DESCRIPTION

*Cardiovascular Revascularization Medicine (CRM)* is an international, English-language, multidisciplinary, peer-reviewed journal that publishes original laboratory and clinical investigations related to *revascularization therapies* in *cardiovascular medicine*. CRM publishes 12 regular print issues and a supplemental issue each year.

The journal is indexed on Index Medicus and MEDLINE®/PubMed®.

The journal's location in Washington, DC, gives it an advantage in reporting on regulatory issues as they pertain to interventional cardiology and structural heart disease. The journal is read by cardiologists, interventional cardiologists, structural heart interventionalists, vascular physicians, healthcare regulators, industry, fellows in training, and innovators around the globe.

**CRM** is also the official journal of the Cardiovascular Research Technologies (CRT) meeting, a premier event that brings together about 3,000 interventional cardiologists annually to discuss cutting-edge research and innovations. Attendees are encouraged to submit papers based on abstracts, interesting cases, late-breaking trials, and innovations presented at the meeting that impact interventional cardiologists' practice. The journal structures its content to reflect topics based on each track of the CRT meeting: Complex Coronary, Valve and Structural, Endovascular, Imaging and Physiology, Atherosclerosis, Cardiogenic Shock, Technology and Innovation, Regulatory and Healthcare Policy, and Innovations.

**CRM** publishes articles related to preclinical and clinical work, including pharmacological interventions, and restenosis management; and treatment, including experiments conducted in human subjects, laboratory animals, and in vitro. Specific areas of interest include percutaneous angioplasty in coronary and peripheral arteries, intervention in structural heart disease, cardiovascular surgery, congenital heart disease, coronary heart disease, genetics and translational science, health services and outcomes research, invasive imaging, regulatory and health policy, technology and innovation, and vascular medicine.

The journal's nearest competitors are JACC: Cardiovascular Interventions, Circulation: Cardiovascular Interventions, and EuroIntervention.

**CRM** will consider all articles describing clinical trials and translational research (i.e., those that unite the clinic with the laboratory). The journal publishes original articles, research letters, reviews, editorials, and special features. Original articles that address any aspect of cardiovascular
revascularization or structural intervention are invited. Letters to the editor, trial design papers, and interesting images are encouraged. The journal's peer-review process is single-blind.

ABSTRACTING AND INDEXING

Scopus
Embase
PubMed/Medline

EDITORIAL BOARD

Editor-in-Chief
Ron Waksman, Washington Cancer Institute, 110 Irving Street, NW, Washington, District of Columbia, 20010, United States

Editor-at-Large
Gary Mintz, Cardiovascular Research Foundation, New York, New York, United States

Associate Editors
Itsik Ben-Dor, MedStar Washington Hospital Center, Washington, District of Columbia, United States
Danny Dvir, University of Washington Medical Center, Seattle, Washington, United States
Michael A Gaglia Jr., Cardiovascular Institute of the South Lafayette General Southwest, Lafayette, Louisiana, United States
Michael Mahmoudi, University Hospital Southampton NHS Foundation Trust, Southampton, United Kingdom
Toby Rogers, MedStar Washington Hospital Center, Washington, District of Columbia, United States
Lowell F. Satler, MedStar Washington Hospital Center, Washington, District of Columbia, United States
Christian Shults
Daniel H. Steinberg, Medical University of South Carolina, Charleston, South Carolina, United States

Section Editors
Gary L. Schaer, Rush University Medical Center, Chicago, Illinois, United States
ACS/AMI Editor
George Vetrovec, Virginia Commonwealth University, Richmond, Virginia, United States
Cardiogenic Shock and Hemodynamic Support Editor
Michael Slack, University of Maryland Medical Center, Baltimore, Maryland, United States
Congenital Heart Disease Editor
Richard R. Heuser, St. Luke's Behavioral Health Center, Phoenix, Arizona, United States
CTO Editor
Aravinda Nanjundappa, West Virginia University, Morgantown, West Virginia, United States
Endovascular Editor
Hector M. Garcia-Garcia, MedStar Washington Hospital Center, Washington, District of Columbia, United States
Imaging/Physiology Editor
Morton J. Kern, VA Long Beach Healthcare System, Long Beach, California, United States
Imaging/Physiology Editor
Rebecca Torguson, MedStar Cardiovascular Research Network, Hyattsville, Maryland, United States
Regulatory and Health Policy Editor
Michael Lipinski, Cardiovascular Associates Of Charlottesville, Charlottesville, Virginia, United States
Science/Molecular Interventions/Atherosclerosis Editor
Israel Barbash, Sheba Medical Center, Leviev Heart Center, Shoham, Israel
Technology/Innovation Editor
Steven L. Goldberg, Community Hospital of the Monterey Peninsula, Monterey, California, United States
Valve & Structural Heart Editor

Editorial Board Members

ACS AMI
Herbert Aronow, Brown University Warren Alpert Medical School, Providence, Rhode Island, United States
Marc Cohen, Newark Beth Israel Medical Center, Newark, New Jersey, United States
Khagendra Dahal, LOUISIANA STATE UNIVERSITY HEALTH SCIENCES CENTER, New Orleans, Louisiana, United States
George Dangas, Mount Sinai School of Medicine, Division of Cardiology, New York City, New York, United States
Robert Dieter, Loyola University Chicago Stritch School of Medicine, Maywood, Illinois, United States
Tariq Enezate, MU Health Care, Columbia, Missouri, United States
El Sayed Farag, Zagazig University, Faculty of Medicine, Cardiology Department, El Zaqazig, Egypt
Christine M. Gasperetti, PENN MEDICINE (UNIVERSITY OF PENNSYLVANIA HEALTH SYSTEM), Philadelphia, Pennsylvania, United States
Jon C. George, Albert Einstein Medical Center, Philadelphia, Pennsylvania, United States
C. Michael Gibson, BETH ISRAEL DEACONESS MEDICAL CENTER, Boston, Massachusetts, United States
James A. Goldstein, Beaumont Hospital - Troy, Troy, Michigan, United States
Michael Guiry, St Luke's University Health Network, Bethlehem, Pennsylvania, United States
Ravi Hira, University of Washington, Seattle, Washington, United States
Wai W. Hsiung, Mount Sinai Beth Israel Hospital, New York, New York, United States
Alfonso Ielasi, Saint Ambrose Cardio Thoracic Center, Milano, Italy
Ashequl Islam, Baystate Medical Center, Springfield, Massachusetts, United States
Sanjit S. Jolly, Population Health Research Institute, Hamilton, Canada
Daniel A. Jones, Barts Heart Centre, London, England, United Kingdom
Adnan Kastrati, Technical University of Munich, Munchen, Germany
Neal S. Kleiman, Houston Methodist DeBakey Heart & Vascular Center, Houston, Texas, United States
Vijay Kunadian, Newcastle University, Newcastle Upon Tyne, United Kingdom
Alexandra Lansky, Yale University School of Medicine, New Haven, Connecticut, United States
Massoud Leesar, The University of Alabama at Birmingham, Birmingham, Alabama, United States
Sagar Mallikethi-Reddy, Hurley Medical Center, Flint, Michigan, United States
Roxana Mehran, Icahn School of Medicine at Mount Sinai, New York, New York, United States
Perwaiz Meraj, Northwell Health, Great Neck, New York, United States
Michael R. Mooney, Minneapolis Heart Institute at Abbott Northwestern Hospital, Minneapolis, Minnesota, United States
Smita Negi, Cardiovascular Institute of the South Lafayette General Southwest, Lafayette, Louisiana, United States
Keith Oldroyd, Golden Jubilee National Hospital, Clydebank, United Kingdom
Kyriaki Poumpouridis, Northwell Health, Great Neck, New York, United States
Mohammad Sarraf, UAB Medicine, Birmingham, Alabama, United States
Dawn C. Scantlebury, Queen Elizabeth Hospital, Saint Michael, Barbados
Scott W. Shumur, Texas Tech University Health Sciences Center, Lubbock, Texas, United States
Joseph Thomas, HARBOR UCLA MEDICAL CENTER, West Carson, California, United States
Poonam Velagapudi, UNIVERSITY OF NEBRASKA MEDICAL CENTER, Omaha, Nebraska, United States
Marco Zimarino, Cath Lab and Institute of Cardiology, Chieti, Italy

Cardiogenic Shock and Hemodynamic Support
Mir Babar Basir, Henry Ford Hospital, Detroit, Michigan, United States
Cara Hendry, Manchester University NHS Foundation Trust, Manchester, United Kingdom
Hani Jneid, Baylor College of Medicine, Houston, United States
Navin Kapur, Tufts University, Medford, Massachusetts, United States
Salvatore F. Mannino, WellStar Health System, United States
Atul Pathak, Pasteur Clinic, Toulouse, France
Alexander G. Truesdell, Inova Heart and Vascular Institute, Falls Church, Virginia, United States

Complex Coronary
Rasha Al-Lamee, Imperial College London, London, United Kingdom
Mrvat Alasnag, King Fahd Armed Forces Hospital, Jeddah, Saudi Arabia
Dominick J. Angiolillo, University of Florida College of Medicine - Jacksonville, Jacksonville, Florida, United States
Usman Baber, Mount Sinai Medical Center, Miami Beach, Florida, United States
Marta Bande, Sant’Ambrogio Clinic, Milano, Italy
Subhash Banerjee, VA North Texas Health Care System, Dallas, Texas, United States
Oliver F. Bertrand, Quebec Heart and Lung Institute, Québec, Quebec, Canada
Balram Bhargava, Indian Council of Medical Research, New Delhi, India

Cardiology
James Blankenship, Geisinger Medical Center, Danville, Pennsylvania, United States
Paul T. Campbell, Sanger Heart and Vascular Institute, Charlotte, North Carolina, United States
Jeffrey W. Chambers, Metropolitan Heart and Vascular Institute, Coon Rapids, Minnesota, United States
Shao-Liang Chen, Jiangsu Province Hospital and Nanjing Medical University First Affiliated Hospital, Nanjing, China
Bimmer Claessen, New York, United States
Antonio Colombo, Vita-Salute San Raffaele University, Milano, Italy
Ramesh Daggubati, NYU Winthrop Hospital, Mineola, New York, United States
Joseph De Gregorio, Englewood Hospital and Medical Center, Englewood, New Jersey, United States
Gheorghe Doros, Baim Institute for Clinical Research, Boston, Massachusetts, United States
John Douglas, Jr., Emory University School of Medicine, Atlanta, Georgia, United States
Robert M. van Geuns, Erasmus Medical Center, Rotterdam, Netherlands
Bill D. Gogas, Nanjing Medical University, Nanjing, China
Luis Gruberg, Stony Brook University, Stony Brook, New York, United States
Paul Gurbe, Inova Heart and Vascular Institute, Falls Church, Virginia, United States
Tarek Helmy, Saint Louis University, Saint Louis, Missouri, United States
Elizabeth M. Holper, Baylor Scott & White The Heart Hospital Plano, Plano, Texas, United States
Aaron Horne, HeartPlace North Hills, North Richland Hills, Texas, United States
Akram W. Ibrahim, Southeastern Cardiology Associates, Columbus, Georgia, United States
Qurat-ul-Ain Jelani, Yale University School of Medicine, New Haven, Connecticut, United States
Allen Jeremias, Saint Francis Hospital The Heart Center, Roslyn, New York, United States
Jon S. Jovin, Virginia Commonwealth University, Richmond, Virginia, United States
Maddury Jyotsna, Nizam's Institute of Medical Sciences, Hyderabad, India
Sasko Kedev, University Clinic of Cardiology, Skopje, Macedonia, the former Yugoslav Republic of
Michael C. Kim, Lenox Hill Hospital, New York, New York, United States
Spencer B. King, Emory University, Atlanta, Georgia, United States
Jacques Koolen, Catharina Hospital, Eindhoven, Netherlands
Kusum Lata, Sutter Health, Sacramento, California, United States
Faisal Latif, Oklahoma University Medical Center, Oklahoma City, Oklahoma, United States
Joshua Loh, National University Heart Centre, Singapore, Singapore
Ayman K. Magd, Al-Azhar University, Cairo, Egypt
Ehtisham Mahmud, University of California San Diego Division of Cardiovascular Medicine, La Jolla, California, United States
Eugene P. McFadden, Cork University Hospital
Pedro R. Moreno, Mount Sinai Morningside Hospital, New York, New York, United States
Sanjdeep Nathan, The University of Chicago Medicine, Chicago, Illinois, United States
Ji Young Park, Eulji University, Nowon Eulji Medical Center, Seoul, Korea, Republic of
Mital Patel, UC San Diego Health, Sulpizio Cardiovascular Center, La Jolla, California, United States
Timur Kumar Paul, East Tennessee State University, Johnson City, Tennessee, United States
Michael Ragosta III, University of Virginia Health System, Charlottesville, Virginia, United States
Steve Ramchatar, Great Western Hospitals NHS Foundation Trust, Swindon, United Kingdom
Robert F. Riley, THE CHRIST HOSPITAL, Cincinnati, Ohio, United States
Richard Shlofmitz, Saint Francis Hospital The Heart Center, Roslyn, New York, United States
Adhir Shroff, University of Illinois at Chicago, Division of Cardiology, Chicago, Illinois, United States
Pieter C. Smits, Maasstad Hospital, Rotterdam, Netherlands
Molly Szerlip, Baylor Scott & White The Heart Hospital Plano, Plano, Texas, United States
Luca Testa, IRCCS San Donato Hospital, San Donato Milanese, Italy
Ruben Yannick Tijssen, Academic Medical Center, Amsterdam, Netherlands
Huu Tam Truong, VA Loma Linda Healthcare System, Loma Linda, California, United States
Barry Uretsky, UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES, Little Rock, Arkansas, United States
Mladen I. Vidovich, University of Illinois at Chicago, Jesse Brown VA Medical Center, Chicago, Illinois, United States
Giora Weisz, Montefiore Medical Center, Bronx, New York, United States

CTO

Lorenzo Azzalini, San Raffaele Hospital, Milano, Italy
Rhian Davies, Brown University, Providence, Rhode Island, United States
Carlo Di Mario, University of Florence, Firenze, Italy
Adison B. Hall, Minneapolis Heart Institute Foundation, Minneapolis, Minnesota, United States
Andrew Ladwiniec, University Hospitals of Leicester NHS Trust, Leicester, United Kingdom
William Nicholson, WellSpan York Hospital, York, Pennsylvania, United States
Nerin Okasha, Ain Shams University, Cairo, Egypt
Syed Tanveer Rab, Emory University School of Medicine, Atlanta, Georgia, United States
Seung-Woon Rha, Korea University Guro Hospital, Seoul, Korea, Republic of
Simon Walsh, Belfast Health and Social Care Trust, Belfast, United Kingdom
Gerald Werner, Darmstadt Hospital, Darmstadt, Germany

Endovascular

Khaldoon Alaswad, Henry Ford Hospital / Henry Ford Health System (CS North America), United States
S. Elissa Altin, Yale University School of Medicine, New Haven, Connecticut, United States
Gary M. Ansel, OhioHealth Heart and Vascular Physicians, Columbus, Ohio, United States
Ehrin Armstrong, University of Colorado Denver School of Medicine, Aurora, Colorado, United States
Robert Beasley, Mount Sinai Medical Center, Vascular Interventional Radiology, Miami, Florida, United States
Marianne Brodmann, Medical University of Graz, Graz, Austria
Ronald P. Caputo, Saint Joseph's Cardiovascular Center, Yonkers, New York, United States
Leonardo C. Clavijo, University of Southern California Keck School of Medicine, Los Angeles, California, United States
Kevin Croce, Brigham and Women's Hospital Center for Experimental Therapeutics and Reperfusion Injury, Boston, Massachusetts, United States
GUIDE FOR AUTHORS

EDITOR-IN-CHIEF Ron Waksman, MD

To Contact the Editorial Office: Jason Wermers, Managing Editor, Cardiovascular Revascularization Medicine, Washington Hospital Center 110 Irving Street, NW, Suite 4B-1 Washington, DC 20010 Tel: 202-877-2988 E-mail: jason.p.wermers@medstar.net

Cardiovascular Revascularization Medicine (CRM) is an international and multidisciplinary journal that publishes articles related to preclinical work and molecular interventions including angiogenesis, cell therapy, pharmacological interventions, restenosis management and prevention, including experiments conducted in human subjects, laboratory animals, and in vitro. Specific content areas of interest include percutaneous angioplasty in coronary and peripheral arteries, intervention in structural heart disease, cardiovascular surgery, congenital heart disease, coronary heart disease, epidemiology, genetics, health services and outcomes research, invasive imaging, molecular cardiology, preventive cardiology, and vascular medicine.

It is a condition of publication that manuscripts submitted to CRM have not been published and will not be simultaneously submitted or published elsewhere. CRM uses the "Uniform Requirements for Manuscripts Submitted to Biomedical Journals," 5th ed (N Engl J Med 1997;336:309-315) as well as the American Medical Association Manual of Style, 9th ed.

Submission checklist
You can use this list to carry out a final check of your submission before you send it to the journal for review. Please check the relevant section in this Guide for Authors for more details.

Ensure that the following items are present:

One author has been designated as the corresponding author with contact details:
• E-mail address
• Full postal address

All necessary files have been uploaded:

Manuscript:
• Include keywords
• All figures (include relevant captions)
• All tables (including titles, description, footnotes)
• Ensure all figure and table citations in the text match the files provided
• Indicate clearly if color should be used for any figures in print

Graphical Abstracts / Highlights files (where applicable)
Supplemental files (where applicable)

Further considerations
• Manuscript has been 'spell checked' and 'grammar checked'
• All references mentioned in the Reference List are cited in the text, and vice versa
• Permission has been obtained for use of copyrighted material from other sources (including the Internet)
• A competing interests statement is provided, even if the authors have no competing interests to declare
• Journal policies detailed in this guide have been reviewed
• Referee suggestions and contact details provided, based on journal requirements

For further information, visit our Support Center.

BEFORE YOU BEGIN

Ethics in publishing
Please see our information pages on Ethics in publishing and Ethical guidelines for journal publication.
**Studies in humans and animals**

If the work involves the use of human subjects, the author should ensure that the work described has been carried out in accordance with The Code of Ethics of the World Medical Association (Declaration of Helsinki) for experiments involving humans. The manuscript should be in line with the Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals and aim for the inclusion of representative human populations (sex, age and ethnicity) as per those recommendations. The terms sex and gender should be used correctly.

Authors should include a statement in the manuscript that informed consent was obtained for experimentation with human subjects. The privacy rights of human subjects must always be observed.

All animal experiments should comply with the ARRIVE guidelines and should be carried out in accordance with the U.K. Animals (Scientific Procedures) Act, 1986 and associated guidelines, EU Directive 2010/63/EU for animal experiments, or the National Institutes of Health guide for the care and use of Laboratory animals (NIH Publications No. 8023, revised 1978) and the authors should clearly indicate in the manuscript that such guidelines have been followed. The sex of animals must be indicated, and where appropriate, the influence (or association) of sex on the results of the study.

**Declaration of interest**

All authors must disclose any financial and personal relationships with other people or organizations that could inappropriately influence (bias) their work. Examples of potential competing interests include employment, consultancies, stock ownership, honoraria, paid expert testimony, patent applications/registrations, and grants or other funding. Authors must disclose any interests in two places: 1. A summary declaration of interest statement in the title page file (if double anonymized) or the manuscript file (if single anonymized). If there are no interests to declare then please state this: 'Declarations of interest: none'. This summary statement will be ultimately published if the article is accepted. 2. Detailed disclosures as part of a separate Declaration of Interest form, which forms part of the journal's official records. It is important for potential interests to be declared in both places and that the information matches. More information.

**Submission declaration and verification**

Submission of an article implies that the work described has not been published previously (except in the form of an abstract, a published lecture or academic thesis, see 'Multiple, redundant or concurrent publication' for more information), that it is not under consideration for publication elsewhere, that its publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out, and that, if accepted, it will not be published elsewhere in the same form, in English or in any other language, including electronically without the written consent of the copyright-holder. To verify originality, your article may be checked by the originality detection service Crossref Similarity Check.

**Preprints**

Please note that preprints can be shared anywhere at any time, in line with Elsevier's sharing policy. Sharing your preprints e.g. on a preprint server will not count as prior publication (see 'Multiple, redundant or concurrent publication' for more information).

**Use of inclusive language**

Inclusive language acknowledges diversity, conveys respect to all people, is sensitive to differences, and promotes equal opportunities. Content should make no assumptions about the beliefs or commitments of any reader; contain nothing which might imply that one individual is superior to another on the grounds of age, gender, race, ethnicity, culture, sexual orientation, disability or health condition; and use inclusive language throughout. Authors should ensure that writing is free from bias, stereotypes, slang, reference to dominant culture and/or cultural assumptions. We advise to seek gender neutrality by using plural nouns ("clinicians, patients/clients") as default/wherever possible to avoid using "he, she," or "he/she." We recommend avoiding the use of descriptors that refer to personal attributes such as age, gender, race, ethnicity, culture, sexual orientation, disability or health condition unless they are relevant and valid. These guidelines are meant as a point of reference to help identify appropriate language but are by no means exhaustive or definitive.

**Author contributions**

For transparency, we encourage authors to submit an author statement file outlining their individual contributions to the paper using the relevant CRedit roles: Conceptualization; Data curation; Formal analysis; Funding acquisition; Investigation; Methodology; Project administration; Resources;
Software; Supervision; Validation; Visualization; Roles/Writing - original draft; Writing - review & editing. Authorship statements should be formatted with the names of authors first and CRediT role(s) following. More details and an example

Copyright
Upon acceptance of an article, authors will be asked to complete a 'Journal Publishing Agreement' (see more information on this). An e-mail will be sent to the corresponding author confirming receipt of the manuscript together with a 'Journal Publishing Agreement' form or a link to the online version of this agreement.

Subscribers may reproduce tables of contents or prepare lists of articles including abstracts for internal circulation within their institutions. Permission of the Publisher is required for resale or distribution outside the institution and for all other derivative works, including compilations and translations. If excerpts from other copyrighted works are included, the author(s) must obtain written permission from the copyright owners and credit the source(s) in the article. Elsevier has preprinted forms for use by authors in these cases.

For gold open access articles: Upon acceptance of an article, authors will be asked to complete an 'Exclusive License Agreement' (more information). Permitted third party reuse of gold open access articles is determined by the author's choice of user license.

Author rights
As an author you (or your employer or institution) have certain rights to reuse your work. More information.

Elsevier supports responsible sharing
Find out how you can share your research published in Elsevier journals.

Role of the funding source
You are requested to identify who provided financial support for the conduct of the research and/or preparation of the article and to briefly describe the role of the sponsor(s), if any, in study design; in the collection, analysis and interpretation of data; in the writing of the report; and in the decision to submit the article for publication. If the funding source(s) had no such involvement then this should be stated.

Open access
Please visit our Open Access page for more information.

Elsevier Researcher Academy
Researcher Academy is a free e-learning platform designed to support early and mid-career researchers throughout their research journey. The "Learn" environment at Researcher Academy offers several interactive modules, webinars, downloadable guides and resources to guide you through the process of writing for research and going through peer review. Feel free to use these free resources to improve your submission and navigate the publication process with ease.

Language (usage and editing services)
Please write your text in good English (American or British usage is accepted, but not a mixture of these). Authors who feel their English language manuscript may require editing to eliminate possible grammatical or spelling errors and to conform to correct scientific English may wish to use the English Language Editing service available from Elsevier's Author Services.

Submission
Our online submission system guides you stepwise through the process of entering your article details and uploading your files. The system converts your article files to a single PDF file used in the peer-review process. Editable files (e.g., Word, LaTeX) are required to typeset your article for final publication. All correspondence, including notification of the Editor's decision and requests for revision, is sent by e-mail.

Submit your article
Abstracts and Keywords: Limit the abstract to 250 words. Use the following subheadings: Background/Purpose, Methods/Materials, Results, and Conclusions. Mini-Review and Review articles do not require an abstract. Instead please add a summary less than 100 words. List 2-4 keywords at the end of the abstract/summary. Please also provide a 2-to-3-sentence summary for the annotated table of contents.

Mini-Reviews: The mini-review should include a summary (as opposed to a structured abstract), a review of the published data, a table of appropriate trials, it should be maximum 3000 words, have less than 50 references, and include case(s).

Review Articles: Highly encouraged. Trial Designs. Efficient but thorough descriptions of study protocols, including the conceptual issues underlying the hypotheses, the methodology, and planned analysis of a trial. An important part of the evaluation of trial design papers pertains to the likely ability of the investigators to complete the trial as planned. Papers should include target sample size information along with a timeline for enrollment and follow-up. If the trial has already begun enrollment, provide number of patients enrolled as of the date of manuscript submission.

PREPARATION

Peer review
This journal operates a single anonymized review process. All contributions will be initially assessed by the editor for suitability for the journal. Papers deemed suitable are then typically sent to a minimum of two independent expert reviewers to assess the scientific quality of the paper. The Editor is responsible for the final decision regarding acceptance or rejection of articles. The Editor's decision is final. Editors are not involved in decisions about papers which they have written themselves or have been written by family members or colleagues or which relate to products or services in which the editor has an interest. Any such submission is subject to all of the journal's usual procedures, with peer review handled independently of the relevant editor and their research groups. More information on types of peer review.

Use of word processing software
It is important that the file be saved in the native format of the word processor used. The text should be in single-column format. Keep the layout of the text as simple as possible. Most formatting codes will be removed and replaced on processing the article. In particular, do not use the word processor's options to justify text or to hyphenate words. However, do use bold face, italics, subscripts, superscripts etc. When preparing tables, if you are using a table grid, use only one grid for each individual table and not a grid for each row. If no grid is used, use tabs, not spaces, to align columns. The electronic text should be prepared in a way very similar to that of conventional manuscripts (see also the Guide to Publishing with Elsevier). Note that source files of figures, tables and text graphics will be required whether or not you embed your figures in the text. See also the section on Electronic artwork.
To avoid unnecessary errors you are strongly advised to use the 'spell-check' and 'grammar-check' functions of your word processor.

Article structure

Subdivision - unnumbered sections
Divide your article into clearly defined sections. Each subsection is given a brief heading. Each heading should appear on its own separate line. Subsections should be used as much as possible when cross-referencing text: refer to the subsection by heading as opposed to simply 'the text'.

Introduction
State the objectives of the work and provide an adequate background, avoiding a detailed literature survey or a summary of the results.

Material and methods
Provide sufficient details to allow the work to be reproduced by an independent researcher. Methods that are already published should be summarized, and indicated by a reference. If quoting directly from a previously published method, use quotation marks and also cite the source. Any modifications to existing methods should also be described.

Results
Results should be clear and concise.
Discussion
This should explore the significance of the results of the work, not repeat them. A combined Results and Discussion section is often appropriate. Avoid extensive citations and discussion of published literature.

Conclusions
The main conclusions of the study may be presented in a short Conclusions section, which may stand alone or form a subsection of a Discussion or Results and Discussion section.

Essential title page information
- **Title.** Concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations and formulae where possible.
- **Author names and affiliations.** Please clearly indicate the given name(s) and family name(s) of each author and check that all names are accurately spelled. You can add your name between parentheses in your own script behind the English transliteration. Present the authors’ affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lowercase superscript letter immediately after the author’s name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name and, if available, the e-mail address of each author.
- **Corresponding author.** Clearly indicate who will handle correspondence at all stages of refereeing and publication, also post-publication. This responsibility includes answering any future queries about Methodology and Materials. **Ensure that the e-mail address is given and that contact details are kept up to date by the corresponding author.**
- **Present/permanent address.** If an author has moved since the work described in the article was done, or was visiting at the time, a 'Present address' (or 'Permanent address') may be indicated as a footnote to that author’s name. The address at which the author actually did the work must be retained as the main, affiliation address. Superscript Arabic numerals are used for such footnotes.

Highlights
Highlights are optional yet highly encouraged for this journal, as they increase the discoverability of your article via search engines. They consist of a short collection of bullet points that capture the novel results of your research as well as new methods that were used during the study (if any). Please have a look at the examples here: example Highlights.

Highlights should be submitted in a separate editable file in the online submission system. Please use 'Highlights' in the file name and include 3 to 5 bullet points (maximum 85 characters, including spaces, per bullet point).

Abbreviations
Define abbreviations that are not standard in this field in a footnote to be placed on the first page of the article. Such abbreviations that are unavoidable in the abstract must be defined at their first mention there, as well as in the footnote. Ensure consistency of abbreviations throughout the article.

Acknowledgements
Collate acknowledgements in a separate section at the end of the article before the references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals who provided help during the research (e.g., providing language help, writing assistance or proof reading the article, etc.).

Formatting of funding sources
List funding sources in this standard way to facilitate compliance to funder's requirements:

Funding: This work was supported by the National Institutes of Health [grant numbers xxxx, yyyy]; the Bill & Melinda Gates Foundation, Seattle, WA [grant number zzzz]; and the United States Institutes of Peace [grant number aaaa].

It is not necessary to include detailed descriptions on the program or type of grants and awards. When funding is from a block grant or other resources available to a university, college, or other research institution, submit the name of the institute or organization that provided the funding.

If no funding has been provided for the research, please include the following sentence:
This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

**Artwork**

*Electronic artwork*

**General points**

- Make sure you use uniform lettering and sizing of your original artwork.
- Embed the used fonts if the application provides that option.
- Aim to use the following fonts in your illustrations: Arial, Courier, Times New Roman, Symbol, or use fonts that look similar.
- Number the illustrations according to their sequence in the text.
- Use a logical naming convention for your artwork files.
- Provide captions to illustrations separately.
- Size the illustrations close to the desired dimensions of the published version.
- Submit each illustration as a separate file.
- Ensure that color images are accessible to all, including those with impaired color vision.

A detailed guide on electronic artwork is available. You are urged to visit this site; some excerpts from the detailed information are given here.

**Formats**

If your electronic artwork is created in a Microsoft Office application (Word, PowerPoint, Excel) then please supply 'as is' in the native document format.

Regardless of the application used other than Microsoft Office, when your electronic artwork is finalized, please 'Save as' or convert the images to one of the following formats (note the resolution requirements for line drawings, halftones, and line/halftone combinations given below):

- EPS (or PDF): Vector drawings, embed all used fonts.
- TIFF (or JPEG): Color or grayscale photographs (halftones), keep to a minimum of 300 dpi.
- TIFF (or JPEG): Bitmapped (pure black & white pixels) line drawings, keep to a minimum of 1000 dpi.
- TIFF (or JPEG): Combinations bitmapped line/half-tone (color or grayscale), keep to a minimum of 500 dpi.

**Please do not:**

- Supply files that are optimized for screen use (e.g., GIF, BMP, PICT, WPG); these typically have a low number of pixels and limited set of colors;
- Supply files that are too low in resolution;
- Submit graphics that are disproportionately large for the content.

**Color artwork**

Please make sure that artwork files are in an acceptable format (TIFF (or JPEG), EPS (or PDF), or MS Office files) and with the correct resolution. If, together with your accepted article, you submit usable color figures then Elsevier will ensure, at no additional charge, that these figures will appear in color online (e.g., ScienceDirect and other sites) regardless of whether or not these illustrations are reproduced in color in the printed version. For color reproduction in print, you will receive information regarding the costs from Elsevier after receipt of your accepted article. Please indicate your preference for color: in print or online only. Further information on the preparation of electronic artwork.

**Illustration services**

Elsevier's Author Services offers Illustration Services to authors preparing to submit a manuscript but concerned about the quality of the images accompanying their article. Elsevier's expert illustrators can produce scientific, technical and medical-style images, as well as a full range of charts, tables and graphs. Image 'polishing' is also available, where our illustrators take your image(s) and improve them to a professional standard. Please visit the website to find out more.

**Figure captions**

Ensure that each illustration has a caption. Supply captions separately, not attached to the figure. A caption should comprise a brief title (not on the figure itself) and a description of the illustration. Keep text in the illustrations themselves to a minimum but explain all symbols and abbreviations used.
Tables
Please submit tables as editable text and not as images. Tables can be placed either next to the relevant text in the article, or on separate page(s) at the end. Number tables consecutively in accordance with their appearance in the text and place any table notes below the table body. Be sparing in the use of tables and ensure that the data presented in them do not duplicate results described elsewhere in the article. Please avoid using vertical rules and shading in table cells.

References
Citation in text
Please ensure that every reference cited in the text is also present in the reference list (and vice versa). Any references cited in the abstract must be given in full. Unpublished results and personal communications are not recommended in the reference list, but may be mentioned in the text. If these references are included in the reference list they should follow the standard reference style of the journal and should include a substitution of the publication date with either 'Unpublished results' or 'Personal communication'. Citation of a reference as 'in press' implies that the item has been accepted for publication.

Reference links
Increased discoverability of research and high quality peer review are ensured by online links to the sources cited. In order to allow us to create links to abstracting and indexing services, such as Scopus, CrossRef and PubMed, please ensure that data provided in the references are correct. Please note that incorrect surnames, journal/book titles, publication year and pagination may prevent link creation. When copying references, please be careful as they may already contain errors. Use of the DOI is highly encouraged.

A DOI is guaranteed never to change, so you can use it as a permanent link to any electronic article. An example of a citation using DOI for an article not yet in an issue is: VanDecar J.C., Russo R.M., James D.E., Ambeh W.B., Franke M. (2003). Aseismic continuation of the Lesser Antilles slab beneath northeastern Venezuela. Journal of Geophysical Research, https://doi.org/10.1029/2001JB000884. Please note the format of such citations should be in the same style as all other references in the paper.

Web references
As a minimum, the full URL should be given and the date when the reference was last accessed. Any further information, if known (DOI, author names, dates, reference to a source publication, etc.), should also be given. Web references can be listed separately (e.g., after the reference list) under a different heading if desired, or can be included in the reference list.

Data references
This journal encourages you to cite underlying or relevant datasets in your manuscript by citing them in your text and including a data reference in your Reference List. Data references should include the following elements: author name(s), dataset title, data repository, version (where available), year, and global persistent identifier. Add [dataset] immediately before the reference so we can properly identify it as a data reference. The [dataset] identifier will not appear in your published article.

References in a special issue
Please ensure that the words 'this issue' are added to any references in the list (and any citations in the text) to other articles in the same Special Issue.

Reference management software
Most Elsevier journals have their reference template available in many of the most popular reference management software products. These include all products that support Citation Style Language styles, such as Mendeley. Using citation plug-ins from these products, authors only need to select the appropriate journal template when preparing their article, after which citations and bibliographies will be automatically formatted in the journal's style. If no template is yet available for this journal, please follow the format of the sample references and citations as shown in this Guide. If you use reference management software, please ensure that you remove all field codes before submitting the electronic manuscript. More information on how to remove field codes from different reference management software.

Users of Mendeley Desktop can easily install the reference style for this journal by clicking the following link:
http://open.mendeley.com/use-citation-style/cardiovascular-revascularization-medicine
When preparing your manuscript, you will then be able to select this style using the Mendeley plug-ins for Microsoft Word or LibreOffice.
**Reference style**

**Text:** Indicate references by number(s) in square brackets in line with the text. The actual authors can be referred to, but the reference number(s) must always be given.

**List:** Number the references (numbers in square brackets) in the list in the order in which they appear in the text.

**Examples:**

Reference to a journal publication:

Reference to a journal publication with an article number:

Reference to a book:

Reference to a chapter in an edited book:

Reference to a website:

Reference to a dataset:

Note shortened form for last page number. e.g., 51–9, and that for more than 6 authors the first 6 should be listed followed by 'et al.' For further details you are referred to 'Uniform Requirements for Manuscripts submitted to Biomedical Journals' (J Am Med Assoc 1997;277:927–34) (see also Samples of Formatted References).

**Journal abbreviations source**

Journal names should be abbreviated according to the List of Title Word Abbreviations.

**Video**

Elsevier accepts video material and animation sequences to support and enhance your scientific research. Authors who have video or animation files that they wish to submit with their article are strongly encouraged to include links to these within the body of the article. This can be done in the same way as a figure or table by referring to the video or animation content and noting in the body text where it should be placed. All submitted files should be properly labeled so that they directly relate to the video file's content. In order to ensure that your video or animation material is directly usable, please provide the file in one of our recommended file formats with a preferred maximum size of 150 MB per file, 1 GB in total. Video and animation files supplied will be published online in the electronic version of your article in Elsevier Web products, including ScienceDirect. Please supply 'stills' with your files: you can choose any frame from the video or animation or make a separate image. These will be used instead of standard icons and will personalize the link to your video data. For more detailed instructions please visit our video instruction pages. Note: since video and animation cannot be embedded in the print version of the journal, please provide text for both the electronic and the print version for the portions of the article that refer to this content.

**Data visualization**

Include interactive data visualizations in your publication and let your readers interact and engage more closely with your research. Follow the instructions here to find out about available data visualization options and how to include them with your article.

**Supplementary material**

Supplementary material such as applications, images and sound clips, can be published with your article to enhance it. Submitted supplementary items are published exactly as they are received (Excel or PowerPoint files will appear as such online). Please submit your material together with the article and supply a concise, descriptive caption for each supplementary file. If you wish to make changes to supplementary material during any stage of the process, please make sure to provide an updated file. Do not annotate any corrections on a previous version. Please switch off the 'Track Changes' option in Microsoft Office files as these will appear in the published version.
**Research data**
This journal encourages and enables you to share data that supports your research publication where appropriate, and enables you to interlink the data with your published articles. Research data refers to the results of observations or experimentation that validate research findings. To facilitate reproducibility and data reuse, this journal also encourages you to share your software, code, models, algorithms, protocols, methods and other useful materials related to the project.

Below are a number of ways in which you can associate data with your article or make a statement about the availability of your data when submitting your manuscript. If you are sharing data in one of these ways, you are encouraged to cite the data in your manuscript and reference list. Please refer to the "References" section for more information about data citation. For more information on depositing, sharing and using research data and other relevant research materials, visit the research data page.

**Data linking**
If you have made your research data available in a data repository, you can link your article directly to the dataset. Elsevier collaborates with a number of repositories to link articles on ScienceDirect with relevant repositories, giving readers access to underlying data that gives them a better understanding of the research described.

There are different ways to link your datasets to your article. When available, you can directly link your dataset to your article by providing the relevant information in the submission system. For more information, visit the database linking page.

For supported data repositories a repository banner will automatically appear next to your published article on ScienceDirect.

In addition, you can link to relevant data or entities through identifiers within the text of your manuscript, using the following format: Database: xxxx (e.g., TAIR: AT1G01020; CCDC: 734053; PDB: 1XFN).

**Mendeley Data**
This journal supports Mendeley Data, enabling you to deposit any research data (including raw and processed data, video, code, software, algorithms, protocols, and methods) associated with your manuscript in a free-to-use, open access repository. During the submission process, after uploading your manuscript, you will have the opportunity to upload your relevant datasets directly to Mendeley Data. The datasets will be listed and directly accessible to readers next to your published article online.

For more information, visit the Mendeley Data for journals page.

**Data statement**
To foster transparency, we encourage you to state the availability of your data in your submission. This may be a requirement of your funding body or institution. If your data is unavailable to access or unsuitable to post, you will have the opportunity to indicate why during the submission process, for example by stating that the research data is confidential. The statement will appear with your published article on ScienceDirect. For more information, visit the Data Statement page.

**AFTER ACCEPTANCE**

**Online proof correction**
To ensure a fast publication process of the article, we kindly ask authors to provide us with their proof corrections within two days. Corresponding authors will receive an e-mail with a link to our online proofing system, allowing annotation and correction of proofs online. The environment is similar to MS Word: in addition to editing text, you can also comment on figures/tables and answer questions from the Copy Editor. Web-based proofing provides a faster and less error-prone process by allowing you to directly type your corrections, eliminating the potential introduction of errors.

If preferred, you can still choose to annotate and upload your edits on the PDF version. All instructions for proofing will be given in the e-mail we send to authors, including alternative methods to the online version and PDF.

We will do everything possible to get your article published quickly and accurately. Please use this proof only for checking the typesetting, editing, completeness and correctness of the text, tables and figures. Significant changes to the article as accepted for publication will only be considered at this
stage with permission from the Editor. It is important to ensure that all corrections are sent back to us in one communication. Please check carefully before replying, as inclusion of any subsequent corrections cannot be guaranteed. Proofreading is solely your responsibility.

**AUTHOR INQUIRIES**

Visit the Elsevier Support Center to find the answers you need. Here you will find everything from Frequently Asked Questions to ways to get in touch.

You can also check the status of your submitted article or find out when your accepted article will be published.

© Copyright 2018 Elsevier | https://www.elsevier.com