The ESC Handbook of Cardiovascular Rehabilitation – a Practical Clinical Guide. Oxford, UK: Oxford University Press, 2020.
- 37. Abreu A, Frederix I, Dendale P, Janssen A, Doherty P, Piepoli MF, Völler H; Secondary Prevention and Rehabilitation Section of EAPC Reviewers: Marco Ambrosetti, Davos CH. Standardization and quality improvement of secondary prevention through cardiovascular rehabilitation programmes in Europe: the avenue towards EAPC accreditation programme: a position statement of the Secondary Prevention and Rehabilitation Section of the European Association of Preventive Cardiology (EAPC). Eur J Prev Cardiol 2020;doi: 10.1177/2047487320924912. Epub ahead of print. PMID: 32475160.
- Wilhelm M, Abreu A, Adami PE, Ambrosetti M, Antonopoulou M, Biffi A, Cavarretta E, D'Ascenzi F, Gibson I, Grobbee DE, Iliou MC, Koskinas K, Marques-Vidal P, Nixdorff U, Papadakis M, Piepoli MF, Vassiliou V, Wood D, Dendale P, Halle M. EAPC Core Curriculum for Preventive Cardiology. Eur J Prev Cardiol 2022:29:251–274.