The Journal of Orthopaedic Translation (JOT) is the official peer-reviewed, open access journal of the Chinese Speaking Orthopaedic Society (CSOS) and the International Chinese Musculoskeletal Research Society (ICMRS). It is published quarterly, in January, April, July and October, by Elsevier.

The Journal focuses on the rapidly growing field of orthopaedic translational research. While there are a number of high quality orthopaedic journals, none are solely dedicated to the field of orthopaedic translational research. The importance of translational research is quickly being recognized by all spectrums of the scientific community, from clinicians to basic science researchers. To truly improve the health of people, scientific research on the cellular and molecular level must be utilized and applied appropriately in the clinical setting. A journal that is purely dedicated to the art of translational research is a monumental step in the advancement of musculoskeletal care by bringing cutting edge knowledge to the forefront and allowing pioneers of orthopaedic translation to exchange and mutually enhance expertise. JOT aims to be that linking factor and welcomes high quality manuscripts that will advance the field of orthopaedic translation.

JOT is devoted to research and issues of strong interest in translational medicine on musculoskeletal and related themes. Material that are considered include any original research findings, discussions or analyses that will move the field closer to the goal of improving musculoskeletal health, diagnosis, prevention, and treatment of musculoskeletal disorders or injuries. Multidisciplinary approaches are particularly encouraged. We accept original research papers, review articles, editorials, perspectives, case reports and letters to the Editor.

The main goal of JOT is to publish papers that identify and fill scientific knowledge gaps at the junction of basic research and clinical application (from bench to bedside) or community application (from bench to community). In this vein, original research should report significant progress toward the prevention, diagnosis, and treatment of musculoskeletal disorders and serve as templates for future exploration and investments in translational orthopaedics.

Original papers are categorized into the following topics: Animal models Biomaterials Biophysical stimulation Clinical trials Diagnostics Health promotion Industries and markets Medical devices and implants Nutrition and drugs Regenerative medicine Regulations and policies Rehabilitation

Indexed in: DOAJ, Embase, ESCI (Emerging Sources Citation Index), ScienceDirect, Scopus, SCIE (Science Citation Index Expanded)
IMPACT FACTOR

2018: 3.063 © Clarivate Analytics Journal Citation Reports 2019

ABSTRACTING AND INDEXING

Scopus
Science Citation Index Expanded
Embase
PubMed Central
Directory of Open Access Journals (DOAJ)

EDITORIAL BOARD

Editors-in-Chief
Regis O’Keefe, Washington University in Saint Louis Department of Orthopaedic Surgery, Saint Louis, Missouri, United States
Ling Qin, The Chinese University of Hong Kong, Prince of Wales Hospital, Department of Orthopaedics & Traumatology, Shatin, N.T, Hong Kong

Editorial Offices
Journal of Orthopaedic Translation (HK), Department of Orthopaedics & Traumatology, The Chinese University of Hong Kong, Room 74029, 5/F, Lui Che Woo Clinical Sciences Building, Prince of Wales Hospital, Shatin, New Territories, Hong Kong SAR
Journal of Orthopaedic Translation (Shanghai), Shanghai Key Laboratory of Orthopaedic Implants, Department of Orthopaedic Surgery, Shanghai Ninth People’s Hospital, Shanghai Jiaotong University School of Medicine, Room 701, No. 3 Building, 639 Zhizaoju Road, Shanghai, China

Executive Associate Editors
Gang Li, Chinese University of Hong Kong Department of Orthopaedics and Traumatology, Hong Kong, Hong Kong
Ting-ting Tang, Shanghai 9th Peoples Hospital Affiliated to Shanghai Jiaotong University School of Medicine, Shanghai, China

Associate Editors
Di Chen, Rush Medical College of Rush University, Chicago, Illinois, United States
Harry K. Genant, University of California at San Francisco Department of Orthopaedic Surgery, San Francisco, California, United States
Ling Qin, University of Pennsylvania, Philadelphia, Pennsylvania, United States
Geoff Richards, AO Foundation, Davos Platz, Switzerland
Hui-lin Yang, First Affiliated Hospital of Soochow University, Suzhou, China

Board of Trustees
Kai-ming Chan, The Chinese University of Hong Kong, Prince of Wales Hospital, Department of Orthopaedics & Traumatology, Shatin, N.T., Hong Kong
Zhong-qiang Chen, Peking University Third Hospital, Beijing, China
Cheng-Kung Cheng, Beihang University School of Biological Science and Medical Engineering, Beijing, China
Yan Wang, Chinese PLA General Hospital, Beijing, China

Managing Editors
Bruma Sai-chuen Fu, Chinese University of Hong Kong Department of Orthopaedics and Traumatology, Hong Kong, Hong Kong
Chelsea Hopkins, The Chinese University of Hong Kong, Prince of Wales Hospital, Department of Orthopaedics & Traumatology, Shatin, N.T, Hong Kong
Kritika Tiwari, The Chinese University of Hong Kong, Prince of Wales Hospital, Department of Orthopaedics & Traumatology, Shatin, N.T, Hong Kong
Zhifeng Yu, Shanghai 9th Peoples Hospital Affiliated to Shanghai Jiaotong University School of Medicine, Shanghai, China

Section Editors – Animal Models
Lin Chen, Army Medical University, Chongqing, China
Hong Zhou, ANZAC Research Institute, Concord, Australia

Section Editors – Biomaterials
Chengtue Wu, Shanghai Institute of Ceramics Chinese Academy of Sciences, Changning District, China
**Liming Bian**, Chinese University of Hong Kong Department of Biomedical Engineering, Hong Kong, Hong Kong

**Section Editors – Biophysical Stimulation**

**Louis Wing-Hoi Cheung**, Chinese University of Hong Kong Department of Orthopaedics and Traumatology, Hong Kong, Hong Kong

**Section Editors – Clinical Trials**

**Weibo Xia**, Peking Union Medical College Hospital Key Laboratory of Endocrinology, Chinese Academy of Medical Sciences, Beijing, China

**Section Editors – Diagnostics**

**Jiaka Xu**, The University of Western Australia Division of Pathology and Laboratory Medicine, Crawley, Western Australia, Australia

**Section Editors – Health Promotion and Sports Medicine**

**Hongbin Lu**, Xiangya Hospital Central South University Key Laboratory of Organ Injury Aging and Regenerative Medicine of Hunan Province, Changsha, China

**Patrick Shu-hang Yung**, The Chinese University of Hong Kong, Prince of Wales Hospital, Department of Orthopaedics & Traumatology, Hong Kong

**Section Editor – Imaging**

**Xiao-Guang Cheng**, Beijing Jishuitan Hospital and Fourth Medical College of Peking University Department of Radiology, Beijing, China

**Yi-xiang Wang**, Chinese University of Hong Kong, New Territories, Hong Kong

**Section Editors – Industries and Markets**

**Cheng-Kung Cheng**, BeiHang University School of Biological Science and Medical Engineering, Beijing, China

**Ming-Hao Zheng**, University of Western Australia Faculty of Medicine Dentistry and Health Sciences Sir Charles Gairdner Hospital Translational Orthopaedic Research Centre, Perth, Australia

**Section Editors – Medical Devices and Implants**

**William Wei-jia Lu**, University of Hong Kong Li Ka Shing Faculty of Medicine Department of Orthopaedics and Traumatology, Hong Kong, Hong Kong

**Section Editors – Regenerative Medicine**

**Zhiyong Zhang**, Guangzhou Medical University Translational Research Centre of Regenerative Medicine and 3D Printing Technologies, Guangzhou, China

**Bin Li**, Soochow University Institute of Orthopedics, Suzhou, China

**Section Editor – Regulations and Policies**

**Ting-fei Xi**, Peking University, Advanced Academy of Interdisciplinary Studies, Peking University, Beijing, China

**Section Editors – Rehabilitation**

**Guoan Li**, Massachusetts General Hospital - Harvard Medical School Center for Nervous System Repair, Boston, Massachusetts, United States

**International Editorial Board Members**

**Mauro Alini**, AO Research Institute Davos, Davos Platz, Switzerland

**Xiao-chun Bai**, Southern Medical University Department of Cell Biology, Guangzhou, China

**Nicola Baldini**, University of Bologna School of Medicine and Surgery, Bologna, Italy

**Zhengdong Cai**, Shanghai Jiaotong University First People's Hospital Department of Orthopaedics, Shanghai, China

**Xu Cao**, Johns Hopkins University School of Medicine Center for Musculoskeletal Research, Baltimore, Maryland, United States

**Jürg Andreas Gasser**, Novartis Institutes for BioMedical Research Department of Musculoskeletal Diseases, Basel, Switzerland

**David Eglin**, AO Research Institute Davos, Davos Platz, Switzerland

**Yu-Bo Fan**, BeiHang University School of Economics and Management, Beijing, China
Claus-Christian Glüer, University Hospital Schleswig-Holstein Campus Kiel Molecular Imaging North Competence Center, Kiel, Germany
Martijn van Griensven, Technical University of Munich, Munich, Germany
James Griffith, Chinese University of Hong Kong, Shatin, N.T., Hong Kong
Bernd Grimm, Human Motion Institute, Munich, Germany
Xia Guo, The Hong Kong Polytechnic University, Kowloon, Hong Kong
Hendra Hermawan, Laval University Department of Mining, Metallurgical and Materials Engineering, Quebec City, Quebec, Canada
James H.P. Hui, National University Hospital Singapore Orthopaedics Hand and Reconstructive Microsurgery Cluster, Singapore, Singapore
John Yebin Jiang, University of Michigan Department of Radiology, Ann Arbor, Michigan, United States
Qing Jiang, Nanjing University Medical School Affiliated Nanjing Drum Tower Hospital Department of Orthopedics, Nanjing, China
Xiaohua Jiang, The Chinese University of Hong Kong, School of Biomedical Sciences, Faculty of Medicine, Hong Kong
Zhongmin Jin, University of Leeds, Leeds, United Kingdom
David Hua-zhu Ke, The University of Utah Department of Radiology and Imaging Sciences, Salt Lake City, Utah, United States
Charles James Kirkpatrick, University of Mainz Institute of Pathology, Mainz, Germany
Timothy Kwok, University of Hong Kong School of Biomedical Sciences Stem Cell and Regeneration Program, Shatin, Hong Kong
Wan-Ju Li, University of Wisconsin Madison, Madison, Wisconsin, United States
Yi-ping Li, University of Alabama at Birmingham, Birmingham, Alabama, United States
Zong-Ming Li, Cleveland Clinic, Cleveland, Ohio, United States
Chang-sheng Liu, East China University of Science and Technology, Shanghai, China
Fanxin Long, The Children's Hospital of Philadelphia, Philadelphia, Pennsylvania, United States
Zhuojing Luo, Xijing Hospital, Xian, China
Arthur Fuk-Tat Mak, Stem Cell and Regeneration Program, School of Biomedical Sciences, The Chinese University of Hong Kong, Shatin, Hong Kong
Jeremy Jian Mao, Columbia University College of Dental Medicine, New York, New York, United States
Theodore Miclau, Orthopaedic Trauma Institute, San Francisco, California, United States
Hong-wei Ouyang, Zhejiang University Center for Stem Cell and Regenerative Medicine, Hangzhou, Zhejiang, China
Haobo Pan, Chinese Academy of Sciences Institute of Biomedicine and Technology, Shenzhen, China
Wilfred C.G. Peh, National University Singapore Department of Diagnostic Radiology, Singapore, Singapore
Jiang Peng, Chinese PLA General Hospital Department of Orthopaedics, Beijing, China
Yi-Xian Qin, Stony Brook University Department of Biomedical Engineering, Stony Brook, New York, United States
Christer G. Rolf, Karolinska Institutet Orthopaedics Research Group, Stockholm, Sweden
Peng Shang, Research and Development Institute of Northwestern Polytechnical University in Shenzhen, Shenzhen, China
Mark P. Staiger, University of Canterbury, Christchurch, New Zealand
Wei Sun, Drexel University Biofabrication Laboratory, Philadelphia, Pennsylvania, United States
Yu-long Sun, Shenzhen Institutes of Advanced Technology Chinese Academy of Sciences, Shenzhen, China
Chao Wan, Chinese University of Hong Kong School of Biomedical Sciences Stem Cell and Regeneration Program, Shatin, Hong Kong
James H.C. Wang, University of Pittsburgh Department of Orthopaedic Surgery, Pittsburgh, Pennsylvania, United States
Min Wang, University of Hong Kong Department of Mechanical Engineering, Hong Kong, Hong Kong
Yong-jun Wang, Shanghai University of Traditional Chinese Medicine Institute of Spine Diseases, Shanghai, China
Lei Wei, Brown University Department of Orthopaedics, Providence, Rhode Island, United States
Regine Willumeit-Römer, Helmholtz Centre Geesthacht Centre for Materials and Coastal Research Division of Materials Design and Characterisation, Geesthacht, Germany
Reinhard Windhaber, Medical University of Vienna, Vienna, Austria
Frank Witte, Charité Universitätsmedizin Berlin Julius Wolff Institute for Biomechanics and Musculoskeletal Regeneration - Campus Virchow Klinikum, Berlin, Germany
Kwok-chuen Wong, Prince of Wales Hospital, New Territories, Hong Kong
Guozhi Xiao, Southern University of Science and Technology Department of Biology, Shenzhen, China
Yin Xiao, Queensland University of Technology Institute of Health and Biomedical Innovation, Brisbane, Australia
Zhigang Xu, North Carolina Agricultural and Technical State University College of Engineering, Greensboro, North Carolina, United States
Liu Yang, Xijing Hospital Department of Orthopaedics, Xian, China
Peter Yun-zhi Yang, Stanford University Yang Laboratory, Stanford, California, United States
Wei Yu, Peking Union Medical College Hospital Department of Radiology, Beijing, China
Ming Zhang, The Hong Kong Polytechnic University, Department of Health Technology and Informatics, Hong Kong
Peng Zhang, Chinese Academy of Sciences, Beijing, China
Xiao-ling Zhang, Shanghai Jiao Tong University School of Medicine, Shanghai, China
Zhen-Lin Zhang, Shanghai Jiao Tong University - Fahua Campus, Shanghai, China
Dewei Zhao, Affiliated Zhongshan Hospital of Dalian University, Department of Orthopaedics, Dalian, China
Jie Zhao, Shanghai Jiao Tong University - Fahua Campus, Shanghai, China
Yong-ting Zhang, The Hong Kong Polytechnic University Department of Biomedical Engineering, Kowloon, Hong Kong
Yu-feng Zheng, Peking University Department of Material Science and Engineering, Beijing, China
Yi-ting Zhou, Zhejiang University School of Medicine, Zhejiang University School of Medicine, Hangzhou, China
Qing'an Zhu, Southern Medical University Nanfang Hospital Department of Spinal Surgery, Guangzhou, China

Advisory Board Members
Kai-Nan An, Mayo Clinic Department of Orthopedic Surgery, Rochester, Minnesota, United States
Kai-ming Chan, The Chinese University of Hong Kong, Prince of Wales Hospital, Department of Orthopaedics & Traumatology, Shatin, N.T., Hong Kong
Zhong-qiang Chen, Peking University Third Hospital, Beijing, China
Cheng-Kung Cheng, BeiHang University School of Biological Science and Medical Engineering, Beijing, China
Jack Chun-yiu Cheng, The Chinese University of Hong Kong, Prince of Wales Hospital, Department of Orthopaedics & Traumatology, Shatin, N.T.Hong Kong SAR, Hong Kong
Ke-rong Dai, Shanghai 9th Peoples Hospital Affiliated to Shanghai Jiaotong University School of Medicine, Shanghai, China
Freddie H. Fu, University of Pittsburgh Department of Orthopaedic Surgery, Pittsburgh, Pennsylvania, United States
Xiao-Bing Fu, Fourth Medical Center of PLA General, Beijing, China
Stuart B. Goodman, Stanford University Department of Orthopaedic Surgery, Redwood City, California, United States
Xiaosong Gu, Nantong University, Nantong, China
Yu-Dong Gu, Huashan Hospital Fudan University, Shanghai, China
Shao-keh Hsu, Tungs' Taichung MetroHarbor Hospital, Taichung, Taiwan
Yu-Shu Lai, National Yang Ming University Orthopaedic Device Research Centre, Taipei, Taiwan
Ping-Chung Leung, Centre for Clinical Trials on Chinese Medicine, Shatin, Hong Kong
Lars Lidgren, Skåne University Hospital Lund, Lund, Sweden
Shi-bi Lu, Chinese PLA General Hospital Department of Orthopaedics, Beijing, China
Peter Ma, University of Michigan Department of Materials Science and Engineering, University of Michigan, Ann Arbor, Michigan, USA
Guo-xian Pei, Xijing Hospital, Xian, China
Stephan M. Perren †, AO Foundation, Davos Platz, Switzerland
Gui-xing Qiu, Peking Union Medical College Hospital, Beijing, China
Rocky S. Tuan, Chinese University of Hong Kong, New Territories, Hong Kong
Man-yi Wang, Beijing Jishuitan Hospital and Fourth Medical College of Peking University Department of Radiology, Beijing, China
Yan Wang, Chinese PLA General Hospital, Beijing, China
Zheng-guo Wang, Army Medical University, Chongqing, China
Stuart Weinstein, University of Iowa Department of Orthopaedics and Rehabilitation, Iowa City, Iowa, United States
Savio L-Y Woo, University of Pittsburgh Musculoskeletal Research Center, Pittsburgh, Pennsylvania, United States
Xingdong Zhang, National Engineering Research Center for Biomaterials, Chengdu, China
Yingze Zhang, Hebei Medical University Third Affiliated Hospital, Shijiazhuang, China

Honorary Editor-in-Chief
Kai-ming Chan, The Chinese University of Hong Kong, Prince of Wales Hospital, Department of Orthopaedics & Traumatology, Shatin, N.T., Hong Kong
Ke-rong Dai, Shanghai 9th Peoples Hospital Affiliated to Shanghai Jiaotong University School of Medicine, Shanghai, China

Editor Emeritus
Chih-Hwa Chen, Taipei Medical University Department of Orthopaedic Surgery, Taipei City, Taiwan
Xiang-Dong Guo, Columbia University Department of Biomedical Engineering, New York, United States
GUIDE FOR AUTHORS

Please note: Journal of Orthopaedic Translation will implement an Article Publication Charge on articles submitted from 1 July 2018, if accepted for publication. More information can be found below.

INTRODUCTION

The *Journal of Orthopaedic Translation* (*JOT*) is the official peer-reviewed, open access, publication of the Chinese Speaking Orthopaedic Society (CSOS) and the International Chinese Musculoskeletal Research Society (ICMRS). It is published quarterly by Elsevier in January, April, July and October, and is indexed in Embase, ScienceDirect and Scopus.

The journal accepts articles on translation medicine in musculoskeletal and related themes that will identify and fill scientific knowledge gaps at the junction of basic research and clinical application. Authors are welcome to submit original articles, review articles, editorials, perspectives and letters to the editor for consideration.

The Editorial Board requires authors to be in compliance with the *Recommendations for the Conduct, Reporting, Editing and Publication of Scholarly Work in Medical Journals*, which are compiled by the International Committee of Medical Journal Editors (ICMJE), and which are available at http://www.icmje.org.

This Guide for Authors is revised periodically by the Editors as needed. Authors should visit the journal’s homepage for the latest version of this guide. Authors are requested to ensure that submissions adhere exactly to the stated instructions and format. Any manuscript not prepared according to the instructions in this guide will be returned immediately to the author(s) without review.

Types of article

The categories of articles that are published in this journal are listed and described below. Please select the category that best describes your paper. If your paper does not fall into any of these categories, please contact the Editorial Office.

**Original articles**

These articles typically include randomized trials, intervention studies, studies of screening and diagnostic tests, laboratory and animal studies, cohort studies, cost-effectiveness analyses, case-control studies, and surveys with high response rates, which represent new and significant contributions to translational research in the field of orthopaedics. They should include an abstract and be structured as follows: Abstract, Introduction, Materials and Methods, Results, Discussion, Conflicts of Interest Statement, Funding/Support Statement, Acknowledgements (if any), References, Figures and Tables (if any), and Supplementary Material (if any).

The Introduction should provide a brief background to the subject of the paper, explain the importance of the study, and state a precise study question or purpose.

The Materials and Methods section should describe the study design and methods (including the study setting and dates, patients/participants with inclusion and exclusion criteria, patient samples or animal specimens used, the essential features of any interventions, the main outcome measures, the laboratory methods followed, or data sources and how these were selected for the study), and state the statistical procedures employed in the research.

The Results section should comprise the study results presented in a logical sequence, supplemented by tables and/or figures. Take care that the text does not repeat data that are presented in tables and/or figures. Only emphasize and summarize the essential features of the main results.

The Discussion section should be used to emphasize the new and important aspects of the study, placing the results in context with published literature, the implications of the findings, and the conclusions that follow from the study results.

The text should be limited to 6000 words in length with not more than 8 figures/tables and 40 references. The journal does not accept original articles of case reports and case series.

**Review articles**
These should provide a balanced synthesis of current knowledge on translational research in musculoskeletal and related themes. These articles have the specific goal of identifying challenges and bottlenecks that are preventing translation of biomedical research advances for a particular disease or clinical disorder into new treatments for patients, with constructive suggestions for ways to overcome these challenges.

Reviews can be up to 6000 words in length. They should have a short pithy title, an abstract of not more than 100 words, not more than 80 references and up to 4 figures/tables.

**Editorials**
Editorials are short and invited opinion(s) that discuss an issue of immediate importance to the translational orthopaedic community. These are usually written by invited authors or editorial board members and are comments on recent news or articles published in the journal. Editorials should be no longer than 1000 words with no more than 5 references. A photograph of the author(s) is required for illustration.

**Perspectives**
Perspectives discuss one or several papers recently published in the *JOT* or other journals that present key findings in translational research relevant to musculoskeletal health and disorders. Perspectives should discuss the research from both a basic and clinical viewpoint and should describe the implications of the research for patient care.

Perspectives are limited to 4000 words (including abstract, main text, references and figure legends). They should have a concise title, an abstract of 50 words or less, no more than 35 references, and 1 or 2 figures (with figure legends) or tables.

**Case reports**
These are short discussions of a case or case series with unique features not previously described that make an important teaching point or scientific observation and highlight the significance of the findings, i.e. how the finding could be adopted into current clinical practice. The discussion should also mention if future controlled studies could be done. Section headings should be: Abstract, Introduction, Case Report, Discussion, Conflicts of Interest, Funding/Support Statement, Acknowledgements (if any), References.

The Introduction should describe the purpose of the report, the significance of the disease and its specificity, and briefly review the relevant literature. The Case Report should include the general data of the case, medical history, family history, chief complaint, present illness, clinical manifestation, methods of diagnosis and treatment, and outcome. The Discussion should compare, analyze and discuss the similarities and differences between the reported case and similar previously reported cases. The importance or specificity of the case should be restated when discussing the differential diagnoses. Suggest the prognosis of the disease and possibility of prevention.

Typical length: 800–1200 words, 15–30 references.

**Letters to the Editor**
Letters provide readers with an opportunity to raise issues of interest to the translational medicine community or to respond to an article previously published in the *JOT*. Letters should provide new information or a fresh perspective on the previously published article.

Letters should be less than 1000 words, with not more than 10 references and 2 figures/tables. Letters are sent to the author(s) of the previously published article under discussion for their response.

**Contact details for submission**
Manuscripts (meaning all submission items, including all text, tables, artwork, cover letter, conflicts of interest disclosures, and any other required documents/material) must be submitted online to *JOT* through the Elsevier EVISE® site. This site will guide authors stepwise through the submission process. If assistance is required, please refer to the tutorials and/or customer support that are available on the EVISE® site, or contact the Editorial Office at +852 2646-4555 or joteditorial@ort.cuhk.edu.hk.

If you prefer to converse in Mandarin, please call +86 21 5331-5397.
Editorial offices
Department of Orthopaedics & Traumatology
The Chinese University of Hong Kong
Room 74029, 5/F, Clinical Sciences Building
Prince of Wales Hospital, Shatin, New Territories
Hong Kong SAR
Tel: +852 2646-4555
Fax: +852 2646-3020
E-mail: joteditorial@ort.cuhk.edu.hk

Shanghai Key Laboratory of Orthopaedic Implants
Department of Orthopaedic Surgery
Shanghai Ninth People's Hospital
Shanghai Jiaotong University School of Medicine
Room 701, No. 3 Building
639 Zhizaoju Road, Shanghai, China
Tel: +86 21 5331-5397
Fax: +86 21 6313-7020

Article Processing Charge
Manuscripts submitted from 1 July 2018 will be subject to an Article Publication Charge (APC) if accepted for publication in JOT (this will not affect articles submitted before 1 July 2018). Open Access APCs are set at a standard of US$2000 per article; however, JOT is offering a discounted APC of US $1250 per article. Please note that there is no limit on the number of pages, figures, or colour figures.

Authors will be required to submit a completed Journal of Orthopaedic Translation Authorship and Conflict of Interest Form (see Form section at the bottom of this page) agreeing to pay the JOT APC if their manuscript is accepted for publication.

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.

**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').

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

**Authorship**
All authors should have made substantial contributions to all of the following: (1) the conception and design of the study, or acquisition of data, or analysis and interpretation of data, (2) drafting the article or revising it critically for important intellectual content, (3) final approval of the version to be submitted.

**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.

**Clinical trial results**
In line with the position of the International Committee of Medical Journal Editors, the journal 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.
**Reporting clinical trials**
Randomized controlled trials should be presented according to the CONSORT guidelines. At manuscript submission, authors must provide the CONSORT checklist accompanied by a flow diagram that illustrates the progress of patients through the trial, including recruitment, enrollment, randomization, withdrawal and completion, and a detailed description of the randomization procedure. The CONSORT checklist and template flow diagram are available online.

**Registration of clinical trials**
Registration in a public trials registry is a condition for publication of clinical trials in this journal in accordance with International Committee of Medical Journal Editors recommendations. Trials must register at or before the onset of patient enrolment. The clinical trial registration number should be included at the end of the abstract of the article. A clinical trial is defined as any research study that prospectively assigns human participants or groups of humans to one or more health-related interventions to evaluate the effects of health outcomes. Health-related interventions include any intervention used to modify a biomedical or health-related outcome (for example drugs, surgical procedures, devices, behavioural treatments, dietary interventions, and process-of-care changes). Health outcomes include any biomedical or health-related measures obtained in patients or participants, including pharmacokinetic measures and adverse events. Purely observational studies (those in which the assignment of the medical intervention is not at the discretion of the investigator) will not require registration.

**Copyright**
Upon acceptance of an article, authors will be asked to complete an 'Exclusive License Agreement' (see more information on this). 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.

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

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

**Open access**
Please visit our Open Access page from the Journal Homepage for more information.

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

**Language (usage and editing services)**
Please write your text in good English (using British spelling). 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/languagediting/ or visit our customer support site https://service.elsevier.com for more information.

**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.

**Submission**

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

**Submit your article**

Please submit your article at the journal’s EVISE® site.

**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.

**Additional information**

The following documents must be included in your submission. Items (1) and (2) are mandatory. Items (3), (4), (5) and (6) are required only if they are applicable to your manuscript.

(1) Cover Letter. This must include the following information:
- title of the manuscript
- names (spelled out in full) of all the authors*, and the institutions with which they are affiliated; indicate all affiliations with a superscripted lowercase letter after the author’s name and in front of the matching affiliation (*the name of each author should be written with the family name last, e.g., Yuen-Lam Cheung)
- corresponding author details (name, e-mail, mailing address, telephone and fax numbers)
- a statement that the material contained in the manuscript has not been previously published and is not being concurrently submitted elsewhere
- persons who do not fulfill the requirements to be listed as authors but who nevertheless contributed to the manuscript (such as those who provided writing assistance, for example) should be disclosed
- list of manuscripts that have been published, submitted, or are in press that are similar to the submission to the JOT (and include in your submission copies of those similar manuscripts so that JOT Editors can be assured there is no overlap)
- the signature of the corresponding author

(2) Authorship & Conflicts of Interest Statement. Each author’s contribution to the manuscript should be listed. Any and all potential and actual conflicts of interest should also be listed and the details of the conflict(s) described. Please use the JOT Authorship & Conflicts of Interest Statement. Ensure that the name of each author listed in your manuscript appears in either Section I or Section II on page 2 of the form (an author’s name cannot appear in both Section I and Section II of the form). Your signature and those of ALL your coauthors must be included.

(3) Ethics Statement. Articles covering the use of human or animal samples in research, or human or animal experiments must be accompanied by a letter of approval from the relevant review committee or authorities.

(4) Consolidated Standards of Reporting Trials (CONSORT) flow chart for randomized controlled trials submitted for publication.

(5) Signed Statement of Informed Consent. Articles where human patients can be identified in descriptions, photographs or pedigrees must be accompanied by a signed statement of informed consent to publish (in print and online) the descriptions, photographs and pedigrees from each patient who can be identified.
Copyright Permission. If you have reproduced or adapted material from other copyrighted sources, the letter(s) of permission from the copyright holder(s) to reproduce or adapt the copyrighted sources must be supplied. Otherwise, such material must be removed from your manuscript.

Submission of Revised Articles
Revised articles must be received within 8 weeks from the date of notification of revision from the Editor. Authors may request an extension from the Editor-in-Chief in writing and all requests will be subject to the Editor's discretion. Articles should follow the same guidelines for an original submission, but the revised submission must also contain the following in addition to the original requirements: A response table must be submitted that includes the comments from Reviewers and the Author's specific response to the comment. Where appropriate, the Author must mention where changes in the text were made, with a brief explanation of the change. If the Author made no changes to the text, they must provide a detailed rebuttal to the comment to justify why no change was made. A marked manuscript which must show all additional text, edited text and deleted text. A useful tool to use is Tracked Changes in Word to demonstrate these changes. A clean manuscript with all changes incorporated with no editing marks or comments.

PREPARATION

Basic criteria
Articles should be written in English, using British English spelling, and meet the following basic criteria: the material is original, the information is important, the writing is clear and concise, the study methods are appropriate, the data are valid, and the conclusions are reasonable and supported by the data.

Peer review
This journal operates a double blind review process. All contributions are 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.

Double-blind review
This journal uses double-blind review, which means the identities of the authors are concealed from the reviewers, and vice versa. More information is available on our website. To facilitate this, please include the following separately:

Title page (with author details): This should include the title, authors' names, affiliations, acknowledgements and any Declaration of Interest statement, and a complete address for the corresponding author including an e-mail address.

Blinded manuscript (no author details): The main body of the paper (including the references, figures, tables and any acknowledgements) should not include any identifying information, such as the authors' names or affiliations.

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
The blinded manuscript must have double-spaced lines with continuous page numbers and continuous line numbers throughout the text. All original articles should include an abstract and be structured as follows: Abstract, Introduction, Materials and methods, Results, Discussion, Conflicts of interest, Funding/Support statement, Acknowledgements (if any), References, Figures and Tables (if any), and Supplementary material (if any).
Subdivision - unnumbered sections
Divide your article into clearly defined sections. Each subsection is given a brief heading. Each heading should appear on its own separate line. Subsections should be used as much as possible when cross-referencing text: refer to the subsection by heading as opposed to simply 'the text'.

Abstract
Detailed information about what to include in your abstract is given in a separate section below, but authors are reminded here to include a statement in their abstract describing the value of their work with regard to its translational research and clinical significance.

Introduction
State the research questions or study objectives and provide adequate background, avoiding a detailed literature survey or a summary of the results. At the end of the Introduction section, the paper should describe either:
- a mechanism-based study hypothesis, i.e., a 'mechanistic hypothesis-driven' approach for 'bench-to-bedside' studies; or
- the study objectives, i.e., a 'clinical observation-driven' approach for 'bedside-to-bench' investigations.

Materials and methods
Provide sufficient detail to allow the work to be reproduced. Methods already published should be indicated by a reference: only relevant modifications should be described. Study designs with specifications on methods used in testing or evaluation should be standardized by referring to the guidelines of the International Organization for Standardization (ISO; http://www.iso.org) and/or the American Society for Testing Materials (ASTM; http://www.astm.org) whenever possible so that your study may be used directly as a reference for comparing findings that were generated under the same or at least comparable conditions for regulatory bodies or certified testing centres of the U.S. Food and Drug Administration (FDA; http://www.fda.gov) or the China Food and Drug Administration (CFDA; http://eng.sfda.gov.cn).

Results
Results should be clear and concise.

Discussion
This should explore the significance of the results of the work, not repeat them. Avoid extensive citations and discussion of published literature.

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

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.

Essential title page information
First title page
The first title page should contain the information below (from the top to bottom of the page).
- **Type of article:** (i) Original article, (ii) Review article, (iii) Editorial, (iv) Perspectives, (v) Case report, or (vi) Letter to the Editor.
- **Article title:** Concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations and formulae where possible.
- **Author names and affiliations.** Where the family name may be ambiguous (e.g., a double name), please indicate this clearly. 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 affiliation. Provide the e-mail address, if available, of each author.
- **Corresponding author.** Clearly indicate who will handle correspondence at all stages of refereeing and publication, also post-publication.
Ensure that phone numbers (with country and area code) are provided in addition to the e-mail address and the complete postal address. Contact details must be 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.
- **Short running title.** This should not exceed 50 characters.

**Second title page**

The second title page should only contain the:

- **Type of article:** (i) Original article, (ii) Review article, (iii) Editorial, (iv) Perspectives, (v) Case report, or (vi) Letter to the Editor.
- **Article title**

**Abstract**

A concise and factual abstract of no more than 500 words is required for original articles, review articles, perspectives and case reports. For perspectives and case reports, the abstract should be in one single paragraph with no subheadings. Abstracts for review articles must be structured, with the subheadings 'Background/Objective', 'Methods', 'Results', and 'Conclusion' for systematic reviews and meta-analyses, and unstructured (i.e., no subheadings) for all other types of review. For original articles, a structured abstract, by means of appropriate headings (such as Background/Objective, Methods, Results, Conclusion), should provide the context or background for the research and should state its purpose/rationale for the study, 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. An abstract is often presented separately from the article, so it must be able to stand alone. For this reason, References should be avoided, but if essential, then cite the author(s) and year(s). Also, non-standard or uncommon abbreviations should be avoided, but if essential they must be defined at their first mention in the abstract itself. As translational medicine is JOT's focus, authors must highlight the translational potential or clinical significance of their work in both the abstract and the discussion. To this effect, authors are required to include a statement following their abstract (included in the abstract word count) under the following heading: "The Translational Potential of this Article".

**Keywords**

Immediately after the abstract, provide a maximum of 6 keywords in alphabetical order, using British spelling and avoiding general and plural terms and multiple concepts (avoid, for example, 'and', 'of'). Keywords should not simply be taken from the manuscript title but should be representative of the content of the article and be characteristic of the terminology used within the particular field of the study. They should be taken from the Medical Subject Headings (MeSH) list of Index Medicus (http://www.nlm.nih.gov/mesh/meshhome.html). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.

**Abbreviations**

Where a term/definition will be continually referred to, it must be written in full when it first appears in the text, followed by the subsequent abbreviation in parentheses (even if it was previously defined in the abstract). Thereafter, the abbreviation may be used. An abbreviation should not be first defined in any section heading; if an abbreviation has previously been defined in the text, then the abbreviation may be used in a subsequent section heading. Restrict the number of abbreviations to those that are absolutely necessary and ensure consistency of abbreviations throughout the article. Ensure that an abbreviation so defined does actually appear later in the text (excluding in figures/tables), otherwise, it should be deleted.

**Acknowledgements**

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

**Formatting of funding sources**

List funding sources in this standard way to facilitate compliance to funder's requirements:
Funding: This work was supported by the National Institutes of Health [grant numbers xxxx, yyyy]; the Bill & Melinda Gates Foundation, Seattle, WA [grant number zzzz]; and the United States Institutes of Peace [grant number aaaa].

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

If no funding has been provided for the research, please include the following sentence:

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

**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. Blood pressure values are to be reported in mmHg. Use the metric system for the expression of length, area, mass, and volume. Temperatures are to be given in degrees Celsius.

**Numbers**

Numbers that begin a sentence or those that are less than 10 should be spelled out using letters. Centuries and decades should be spelled out, e.g. the *Eighties* or *nineteenth century*. Laboratory parameters, time, temperature, length, area, mass, and volume should be expressed using digits.

**Names of drugs, devices and other products**

Use the Recommended International Non-proprietary Name (rINN) for medicinal substances, unless the specific trade name of a drug is directly relevant to the discussion. Generic drug names should appear in lowercase letters in the text. If a specific proprietary drug needs to be identified, the brand name may appear only once in the manuscript in parentheses following the generic name the first time the drug is mentioned in the text. When proprietary (brand) names of drugs, implants and instruments, etc. are necessary, complete manufacturing details including the name of the company, city, state and country should be provided the first time the product is mentioned in the text, for example, “...IBM SPSS Statistics 21.0 was used (IBM Corp., Armonk, NY, USA)”. Thereafter, the generic term (if appropriate) should be used.

**Gene nomenclature**

Current standard international nomenclature for genes should be adhered to. For human genes, use genetic notation and symbols approved by the HUGO Gene Nomenclature Committee (http://www.genenames.org). You may also refer to the resources available on PubMed at http://www.ncbi.nlm.nih.gov/guide/genes-expression. The Human Genome Variation Society has a useful site that provides guidance in naming mutations at http://www.hgvs.org/mutnomen/index.html. In your manuscript, genes should be typed in italic font and include the accession number.

**Statistical requirements**

Statistical analysis is essential for all research papers. Use correct nomenclature for statistical methods (e.g., two sample *t* test, not unpaired *t* test). Descriptive statistics should follow the scales used in data description. Inferential statistics are important for interpreting results and should be described in detail. All *p* values should be presented to the third decimal place for accuracy. The smallest *p* value that should be expressed is *p* < 0.001 since additional zeros do not convey useful information; the largest *p* value that should be expressed is *p* > 0.99.

**Math formulae**

Please submit math equations as editable text and not as images. Present simple formulae in line with normal text where possible and use the solidus (/) instead of a horizontal line for small fractional terms, e.g., X/Y. In principle, variables are to be presented in italics. Powers of e are often more conveniently denoted by exp. Number consecutively any equations that have to be displayed separately from the text (if referred to explicitly in the text).
**Conflicts of interest statement**
Since it is difficult to distinguish between an actual conflict of interest and a perceived conflict of interest, the JOT requires authors to disclose all and any potential conflicts of interest and let readers judge for themselves. Therefore, please ensure that you provide information about any potential financial and non-financial conflicts of interest in a concise paragraph after the main text. If none, then state, "The author(s) have no conflicts of interest relevant to this article."

**Funding/support statement**
All grants, financial and material support for the research, work, writing and editorial assistance from internal or external agencies, including commercial companies, should be clearly and completely identified in a funding/support statement. Please refer to the "Formatting of funding sources" section in this Guide for Authors for details on how to list funding sources in a standardized way in order to facilitate compliance with funders' requirements. If there was no support, then state, "This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors, and no material support of any kind was received."

**Artwork**
**General guidelines**
The number of illustrations should be restricted to the minimum necessary to support the textual material. Ensure that each illustration is numbered consecutively in accordance with their appearance in the text and 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 at the end of the caption. Items requiring explanatory footnotes should be denoted using superscripted lowercase letters (a, b, c, etc.), with the footnotes in alphabetical order at the end of the caption. Asterisks (*, **) are used only to indicate the probability level of tests of significance. Abbreviations used must be defined and placed after the footnotes in alphabetical order. If you have included or adapted the figure from another source, whether published or unpublished, you must acknowledge the original source in the caption (and have documentary evidence to show that you have been granted permission to use or adapt the figure should you be asked for such evidence).

**Privacy of research participants**
 Unless you have written permission from the patient (or, where applicable, the next of kin), identifying information (e.g., names, initials, hospital numbers, date of birth) of the patient must be removed. Informed consent should be obtained if there is any doubt that anonymity can be maintained. For example, masking the eye region in photographs of patients is inadequate protection of anonymity. If identifying characteristics are de-identified, authors should provide assurance, and editors should so note, that such changes do not distort scientific meaning. For further information, see https://www.elsevier.com/patientphotographs.

**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 colour 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.
- Ensure that color images are accessible to all, including those with impaired color vision.
A detailed guide on electronic artwork is available. **You are urged to visit this site; some excerpts from the detailed information are given here.**

### Formats

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

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

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

### Colour 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 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) regardless of whether or not these illustrations are reproduced in colour in the printed version. **For colour reproduction in print, authors are not required to pay any fee as the Chinese Speaking Orthopaedic Society (CSOS) will bear all publication costs, but whether a figure will be printed in colour or converted to greyscale will be solely decided by CSOS.**

### Illustration services

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

### 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. Be sparing in the use of tables and ensure that the data presented in them do not duplicate results described elsewhere in the article.

Tables should have a concise table heading, be self-explanatory, and numbered consecutively in accordance with their appearance in the text. Items requiring explanatory footnotes should be denoted using superscripted lowercase letters (a, b, c, etc.), with the footnotes arranged below the table body in alphabetical order. Asterisks (*) and double asterisks (**) are used only to indicate the probability level of tests of significance. Abbreviations used in the table must be defined and placed after the footnotes in alphabetical order. Please avoid using vertical rules. If you include a block of data or table from another source, whether published or unpublished, you must acknowledge the original source at the end of the table footnotes (and have documentary evidence to show that you have been granted permission to use the material should you be asked for such evidence).

### References

#### Citation in text

Please ensure that every reference cited in the text is also present in the reference list (and vice versa). References should not be cited in the abstract, but if it cannot be avoided, then provide the full details of the reference. Unpublished results and personal communications cannot be included in the references list but may be described in the text. The author(s) must give the full name and highest academic degree of the person, the date of the communication, and indicate whether it was in oral or written (letter, fax, e-mail) form. A signed statement of permission should be included from...
each person identified as a source of information in a personal communication or as a source for
unpublished data. 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.,
Please note the format of such citations should be in the same style as all other references in the paper.

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

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

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

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

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

Reference style
Text: Indicate references by number(s) in square brackets in line with the text, numbered
consecutively in order of appearance and placed before punctuation. The actual authors can be
referred to, but the reference number(s) must always be given.

List: Number the references (numbers in square brackets) in the list in the order in which they appear
in the text. References should include, in order, author surnames and initials, article title, abbreviated
journal name, year, volume and inclusive page numbers. The last names and initials of all the authors
up to 6 should be included, but when authors number 7 or more, list the first 6 authors only followed
by 'et al'.
Examples of the most common reference types are provided below. Please pay particular attention to the formatting, word capitalization, spacing and style. Note shortened form for last page number, e.g., 886–90, and that for more than 6 authors the first 6 should be listed followed by 'et al.' For further details you are referred to the 'Uniform Requirements for Manuscripts submitted to Biomedical Journals' (J Am Med Assoc 1997;277:927–34) (see also http://www.nlm.nih.gov/bsd/uniform_requirements.html).

Reference to a standard journal article:

Reference to a journal supplement:

Reference to a journal article not in English but with English abstract:

Reference to a book with edition:

Reference to a book with editors and edition:

Reference to a book chapter in book with editor and edition:

Reference to a book series with editors:

Reference to a bulletin:

Reference to electronic publications:

Reference to a thesis:

Reference to a website:

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

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

Supplementary material
Supplementary material such as applications, images and sound clips, can be published with your article to enhance it. Submitted supplementary items are published exactly as they are received (Excel or PowerPoint files will appear as such online). Please submit your material together with the article and supply a concise, descriptive caption for each supplementary file. If you wish to make changes to supplementary material during any stage of the process, please make sure to provide an updated file. Do not annotate any corrections on a previous version. Please switch off the 'Track Changes' option in Microsoft Office files as these will appear in the published version.

Research data
This journal encourages and enables you to share data that supports your research publication where appropriate, and enables you to interlink the data with your published articles. Research data refers to the results of observations or experimentation that validate research findings. To facilitate reproducibility and data reuse, this journal also encourages you to share your software, code, models, algorithms, protocols, methods and other useful materials related to the project.

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

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

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

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

In addition, you can link to relevant data or entities through identifiers within the text of your manuscript, using the following format: Database: xxxx (e.g., TAIR: AT1G01020; CCDC: 734053; PDB: 1XFN).
Mendeley Data
This journal supports Mendeley Data, enabling you to deposit any research data (including raw and processed data, video, code, software, algorithms, protocols, and methods) associated with your manuscript in a free-to-use, open access repository. During the submission process, after uploading your manuscript, you will have the opportunity to upload your relevant datasets directly to Mendeley Data. The datasets will be listed and directly accessible to readers next to your published article online.

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

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

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
• Phone numbers

All necessary files have been uploaded, and contain:
• Keywords
• All figure captions
• All tables (including title, description, footnotes)

Further considerations
• Manuscript has been 'spell-checked' and 'grammar-checked'
• References are in the correct format for this journal
• 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 Web)
• Colour figures are clearly marked as being intended for colour reproduction on the Web (free of charge) and in print, or to be reproduced in colour on the Web (free of charge) and in greyscale in print
• If only colour on the Web is required, greyscale versions of the figures are also supplied for printing purposes

For any further information please visit our Support Centre.

Additional information
The editorial and peer review process
As a general rule, the receipt of a manuscript will be acknowledged within 2 weeks of submission, and authors will be provided with a manuscript reference number for future correspondence. If such an acknowledgement is not received in a reasonable period of time, the author should contact the Editorial Office.

Submissions are reviewed by the Managing Editors to ensure that it contains all parts. Submissions will be rejected if the author has not supplied all the material and documents as outlined in these author instructions.

Manuscripts are then forwarded to the Editor-in-Chief, who will determine whether the manuscript is classified as clinical or non-clinical. The manuscript is then assigned to the appropriate Section Editor for assessment. If the manuscript does not appear to be of sufficient merit or is not appropriate for the journal, then the manuscript will be rejected without review.

Manuscripts that appear meritorious and appropriate for the journal are reviewed by at least two Editorial Board members or expert consultants assigned by the Section Editors. The JOT follows a double-blind peer review process. Authors may submit a list in their cover letter of reviewers who
they wish to review or not to review their manuscript. However, the actual peer reviewers invited will remain anonymous and may or may not be the reviewers suggested by the authors as the selection of reviewers is at the sole discretion of JOT Editors. The editors and reviewers will not disclose any information about a manuscript or its review to anyone except the manuscript's corresponding author.

The corresponding author will usually be notified within 10 weeks of whether the submitted article is accepted for publication, rejected, or subject to revision before acceptance (however, do note that delays are sometimes unavoidable). If revisions are required, authors are asked to return a revised manuscript to the Editorial Office via the journal's EVISE site within 30 days. Please notify the Editorial Office in advance if additional time is needed or if you choose not to submit a revised manuscript. The minimum process time from submission to publication is 11 weeks.

**Preparation for publication**

Once a manuscript has been accepted for publication, authors should submit the final version of their manuscript (and final versions of all tables/figures as applicable) via the journal's EVISE site. Accepted manuscripts are copyedited according to the journal's style and corresponding authors will receive an e-mail with a link to our online proofing system, allowing annotation and correction of proofs online. Authors are responsible for all statements made in their work, including changes made by the copyeditor.

**AFTER ACCEPTANCE**

**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.

**Offprints**

The corresponding author will be notified and receive a link to the published version of the open access article on ScienceDirect. This link is in the form of an article DOI link which can be shared via email and social networks. For an extra charge, paper offprints can be ordered via the offprint order form which is sent once the article is accepted for publication. Both corresponding and co-authors may order offprints at any time via Elsevier's Author Services.

**Forms**

**Authorship & Conflicts of Interest Statement**

**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