The International Journal of Gastronomy and Food Science is a peer-reviewed journal that explicitly focuses on the interface of food science and gastronomy. We seek articles with clear evidence of this interaction, and articles focusing only on food science will not be considered. This journal equally encourages scientists and chefs to publish original scientific papers, review articles, commentaries and original culinary works.

Chefs, either alone or in collaboration with a research team, are welcome to send papers on any culinary work, conceptual or methodological, developed in a restaurant and related to techniques, ingredients, creative process or concepts. Chefs must clearly indicate the contribution of their work to the progress of gastronomic knowledge.

Scientists from all backgrounds are encouraged to send their research related to gastronomy.

IJGFS explores all aspects related to the growing field of the interaction of gastronomy and food science, in areas such as, but not limited to:

- Food Science in relation to Gastronomy: food chemistry and physics, food technology, food microbiology and enzymology, genetics/genomics, new ingredients, health and nutrition, new product development
- Sensory experiences related to food: sensory science, perception, preferences, chemesthesia, enhancing sensory properties of food, neuroscience, psychology (pleasure, interoception...)
- Innovation in Gastronomy: culinary concepts, creativity in gastronomy, culinary trends, work systems & protocols, culinary performance, culinary techniques, gastronomic experience (interaction exercises, environment, plating etc.)
- Gastronomy in perspective: gastronomic tourism, sustainability in gastronomy, social and cultural aspects of gastronomy, culinary traditions, culinary history, bibliographic studies on culinary books (recipes, cook books and menus)

IJGFS aims to cover all the elements that contribute to the appreciation and enjoyment of the meal. Also relevant is research on science-based educational programs in gastronomy, anthropology, gastronomic history and food sociology. All areas of interest are contributing to a better understanding of this broad term and its practical implications for science and society.
ABSTRACTING AND INDEXING

Science Citation Index Expanded
Journal Citation Reports - Science Edition
Current Contents - Agriculture, Biology & Environmental Sciences
Scopus

EDITORIAL BOARD

Editor-in-Chief
Juan-Carlos Arboleya, University of Mondragon, Faculty of Gastronomic Sciences, Donostia-San Sebastián, Spain
Physical Chemistry, Food Colloids, Food Science, Science & Gastronomy

Jorge Ruiz Carrascal, Copenhagen University, Department of Food Science, Frederiksberg, Denmark
Food Science, Science & Gastronomy

Honorary Editor
Andoni Luis Aduriz, Mugaritz Research & Development, Errenteria, Spain

Associate Editors
Rosires Deliza, Brazilian Agricultural Research Corporation Food Agribusiness, RIO DE JANEIRO, Brazil
Sensory evaluation, consumer science, expectation, food labelling

Julián Otero Rodríguez, Mugaritz Research & Development, Errenteria, Spain
Food History, Food Science, Gastronomy

Consulting editors
Yuan Liu, Shanghai Jiao Tong University, Department of Food Science and Engineering, Shanghai, China
Flavor, sensory, food

Jožef Youssef, Kitchen Theory Ltd, Barnet, United Kingdom
Gastronomy, Sensory Perception, Science and Gastronomy

Editorial Board Members
Jose Miguel Aguilera, Pontificia Universidad Católica de Chile, Chemical and Bioprocess Engineering, Chile
Gastronomic engineering, Food microstructure, Seaweed technology, Food design

Watson Baldwin, Technological and Higher Education Institute of Hong Kong, Faculty of Hospitality/ Culinary Arts and Management, Chai Wan, Hong Kong
Culinary tourism, Restaurateurship, Culinary education.

Pere Castells, Science and Cooking World Congress Barcelona, Barcelona, Spain
Science and Cooking Relationship

Katarzyna J. Cwiertka, Leiden University Institute for Area Studies, Faculty of Humanities, Leiden, Netherlands
Japan, Korea, food history, culinary heritage, food packaging

B. Dar, Islamic University of Science and Technology, Awantipora, India
Food Technology, Functional Foods, Antioxidants, Health Foods, Byproduct Utilisation, Food Waste Utilization, Biodegradable Packaging, Green extraction, Cereal brans, Fruit & vegetable waste, Food Chemistry

Erik Fooladi, Volda University College, Department of science and mathematics, Volda, Norway
Science education, food education, science and food communication, science and society

Michael Bom Frost, Copenhagen University, Department of Food Science, Frederiksberg, Denmark
Sensory Science, Food Innovation, Gastronomy, Human-Centered Food Design

Jean-Xavier Guinard, University of California Davis, Department of Food Science and Technology, Davis, United States of America
Sensory, consumer, taste, flavor, plant-forward

Anu Hopia, University of Turku, Faculty of Medicine, Turku, Finland
Functional foods, food development

Sara Jaeger, Vescor Research, Copenhagen, Denmark
Sensory science, food-related consumer research, research methodology, product innovation, applied product research

Mariana Koppmann, IAG Argentine Institute of Gastronomy, Buenos Aires, Argentina
Food Safety, Science and Cooking

Mark Krasnow, Thoughtful Viticulture Ltd., Blenheim, New Zealand
Culinary Science, Biochemistry, Plant Biology, Microbial Ecology, Viticulture

Dani Lasa, Mugalia Innovation, Errenteria, Spain
Gastronomy, Science & Gastronomy
Kai-Sean Lee, The University of Tennessee Knoxville, Knoxville, United States of America
Gastronomy and Hospitality, Culinary Aesthetics, Qualitative Inquiry, Autoethnography, Narrative
Yuan Liu, Shanghai Jiao Tong University, Shanghai, China
Flavor, Umami, Aroma, Perception, Artificial intelligence
Alexandra Livarda, Catalan Institute of Classical Archeology, Tarragona, Spain
Archaeobotany, archaeology of food and taste, bioarchaeology
Iñigo Martínez de Marañón, AZTI Foundation, Pasaia, Spain
Food Science, Food Technology, Science & Gastronomy
Denis Martin, Denis Martin Restaurant, Vevey, Switzerland
Gastronomy
Iñaki Martinez de Albeniz, University of the Basque Country, Sociology 2 Department, Leioa, Spain
Sociology, Gastronomy, Cultural Studies, Social Studies of Science and Technology, Identity Studies.
David Julian McClements, University of Massachusetts Amherst, Department of Food Science, Amherst, United States of America
Nanoemulsion, delivery systems, digestion, proteins, polysaccharides, Plant-based foods
F. Xavier Medina, Open University of Catalonia, Faculty of Health Sciences, Department of food and nutrition, Barcelona, Spain
Anthropology of food, food culture, Gastronomy and tourism, food and migrations
Ruben Morawicki, Johnson & Wales University, Providence, United States of America
Food processing, fermentation, food safety, sustainability, thermal processing
Ignacio Morgado, Autonomous University of Barcelona Institute of Neurosciences, Bellaterra, Spain
Cognitive Neuroscience, Learning, Memory, Consciousness, Psychiological psychology
Ole G. Mouriøn, Copenhagen University, Department of Food Science, Frederiksborg, Denmark
Gastrophysics, Food innovation, Taste, Umami, Marine products
Jorge Navarro-Dols, University of Deusto, Deusto Business School, Donostia-San Sebastián, Spain
social entrepreneurship, gastronomic tourism, wine, intrapreneurship
Cecilia Novero, University of Otago, Department of Languages and Cultures, Dunedin, New Zealand
European Visual Culture and Literature of the 20th-21st centuries; Human-Non-Human Relations; Food Studies; Critical Theory
Pablo M. Orduna Portús, BCC & UNIR & Etniker Euskalerria, Department of Culture & Faculty of Humanities and Social Sciences + Faculty of Humanities & Navarrete División, Burlada, Spain
Cultural History / Ethnography / Cultural and Social Anthropology
Nadia Palmieri, Council for Agricultural Research and Economics, Monterotondo, Italy
Consumer behaviour, Food Science, Willingness to consume, Willingness to pay, Agricultural economics, Environmental and Economic assessment
Pablo M. Orduna Portús, BCC & UNIR & Etniker Euskalerria, Department of Culture & Faculty of Humanities and Social Sciences + Faculty of Humanities & Navarrete División, Burlada, Spain
Cultural History / Ethnography / Cultural and Social Anthropology
Véronique Perreault, Quebec Institute of Tourism and Hospitality, GastronomiQc Lab, Montréal, Canada
Food Science, Physical Chemistry, Science & Gastronomy
Sebastiano Porretta, Experimental Station for Food Preservation Industry, Parma, Italy
Food science, Food technology, Food quality, Sensory analysis, Consumer science, Vegetable products, Shelf life evaluation, New products development, Statistical evaluation, Optimization
Chemometrics, Colour evaluation
Jean-Pierre Poulain, University of Toulouse Jean Jaurès, Toulouse, France and Taylor's University, Selangor, Malaysia
Food Cultures, Food Studies, Gastronomy, Heritage, Sociology of Food
Massimiliano Renna, Institute of Sciences of Food Production National Research Council, Bari, Italy
Horticultural Science; Food Science; Gastronomy; Ethnobotany; Mediterranean Diet
Marc Stierand, EHL Institute of Business Creativity, Lausanne, Switzerland
Creativity, Aesthetics, Sensory knowing, Qualitative research, Phenomenology
Sylvie Turgeon, Laval University, Faculty of Agriculture and Food Sciences, Laval, Canada
Polysaccharide, protein, functionality, food formulation, bioaccessibility
Job Ubbink, University of Minnesota Twin Cities, Department of Food Science and Nutrition, Saint Paul, United States of America
Food polymers, Rheology, Texture, Sauces, Physical transformations
Unai Ugalde, University of the Basque Country, Bilbao, Spain
Botany, Science & Gastronomy
Cesar Vega, Barry Callebaut, Innovation Center, Northbrook, United States of America
Egg, rheology, dairy, emulsions, cooking
Carlos Velasco, BI Norwegian Business School, Department of Marketing, Oslo, Norway
Multisensory, Crossmodal, Consumer, Packaging, Senses
GUIDE FOR AUTHORS

*International Journal of Gastronomy and Food Science* is a peer-reviewed journal that explicitly focuses on the interface of food science and gastronomy. Articles focusing only on food science will not be considered. This journal equally encourages both scientists and chefs to publish original scientific papers, review articles and original culinary works. For those unaccustomed to publishing in a scientific research journal, please see our guide How to Publish in Scientific Journals [https://www.publishingcampus.elsevier.com/websites/elsevier_publishingcampus/files/Guides/Brochure%20UPP_Dec2016_web.pdf](https://www.publishingcampus.elsevier.com/websites/elsevier_publishingcampus/files/Guides/Brochure%20UPP_Dec2016_web.pdf)

**INTRODUCTION**

**Types of paper**

Contributions falling into the following categories will be considered for publication: Original Research paper, Review article, Commentary, Opinion paper, Feature article, Short communication/original culinary concept. Please see descriptions below in the Article Structure section. Please ensure that you select the appropriate article type from the list of options when making your submission. Authors contributing to special issues should ensure that they select the special issue article type from this list.

**Submission**

Submission to this journal proceeds totally online. Use the following guidelines to prepare your article. Via the homepage of this journal ([https://www.editorialmanager.com/ijgfs/default.aspx](https://www.editorialmanager.com/ijgfs/default.aspx)) you will be guided stepwise through the creation and uploading of the various files. The system automatically converts source files to a single Adobe Acrobat PDF version of the article, which is used in the peer-review process.

Please note that even though manuscript source files are converted to PDF at submission for the review process, these source files are needed for further processing after acceptance. All correspondence, including notification of the Editor’s decision and requests for revision, takes place by e-mail and via the author’s homepage, removing the need for a hard-copy paper trail.

Submit your article
Please submit your article via [https://www.editorialmanager.com/ijgfs/](https://www.editorialmanager.com/ijgfs/).

**BEFORE YOU BEGIN**

**Ethics in publishing**

Please see our information on Ethics in publishing.

**Studies in humans**

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. This include sensory testing.

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.

**Declaration of interest**

All authors must disclose any financial and personal relationships with other people or organizations that could inappropriately influence (bias) their work. Examples of potential competing interests include employment, consultancies, stock ownership, honoraria, paid expert testimony, patent applications/registrations, and grants or other funding. Authors must disclose any interests in two places: 1. A summary declaration of interest statement in the title page file (if double anonymized) or the manuscript file (if single anonymized). If there are no interests to declare then please state this: 'Declarations of interest: none'. 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.

**Declaration of generative AI in scientific writing**

The below guidance only refers to the writing process, and not to the use of AI tools to analyse and draw insights from data as part of the research process.
Where authors use generative artificial intelligence (AI) and AI-assisted technologies in the writing process, authors should only use these technologies to improve readability and language. Applying the technology should be done with human oversight and control, and authors should carefully review and edit the result, as AI can generate authoritative-sounding output that can be incorrect, incomplete or biased. AI and AI-assisted technologies should not be listed as an author or co-author, or be cited as an author. Authorship implies responsibilities and tasks that can only be attributed to and performed by humans, as outlined in Elsevier’s AI policy for authors.

Authors should disclose in their manuscript the use of AI and AI-assisted technologies in the writing process by following the instructions below. A statement will appear in the published work. Please note that authors are ultimately responsible and accountable for the contents of the work.

Disclosure instructions
Authors must disclose the use of generative AI and AI-assisted technologies in the writing process by adding a statement at the end of their manuscript in the core manuscript file, before the References list. The statement should be placed in a new section entitled ‘Declaration of Generative AI and AI-assisted technologies in the writing process’.

Statement: During the preparation of this work the author(s) used [NAME TOOL / SERVICE] in order to [REASON]. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the publication.

This declaration does not apply to the use of basic tools for checking grammar, spelling, references etc. If there is nothing to disclose, there is no need to add a statement.

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 compliance, your article may be checked by Crossref Similarity Check and other originality or duplicate checking software.

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

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

Reporting sex- and gender-based analyses
Reporting guidance
For research involving or pertaining to humans, animals or eukaryotic cells, investigators should integrate sex and gender-based analyses (SGBA) into their research design according to funder/sponsor requirements and best practices within a field. Authors should address the sex and/or gender
dimensions of their research in their article. In cases where they cannot, they should discuss this as a limitation to their research's generalizability. Importantly, authors should explicitly state what definitions of sex and/or gender they are applying to enhance the precision, rigor and reproducibility of their research and to avoid ambiguity or conflation of terms and the constructs to which they refer (see Definitions section below). Authors can refer to the Sex and Gender Equity in Research (SAGER) guidelines and the SAGER guidelines checklist. These offer systematic approaches to the use and editorial review of sex and gender information in study design, data analysis, outcome reporting and research interpretation - however, please note there is no single, universally agreed-upon set of guidelines for defining sex and gender.

**Definitions**

Sex generally refers to a set of biological attributes that are associated with physical and physiological features (e.g., chromosomal genotype, hormonal levels, internal and external anatomy). A binary sex categorization (male/female) is usually designated at birth ("sex assigned at birth"), most often based solely on the visible external anatomy of a newborn. Gender generally refers to socially constructed roles, behaviors, and identities of women, men and gender-diverse people that occur in a historical and cultural context and may vary across societies and over time. Gender influences how people view themselves and each other, how they behave and interact and how power is distributed in society. Sex and gender are often incorrectly portrayed as binary (female/male or woman/man) and unchanging whereas these constructs actually exist along a spectrum and include additional sex categorizations and gender identities such as people who are intersex/have differences of sex development (DSD) or identify as non-binary. Moreover, the terms "sex" and "gender" can be ambiguous—thus it is important for authors to define the manner in which they are used. In addition to this definition guidance and the SAGER guidelines, the resources on this page offer further insight around sex and gender in research studies.

**Author contributions**

For transparency, we require corresponding authors to provide co-author contributions to the manuscript using the relevant CRediT roles. The CRediT taxonomy includes 14 different roles describing each contributor’s specific contribution to the scholarly output. The roles are: Conceptualization; Data curation; Formal analysis; Funding acquisition; Investigation; Methodology; Project administration; Resources; Software; Supervision; Validation; Visualization; Roles/Writing - original draft; and Writing - review & editing. Note that not all roles may apply to every manuscript, and authors may have contributed through multiple roles. More details and an example.

**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.

**Article transfer service**

This journal uses the Elsevier Article Transfer Service to find the best home for your manuscript. This means that if an editor feels your manuscript is more suitable for an alternative journal, you might be asked to consider transferring the manuscript to such a journal. The recommendation might be provided by a Journal Editor, a dedicated Scientific Managing Editor, a tool assisted recommendation, or a combination. If you agree, your manuscript will be transferred, though you will have the opportunity to make changes to the manuscript before the submission is complete. Please note that your manuscript will be independently reviewed by the new journal. More information.
**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 a '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, it is recommended to state this.

**Open access**
Please visit our [Open Access page](#) for more information.

**Additional information**
Tables and figures may be presented with captions within the main body of the manuscript; if so, figures should additionally be uploaded as high resolution files.

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

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

**Queries**
For questions about the editorial process (including the status of manuscripts under review) or for technical support on submissions, please visit our [Support Center](#).

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

Use of word processing software
It is important that the file be saved in the native format of the word processor used. The text should be in single-column format. Keep the layout of the text as simple as possible. Most formatting codes will be removed and replaced on processing the article. In particular, do not use the word processor's options to justify text or to hyphenate words. However, do use bold face, italics, subscriptions, 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.

LaTeX
You are recommended to use the Elsevier article class elsarticle.cls to prepare your manuscript and BibTeX to generate your bibliography.
Our LaTeX site has detailed submission instructions, templates and other information.

Article structure

Manuscripts for review articles
Reviews give a general overview of a particular field, providing the reader with an appreciation of the importance of the work, historical context, a summary of recent developments, and a starting point for delving further into the literature. Manuscripts should be divided into appropriate sections, with an extensive list of references. In addition to undergoing the same rigorous level of technical peer-review as Research papers, Review articles will be critiqued based on the general impact of the field being reviewed, the relevance of the field to current interest, preexisting reviews of the field, and acknowledgement of the contributing author as a significant figure in the field, although reviews based on the literature review for an advanced degree will be given consideration. Therefore, authors interested in submitting a Review Article are requested to contact the editors prior to submission, for inquiring the pertinence of the topic and discussing the angle. General formatting of text, illustrations, and references are the same as outlined for research papers. Review articles should not exceed 10,000 words.

Manuscripts for research papers
Original full-length research papers that have not been published previously. The following components are required for a complete manuscript: Cover letter, Title, Author(s), Author affiliation(s), Abstract, Keywords, Main text (including Introduction, Materials and Methods, Results and Discussion and Conclusion), References, Acknowledgements, Tables, Figure legend and Figures. Social and anthropological research may have different structure in the main text. Include page numbers on the document, beginning with the title page as number 1. Line numbering is also required. Please use the standard 12-point Times New Roman fonts. Research papers should not exceed 6000 words.

Manuscripts for Short Communications or Culinary Concepts
Short Communications or culinary concepts are short papers that present original and significant material for rapid dissemination. For example, a Short Communication may focus on a particular aspect of a culinary problem or a new finding that is expected to have a significant impact. Short Communications are limited to 3000 words and are not subdivided. The paper should contain an abstract, main body and references, and contain no more than 6 figures or tables, combined. The abstract is limited to 100 words.

Manuscripts for Feature Article
Feature Articles offers authors the possibility of publishing in a different and original format consisting of an essay, an analytic, interpretative, or critical literary composition. This article type aims to give more depth to interesting and hot topics and new approaches in which the literature is still scarce. Written by an expert, these texts provide background information on a newsworthy topic as well as the author's personal slant or experience. Authors interested in submitting a Feature Article are
requested to contact the editors prior to submission, for inquiring the pertinence of the topic and discussing the angle. General formatting of text, illustrations, and references are the same as outlined for research papers. Feature Articles should not exceed 10,000 words.

Manuscripts for Commentaries and Opinion papers
The Commentaries or Opinion papers allows experts in the gastronomy and food science discipline to showcase their opinion. It is recommended to contact one of the editors to check the suitability of your topic. These types of articles generally have a limit of 750 words, and words and can be a response to an article previously published in the Journal.

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. The literature reviewed should be DIRECTLY RELEVANT to the work presented.

Material and methods
Although often thought of as the most boring section of a scientific research paper, in many ways this is the most important section. This section is a critical component of science which is that the work is reproducible. So it should be very clear and relatively comprehensive. In this section, provide sufficient detail to allow the work to be reproduced by a relatively new researcher to the field in a country far away. Methods already published should be indicated by a reference and a very brief description. All relevant modifications should be described.

One of the hardest things to do is to describe your raw material. The more information one has about the raw materials, the more chance that one can determine how much the data can be generalized from the specific experiments carried out in the paper. So details on the biological raw materials are particularly important. Please note that biological materials, including animals, have seasonal changes along with age, sex, and nutritional changes. So generalizing from one or two samples in one small geographic area should be done with caution.

In addition, equipment used around the world varies and so this again needs to be specified. E.g., a centrifuge tube's size and angle in addition to the speed (e.g., 3,000 x g is the format to be used and ideally should be 3,000 x g measured at the bottom of the tube) is important. The speed alone does not always define the precipitation rate. So the equipment needs to be identified - including the test tube size and the rotor.

**Note: The format of "x g" is the correct format for this journal. The proper way to provide information about equipment and materials is to give the item name and any number associated with it, the company name, the city (and in the US the state or Canada the province as place names duplicate in these countries), and the country. After the first time the city/country information is not used. E.g., enzyme X (Regenstein Chemical Co., Ithaca, NY, USA) was used to treat protein Y (Regenstein Chemical Co.) for 5 hr at 30°C.

**Note that both company (Co.) and limited (Ltd.) can be abbreviated. Also for Food Bioscience, the temperature in Celcius appears with a degree sign (a superscripted small "O") and no space between the number and the degree sign.

For methods that are being cited, a quick summary of the basic process is recommended unless it is a very standard method so that the reader can grasp what was done. Certainly any site specific equipment, catalysts, etc. used should be noted unless it follows the "official" method EXACTLY.

Results
Results should be clear and concise. Show only those experimental results that are relevant to your objectives and conclusions and which you want to discuss. Numbers in the tables and figures should not be repeated unless they are specifically needed to make a point.

Discussion
This should explore the significance of the results of the work, not repeat them. It should integrate your findings in a comprehensive picture and place them in the context of the existing literature. A combined Results and Discussion section is often appropriate. Avoid extensive citations and discussion of published literature.
Conclusions
The conclusion shall be under 250 words. The difference from an abstract is that it does not focus on the quantitative results but is focused on the qualitative results and why these should be of interest to other scientists, governmental agencies, the industry, the press and others who need this information. Future work may also be proposed in this 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
- **Title.** Concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations and formulae where possible.
- **Author names and affiliations.** Please clearly indicate the given name(s) and family name(s) of each author and check that all names are accurately spelled. You can add your name between parentheses in your own script behind the English transliteration. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name and, if available, the e-mail address of each author.
- **Corresponding author.** Clearly indicate who will handle correspondence at all stages of refereeing and publication, also post-publication. This responsibility includes answering any future queries about Methodology and Materials. Ensure that the e-mail address is given and that contact details are kept up to date by the corresponding author.
- **Present/permanent address.** If an author has moved since the work described in the article was done, or was visiting at the time, a 'Present address' (or 'Permanent address') may be indicated as a footnote to that author's name. The address at which the author actually did the work must be retained as the main, affiliation address. Superscript Arabic numerals are used for such footnotes.

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

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

Abstract
A concise and factual abstract is required. The abstract should state briefly the purpose of the research, the principal results and major conclusions. 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.

Keywords
Authors are invited to submit keywords associated with their paper. Up to 6 words separated by commas. These should be selected so that they focus on the unique aspects of the work and are likely to be used by a person looking for this paper.

Implications for gastronomy
Authors are requested to submit a paragraph explaining the implication of their research for the gastronomy field. It should include examples of culinary applications (e.g: specific products, recipes, tools...) or how the research might be relevant to gastronomy (e.g: consumer perception, new culinary trends, scientific understanding of culinary processes...). This paragraph will be published with the manuscript as a section and should be limited to 250 words.

Abbreviations
Define abbreviations that are not standard in this field in a footnote to be placed on the first page of the article. Such abbreviations that are unavoidable in the abstract must be defined at their first mention there, as well as in the footnote. Ensure consistency of abbreviations throughout the article.
Acknowledgements
Collate acknowledgements in a separate section at the end of the article before the references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals who provided help during the research (e.g., providing language help, writing assistance or proof reading the article, etc.).

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

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

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

If no funding has been provided for the research, it is recommended to include the following sentence:

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

Nomenclature and Units
Follow internationally accepted rules and conventions: use the international system of units (SI). If other quantities are mentioned, give their equivalent in SI. Authors wishing to present a table of nomenclature should do so on the second page of their manuscript.

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).

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

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

Formats
If your electronic artwork is created in a Microsoft Office application (Word, PowerPoint, Excel) then please supply 'as is' in the native document format.
Regardless of the application used other than Microsoft Office, when your electronic artwork is finalized, please 'Save as' or convert the images to one of the following formats (note the resolution requirements for line drawings, halftones, and line/halftone combinations given below):
EPS (or PDF): Vector drawings, embed all used fonts.
TIFF (or JPEG): Color or grayscale photographs (halftones), keep to a minimum of 300 dpi.
TIFF (or JPEG): Bitmapped (pure black & white pixels) line drawings, keep to a minimum of 1000 dpi.
TIFF (or JPEG): Combinations bitmapped line/half-tone (color or grayscale), keep to a minimum of 500 dpi.

**Please do not:**
- Supply files that are optimized for screen use (e.g., GIF, BMP, PICT, WPG); these typically have a low number of pixels and limited set of colors;
- Supply files that are too low in resolution;
- Submit graphics that are disproportionately large for the content.

**Color artwork**
Please make sure that artwork files are in an acceptable format (TIFF (or JPEG), EPS (or PDF) or MS Office files) and with the correct resolution. If, together with your accepted article, you submit usable color figures then Elsevier will ensure, at no additional charge, that these figures will appear in color online (e.g., ScienceDirect and other sites) in addition to color reproduction in print. [Further information on the preparation of electronic artwork.](#)

**Figure captions**
Ensure that each illustration has a caption. Supply captions separately, not attached to the figure. A caption should comprise a brief title (not on the figure itself) and a description of the illustration. Keep text in the illustrations themselves to a minimum but explain all symbols and abbreviations used.

**Tables**
Please submit tables as editable text and not as images. Tables can be placed either next to the relevant text in the article, or on separate page(s) at the end. Number tables consecutively in accordance with their appearance in the text and place any table notes below the table body. Be sparing in the use of tables and ensure that the data presented in them do not duplicate results described elsewhere in the article. Please avoid using vertical rules and shading in table cells.

**References**

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

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

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

**Web references**
As a minimum, the full URL should be given and the date when the reference was last accessed. Any further information, if known (DOI, author names, dates, reference to a source publication, etc.), should also be given. Web references can be listed separately (e.g., after the reference list) under a different heading if desired, or can be included in the reference list.
Data references
This journal encourages you to cite underlying or relevant datasets in your manuscript by citing them in your text and including a data reference in your Reference List. Data references should include the following elements: author name(s), dataset title, data repository, version (where available), year, and global persistent identifier. Add [dataset] immediately before the reference so we can properly identify it as a data reference. The [dataset] identifier will not appear in your published article.

Preprint references
Where a preprint has subsequently become available as a peer-reviewed publication, the formal publication should be used as the reference. If there are preprints that are central to your work or that cover crucial developments in the topic, but are not yet formally published, these may be referenced. Preprints should be clearly marked as such, for example by including the word preprint, or the name of the preprint server, as part of the reference. The preprint DOI should also be provided.

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.

Reference style
Text: All citations in the text should refer to:
1. Single author: the author's name (without initials, unless there is ambiguity) and the year of publication;
2. Two authors: both authors' names and the year of publication;
3. Three or more authors: first author's name followed by 'et al.' and the year of publication.
Citations may be made directly (or parenthetically). Groups of references can be listed either first alphabetically, then chronologically, or vice versa.
Examples: 'as demonstrated (Allan, 2000a, 2000b, 1999; Allan and Jones, 1999).... Or, as demonstrated (Jones, 1999; Allan, 2000).... Kramer et al. (2010) have recently shown ...'
List: References should be arranged first alphabetically and then further sorted chronologically if necessary. More than one reference from the same author(s) in the same year must be identified by the letters 'a', 'b', 'c', etc., placed after the year of publication.
Examples:
Reference to a journal publication:
Reference to a journal publication with an article number:
Reference to a book:
Reference to a chapter in an edited book:
Reference to a website:
Reference to a dataset:
Reference to software:

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

Research data
This journal requires 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, which may also include 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. When sharing data in one of these ways, you are expected 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).

Research Elements
This journal enables you to publish research objects related to your original research – such as data, methods, protocols, software and hardware – as an additional paper in a Research Elements journal.

Research Elements is a suite of peer-reviewed, open access journals which make your research objects findable, accessible and reusable. Articles place research objects into context by providing detailed descriptions of objects and their application, and linking to the associated original research articles. Research Elements articles can be prepared by you, or by one of your collaborators.

During submission, you will be alerted to the opportunity to prepare and submit a manuscript to one of the Research Elements journals.

More information can be found on the Research Elements 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
You can use this list to carry out a final check of your submission before you send it to the journal for review. Please check the relevant section in this Guide for Authors for more details.
Ensure that the following items are present:

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

All necessary files have been uploaded:

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

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

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

For further information, visit our Support Center.

AFTER ACCEPTANCE

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

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

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

Offprints
The corresponding author will, at no cost, receive a customized Share Link providing 50 days free access to the final published version of the article on ScienceDirect. The Share Link can be used for sharing the article via any communication channel, including email and social media. For an extra charge, paper offprints can be ordered via the offprint order form which is sent once the article is accepted for publication. Corresponding authors who have published their article gold open access do not receive a Share Link as their final published version of the article is available open access on ScienceDirect and can be shared through the article DOI link.

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.