DESCRIPTION

*The Ocular Surface*, a quarterly, peer-reviewed journal, is an authoritative resource that integrates and interprets major findings in diverse fields related to the **ocular surface**, including **ophthalmology**, **optometry**, **genetics**, **molecular biology**, **pharmacology**, **immunology**, **infectious disease**, and **epidemiology**. Its critical review articles cover the most current knowledge on medical and surgical management of ocular surface pathology, new understandings of ocular surface physiology, the meaning of recent discoveries on how the ocular surface responds to injury and disease, and updates on drug and device development. The journal also publishes select original research reports and articles describing cutting-edge techniques and technology in the field.

**Benefits to authors**

We also provide many author benefits, such as free PDFs, a liberal copyright policy, special discounts on Elsevier publications and much more. Please click here for more information on our **author services**.

Please see our **Guide for Authors** for information on article submission. If you require any further information or help, please visit our **Support Center**

IMPACT FACTOR

2017: 5.530 © Clarivate Analytics Journal Citation Reports 2018

EDITORIAL BOARD

*Editor-in-Chief*
Ali Djalilian, MD, Associate Professor, Ophthalmology, University of Illinois Eye and Ear Infirmary, Chicago, IL

*Founding Editor*
Michael A. Lemp, MD, Clinical Professor, Ophthalmology, Georgetown and George Washington Universities, Washington, DC, USA

*Senior Associate Editor*
Reza Dana, MD, Professor and Senior Scientist, Harvard Medical School; Director of Cornea, Mass Eye and Ear Infirmary, Boston, MA

*Associate Editors*
Reiko Arita, MD, PhD, Vice Director and Chairman, Ophthalmology, Itoh Clinic, Saitama, Japan
Stefano Bonini, MD, Professor and Chairman, Ophthalmology, University of Rome, Rome, Italy
Jennifer P. Craig, National Eye Care Centre, University of Auckland, Auckland, New Zealand
Pedram Hamrah, Director, Anterior Segment Imagine, Boston Image Reading Center, Cornea Service, Ophthalmology, New England Eye Center, Tufts Medical Center, Tufts University School of Medicine, Boston, MA
James V. Jester, Professor, Ophthalmology, University of California at Irvine (UCI) College of Medicine, Irvine, CA

Managing Editor
David Newcombe, Stellar Medical Publications, Plymouth, Massachusetts, USA

Editorial Board
Pablo Argueso, PhD, Assistant Professor, Dept. of Ophthalmology, Harvard Medical School and Associate Scientist, Schepens Eye Research Institute, Massachusetts Eye and Ear, Boston, MA, USA
Penny A. Asbell, MD, Professor of Ophthalmology, Mount Sinai Medical Center, New York, NY, USA
Stefano Barabino, MD, PhD, Clinica Oculistica, University of Genoa, Genoa, Italy
Christophe Baudouin, MD, PhD, Professor and Director, Ophthalmology, Quinze-Vingts Hospital, University Paris, Paris, France
Carolyn G. Begley, OD, MS, PhD, Professor, School of Ophthalmology, Indiana University, Bloomington, IN, USA
Roger W. Beuerman, PhD, Professor, Ophthalmology, Cell Biology and Anatomy, Louisiana State University Eye center, New Orleans, LA and Singapore Eye Research Institute, Singapore
Douglas Borchman, PhD, Kentucky Lions Eye Center, University of Louisville, Louisville, KY, USA
Vatinnee Bunya, MD, Associate Professor, University of Pennsylvania, Pennsylvania, PA
Sunil Chauhan, PhD, Associate Professor, Schepens Eye Research Institute, Harvard University, Boston, MA
M. Soledad Cortina, MD, Associate Professor, University of Illinois at Chicago, Chicago, IL
Darlene Darrt, PhD, Senior Scientist, The Schepens Eye Research Institute, Boston, MA, USA
Cintia De Paiva, MD, PhD, Assistant Professor, Baylor, Houston, TX
Sophie Ding, MD, PhD, Associate Professor, UCLA, Los Angeles, CA
Suzanne Fleiszsig, OD, PhD, FAAO, Associate Professor, Vision Science and Optometry, University of California Berkeley, Berkeley, CA, USA
Anat Galor, MD, Associate Professor, University of Miami, Coral Gables, FL
Gerd Geering, MD, Professor, Department of Ophthalmology, Heinrich-Heine University, Düsseldorf, Germany
Jose Gomes, MD, Federal University of São Paulo, São Paulo, Brazil
Darren Gregory, MD, Associate Professor, University of Colorado, Denver, CO
Andrew Huang, MD, MPH, Professor, Washington University, St. Louis, MO
Sandep Jain, MD, Director, Corneal Neurobiology Laboratory, University of Illinois, Louisville, KY, USA
Charlotte Joslin, MD, PhD, Associate Professor, University of Illinois at Chicago, Chicago, IL
Winston W.-Y. Kao, PhD, Professor, Ophthalmology, University of Cincinnati, Cincinnati, OH, USA
Ahmad Kheirkhah, MD, Assistant Professor, University of Texas, San Antonio, TX
Shigeru Kinoshita, MD, Professor and Chairman, Department of Ophthalmology, Kyoto Prefectural University of Medicine, Kyoto, Japan
Zuguo Liu, PhD, Professor and Director, Eye Institute of Xiamen University, Xiamen, Funian, PRC
James P. McCulley, MD, FACS, FRCOphth (UK), Professor and Chairman, Department of Ophthalmology, University of Texas Southwestern Medical School, Dallas, TX, USA
Austin K. Mircheff, OD, MPH, PhD, Professor of Physiology and Biophysics, Professor of Ophthalmology, Doheny Eye Institute, University of Southern California, Los Angeles, CA, USA
J. Daniel Nelson, MD, FACS, Senior Medical Director, HealthPartners Medical Group, Bloomington, MN;
Professor, Ophthalmology, University of Minnesota, Minneapolis, MN, USA
Jason Nichols, OD, PhD, VP for Industry Research Development, School of Optometry, University of Alabama at Birmingham, Birmingham, AL, USA
Kelly Nichols, OD, MPH, PhD, Dean, School of Optometry, University of Alabama at Birmingham, Birmingham, AL, USA
Gary Novack, PhD, President, Pharmologic Development, Inc., San Rafael, CA, USA
Stephen Pflugfelder, MD, Professor of Ophthalmology, Cullen Eye Institute, Dept. of Ophthalmology, Baylor College of Medicine, Houston, TX, USA
Michelle Senchyna, PhD, Director, Clinical Development, Global Product Enhancement-Ophthalmology, Allergan, Inc., Irvine, CA, USA
Fiona Stapleton, PhD, MCOptom, Professor and Head of School, University of New South Wales, Sydney, New South Wales, Australia
Michael Stern, PhD, Research Investigator, Allergan, Inc., Irvine, CA, USA
Benjamin Sullivan, PhD, Chief Scientific Officer, TearLab Corporation, San Diego, CA, USA
John Sutphin, Jr., MD, Professor and Chair, Department of Ophthalmology, University of Kansas Medical Center, Kansas City, KS, USA
Alan Tomlinson, MSc, PdD, DSC, Professor and head, Vision Sciences, Glasgow Caledonian University, Glasgow, Scotland, UK
Scheffer C.G. Tseng, MD, PhD, President, Ocular Surface Center, Miami, FL, USA
Kazuo Tsubota, MD, Professor and Head, Department of Ophthalmology, Keio University School of Medicine, Tokyo, Japan
John Ubels, PhD, Professor, Calvin College, Grand Rapids, MI, USA
Vasilis Vasiliou, PhD, Professor and Chair of the Department of Environmental Health Sciences, Yale School of Public Health, New Haven, CT, USA
Norihiko Yokoi, MD, PhD, Associate Professor, Ophthalmology, Kyoto Prefectural University of Medicine, Kyoto, Japan
GUIDE FOR AUTHORS

A peer-reviewed quarterly journal, *The Ocular Surface (TOS)* features concise, state-of-the-art, referenced review articles to elucidate the vast body of findings in this rapidly evolving field. Its purview ranges from molecular biology to surgery, encompassing lacrimal, lid, and ocular surface physiology, pathology, pharmacology, and medical/surgical therapeutic interventions. TOS also publishes select original research reports and articles describing innovative techniques and technology. Descriptions of desired content and requirements for articles are described below under the section headings: Review Articles; Original Research Articles; Innovative Techniques and Technology. All manuscripts undergo peer review by two or more reviewers. Authors are asked to revise their manuscripts, addressing all the reviewers' suggestions or explaining their reasons for declining to do so.

**Submission**

Manuscripts must be submitted through EVISE: https://www.evise.com/profile/api/navigate/THEOCULARSURFACE/login.

**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
- Ensure that the manuscript file includes a disclosure section just before the references even if the authors have no conflicts to disclose
- All figures (include relevant captions)
- All tables (including titles, description, footnotes)
- Ensure all figure and table citations in the text match the files provided
- **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)
- Journal policies detailed in this guide have been reviewed
- Referee suggestions and contact details provided, based on journal requirements

While submitting revision, make sure that you submit: 1. The Revised Manuscript with track changes under the file type "Revised Manuscript with Changes Marked; 2. A clean version of the Revised Manuscript under the file type "Manuscript File"; 3. Response to reviewers in a separate file.

For further information, visit our Support Center.

**Guidelines for Writing Articles**

**Review Articles**

Most reviews are written at the invitation of the editors, but independent proposals of articles are welcomed. To propose a review, please email a brief description of the intended review to Editor-in-Chief Ali Djalilian, MD (adjalili@uic.edu) and Managing Editor David Newcombe (ocularsurface@stellarmed.com). If the editors consider the topic to be appropriate, you will be asked to submit a detailed outline and tentative bibliography for peer review.

Reviews should follow a topic-based outline, labeled with headings and subheadings [I,A,1,a, (1), (a)]. A TOS review should not be a general overview of a topic, but rather an in-depth, literature-based, critical review that emphasizes areas of new information, controversies, etc. The authors' own findings may be cited in the context of findings published in the literature, but original work should
not be the focus of the review. The readers will have various levels of understanding about specific topic areas, so it is important for authors to provide the background, definitions, and explanations necessary to enhance understanding. Illustrative figures and diagrams are very helpful.

**Length**

Appropriate length is usually about 10-14 printed pages (equivalent to about 24-34 double-spaced manuscript pages, including references, figures and tables).

**References**

A review article should not cite all publications relevant to the topic of the article; rather, the references should be selected according to their importance and usefulness in clarifying, documenting, and providing historical background. Multiple similar references to document a statement are usually not needed.

The appropriate number of references varies according to the length of the article and the complexity of the topic. The number of references in a 12-14 page review article (20-30 double-spaced typed pages of text) should seldom exceed 150, although there may be exceptions to this guideline. Authors are encouraged to request advice from the editors if it seems that more references are appropriate.

The review manuscript should state the method of literature selection, specifying search words and data bases used, as well as the date of search; number of articles retrieved; criteria for selecting articles for inclusion in review; criteria for excluding articles.

**Innovative Techniques and Technology**

Evolving technologies and techniques in both the basic and clinical arenas often do not have sufficient published peer-reviewed data to permit a comprehensive review for inclusion in the basic science, clinical research, or clinical practice sections of *The Ocular Surface*. Nonetheless, there is a value to both researcher and clinician in being aware of the potential applications and pitfalls of such new technology. In order to inform our readership of evolving technologies and techniques, publication of articles describing such options with adequate peer review is appropriate.

Appropriate length for ITT articles is usually about 6-8 printed pages, including figures and references (equivalent of about 9-14 double-spaced typed pages).

**Guidelines**

1. Technologies or techniques should provide a significant insight or advance in the basic or clinical investigation or treatment of the ocular surface.
2. Manuscripts should critically describe outcome data, not just a proposed method or technique.
3. Figures or diagrams to illustrate the application or interpretation of the technique should be included.
4. Appropriate references to support conclusions and claims should be provided, even if the number of such references is limited.
5. Commercial bias must be avoided, and the value of the technology/technique must be factually supported, not speculative.
6. The author must fully disclose all proprietary and financial interests or support.
7. An attempt will be made to include such articles in issues that have a corresponding related topic in any review of the three major sections of the journal.

**Suggested format**

Brief introduction describing purpose of the procedure, other procedures used for the same purpose, and advantages of (need for) the new procedure. Description of the technique, including theoretical basis and steps in performing (including figures and diagrams). Outcome data Summary/Conclusion Disclosure

**Original Research Reports**

The goal of including original research articles in TOS is to provide rapid, peer-reviewed publication of high-quality, high-impact information that holds promise of significantly advancing the understanding of the ocular surface. The work should present new conceptual frameworks or novel research findings that challenge or enhance our current approach to clinical practice or research. To this end, the research must:

1. Be original research of the author that is conducted with sound scientific method.
2. Provide new information that answers a specific question regarding ocular surface health or disease.
3. Provide new, mechanistically based information.
4. Be presented according to the author guidelines.
and format listed below. Be performed according to tenets of good laboratory and clinical practice:
a. If involving laboratory animals, the work should conform to the ARVO guidelines for humane use of
such animals; b. If involving human subjects, the work should conform to the Declaration of Helsinki
and provide for informed consent in an IRB approved protocol; c. If involving a clinical trial, should
be registered with a clinical trial registry. Be presented in a clear, logical manner with sufficient
detail to be reproducible by other researchers. Present rationale and statistical analysis of data to
support conclusions.

**Format**

1. **Title Page:** (As above under "Manuscript Preparation")
2. **Structured abstract:** A structured abstract of fewer than 250 words is required for original research articles and should be arranged under the following headings: Purpose, Methods, Results, and Conclusions. Abbreviations should be defined at first mention, Do not include references. The abstract must be included as part of the main manuscript file.
3. **Text:** *The Ocular Surface* recommends a 3,500 or fewer word count, excluding title page, legends, and references. The text should be double-spaced.

   In a brief **Introduction,** provide the research rationale and objectives without extensively reviewing the literature. In the **Methods** section, describe the experimental design, subjects used, and procedures followed. Previously published procedures should be identified by reference only. Provide sufficient detail to enable others to duplicate the research. Use standard chemical or nonproprietary pharmaceutical nomenclature. In parentheses, identify specific sources by brand name, company, city, and state or country. A description of the statistical analysis techniques should be included.

   If human subjects were involved in the investigation, the Methods section must confirm that: (1) the research followed the tenets of the Declaration of Helsinki; (2) informed consent was obtained from the subjects after explanation of the nature and possible consequences of the study; and (3) where applicable, the research was approved by the institutional human experimentation committee or institutional review board.

   If experimental animals were used in the investigation, the Methods section must confirm adherence to the ARVO Statement for the Use of Animals in Ophthalmic and Vision Research and, where applicable, approval by the appropriate animal research review board.

   Present the **Results** with a minimum of discussion. Cite all tables and figures in numerical order. Limit the **Discussion** to statistically significant data and their limitations. Do not reiterate results.

4. **Acknowledgments:** Acknowledgments should be written in the third person and be limited to colleagues and research assistants. Acknowledgments are not meant to recognize appreciation for personal or manuscript production support. Including dedications to individuals or groups is not allowed.

5. **Disclosure/Conflict of Interest Statement**

6. **References** (as described above under "Manuscript Preparation")

**Submission**
Manuscripts must be submitted through EVISE: https://www.evise.com/profile/api/navigate/THEOCULARSURFACE/login.

**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-blind) or the manuscript file (if single-blind). 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. Articles should make no assumptions about the beliefs or commitments of any reader, should contain nothing which might imply that one individual is superior to another on the grounds of race, sex, culture or any other characteristic, and should use inclusive language throughout. Authors should ensure that writing is free from bias, for instance by using 'he or she', 'his/her' instead of 'he' or 'his', and by making use of job titles that are free of stereotyping (e.g. 'chairperson' instead of 'chairman' and 'flight attendant' instead of 'stewardess').

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 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.

**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 gold open access publication fee. Details of existing agreements are available online.

After acceptance, open access papers will be published under a noncommercial license. For authors requiring a commercial CC BY license, you can apply after your manuscript is accepted for publication.

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

**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.
- The Author is entitled to post the accepted manuscript in their institution's repository and make this public after an embargo period (known as green Open Access). The published journal article cannot be shared publicly, for example on ResearchGate or Academia.edu, to ensure the sustainability of peer-reviewed research in journal publications. The embargo period for this journal can be found below.

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

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

For gold 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.

The gold open access publication fee for this journal is USD 3000, excluding taxes. Learn more about Elsevier's pricing policy: https://www.elsevier.com/openaccesspricing.
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.

Elsevier Publishing Campus
The Elsevier Publishing Campus (www.publishingcampus.com) is an online platform offering free lectures, interactive training and professional advice to support you in publishing your research. The College of Skills training offers modules on how to prepare, write and structure your article and explains how editors will look at your paper when it is submitted for publication. Use these resources, and more, to ensure that your submission will be the best that you can make it.

This journal has an embargo period of 12 months.

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 WebShop.

Informed consent and patient details
Studies on patients or volunteers require ethics committee approval and informed consent, which should be documented in the paper. Appropriate consents, permissions and releases must be obtained where an author wishes to include case details or other personal information or images of patients and any other individuals in an Elsevier publication. Written consents must be retained by the author but copies should not be provided to the journal. Only if specifically requested by the journal in exceptional circumstances (for example if a legal issue arises) the author must provide copies of the consents or evidence that such consents have been obtained. For more information, please review the Elsevier Policy on the Use of Images or Personal Information of Patients or other Individuals. Unless you have written permission from the patient (or, where applicable, the next of kin), the personal details of any patient included in any part of the article and in any supplementary materials (including all illustrations and videos) must be removed before submission.

Submit your article
Please submit your article via EVISE at https://www.evise.com/profile/api/navigate/THEOCULARSURFACE.

Referees
Please submit the names and institutional e-mail addresses of several potential referees. For more details, visit our Support site. Note that the editor retains the sole right to decide whether or not the suggested reviewers are used.

Style

PREPARATION
**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 one independent expert reviewer 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.

**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 - numbered sections**

Divide your article into clearly defined and numbered sections. Subsections should be numbered 1.1 (then 1.1.1, 1.1.2, ...), 1.2, etc. (the abstract is not included in section numbering). Use this numbering also for internal cross-referencing: do not just refer to 'the text'. Any subsection may be given a brief heading. Each heading should appear on its own separate line.

**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.

**Disclosure/Conflicts of Interest**

In a paragraph that appears just before the references, all listed authors must state all possible competing interests (conflicts of interest) in the manuscript, including all financial interests (consulting, board membership, stock ownership, patent applications, grants, or honoraria) or non-financial competing interests (sometimes called private interests), which can be personal relationships, political, religious, or personal convictions, academic writing or consulting, or serving as an expert witness, that might lead to bias or a conflict of interest. If there is no conflict of interest, this should also be explicitly stated as none declared. All sources of funding should be acknowledged in the manuscript.

**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. Name should be followed by academic degree(s) and superscript numeral(s) corresponding to institution(s) named in footnote.

• **Short title.** Provide "short" title for use in running head.

• **Title page footnotes.** List institutional affiliation(s) of each author preceded by superscript number. Affiliation should be institution where work was performed. If the author has moved, new address should be given as a separate footnote.

• **Corresponding author.** Give name, complete address, telephone and fax numbers, and Email address.

**Structured abstract**

A structured abstract, by means of appropriate headings, should provide the context or background for the research and should state its purpose, basic procedures (selection of study subjects or laboratory animals, observational and analytical methods), main findings (giving specific effect sizes and their statistical significance, if possible), and principal conclusions. It should emphasize new and important aspects of the study or observations.

**Keywords**

Immediately after the abstract, provide a maximum of 8 keywords in alphabetical order, using American spelling and avoiding general and plural terms and multiple concepts (avoid, for example, 'and', 'of'). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.

**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 in parentheses at their first mention, as well as at their first mention in the text. Ensure consistency of abbreviations throughout the article.

**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.

**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.).

**Appendices**

If there is more than one appendix, they should be identified as A, B, etc. Formulae and equations in appendices should be given separate numbering: Eq. (A.1), Eq. (A.2), etc.; in a subsequent appendix, Eq. (B.1) and so on. Similarly for tables and figures: Table A.1; Fig. A.1, etc.

**Units**

Follow internationally accepted rules and conventions: use the international system of units (SI). If other units are mentioned, please give their equivalent in SI.
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
Image manipulation
Whilst it is accepted that authors sometimes need to manipulate images for clarity, manipulation for purposes of deception or fraud will be seen as scientific ethical abuse and will be dealt with accordingly. For graphical images, this journal is applying the following policy: no specific feature within an image may be enhanced, obscured, moved, removed, or introduced. Adjustments of brightness, contrast, or color balance are acceptable if and as long as they do not obscure or eliminate any information present in the original. Nonlinear adjustments (e.g. changes to gamma settings) must be disclosed in the figure legend.

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, half-tones, 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) in addition to color reproduction in print. Further information on the preparation of electronic artwork.

Illustration services
Elsevier's WebShop 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.

Publisher's permission should be obtained to reprint any figure or table that substantially resembles one that has been previously published, even if some details have been modified. Caption should state: Reprinted (or modified) from (author's name and reference number) with permission from (publisher's name).

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.

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 and Zotero, as well as EndNote. Using the word processor 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.

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/the-ocular-surface

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

References should be numbered consecutively and typed double-spaced. Journal titles should be abbreviated, without periods, according to the Index Medicus style. Citation of abstracts may be acceptable if 1) the cited report is not available in full-length form, and 2) the abstract is published in an indexed journal (e.g., ARVO abstract published Invest Ophthalmol Vis Sci). In the text, statements referenced by abstracts should be acknowledged as such, e.g., "Preliminary findings suggest" Complete information should be given for each reference, as shown below. Publications with 1-6 authors should give all names; publications with more than six authors should name the first six followed by "et al." Author last names are followed by initials without commas or periods.

Sample

Journal Article

Abstract

Book

Chapter in book

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

Journal abbreviations source
Journal names should be abbreviated according to the National Library of Medicine style (PubMed, Index Medicus).

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.

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.

**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