

openheart Accelerating progress in cardiology: embracing open science

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Open science is not only compelling but also essential for the advancement of cardiology. Open science encompasses open-access publishing, data sharing and open source. It embodies a set of practices aiming for greater transparency and collaboration in research (figure 1). It is pivotal for driving innovation, ensuring research integrity and democratising access to scientific knowledge. The societal impact of open science extends beyond the scientific community, reaching also patients at the heart of our research. Open access to research findings is empowering patients to make informed decisions about their care.

Open science enhances research in multiple ways: importantly, it augments reach. For instance, open-access publishing has been linked to higher citation rates, often receiving more media coverage and more downloads, all contributing to increased visibility and a wider reach and impact of the research.¹ Open science can enhance the quality of research through rigorous prepublication and postpublication peer review and open discussion.² The COVID-19 pandemic has underscored the benefits of these open science principles: accelerating research efforts, avoiding 'research waste' and improving transparency and credibility.³

This study of Cobey *et al* reports on a survey exploring open science practices among international cardiology researchers sheds light on crucial insights.⁴ While there is a general awareness of open science, there exists a notable gap especially in training and implementation. This gap underscores the urgent need for structured educational resources and institutional support to empower the adoption of open science practices in cardiology research.

The survey serves as a foundational step towards understanding the current landscape of open science in cardiology. Moving forward, it is crucial to continue promoting open science practices, providing the

necessary support and resources and recognising the substantial benefits they offer. As we embrace open science, we pave the way for a more collaborative, transparent and impactful future in cardiovascular research. Defining and reducing barriers for open science, including improved training, is essential as also stated by the recent UNESCO recommendations and should be a collaborative approach involving funders, research institutions and journals to create a supportive environment.⁵

Open Heart is committed to playing a role in this endeavour by fostering a culture of openness and collaboration within the cardiology community. At *Open Heart*, we strongly encourage that data underlying a research paper be made publicly available, and all research articles must contain a 'data availability statement'.

Embracing open science is imperative for the future of cardiovascular medicine. I urge our readers, cardiologists and cardiovascular researchers to embrace open science practices and to advocate for their adoption in our field, for example, by publishing your research open access in order to make it publicly available, by

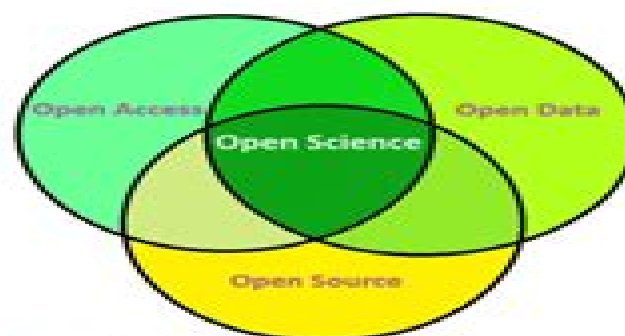


Figure 1 The main components of open science.



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Progress In Cardiology

G Orfield



Progress In Cardiology:

Practice and Progress in Cardiac Pacing and Electrophysiology Ali Oto, 2012-12-06 Developments in the electrical treatment of arrhythmias have been so fast over the last few years that access to available state of the art knowledge has become a major challenge The proceedings of scientific meetings are therefore most helpful in this regard This volume provides highlights of many of the recent and most important technological advances and concepts in cardiac electrotherapy written by the most prominent figures in the field for the internists clinical cardiologists and cardiologists who are practising in arrhythmias and antiarrhythmic therapy The book is divided into five parts each focusing on an exciting group of topics Part One is a highlight of some of the hit points in arrhythmology Part Two is a quick reference to the current concepts in non invasive electrocardiology Part Three cardiac pacing is enhanced by the introductory chapter of S Furman which gives the state of the art in electrical cardiac stimulation for 1995 This part also reviews the technical advances new perspectives in the indications of cardiac pacing as well as the management of complications Radiofrequency ablation as a challenging antiarrhythmic therapeutic strategy is thoroughly reviewed and the hottest topics are highlighted in Part Four Part Five is dedicated to implantable cardioverter defibrillators with several exciting topics including driving with implantable devices

Progress in Cardiology John F. Goodwin, Paul N. Yu, 1976-11-01 *Highlights of Heart Progress* National Heart Institute (U.S.), 1960 **Progress in quantitative coronary arteriography** Johan H. C. Reiber, P.W. Serruys, 2012-12-06 This is the fifth volume in this series on quantitative coronary arteriography QCA published over the last nine years Research and applications in this exciting field are covered in a total of 26 chapters by world renowned experts This book is subdivided into a total of 6 parts each emphasizing the latest progress in these respective fields In Part One a comprehensive overview is given of the current knowledge and research in endothelial function which is of eminent importance for the further understanding of the pathophysiology of coronary artery disease in patients Fortunately the use of QCA tools is not limited anymore to leading research institutes over the last several years these tools have been installed in many cardiology centers world wide To understand the current possibilities limitations and future expectations of QCA several relevant topics are presented in Part Two First of all the questions about why and how QCA systems should be validated both at the development site and at the application sites and whether data from different vendors and core laboratories can be pooled are discussed As the X ray cardiovascular world steadily moves into the digital imaging era differences and similarities between the conventional cinefilm and the modern digital approaches are presented Currently the widespread use of digital imaging is still hindered by the lack of proper archival and exchange media Requirements and possible solutions for this problem are handled in this section as well *Recent Progress in Failing Heart Syndrome* Shigetake Sasayama, Hiroyuki Suga, 2012-12-06 Heart failure is a syndrome caused by a heart dysfunction that leads to insufficient blood in the peripheral tissues for their metabolic demands This syndrome still remains an obscure clinical entity and even its definition is disputed

It has become increasingly apparent that heart failure may relate not only to cardiac dysfunction but also to other physiological alterations involved in the maintenance of circulatory homeostasis. In 1988 the Japanese Circulation Society organized a three year project for research on heart failure. The research group consisted of ten investigators all relatively young but well recognized internationally for their research accomplishments. This book represents a compilation of the achievements by this group during the past three years which have led to new insights into the pathophysiologic mechanisms of heart failure and diagnosis, evaluation and treatment of this syndrome. Contents include research into the cellular biology of congestive heart failure and a framework of pressure volume relationships enabling assessment of ventricular contraction energetics or coupling of ventricular properties and arterial load. This conceptual framework is of vital significance particularly when we consider the failing heart as an energy depleted state. An understanding of the neuroendocrine responses to explain the pathophysiology of congestive heart failure is perhaps the most important advance and has led to new developments in therapy. This book also includes an analysis of mechanical factors including both regional and global ventricular functions and this is related to the understanding of the pathophysiology of congestive heart failure. *Progress in Cardiology* Douglas P. Zipes, Derek J. Rowlands, 1992

Progress against Heart Disease Fred C. Pampel, Seth Pauley, 2004-07-30 In the last 35 years declining deaths from heart disease have translated into 13 million lives saved and extended. Medical treatments and lifestyle changes have dealt successfully with the serious heart problems of Vice President Richard Cheney, talk show host David Letterman, Disney ABC CEO Michael Eisner and countless other less famous people. In the past those with serious heart disease would have died young but today can live long and active lives. Few families have not benefited from improvements in the way we treat and prevent heart problems yet we often hear that poor lifestyles and the limitations of modern medicine threaten our health and well being. Although room for improvement always remains, this book provides evidence to the contrary: we have made and continue to make tremendous progress in dealing with heart disease. In reviewing the progress being made in this crucially important area of health, Pampel and Pauley offer an optimistic view of the potential for continued improvement and for longer, healthier lives. Despite the prevalence of heart disease, deaths from this cause have declined greatly in past decades. From its peak in 1968, the heart disease mortality rate has fallen by 52% for men and 48% for women. That translates into over 13 million lives saved and extended. The lives saved are not limited to the very old. To the contrary, heart disease mortality has fallen faster among the young and middle aged. **Current**

Progress in Perinatal Medicine E.V. Cosmi, Gian Carlo Di Renzo, 1994-04-15 Strategies for improving maternal and perinatal health have been pursued by many institutions and workers worldwide and this volume brings together many of their significant research findings which have an important bearing on these issues. **Progress in Catheter Ablation**

Liong Bing Liem, Eugene Downar, 2013-11-11 Catheter ablation is widely accepted as an effective and safe form of therapy for cardiac arrhythmia. In many instances this curative procedure is considered as the first line of therapy if not the ultimate

treatment of choice With the use of radiofrequency RF modality which has revolutionized the technology from a barotraumatic potentially injurious procedure using high voltage direct current DC shock to a safe and relatively painless one catheter ablation procedure now carries a very low risk and is extremely effective for certain types of arrhythmia Its efficacy rate in curing supraventricular tachycardia involving an accessory pathway or dual atrioventricular nodal pathways has been near perfect and its application for certain types of atrial and ventricular arrhythmia have also been very satisfactory However conventional RF ablation has several well known limitations most notably is its ability to only produce relatively small point lesions rendering it effective only for an arrhythmia with a small and or a superficial target It was soon recognized that the technology would not likely to have significant utility in arrhythmia with a more widespread target such as atrial fibrillation or those which involve scarred and deep myocardial tissue such as ventricular tachycardia Indeed the application of conventional RF technology in these complex but common arrhythmia has yielded unsatisfactory results

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 Herrman Ludwig Blumgart,1952 **Medicine Update 2024 (Two Volumes) and Progress in Medicine 2024** Milind Y
 Nadkar,Jyotirmoy Pal,2024-02-13 *Bulletin of the Battle Creek Sanitarium and Hospital Clinic* Battle Creek Sanitarium
 (Battle Creek, Mich.),1928 Progress in Clinical Neurosciences (Volume 23) Kalyan Bhattacharyya Vedantam
 Rajshekhar,2008-12-12 This volume of Progress in Clinical Neurosciences is devoted in large part to various aspects of
 epilepsy both medical and surgical Spine and peripheral nerve surgery for various disorders is covered in detail Both these
 sections have lively chapters on Controversies in surgical management Current treatment options for neurological infections
 and Parkinson disease are other highlights of the book Experimental stem cell therapy in neurological illnesses takes a look
 into the future while Paediatric traumatic brain injury and Primary prevention of stroke offer solutions to everyday problems
 These exhaustive reviews will benefit not only postgraduate students but will also update the knowledge of practising

clinicians **Progress in cardiology** ,2000 *Rehabilitation R & D Progress Reports* ,1999 *VA Health Services Research & Development Progress Reports* ,1999 Progress in Biomedicine ,2008-10 **Progress in Digital Angiocardiology** P.H. Heintzen,J.H. Bürsch,2012-12-06 According to Schopenhauer problems are usually passing through three stages in the first stage they are ignored or just smiled at in the second stage they are fought and in the third stage they are considered to be self evident just taken for granted Whereas digital subtraction angiography DSA has obviously reached stage three of that scale i e routine use in radiology digital angiocardiology in particular imaging the heart and coronary circulation is still on its way to the final goal the filmless heart catheterization laboratory for all invasive and interventional procedures A few pioneers have already completely abandoned the conventional cine coronary and angiocardigraphic technique others as we do still combine both digital and conventional methods in clinical routine but most cardiologists up till now stay sceptically aside We hope that at least some of the articles published in this volume may convince more and more cardiologists that digital imaging procedures are the method of choice in particular if quantitative assessment of the anatomical or functional status of the cardiovascular system is required pre and post operations or pre and post interventions Such a critical control of all therapeutic procedures be it by surgical catheter or medical interventions is indeed an urgent and widely under estimated or neglected requirement

The Top Books of the Year Progress In Cardiology The year 2023 has witnessed a noteworthy surge in literary brilliance, with numerous captivating novels captivating the hearts of readers worldwide. Lets delve into the realm of popular books, exploring the captivating narratives that have enthralled audiences this year. The Must-Read : Colleen Hoover's "It Ends with Us" This heartfelt tale of love, loss, and resilience has gripped readers with its raw and emotional exploration of domestic abuse. Hoover skillfully weaves a story of hope and healing, reminding us that even in the darkest of times, the human spirit can prevail. Progress In Cardiology : Taylor Jenkins Reids "The Seven Husbands of Evelyn Hugo" This intriguing historical fiction novel unravels the life of Evelyn Hugo, a Hollywood icon who defies expectations and societal norms to pursue her dreams. Reids absorbing storytelling and compelling characters transport readers to a bygone era, immersing them in a world of glamour, ambition, and self-discovery. Progress In Cardiology : Delia Owens "Where the Crawdads Sing" This captivating coming-of-age story follows Kya Clark, a young woman who grows up alone in the marshes of North Carolina. Owens spins a tale of resilience, survival, and the transformative power of nature, captivating readers with its evocative prose and mesmerizing setting. These popular novels represent just a fraction of the literary treasures that have emerged in 2023. Whether you seek tales of romance, adventure, or personal growth, the world of literature offers an abundance of captivating stories waiting to be discovered. The novel begins with Richard Papen, a bright but troubled young man, arriving at Hampden College. Richard is immediately drawn to the group of students who call themselves the Classics Club. The club is led by Henry Winter, a brilliant and charismatic young man. Henry is obsessed with Greek mythology and philosophy, and he quickly draws Richard into his world. The other members of the Classics Club are equally as fascinating. Bunny Corcoran is a wealthy and spoiled young man who is always looking for a good time. Charles Tavis is a quiet and reserved young man who is deeply in love with Henry. Camilla Macaulay is a beautiful and intelligent young woman who is drawn to the power and danger of the Classics Club. The students are all deeply in love with Morrow, and they are willing to do anything to please him. Morrow is a complex and mysterious figure, and he seems to be manipulating the students for his own purposes. As the students become more involved with Morrow, they begin to commit increasingly dangerous acts. The Secret History is an exceptional and thrilling novel that will keep you speculating until the very end. The novel is a cautionary tale about the dangers of obsession and the power of evil.

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