## Description

*Atherosclerosis* brings together, from all sources, papers concerned with investigation on *atherosclerosis*, its risk factors and clinical manifestations. *Atherosclerosis* covers basic and translational, clinical and population research approaches to arterial and vascular biology and disease, as well as their risk factors including: disturbances of lipid and lipoprotein metabolism, diabetes and hypertension, thrombosis, and inflammation. The Editors are interested in original or review papers dealing with the pathogenesis, environmental, genetic and epigenetic basis, diagnosis or treatment of atherosclerosis and related diseases as well as their risk factors.

Complimentary online access is available to all members of the [European Atherosclerosis Society](https://www.atherosclerotic.org). A reduced personal subscription rate is available to all members of the [International Atherosclerosis Society](https://www.iasociety.org). Please apply to the Publisher for more information.

## Audience

Researchers and clinicians working on atherosclerosis and related diseases, including: lipoprotein metabolism, arterial and vascular biology and disease, thrombosis, inflammation, and cardiovascular risk factors.

## Impact Factor

2016: 4.239 © Thomson Reuters Journal Citation Reports 2017
ABSTRACTING AND INDEXING

BIOSIS
Elsevier BIOBASE
Chemical Abstracts
Current Contents/Clinical Medicine
Current Contents/Life Sciences
Index Internacional de Cardiologia
MEDLINE®
Informedicus
Pascal et Francis (INST-CNRS)
Science Citation Index
EMBASE/Excerpta Medica
Scopus
Science Citation Index Expanded

EDITORIAL BOARD

Editor-in-Chief
A. von Eckardstein, Zürich, Switzerland

Immediate Past Editor
S. Humphries, London, UK

Supplements Editor
A.L. Catapano, Milan, Italy

Co-Editors
J. Borén, Göteborg, Sweden
A.L. Catapano, Milan, Italy
G. Dallinga-Thie, Amsterdam, Netherlands
P. Raggi, Edmonton, Alberta, Canada
G.F. Watts, Perth, Western Australia, Australia

Associate Editors
S. Agewall, Oslo, Norway
J. Armitage, Oxford, UK
R. Asmis, San Antonio, Texas, USA
D. Chan, Perth, Western Australia, Australia
Y.S. Chatzizisis, Boston, Massachusetts, USA
E. de Muinck, Linköping, Sweden
E. Emanuele, Pavia, Italy
G.P. Fadini, Padova, Italy
C. Falcone, Pavia, Italy
M. Federici, Rome, Italy
C. Fernández-Hernando, New Haven, Connecticut, USA
J. Heeren, Hamburg, Germany
R. Hegele, London, Ontario, Canada
K. Ikewaki, Saitama, Japan
M.L. Koschinsky, London, Ontario, Canada
F. Kronenberg, Innsbruck, Austria
E. Lutgens, Amsterdam, Netherlands
Z. Mallat, Cambridge, UK
L. Martinez, Toulouse, France
S. Mohlenkamp, Moers, Germany
Y. Momiyama, Tokyo, Japan
S.J. Nicholls, Adelaide, South Australia, Australia
D. Norata, Milan, Italy
K. Öörni, Helsinki, Finland
A. Rigotti, Santiago, Chile
K. Saku, Fukuoka, Japan
R.D. Santos, São Paulo, Brazil
A. Schmidt-Trucksäss, Basel, Switzerland
A. Sposito, Campinas, Brazil
M. van Eck, Leiden, Netherlands
M.M.J. van Greevenbroek, Maastricht, Netherlands
P. Welsh, Glasgow, Scotland, UK
L. Yvan-Charvet, Nice, France

Statistics Editor
G. Corrao, Milan, Italy
M. Tanck, Amsterdam, Netherlands

Editorial Board Members
H. Adachi, Kurume, Japan
W. Ageno, Varese, Italy
P. Alakija, Edmonton, Alberta, Canada
A.V. Andjelkovic, Ann Arbor, Michigan, USA
B. Arsenault, Québec, Quebec, Canada
J. Auer, Braunau, Austria
M. Averna, Palermo, Italy
L. Badimon, Barcelona, Spain
K.R. Bainey, Edmonton, Alberta, Canada
M. Banach, Lodz, Poland
H. Barrett, Perth, Western Australia, Australia
P.J. Barter, Sydney, New South Wales, Australia
A. Beliasi, Como, Italy
L. Berglund, Sacramento, California, USA
M. Berndt, Perth, Australia
E. Biessen, Aachen, Germany
C. Binder, Vienna, Austria
M. Boehm, Bethesda, Maryland, USA
M.J. Bown, Leicester, UK
H. Bujo, Sakura, Japan
J.R. Burnett, Perth, Western Australia, Australia
G. Camejo, Molndal, Sweden
L.S.F. Carvalho, São Paulo, Brazil
M. Castro Cabezas, Rotterdam, Netherlands
M.J. Chapman, Paris, France
B. Chow, Ottawa, Ontario, Canada
A. Cignarella, Padova, Italy
E. de Groot, Amsterdam, Netherlands
L. De Nicola, Naples, Italy
J-P. Després, Quebec City, Quebec, Canada
M. Di Nisio, Chieti Scalo, Italy
M.S. Elisaf, Loannina, Greece
E. Ercan, İzmir, Turkey
Z.A. Fayad, New York, New York, USA
G. Figtree, Sydney, New South Wales, Australia
G.A. Francis, Vancouver, British Columbia, Canada
R. Frikke-Schmidt, København, Denmark
S.J. George, Bristol, England, UK
J. Golledge, Townsville, Queensland, Australia
P. Gordts, La Jolla, California, USA
I.M. Graham, Dublin, Ireland
M. Hagger, Perth, Western Australia, Australia
M. Harada-Shiba, Osaka, Japan
A. Hirayama, Itabashi-ku, Japan
E. Hurt-Camejo, Göteborg, Sweden
R. Huxley, Perth, Australia
N. Jahroudi, Edmonton, Alberta, Canada
M.S. Jauhiainen, Helsinki, Finland
L. Jiang, China
S. Kasayama, Osaka, Japan
B. Kingwell, Melbourne, Victoria, Australia
W. Koenig, Ulm, Germany
Y. Kokubo, Osaka, Japan
K. Kostner, Queensland, Australia
D. Kratky, Graz, Austria
L. Kritharides, Sydney, New South Wales, Australia
J. A. Kuivenhoven, Groningen, Netherlands
C. Lamina, Innsbruck, Austria
U. Laufs, Homburg, Germany
J.A. Leipsic, Vancouver, British Columbia, Canada
F. Mach, Geneva, Switzerland
M.I. Mackness, Manchester, UK
J. Mamo, Perth, Australia
L. Masana, Reus, Spain
M. McMurtry, Edmonton, Alberta, Canada
P. Meikle, Melbourne, Victoria, Australia
T.A. Mori, Perth, Western Australia, Australia
E.H. Moriguchi, Porto Alegre, Brazil
A. Moschetta, Santa Maria Imbaro (CH), Italy
E.K. Moses, Perth, Western Australia, Australia
A. Murphy, Melbourne, Victoria, Australia
Y. Nakamura, Shiga, Japan
E.P. Navarese, Milan, Italy
H.M. Nawawi, Milan, Italy
D. Neely, Newcastle-upon-Tyne, England, UK
P.J. Nestel, Melbourne, Victoria, Australia
A.C. Newby, Bristol, England, UK
L.B. Nielsen, København, Denmark
J.-R. Nofer, Münster, Germany
R. Padwal, Edmonton, Alberta, Canada
P. Parini, Stockholm, Sweden
G. Pasterkamp, Utrecht, Netherlands
F.J. Raal, Johannesburg, South Africa
Z. Reiner, Zagreb, Croatia
A.T. Remaley, Bethesda, Maryland, USA
P.C.N. Rensen, Leiden, Netherlands
N. Riksen, Nijmegen, Netherlands
S. Romeo, Gothenburg, Sweden
P. Rubba, Naples, Italy
L.L. Rudel, Winston-Salem, North Carolina, USA
C.G. Santos-Gallego, New York, USA
C. Schultz, Perth, Western Australia, Australia
C.M. Sergi, Edmonton, Alberta, Canada
E.J.G. Sijbrands, Rotterdam, Netherlands
H. Soran, Manchester, England, UK
D. Sviridov, Melbourne, Victoria, Australia
L. Tokgözoglu, Ankara Province, Turkey
G.M. Trovato, Catania, Italy
S. Tsimikas, La Jolla, California, USA
J.P. van Buul, Amsterdam, Netherlands
B.-J. van den Born, Amsterdam, Netherlands
M. Vrablik, Prague, Czech Republic
P. Weinberg, London, England, UK
R. Welsh, Edmonton, Alberta, Canada
O. Wiklund, Göteborg, Sweden
K. Wouters, Maastricht, Netherlands
S. Yamashita, Osaka, Japan
N. Zelcer, Amsterdam, Netherlands
A. Zernecke, Würzburg, Germany

Managing Editor
S. Negrini, Zurich, Switzerland
GUIDE FOR AUTHORS

INTRODUCTION

Atherosclerosis is a fully electronic journal, all manuscripts are to be submitted via the internet. To submit your paper online, click on the link http://ees.elsevier.com/ath/.

Types of paper

Types of papers that can be submitted for consideration by the Editorial Board include:

a) Original Research Papers are divided into three categories: Basic Research Papers reporting results of original research or investigation using in vitro cell culture or animal models. Clinical and Population Research Papers reporting results of investigation in human subjects including observational, interventional and genetic studies. Meta-analyses and genetic association studies will also be published under this category. For publication of clinical trials, genetic association studies and meta-analyses, please consult the dedicated Special Guidelines below. Translational Research Papers reporting results of research from both bench-to-bedside and bedside-to-bench.

The following word limits apply: abstract 250 words, main text 4000 words (including legends to figures and tables), 5 figures and/or tables in total (authors are encouraged to include additional figures and tables as Supplementary Material) and a maximum of 50 references. Flexibility on word count may be offered after discussion with the Editor.

Rapid Communications. Authors may choose to submit their Original Research Paper as Rapid Communication. These papers should provide a brief but complete account of important new observations that merit urgent publication. Authors should clearly state in the covering letter why the paper merits urgent publication. The Editor-in-Chief will normally reach a decision on these papers within three weeks. Papers requiring revision will not be considered as Rapid Communications. The following word limits apply: abstract 150 words, main text 3000 words (including legends to figures and tables), 3 figures and/or tables in total, and a maximum of 25 references.

b) Review Articles. Atherosclerosis publishes review articles on topics of great interest or controversy in basic, translational, clinical or population research. Authors who have not been priorly invited to submit a Review by the Editors of Atherosclerosis are advised to write a letter of interest to the Editorial Office, accompanied by an abstract. Based on this, the Editors will encourage or discourage submission. In all cases, Review Articles undergo peer review. The following word limits apply: abstract 250 words, main text 5000 words, 6 figures and/or tables in total, and a maximum of 100 references. Authors are encouraged to include a "mechanism/overview" figure and one or more bullet point boxes highlighting the main key-points.

c) Editorials and Correspondence. Editorials will be commissioned by the Editors, who will approach a suitably qualified author to write a commentary on a recently accepted Original Research Paper of particular interest. Editorials should not exceed 1500 words and 20 references. 1 figure or table is allowed.

If you have specific issues that you wish to raise concerning work published in Atherosclerosis, please submit your opinions as a Correspondence. Correspondence articles should not exceed 1000 words (including references), 10 references and 2 figures and/or tables. The inclusion of novel data will increase the chance of acceptance. The Author(s) of the commented manuscript will have the opportunity to respond to the comments in the same issue of the Journal. Please submit Correspondence to the Editor-in-Chief Arnold von Eckardstein.

In each issue, the following manuscripts will be made available free of charges online: Up to 4 original articles selected by the Editor-in-Chief Invited reviews Editorials

Contact information

Editor-in-Chief
Professor Arnold von Eckardstein
Institute of Clinical Chemistry
University Hospital and University of Zurich
Rmistrasse 100, Zurich
BEFORE YOU BEGIN

Submission declaration

Submission of an article to Atherosclerosis implies that the work described has not been published previously, except in the form of an abstract or as part of a published lecture or academic thesis.

Submission of an article therefore means: The article is not under consideration for publication elsewhere. Publication of the article is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out. If the article is accepted, it will not be published elsewhere by the authors, including electronically in the same form, in English or in any other language, without the written consent of the copyright-holder.

Atherosclerosis will not tolerate plagiarism in any form in submitted manuscripts. Passages of text, data or figures quoted or closely paraphrased from other authors (or from any part of the author’s own published work) must be identified as quotations or paraphrases and the sources of such material must be acknowledged. The use of unacknowledged material will be construed as plagiarism. If any manuscript is found to contain plagiarised material the review process will be halted immediately, and the University or Institute of the corresponding Author will be informed.

Atherosclerosis will not tolerate manipulation or enhancement of data. Authors will be asked to provide further evidence for the validity of data, and the University or Institute of the corresponding Author will be informed if such evidence is not forthcoming.

Ethics in publishing

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

Atherosclerosis will not tolerate plagiarism in any form in submitted manuscripts. Text copied from copyrighted works from third parties or from the author’s own published work, in any section of the manuscript, is unacceptable. Each submission to Atherosclerosis undergoes a check for plagiarism. Manuscripts with excessive overlap with previously published articles are rejected without peer review. To avoid the overlap between your manuscript and previously published works, please cite the relevant articles as references.

Conflict of interest

All authors are requested to disclose any actual or potential conflict of interest including any financial, personal or other relationships with other people or organizations within three years of beginning the submitted work that could inappropriately influence, or be perceived to influence, their work. See also http://www.elsevier.com/conflictssofinterest Authors must declare any such conflict in the cover letter accompanying the manuscript and in the Conflict of interest section of the manuscript itself. Further information and an example of a Conflict of Interest form can be found at: http://service.elsevier.com/app/answers/detail/a_id/286/supporthub/publishing

Studies involving humans

Manuscripts reporting data from research conducted on humans must include a statement of assurance in the Materials and methods section of the manuscript reading that: (1) written informed consent was obtained from each patient included in the study, (2) the study protocol conforms to the ethical guidelines of the 1975 Declaration of Helsinki and (3) the study protocol has been priorly approved by the Institution’s ethics committee on research on humans.

Identifying information shall not be included in any part of the paper, unless it is essential for scientific purposes and written informed consent for publication in print and electronic version has been obtained. If such consent has not been obtained, personal details of patients included in any part of the paper and in any Supplementary Material must be removed from the submission.
If identifying characteristics are altered to protect anonymity, authors should provide assurance that alterations do not distort scientific meaning and editors should note so. For publication of clinical trials, please consult the dedicated Special Guidelines below.

**Studies involving animals**
All experiments on live vertebrates or higher invertebrates must be performed in accordance with relevant institutional and national guidelines and regulations. A statement identifying the committee approving the experiments and confirming that all experiments conform to the relevant regulatory standards must be included in the Materials and methods section of the submission. We suggest that researchers carrying out experiments with animals refer to the ARRIVE guidelines and recommendations developed by the National Centre for the Replacement, Refinement and Reduction of Animals in Research (NC3Rs) to improve experimental design and reporting of animal research.

**Article transfer service**
This journal is part of our Article Transfer Service. This means that if the Editor feels your article is more suitable in one of our other participating journals, then you may be asked to consider transferring the article to one of those. If you agree, your article will be transferred automatically on your behalf with no need to reformat. Please note that your article will be reviewed again by the new journal. More information.

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

**PREPARATION**

**Your Paper Your Way**
We now differentiate between the requirements for new and revised submissions. You may choose to submit your manuscript as a single Word or PDF file to be used in the refereeing process. Only when your paper is at the revision stage, will you be requested to put your paper in to a 'correct format' for acceptance and provide the items required for the publication of your article.

To find out more, please visit the Preparation section below.

**Peer review**
This journal operates a single blind 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. More information on types of peer review.

**REVISED SUBMISSIONS**
Please ensure the Atherosclerosis style is followed for all revised papers and the checklist uploaded with the revised manuscript Atherosclerosis Checklist

**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. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case 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. 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.

**Abstracts**
A structured Abstract must be provided to include the following four sections: **Background and aims**, **Methods, Results; Conclusions** (a maximum of 250 words for regular original research papers).
Main Text
The manuscript main text must be structured to include the following sections in this order (please do not deviate from the headers provided): Introduction Materials and methods (or Patients and methods) Results Discussion Conflict of interest (mandatory) Financial support (if applicable) Author contributions (mandatory) Acknowledgements (if applicable) References

Keywords
A keyword summary must be provided; normally 3-7 items should be included.

Abbreviations
Abbreviations should be defined when first used in the text. Use of abbreviations should be kept at a minimum.

Tables
Tables must be submitted as Word files. Tables with titles and legends must be on separate pages with double spacing; they may be included in the same file as the manuscript text or in separate file(s). Authors must list on the title page or in the covering e-mail, the number of figures and/or tables to be found in the paper.

Footnotes to tables
Footnotes to tables must be listed with superscript lowercase letters, beginning with "a."
Footnotes must not be listed with numbers or symbols.

Figure and table legends
Each figure and table legend should have a brief overarching title (with figure number) that describes the entire figure without citing specific panels, followed by a description of each panel, and all symbols used.
If a figure or table contains multiple panels, the letter describing each panel should be capitalized and surrounded by parenthesis: i.e. (A)(B)(C)(D).

References
There are no strict requirements on reference formatting at submission. References can be in any style or format as long as the style is consistent. Where applicable, author(s) name(s), journal title/book title, chapter title/article title, year of publication, volume number/book chapter and the pagination must be present. For authors' name, the general rule is up to 5 names before et al. Use of DOI is highly encouraged. The reference style used by the journal will be applied to the accepted article by Elsevier at the proof stage. Note that missing data will be highlighted at proof stage for the author to correct.

Formatting requirements
Units: Units must be expressed following the international system of units (SI). If other units are mentioned, conversion factors into SI units must be provided.

DNA and protein sequences: Gene names should be italicized; protein products of the loci are not italicized.
For murine models, the gene and protein names are lowercase except for the first letter (e.g. gene: Abcb4; protein: Abcb4).

For humans, the whole gene name is capitalized (e.g. gene: ABCB4; protein ABCB4).

Only gene names approved by the HUGO Gene Nomenclature Committee should be used: www.genenames.org.

Mouse strains and cell lines: Knock-out or transgenic mouse strains and cell lines are italicized and the symbol superscripted (e.g. ob/ob, p53+/-, p53-/-).

p values: p values must be consistently formatted according to the below style throughout the manuscript (including figures and tables):
\[ p < X \]
\[ p > X \]
\[ p = X \]
All $p$ are italicized and lower case.

**Language usage and editing service**

Language usage and editing service: American or British English should be used, but not a mixture of them.

Words must be written consistently in the same way throughout the manuscript (e.g. non-significant or nonsignificant; down-regulation or downregulation). 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 WebShop: http://webshop.elsevier.com/languageediting/ or visit our customer support site http://support.elsevier.com for more information

**Supplementary data**

Elsevier accepts electronic supplementary material (e-components) to support and enhance presentation of your scientific research. Supplementary files offer the Author additional possibilities to publish supporting applications, movies, animation sequences, high-resolution images, background datasets, sound clips and more. Supplementary files supplied will be published online alongside the electronic version of your article in Elsevier Web products, including ScienceDirect: http://www.sciencedirect.com. In order to ensure that your submitted material is directly usable, please ensure that data is provided in one of our recommended file formats. Authors should submit the material in electronic format together with the article and supply a concise and descriptive caption for each file. For more detailed instructions please visit our artwork instruction pages at http://www.elsevier.com/artworkinstructions. Footnotes should be used sparingly. Number them consecutively throughout the article. Many word processors can build footnotes into the text, and this feature may be used. Otherwise, please indicate the position of footnotes in the text and list the footnotes themselves separately at the end of the article. Do not include footnotes in the Reference list.

**Graphical abstract**

Although a graphical abstract is optional, its use is encouraged as it draws more attention to the online article. The graphical abstract should summarize the contents of the article in a concise, pictorial form designed to capture the attention of a wide readership. Graphical abstracts should be submitted as a separate file in the online submission system. Image size: Please provide an image with a minimum of 531 x 1328 pixels (h x w) or proportionally more. The image should be readable at a size of 5 x 13 cm using a regular screen resolution of 96 dpi. Preferred file types: TIFF, EPS, PDF or MS Office files. You can view Example Graphical Abstracts on our information site.

Authors can make use of Elsevier's Illustration and Enhancement service to ensure the best presentation of their images and in accordance with all technical requirements: Illustration Service.

**Highlights**

Highlights are mandatory for this journal. They consist of a short collection of bullet points that convey the core findings of the article and 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). You can view example Highlights on our information site.

**Footnotes**

Footnotes should be used sparingly. Number them consecutively throughout the article. Many word processors can build footnotes into the text, and this feature may be used. Otherwise, please indicate the position of footnotes in the text and list the footnotes themselves separately at the end of the article. Do not include footnotes in the Reference list.

**Artwork**

*Colour illustrations online*

Please make sure that artwork files are in an acceptable format (TIFF, EPS or MS Office files) and with the correct resolution. Polaroid colour prints are not suitable. If, together with your accepted article, you submit usable colour figures then Elsevier will ensure, at no additional charge, that these figures will appear in colour on the Web (e.g. ScienceDirect and other sites. For further information on the preparation of electronic artwork, please see http://www.elsevier.com/artworkinstructions.

*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.

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/halftone (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.

**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.

**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.

Example: '..... as demonstrated [3,6]. Barnaby and Jones [8] obtained a different result ....'

**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 book:

Reference to a chapter in an edited book:

Reference to a website:

Reference to a dataset:

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).

Data in Brief
You have the option of converting any or all parts of your supplementary or additional raw data into one or multiple data articles, a new kind of article that houses and describes your data. Data articles ensure that your data is actively reviewed, curated, formatted, indexed, given a DOI and publicly available to all upon publication. You are encouraged to submit your article for Data in Brief as an additional item directly alongside the revised version of your manuscript. If your research article is accepted, your data article will automatically be transferred over to Data in Brief where it will be editorially reviewed and published in the open access data journal, Data in Brief. Please note an open access fee of 500 USD is payable for publication in Data in Brief. Full details can be found on the Data in Brief website. Please use this template to write your Data in Brief.

MethodsX
You have the option of converting relevant protocols and methods into one or multiple MethodsX articles, a new kind of article that describes the details of customized research methods. Many researchers spend a significant amount of time on developing methods to fit their specific needs or setting, but often without getting credit for this part of their work. MethodsX, an open access journal, now publishes this information in order to make it searchable, peer reviewed, citable and reproducible. Authors are encouraged to submit their MethodsX article as an additional item directly alongside the revised version of their manuscript. If your research article is accepted, your methods article will automatically be transferred over to MethodsX where it will be editorially reviewed. Please note an open access fee is payable for publication in MethodsX. Full details can be found on the MethodsX website. Please use this template to prepare your MethodsX article.

Google Maps and KML files
KML (Keyhole Markup Language) files (optional): You can enrich your online articles by providing KML or KMZ files which will be visualized using Google maps. The KML or KMZ files can be uploaded in our online submission system. KML is an XML schema for expressing geographic annotation and visualization within Internet-based Earth browsers. Elsevier will generate Google Maps from the submitted KML files and include these in the article when published online. Submitted KML files will also be available for downloading from your online article on ScienceDirect. More information.

3D radiological data
You can enrich your online article by providing 3D radiological data in DICOM format. Radiological data will be visualized for readers using the interactive viewer embedded within your article, and will enable them to: browse through available radiological datasets; explore radiological data as 2D series, 2D orthogonal MPR, 3D volume rendering and 3D MIP; zoom, rotate and pan 3D reconstructions; cut through the volume; change opacity and threshold level; and download the data. Multiple datasets can be submitted. Each dataset will have to be zipped and uploaded to the online submission system via the '3D radiological data' submission category. The recommended size of a single uncompressed dataset is 200 MB or less. Please provide a short informative description for each dataset by filling in the 'Description' field when uploading each ZIP file. Note: all datasets will be available for download from the online article on ScienceDirect. So please ensure that all DICOM files are anonymized prior to submission. More information.
Submission Checklist

The following list will be useful during the final checking of an article prior to sending it to the journal for review. Please consult this Guide for Authors for further details of any item.

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, and contain: Keywords All figure captions in the suitable style All tables (including title, description, footnotes in the suitable style) Further considerations: Manuscript has been 'spell-checked' and 'grammar-checked' Formatting guidelines have been applied for revised submissions (Please see Atherosclerosis Style Checklist) 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) Printed version of figures (if applicable) in color or black-and-white: Indicate clearly whether or not color or black-and-white in print is required.

For any further information please visit our customer support site at http://support.elsevier.com.

Additional information

Changes to authorship

Authors are expected to consider carefully the list and order of authors before submitting their manuscript and provide the definitive list of authors at the time of the original submission. Any addition, deletion or rearrangement of author names in the authorship list should be made only before the manuscript has been accepted and only if approved by the journal Editor. To request such a change, the Editor must receive the following from the corresponding author: (a) the reason for the change in author list and (b) written confirmation (e-mail, letter) from all authors that they agree with the addition, removal or rearrangement. In the case of addition or removal of authors, this includes confirmation from the author being added or removed. Only in exceptional circumstances will the Editor consider the addition, deletion or rearrangement of authors after the manuscript has been accepted. While the Editor considers the request, publication of the manuscript will be suspended. If the manuscript has already been published in an online issue, any requests approved by the Editor will result in a corrigendum.

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 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 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.

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.
**Funding body agreements and policies**
Elsevier has established a number of agreements with funding bodies which allow authors to comply with their funder's open access policies. Some funding bodies will reimburse the author for the Open Access Publication Fee. Details of existing agreements are available online.

**Open access**
This journal offers authors a choice in publishing their research:

- **Open access**
  - Articles are freely available to both subscribers and the wider public with permitted reuse.
  - An open access publication fee is payable by authors or on their behalf, e.g. by their research funder or institution.

- **Subscription**
  - Articles are made available to subscribers as well as developing countries and patient groups through our universal access programs.
  - No open access publication fee payable by authors.

Regardless of how you choose to publish your article, the journal will apply the same peer review criteria and acceptance standards.

For open access articles, permitted third party (re)use is defined by the following Creative Commons user licenses:

**Creative Commons Attribution-NonCommercial-NoDerivs (CC BY-NC-ND)**
For non-commercial purposes, lets others distribute and copy the article, and to include in a collective work (such as an anthology), as long as they credit the author(s) and provided they do not alter or modify the article.

**Green open access**
Authors can share their research in a variety of different ways and Elsevier has a number of green open access options available. We recommend authors see our green open access page for further information. Authors can also self-archive their manuscripts immediately and enable public access from their institution's repository after an embargo period. This is the version that has been accepted for publication and which typically includes author-incorporated changes suggested during submission, peer review and in editor-author communications. Embargo period: For subscription articles, an appropriate amount of time is needed for journals to deliver value to subscribing customers before an article becomes freely available to the public. This is the embargo period and it begins from the date the article is formally published online in its final and fully citable form. Find out more.

**AFTER ACCEPTANCE**

**Use of the Digital Object Identifier**
The Digital Object Identifier (DOI) may be used to cite and link to electronic documents. The DOI consists of a unique alpha-numeric character string which is assigned to a document by the publisher upon the initial electronic publication. The assigned DOI never changes. Therefore, it is an ideal medium for citing a document, particularly 'Articles in press' because they have not yet received their full bibliographic information. Example of a correctly given DOI (in URL format; here an article in the journal Physics Letters B): [http://dx.doi.org/10.1016/j.physletb.2010.09.059](http://dx.doi.org/10.1016/j.physletb.2010.09.059)

When you use a DOI to create links to documents on the web, the DOIs are guaranteed never to change.

Elsevier will do everything possible to get your article corrected and published as quickly and accurately as possible. Therefore, it is important to ensure that all of your corrections are sent back to us in one communication. Subsequent corrections will not be possible, so please ensure your first sending is complete.

**Reprints**
PDF offprints are provided free of charge. No reprints are provided free of charge. Reprints (50 copies minimum) can be ordered at quoted prices on order forms sent out together with the proofs.
Online proof correction

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.

SPECIAL GUIDELINES

Clinical Trials

The International Committee of Medical Journal Editors (ICMJE) defines a clinical trial as any research project prospectively assigning human participants to intervention or comparison groups to study the cause-and-effect relationship between an intervention and a health outcome. Interventions include but are not limited to drugs, surgical procedures, devices, behavioral treatments, process-of-care changes, and the like. All manuscripts reporting clinical trials, must include a copy of the trial protocol including the complete statistical analysis plan, a flow diagram (CONSORT flow diagram), and a completed trial checklist (the CONSORT checklist and template flow diagram can be found at http://www.consort-statement.org/). The trial registration number must be included on the title page of the manuscript reporting a registered clinical trial and in the Materials and methods section. Failure to do so will prevent entry to the peer review process.

Registration of clinical trial

Registration in a public trials registry is a condition for publication of clinical trials in Atherosclerosis in accordance with International Committee of Medical Journal Editors (ICMJE) recommendations. Trials must be registered at or before the onset of patient enrolment. Purely observational studies (those in which the assignment of the medical intervention is not at the discretion of the investigator) will not require registration.

Clinical trial results

In line with the position of the ICMJE, Atherosclerosis will not consider results posted in the same clinical trials registry in which primary registration resides to be prior publication if the results posted are presented in the form of a brief structured (less than 500 words) abstract or table. However, divulging results in other circumstances (e.g., investors’ meetings) is discouraged and may jeopardise consideration of the manuscript. Authors should fully disclose all posting in registries of results of the same or closely related work.

Randomized control trials

Reports of randomised trials must conform to CONSORT 2010 guidelines. All manuscripts reporting randomized clinical trials, must include a copy of the trial protocol including the complete statistical analysis plan, a flow diagram (CONSORT flow diagram), and a completed trial checklist (the CONSORT checklist and template flow diagram can be found at http://www.consort-statement.org).
Guidelines for genetic association papers

Atherosclerosis is interested in publishing genetic association papers that present data that is novel, statistically robust, clinically relevant and that add significantly to the field. Authors are advised to follow the reporting guidelines outlined in the STREGA Statement (http://www.strega-statement.org) [1], and to achieve this, the following criteria should be met.

1. All the following aspects should be addressed appropriately and Methods used should be reported:
   a) Population stratification should be addressed in case of admixed populations;
   b) Test on Hardy-Weinberg-Equilibrium must be carried out and the p value reported;
   c) LD-structure between SNPs (if multiple SNPs are reported) must be presented;
   d) Genotyping errors / call rate must be reported;
   e) Appropriate correction for multiple testing (if multiple independent SNPs are reported) must be included;
   f) Possible relatedness between studied subjects must be documented and addressed if present.

2. All papers must include a power calculation to estimate the effect the size the study has the power to detect, based on sample size and minor allele frequency of the included SNPs. If power calculations are not included the paper is likely to be rejected without review. It should be stated whether or not power calculations were performed before or after study completion. Comment: The study should have an adequate sample size. Ideally, power calculations should have been performed before conducting the study since post-hoc power calculations are often a self-fulfilling prophecy. It should be stated whether or not power calculations were performed before or after study completion. Several programs are available to perform power and/or sample size calculations for genetic association studies, e.g. the "Genetic Power Calculator" (http://pngu.mgh.harvard.edu/~purcell/gpc) [2], and see table 1 below. Sample size and/or Power calculations on two-stage designs can be calculated e.g. by using the program CATS (http://www.sph.umich.edu/csg/abecasis/CaTS) [3] for case-control studies and QpowR (https://www.msu.edu/~steibelj/JP_files/QpowR.html) for studies on quantitative traits. Since genetic association studies often involve more complex study designs involving meta-analysis or several replication stages, simple answers on required sample sizes cannot be given. Authors are advised, however, to keep this issue in mind and give a good rationale, if the study is clearly underpowered.

3. For any novel association a replication study must be included in the submitted manuscript. Any novel association not including a replication study may be rejected without review. Comment: The presentation of novel association results requires replication in most cases, if appropriate replication studies exist. However, if the first study has already an appropriate sample size (considering that very large studies with several thousands of individuals are available) and if the results show a strong association, it might not be necessary to provide a replication. Furthermore, giving additional evidence from other sources could replace replication studies, if they are convincing, e.g. results from functional experiments. Meta-analysis on the discovery stage or other outstanding studies do also not require replication in every case, but it should be clear that these are exceptional cases and have to discussed in that way to be acceptable for publication.

4. For any association study replicating a previously published finding, there should be sufficient novelty to add significantly to the literature. This could include confirming the effect size in a different ethnic group, or extending the association observations to additional intermediate traits or disease groups. Any study not having sufficient novelty is likely to be rejected without review.

5. We require all SNPs to have their designated RS number and for the numbering of base pair changes and amino acid changes and gene symbols to be using agreed nomenclature. For example see the following website: http://www.hgvs.org/mutnomen.

6. Generally, authors should present the rationale as to why gene regions and SNPs have been selected. Association studies using SNPs where previous studies have demonstrated that the base change has an effect on protein function or gene expression will be favored over those using SNPs
where no functionality has been previously determined. Studies using a tagSNP approach will also be considered, where these add additional data to the already known variations, in order to further explain observed associations.

References


In the following table, some sample sizes are given, calculated from the "Genetic Power Calculator", assuming an alpha-level of = 0.05, an additive inheritance model, an assumed prevalence of disease of 30% and a power of 80% for a balanced case-control study (1:1 case:control ratio) for varying minor allele frequencies (MAF) and genetic relative risks (GRR). Relative risks of between 1.1 and 1.3 are in the range that can be expected in genetic association studies on complex diseases.

ATH_GfA_example_table.jpg

Guidelines for meta-analyses

In principle, literature-based meta-analyses should be reported in that way, that any interested researcher is able to reproduce the results. To ensure this, authors are strongly advised to follow the guidelines listed below and are further encouraged to use the PRISMA (http://www.prisma-statement.org/PRISMAStatement/Default.aspx) and the MOOSE statements (http://jama.ama-assn.org/cgi/content/full/283/15/2008) as a guide. Therefore, as much information as needed should be provided. However, for the average reader only the most mandatory information should be reported in the main paper with additional information given in the Supplementary Material.

1. Specification of objective and primary study outcome. If there are previous meta-analyses on the same outcome available, the authors should specify clearly the differences and added value of their meta-analysis in a separate section ("Added value to previous meta-analysis on the same topic").

2. Detailed specification of search strategy, study selection strategy (including approaches to reach unpublished studies) and eligibility criteria for studies. It is highly recommended to use a graphical Flow Chart (templates available at http://www.prisma-statement.org/PRISMAStatement/Default.aspx).

3. Description of possible sources of bias and confounding and strategies to prevent them. This includes: Bias in individual studies, Bias across studies (e.g. publication bias, selective reporting within studies), Quality and comparability of studies (study types, study outcomes, sample size).

4. Description of Statistical Methods: What is the primary summary measure (Difference in Mean, OR, etc.)? How was it extracted from the individual studies (e.g. calculated from raw numbers or tables or taken as reported)? Methods to assess heterogeneity and bias? Methods used for the combined analysis (fixed effects, random effects) including a rationale for using this method.

5. Reporting of results: Individual study characteristics (including sample size, study type, population/ethnicity, primary outcome, reference) Individual study results (effect estimates including confidence intervals or standard errors). Graphical presentations is preferred (Forest plots). Meta-analysis results: Combined effect estimate, confidence intervals, some measure of heterogeneity, results of bias assessment (preferably using graphical presentations, e.g. Funnel plot).

6. Additional for meta-analysis of genetic association studies: meta-analysis on a single SNP with certain selected outcomes suffer from the problem that they completely ignore the other genetic variability within a certain gene region. Many of these meta-analyses also completely ignore already available results from genome-wide association (GWA) studies on the investigated
outcomes. These GWA studies might not have studied the very SNP of interest but highly correlated ones in the same genetic region which can add valuable information to the meta-analysis. The authors must either discuss the findings from these GWAS or - even much better - approach the authors from these GWAS for a lookup of the meta-analyzed SNPs. Meta analyses that do not cover these issues will be rejected without review. Furthermore, these studies have to report the following information:

- Specification of the genes / polymorphisms (rs numbers) and rationale for selection of the specific polymorphisms
- Genotyping methods in each individual study
- Genotype characteristics (genotyping success rate, minor allele frequency, frequencies of genotypes, Hardy-Weinberg-equilibrium).