

SAGE UK Style Guide

CONTENTS

1.		
2.	Article opening material	3
	2.1 Headings	
	2.2 Article types	3 3 3
	2.3 Article title	3
	2.4 Author names, affiliations, and corresponding address	4
	2.5 Abstract and keywords	5
	2.6 Running heads	5
3.	General style and layout	6
	3.1 Logo and imprint box	6
	3.2 Figures	6
	3.3 <u>Tables</u>	6
	3.4 <u>Lists</u>	7
	3.5 <u>Maths/equations</u>	7
	3.6 <u>Appendices</u>	7
	3.7 Note and footnotes	8
	3.8 <u>Book reviews</u>	9
4.	Spelling, punctuation and formatting	9
	4.1 Author style/voice	9
	4.2 General spelling rules	9
	4.3 Punctuation and formatting	9
	4.4 Abbreviations	11
5.	Technical content: maths, equations, etc.	13
	5.1 Maths notation convention	13
	5.2 Equations	13
	5.3 Units	14
	5.4 Symbols and operators	14
6.	Appendices	15
	6.1 General STM acceptable 2-letter abbreviations	15
	6.2 Engineering acceptable 2-letter abbreviations	16

2. Article opening material

2.1 Headings

- 1. Headings should have an initial capital with everything else lowercase, unless proper names.
- 2. Italics can be included in A heads (H1) if needed, e.g. mathematical symbol or genus name.
- 3. Headings are unnumbered and formatted as below.
- 4. Where headings are referred to in the text use section names, as headings are not numbered.

A head (H1) (bold with initial cap, all the rest lowercase)

Introduction

The mucosa of the small and large intestines is the largest reservoir of tissue macrophages ($M\phi$) in both humans and mice.¹ Although $M\phi$ possess various

B head (H2) (italic with initial cap, all the rest lowercase)

Human samples

Human specimens of normal large intestine were obtained from normal tissues of three patients with colon cancer who had their large intestine resected for

C head (H3) (same as B head, but set as first line of paragraph, full out; italic with initial cap, all the rest lowercase, followed by a full stop. Following text runs on)

Single nucleotide primer extension. The PCR product from bisulfite-treated genomic DNA was cleaned with ExoSAP (USB) prior to SNuPE reaction. For calibra-

Headings for Abstract, Keywords, Funding, Acknowledgements, Conflict of interest (in that order), References, Appendices are same as A head but smaller font size

Acknowledgements

We thank Dr van Lookeren Campagne (Genentech) for providing blocking mAb against CRIg (clone 14G8) and isotype control mAb (anti-ragweed).

(CEs: where a template is being used there is no need to format these. Where no template is being used, please format as bold/italic, but there is no need to mark the font sizes, TS will format.)

2.2 Article types

Where a journal displays article types, these should appear on the first page of each article, left aligned above the horizontal rule, and in italics.

General technical or research papers should be classified as *Original Article* (with uppercase initial caps) for STM, and *Article* for HSS. (Check with the PE, as there is some variation between journals.)

Other usual paper types are as follows: *Review Article, Case Study, Technical Note, Case Report.* Individual journals may also have other paper types, as agreed with the Editor. Where no particular convention has been agreed, *Original Article* should be followed for STM, and *Article* for HSS.

2.3 Article title

Please format with an initial capital only and remaining words lower case, unless proper names. Italics can be included where necessary (e.g. genus name). Run on subtitle after colon, with initial capital after colon.

2.4 Author names, affiliations, and corresponding address Authors

List authors in the order that they appear on the manuscript. Authors' first name should be in full, middle names should be initials *without* full stops (e.g. Simon PS Sharma) and no spaces between multiple initials. No series comma before the 'and' before the final author name.

Affiliations

Affiliations should contain only the following: department *or* faculty, institution, country. Some HSS journals may have institution and country only. Do not include titles, positions, qualifications, street names, or postcodes/zip codes. Affiliations should *not* end in a full stop.

STM: author names should be annotated with superscripted numbers (CE: do not use automated endnotes against names and affiliations). If all authors are at the same affiliation no superscript numerals are required. Affiliations appear separately with the corresponding address at the bottom of the right column (see next page):

Mark A Creager¹, Reena L Pande¹ and William R Hiatt^{2,3}

HSS: affiliations should directly follow each author name, as follows:

Mark A Creager

(Department of Engineering,) Southampton University, UK

Reena L Pande

(Department of Engineering,) Southampton University, UK

William R Hiatt

County Hospital, CA, USA; Harvard Medical School, USA

Multiple affiliations are separated by a semi-colon.

Corresponding author

The affiliations and corresponding author information is positioned as follows:

Bottom of the right column on the first page of each paper, separated from the text with a horizontal rule (some exceptions apply for specific journals).

Corresponding author:

John Smith, Department of Social Studies, South Bank University, 4 Sample Road, London SE17 9OP, UK Email: john.smith@sbu.ac.uk

STM: Affiliations and corresponding author details should appear as follows, bottom of right column.

HSS: corresponding author appears in the same position, minus the affiliations.

Corresponding author:

Sven Müller-Loennies, Research Center Borstel, Leibniz-Center for Medicine and Biosciences, Parkallee 22, D-23845 Borstel, Germany. Email: sml@fz-borstel.de

Please remove any fax or telephone numbers, titles (e.g. Dr, Professor), positions (e.g. Senior Lecturer).

¹Research Center Borstel, Leibniz-Center for Medicine and Biosciences, Borstel, Germany

²Microbiology Department, Chemical Faculty, Gdańsk University of Technology, Gdańsk, Poland

³Novartis, Basel, Switzerland

Please note: 'Email' with cap E and without hyphen. Email should start a new line. There *should* be a full stop after the country in the corresponding address.

Affiliations and corresponding address text should be left aligned, not justified, to avoid irregular spacing between words.

2.5 Abstract and keywords

Abstract should appear in bold without a colon, text should start on the next line, with no indent.

Keywords (all one word) should appear in bold without a colon. The keywords should start on the next line, separated by commas only, not semi-colons. The first keyword should have an initial cap.

Abstract

Anaphylaxis related to drug therapy with 5-HT3 antagonists, in particular, palonosetron has not been reported frequently in the literature. Here a case is presented where the patient possibly had an anaphylactic reaction to palonosetron. In this case report, a 40-year-old female with ovarian cancer developed shortness of breath and hypotension after receiving her palonosetron as part of her premedication for chemotherapy. The patient recovered successfully with fluids and supportive care. This case demonstrates that even after successful treatment in the past with palonosetron a patient may later develop a hypersensitivity to the agent.

Keywords

Palonosetron, anaphylaxis, hypersensitivity, 5-HT3 receptor antagonist

In some journals, Abstracts have sub-headings, e.g. Methods, Conclusion etc. These should be formatted in bold with a colon in bold and each sub-heading should start a new paragraph. The text should run on after each heading with an initial capital.

Submitted/accepted dates

For journals that publish received/revised/accepted dates (applies to specific journals, if unsure please check with the PE), this should appear after the Keywords and be formatted thus:

Date received 29 July 2010; reviewed 30 August 2010; accepted 5 November 2010

Keywords

H5N1, apoptosis, TRAIL, caspase-10

Date received: 30 March 2011; revised: 19 April 2011; accepted: 28 April 2011

2.6 Running heads

Recto: should be author surname(s), e.g. *Smith*, or *Smith and Jones*, or *Smith et al.* (for three or more authors, and et al. is also in italic).

Verso: full journal title in italic, followed by 0(0).

For IMechE journals: e.g. *J. Automobile Engineering 0(0)*, without the Proc. IMechE or journal letter).

Innate Immunity 0(0)

3. General style and layout

3.1 Logo and imprint box

All papers in the standard SAGE design will have a journal logo in the top right with an imprint box underneath (although the logo may be missing on journals that are new to the SAGE design). The imprint box will contain the following information: journal name, vol/issue/page numbers (for papers in production, vol/issue are represented by 0(0), page numbers are the number of pages in the PDF, e.g. 1–9), copyright line, link to permissions web page, DOI, journal URL, SAGE logo:



Innate Immunity
0(0) I-12
© The Author(s) 2011
Reprints and permissions:
sagepub.co.uk/journalsPermissions.nav
DOI: 10.1177/1753425910394888
ini.sagepub.com



3.2 Figures

- 1. STM: All figures should have a key line (i.e. be enclosed in a box). HSS: figures have no key line.
- 2. Figures should be appropriately sized (done by the TS). They do not need to be a full column width or page width.
- 3. Figure permissions: any figures reproduced from another publication need permission. In cases where those publishers listed on the STM permission Guidelines page (http://www.stm-assoc.org/permissions-guidelines/), permission is not required and only the reference number need by present in the caption. Some publishers ask for certain text, e.g. Elsevier.
- 4. Source: in cases where permission is required and has been obtained, this should appear below the caption in the following form: Source: reproduced with permission from publisher, year, reference number (Vancouver), author, date (Harvard).
- 5. Any abbreviations needing to be spelled out should be listed after the caption, starting on the next line, in the following format: IC: internal combustion; PID: proportional-integral-derivative).
- 6. Captions are positioned below the figures and left aligned.
- 7. Captions should start, for example, **Figure 1.** (with a full point also in bold) and have a full point at the end. Where the text runs onto multiple lines, the captions need not be justified but should be aligned left.
- 8. Where figures have multiple parts, these should be labelled as (a), (b), (c), etc. (not A, B, C). Captions should contain subheadings for all parts if not present in the figure itself.
- All figures should be numbered consecutively and cited in the text as Figure 1, Figure 2 etc. (Figure should be spelled out in full, not abbreviated).
- 10. Text citations: figures should be referenced in the text as follows: Figure 1, or Figures 1 and 2, or Figures 2 to 4, or Figure 1(a) and (b), or Figure 2(a) to (c). Where the figure citation is not part of the sentence it should be placed in parentheses.

Examples:

Please see Figure 2 for an illustration of the model used

The model used was an X3G standard type, exported from Germany (Figure 2 or see Figure 2).

3.3 Tables

- Tables do not need to be a full column width or page width, but should be the appropriate width for the content. They will be laid out by the TS so no work is required by CEs on table layout, only on content.
- 2. Table headings should be left aligned, even when they relate to multiple columns, unless this creates confusion.

- 3. Tables should only have minimal horizontal rules for clarity, and no vertical rules (done by TS, no need for CE to format).
- 4. All tables should be numbered consecutively and cited in the text as Table 1, Table 2 etc. (Table should be spelled out in full, not abbreviated).
- 5. Table permissions: any tables reproduced from another publication need permission. In cases where those publishers listed on the STM permission Guidelines page (http://www.stm-assoc.org/permissions-guidelines/), permission is not required and only the reference number need by present in the caption. Some publishers ask for certain text, e.g. Elsevier.
- 6. Source: in cases where permission is required and has been obtained, this should appear below the table in the following form: Source: reproduced with permission from publisher, year, reference number (Vancouver), author, date (Harvard).
- 7. Any abbreviations needing to be spelled out should be listed under the table (smaller font, TS will format), in the following format: IC: internal combustion; PID: proportional–integral–derivative.
- 8. General notes to the Table should be positioned below the Table, typeset in a smaller font and should start 'Note:', and end in a full stop. Do *not* add the word 'Note:' unless needed for clarity.
- 9. Footnotes should be represented in the table by superscript letters ^a, ^b, ^c, etc., and appear below the Table (smaller font, TS will format). Each footnote should start a new line and end with a full stop. These notes should precede the source for the table, if included.
- 10. Captions are positioned above the table and left aligned.
- 11. Captions should start, for example, **Table 1.** (with a full point also in bold) and have a full point at the end. Where the text runs onto multiple lines, the captions need not be justified but aligned left.
- 12. Dates in Tables can be shortened to, for example, 4 Dec 10, if space is lacking. Do not use the form 04/12/10, as this could be confused as 12 April in US.
- 13. Normal text in columns should always be left aligned. Data in tables should be aligned on units if all the data in that column take the same units. Otherwise, the data should be left aligned. Units in table headings should be enclosed by parentheses, not square brackets (if any brackets are required at all).

3.4 Lists

- 1. For lists where items are not full sentences, use (a), (b), (c) etc. or bullet points (whichever is more appropriate) and separate items with semi-colons. Start list with a preceding colon and end list with a full stop.
- 2. For lists where items are full sentences or multiple sentences, use 1. 2. 3. Start list with a preceding full stop or semi-colon (whichever is more appropriate), and end list with a full stop.
- 3. List numbering/bullets should be full out and left aligned, with text indented and aligned. Lists should be separated from preceding/following text with a line space.
- 4. Where list items include headings, that heading should be italic, same size as text and end in a full stop. The following text should run on.

3.5 Maths/equations (see section 5, p. 14 for more details)

- 1. Equations should be left aligned with a 3 mm indent, *not* centred.
- 2. Equations can be broken at operator symbols (x, -, +, etc.), and continue on the next line, starting with the operator itself.
- 3. Equations should be separated from text above and below by at least one line space.
- 4. Any equation numbers should be enclosed in parentheses and right aligned, and aligned horizontally with the bottom line of the equation or equations, where multiple terms are covered by one equation number. (Not all equations need be numbered, see section 5).

General note: text following Figures, Tables, equations does not need to be full out with no indent. If the next block of text after any of these items is a new paragraph, then this may be indented.

3.6 Appendices

Maths notation list

- 1. Where present, notation should appear as Appendix 1, following the references. The heading *Notation* should be a B-head (not Notations; it is not plural).
- 2. Abbreviations list should be separated from mathematical notation under a separate B-head *Abbreviations*.

- 3. Notation should be listed in alphabetical order, English letters first, followed by Greek, followed by numbers, followed by symbols.
- 4. Subscripts and superscript should come under a separate C-head (italic and smaller font), and symbols should follow the same order as in point 2 above.
- 5. The Notation section does not need to be cited in the text, like other Appendices.
- 6. Notation list should be left aligned. Text in the notation section should be left aligned in general, not justified.
- 7. Please note that a notation list is not compulsory in mathematical papers, as long as all symbols are defined in the text.

Other appendices

- 1. Numbering of figures/tables/equations in Appendices should follow on from the numbering in the text.
- 2. All tables/figures should have captions.
- 3. All appendices should be cited in the text, e.g. (see Appendix 1). If they are not cited, authors need to be queried for a citation position.

3.7 Notes and footnotes

Textual notes

HSS

References: Vancouver style reference citations are represented as textual notes, as a numeral enclosed in a square bracket. Harvard style references are as follows (Smith, 1999).

Any other textual notes: are indicated by a superscript Arabic numeral placed *after* the punctuation. All textual notes should be collected and placed after the text and before the reference section with the heading **Notes**.

STM

References: Vancouver style reference citations are represented as textual notes, as a superscript Arabic numeral. Harvard style references are as follows (Smith, 1999).

Any other textual notes (whether references are Harvard or Vancouver) are indicated by a superscript Arabic letter and the corresponding footnote appears at the bottom of the relevant column.

In STM journals, footnotes should be edited into the text if appropriately and easily incorporated. However, please leave footnotes if this is not possible.

Authors' biographical notes

These should appear at the end of the paper with the heading **Author biography** (or **biographies**), in same font size as References/Funding etc. heading. Follow journal style.

3.8 Book reviews

Please check that the book details are given in this format at the top of each review.

Author, *title*, publisher: place, date of publication; 000 pp.: ISBN, price (hbk), ISBN, price (pbk) Editor(s) (ed[s].), *title*, publisher: place, date of publication; 000 pp.: ISBN, price (hbk), ISBN, price (pbk)

4. Spelling, punctuation and formatting

4.1 Author style/voice

We will endeavour to keep the author's voice as much as possible:

- 1. Some authors write in the first person. CEs please note that we will *not* be taking articles out of the first person into the third person.
- 2. Where American authors have used American spellings, we should also endeavour to keep the author's grammar/punctuation, e.g. closed em-dashes instead of spaced en-dashes, single quotation marks within double, series comma etc.
- 3. Where UK authors have used –ise spellings throughout their papers in a consistent fashion, please do not change. Where there is inconsistency, use -ize.

4.2 General spelling rules

The general rules are as follows:

- UK spellings should be followed for European articles (-ise is acceptable)
- US spellings should be followed for North American articles
- Rest of the world follow author style but make it consistent
- Canadian spellings should be standardized to UK or US, depending on author preference
- The following list shows some common exceptions to the '-ize' rule:

Samples							
advertise	arise	devise	enfranchise	expertise	merchandise	promise	surmise
advise	chastise	disenfranchise	enterprise	franchise	misadvise	reprise	surprise
affranchise	circumcise	disguise	exercise	improvise	premise	revise	televise
apprise	comprise	emprise	excise	incise	prise	supervise	treatise

Note also: analyse (for UK), catalyse, dialyse, paralyse.

Do not mix English and US spellings. Some common US variations in spelling:							
analyze	color	favor	fulfill	labor	license (noun)	program	traveler/traveling
behavior	counseling	fetus	gray	mold	pediatrics	practice (verb)	willful

Follow author style regarding use of the possessive's for proper names ending in s. However, 's is not used for classical names, e.g. Socrates' philosophy.

The following books are recommended: Hart's Rules; Fowler's Modern Usage.

4.3 Punctuation and formatting

Commas

- Follow author style but make consistent
- Oxford or series comma are not generally used; only use an Oxford/series comma if essential for clarity

Parentheses

These can be used throughout. Double sets of parentheses are acceptable, e.g. (see Figure 2(a)). Do not use square brackets in the text, except in the following circumstances.

Square brackets are used only to enclose an author's comment within a quote, e.g. [sic], [emphasis added]. Square brackets are also used for equations and mathematical expressions within the text.

Quotes

Use single quotes, with double quotes within quoted material. (See section 4.1 for exceptions for articles written by US authors.)

Hyphenation

The basic rule is to follow author style but be consistent.

Use of upper and lower case

Check the author's usage first, and make consistent. For specific titles use initial caps, for generic titles use lower case (useful pointers follow):

Institutions, movements, denominations, political parties:

- the Roman Catholic Church
- he has catholic tastes
- · They were Bolsheviks
- bolshevism, communism

Titles, ranks:

- the President (referring to a particular one)
- the Spanish Foreign Minister
- a president
- several government ministers

Geographical names:

Capitalize politically defined or geographically named places, use lower case in all other instances.

- the West, the East
- western values, eastern culture
- South Africa
- · the south of Scotland

Periods, events:

- Second World War
- rationing during the war

Article and book titles:

Follow the style used in the references.

Roman and italic usage

Anglicized words should be roman with no accents (common examples follow):

Samples			
ad hoc	coup d'etat	laissez faire	post mortem
a priori	de facto	nouveau riche	raison d'etre
a propos	elite	op. cit.	sine qua non
avant-garde	en masse	per annum	status quo
bona fide	en route	per capita	vice versa
bourgeois/bourgeoisie	et al.	per se	vis-a-vis
cafe	in situ	post hoc	

- Words in other languages follow author style and make consistent.
- Keep author's own emphasized words or phrases (in italic), unless excessive.
- General: usual italic rules applies, e.g. genus, species, relevant mathematical symbols, *x*-axis, *y*-axis, journal/book/magazine names, etc.

Quoted text

Spellings and punctuation in quoted texts should not be altered. If they are obviously incorrect, query with author or insert [sic].

Undisplayed quotes:

Short quotations should be indicated by single quotation marks, with double quotation marks for quotation material within the quote. A full point (or other punctuation) follows the reference for the quote, e.g. '... is the most decisive and important' (Smith, 2003).

Displayed quotes:

Lengthy quotes (40 words or more) should be displayed and indented, with a line space above and below, separating it from the text – follow journal style. Font size will be smaller (TS to format).

Money

For currency use the common symbol or abbreviation: £, US\$, AUD\$, etc. – where the quantity is stated, but not when the unit of currency is being referred to in general terms, examples follow:

- The price of oil rose to US\$25 per barrel.
- The US dollar was at an all-time low.
- £150m, not millions or mlns.

Units in the text

- 1. Where units are referred to in the text in general terms, they should be written out in full.
- 2. Where a specific quantity is used, the abbreviated form of the unit must be used; e.g. the nails were several centimetres long; the nails were each 2 cm in length.
- 3. Always use numerals with the abbreviated unit and use abbreviated units wherever possible in lists of statistics, in tables and line artwork.
- 4. Numeral and units should be separated by a thin space, i.e. 100 km, not 100km (this does not need to be indicated by the CE, the TS will format, PR/PE to check). NOTE: exception to the thin space rule applies for percent and degree symbols, i.e. 90% and 35.7°
- 5. Abbreviations of units are the same for singular and plural (do not add an s); they do not take a full point. E.g. 25 min, 55 s
- 6. Use SI units wherever possible (see specific Journal webpages for more specific notes).

Numbers

- 1. Spell out numbers one to nine; for numbers 10 and over use numerals, except at the beginning of a sentence. Re-work the sentence if necessary.
- 2. Use numerals with percentages (use the % symbol, not per cent or percent), with units, in statistical passages, in tables, etc.
- 3. Spell out and hyphenate one-half, two-thirds, etc.
- 4. Do not use a comma in 4-digit numbers (thousands) but do use one in 5-digit numbers (tens of thousands) and above, e.g. 5643; 1298; 14,600; 342,885; 1,000,001. Do *not* use a thin space.
- 5. Do not contract number ranges, e.g. page ranges and dates; i.e. use pp. 24–29, 13–15 October, 1981–1999 etc.
- 6. Decimal points are never raised off the line.
- 7. Do not mix spelled-out numerals and units: 6 cm not six cm.

Dates

- 1. Write out dates in text and refs as follows: 30 September 2003, except in Tables if space is short, then a shortened version may be used, e.g. 11 Sep 08 (do not use 11/9/08, as this could be confused in the US as 9th November).
- 2. Do not use an inverted comma in decades, e.g. 1960s, mid-1930s. Avoid 80s, etc.
- 3. Use numerals for centuries (except in history journals where it is spelled out), e.g. a 21st-century dilemma.

4.4 Abbreviations

General

- Do not use abbreviations in the title of a paper, in the abstract, or keywords, unless the full version is very long and clumsy or the abbreviation is better known than the full term (e.g. DNA).
 Abbreviations may be used in headings and subheadings if they has already been defined previously in the paper at first usage. If in doubt, spell out.
- 2. Define an abbreviation the first time that it is used (except in the Abstract): write the term out in full followed by the abbreviation in parentheses. Use the abbreviation consistently thereafter, including at the start of sentences.
- 3. For plural terms, use plural abbreviations, e.g. low-density lipoprotein, LDL; low-density lipoproteins, LDLs.
- 4. If you need to abbreviate months or days of the week (for example, in a crowded table), use the first three letters without a full-stop (Mon, Tue; Jan, Feb).

- 5. If abbreviations are used in a figure or table, they must all be defined in the caption or in a Table note/footnote even if they are also defined in the text.
- 6. Do not use abbreviations invented by the author of a paper for that paper ideally, only conventional, generally accepted abbreviations should be used.
- 7. Do not abbreviate single words (exceptions apply) or use two-letter abbreviations other than those listed below. (Two-letter engineering abbreviations are available in the IMechE Style Guide supplement).
- 8. Abbreviations consisting of capital letters, and acronyms and contractions, should not take full points, e.g. USA, UK, MA, UN, WHO, PhD, NATO (or Nato), UNESCO (or Unesco), AD, BC
- 9. Unfamiliar (but generally accepted) abbreviations should always be written out in full when first mentioned, with the abbreviated form following in parentheses, e.g. "The Confederación Española de Derechas Autónomas (CEDA) was formed". Thereafter use the abbreviation.
- 10. Contractions do *not* take a full point, e.g. Mr, St, Ltd, edn, Dr, neither do contracting degrees (Dr, DPhil, PhD, MSc). The following abbreviations take full points: no., Co., p., pp., vol., ch. (but use vols and chs), e.g., ed. (but use eds), et al., etc., i.e., cf., (note that this means 'compare' and not 'see'), n.d.
- 11. No comma after e.g., i.e. or cf. Etc. has a full stop and is usually preceded by a comma in a list. They may be used in lists or figure or table legends, and within parentheses.
- 12. In reference lists, notes, footnotes, corresponding author address (if required) and authors' biographical notes, please use the standard abbreviated form for American states (and Canadian/Australian territories). Please spell out in full in the text (see section 7.3 for full list of US state abbreviations).

Some journals use abbreviations that do not need to be spelled out, even at first usage. For a full list of abbreviations that do not need to spelled out for each individual journal, please visit the journal webpage.

STM abbreviations: some abbreviations of terms that we do not define in full are listed here (follow style given):

- SD = standard deviation
- SEM = standard error of the mean
- NS = not significant
- a.m. in the morning (but use 24-hour clock if possible)
- p.m. in the afternoon
- N/A = not applicable
- Chemical symbols (H₂O, H₂SO₄) may be used without definition. However, write in full unless this is inappropriate (e.g. 'Water consists of hydrogen and oxygen'; 'Nitric oxide is also found in peripheral nerves'). Refer to *Scientific terminology* notes for further guidance.

See the Appendix (pp. 26 and 27) for a full list of accepted general two-letter STM abbreviations and engineering abbreviations.

5. Technical content: maths, equations, etc.

5.1 Maths notation convention

There is no specific convention for mathematical notation in terms of matrices, vectors, variables, operators, functions, subscripts, superscripts and scalars. CE please follow the author's symbols and notation conventions, ensuring that these are consistent throughout the paper.

Please query the author if any symbols are unclear, duplicated with more than one definition, or undefined.

5.2 Equations

Layout of equations

- 1. Equations should be left aligned on a 3 mm indent, *not* centred.
- 2. Equations should be numbered in sequence throughout the text, with the numbering continuing through all appendices. However, equations only need to be numbered if cited in the text, and not all equations necessarily need to be numbered.
- 3. Equation numbers should be set flush right and in sequence. Each numbered equation should have its own line.
- 4. No punctuation is used before or after an equation (i.e. no commas, colons, hyphens etc.)
- 5. The equation number should align with the *bottom line of equation*. Where the equation number covers multiple equations, it should align with the bottom line of the last equation.
- 6. When referred to in text, equations take the form 'equation (1)'. When a range of equation numbers is referred to, use the form: equations (1) and (2); equations (1) to (3); equations, (1), (2), and (5) to (7).

With the assumptions outlined previously, conservation of momentum and the definition of velocity change gives

$$m_1 \mathbf{u}_1 + m_2 \mathbf{u}_2 = m_1 \mathbf{v}_1 + m_2 \mathbf{v}_2 \tag{1}$$

$$\Delta v = v - u \tag{2}$$

Equations (1) and (2) lead to

$$\Delta v_1 = -\Delta v_2 \frac{m_2}{m_1} \tag{3}$$

A diagram showing a generalized impact configuration

- 7. If two or more small equations or conditions can fit on one line, then they should be well separated with a 2-em space. Commas and words, set upright not italic, may be used to enhance clarity.
- 8. Equations in text must be reduced to one line depth. Display equations are built up to two line depth. For instance, the equation $(x y)/(x^2 + 2y 3)$ runs on in the text but for display becomes $\frac{x y}{x^2 + 2y 3}$
- 9. CEs: Spaces between + and and other operators need not be marked. TS will format.
- 10. Unless separating small equations and conditions, as shown above, odd words between equations such as 'where', 'and', 'thus', 'therefore' should be on a separate line from the equations and flush left. Only use initial capitals for these if they start a new sentence.
- 11. When a single equation has been presented with a label/header (e.g. 'momentum conservation equation', 'blade element momentum theory', etc.), present the label before the equation, full left, half-line above, and in roman.
- 12. Where an equation is too long to fit on one line, take over whole terms starting if possible with a + or or = symbol, and indent.
- 13. Where a bracketed term has to be split over lines move the second part to the right to show it is still part of the same term (align to the right of the bracket).
- 14. Pairs of opening and closing brackets should be the same size, even when they are on different lines.
- 15. Where an equation breaks at an equals sign indent a further em in from the first line.
- 16. Where equations are split over 2 lines, the break should occur before the operator:

$$m_2(1 + e_p)(U_{2p} - U_{1p})$$

$$= (m_1 + m_2)\Delta v_1 - m_1 h_1 \Delta \omega_1 - m_2 h_2 \Delta \omega_2$$
(9)

5.3 Units

SI preferred. Expressions such as rpm, psi, cfm, gpm, mph, kph, tsi, revs should be avoided. Use instead r/min, lbf/in², gal/min, mile/h, km/h, ton/in², rotational speed, etc.

Notes: Greek μ in μ m should always be roman; MPa and GPa should always have a capital P.

5.4 Symbols and operators

A thin non-breaking space should separate symbols and operators from numerals, and be present either side of multiplication dots and all operators, e.g. +, -, =, x, <, >, etc. (this does not need to be indicated by the CE, the TS will format)

Appendices and notation (see section 2.6, p. 7)

6. Appendices

6.1 General STM acceptable 2-letter abbreviations (should be defined on first mention):

AH	arterial hypertension	ML	maximum lysis
AP	anteroposterior	MR	magnetic resonance
AR	androgen-receptor	MS	multiple sclerosis
AS	ankylosing spondylitis	ND	no data
AT	anti-thrombin	NF	nuclear factor
BP	blood pressure	NK	natural killer
CE	centre-edge	OD	optical density
CF	cystic fibrosis	OR	odds ratio
CI	cardiac index	OS	overall survival
CI	confidence interval	PC	protein C
CO	cardiac output	PD	potential difference
CP	cerebral palsy	PD	progressive disease
CR	complete response	PE	probable error
CT	clotting time	PP	pulse pressure
CT	computed tomography	PR	partial response
ED	emergency department	PT	prothrombin time
ED50	median effective dose	RA	rheumatoid arthritis
EU	European Union	RA	right atrium
FA	fatty acid	Rh	rhesus
FA	folinic acid	RQ	respiratory quotient
FR	fixed ratio	RR	relative risk
GH	growth hormone	RR	response rates
GM	genetically modified	RT	room temperature
GP	general practitioner	RV	right ventricle
Hb	haemoglobin	SE	standard error
HR	heart rate	SV	stroke volume
IR	infrared	ТВ	tuberculosis
LD50	median lethal dose	TC	total cholesterol
LH	luteinising hormone	TF	tissue factor
LV	left ventricle	TS	thymidylate synthase
mAb	monoclonal antibody	TT	thrombin time
ME	medial epicondyle	UV	ultraviolet
ME	myalgic encephalomyelitis	VD	venereal disease
MI	myocardial infarction		

6.2 Engineering acceptable 2-letter abbreviations (should be defined on first mention):

AC/DC	alternating current/direct current	НС	hydrocarbon
A/C	air conditioning	KF	Kalman filter
Al	artificial intelligence	MR	magnetorheological
Al	auto-ignition	MR	magnetic resonance
CA	crank angle (also used as a unit of measurement)	MS	mass spectrometry
CC	combustion chamber	MW	molecular weight
CG	centre of gravity	NN	neural network
CI	compression ignition	NS	Navier-Stokes
CM	centre of mass	PI	proportional-integral
CV	cyclic variability	PM	particulate matter
DI	direct injection	Re	Reynold's number
EA	evolutionary algorithm	RF	radio frequency
EM	electromagnetic	RI	rollover index
EV	electric vehicle	SD	standard deviation
FE	finite element	SI	spark ignition
GA	genetic algorithm	TC	traction control
GT	gas turbine	UV	ultraviolet