## Appendices

## Appendix I

## The seven Cs of scientific writing

Clarity: scientific writing should be unambiguous; it should not allow more than one interpretation of the meaning of a message.

Correctness: scientific writing should not contain errors.
Completeness: scientific writing should contain all the information necessary for readers to fully understand the research done.

Comprehensibility: scientific writing should be as simple as possible to enable readers to understand complex material.

Concision: scientific writing should not contain redundant or unnecessary information.
Consistency: scientific writing should use the same terms, spelling, style, format, etc. throughout the document.

Conformance: scientific writing should conform to the standards specified by organizations that oversee publication and by journals.

## Appendix II

## Words that are often confused

Most of these words cause difficulties for native English speakers; indeed, some of them are more likely to be problematic for native speakers than for Spanish speakers. Words that are often misinterpreted due to the influence of Spanish are listed in the next appendix, False friends.

## DEFINITION <br> EXAMPLE

## ABILITY, CAPACITY

Ability: power or competence to do something

Capacity: ability to contain or amount contained

The brain's plasticity gives it the ability to adapt after focal damage.
The combined capacity of the third and lateral ventricles is about 20 ml in normal adults.

## ABSORPTION, ADSORPTION

Absorption: incorporation of gas, liquid, light, heat, Some drugs interfere with calcium absorption. etc.
Adsorption: collection of gas, liquid, dissolved substance on a surface in a condensed layer

Adsorption by hemofiltration devices must be taken into account when dosing some drugs.

## ACCURACY, PRECISION

Accuracy: degree of closeness of a measurement to the true value
Precision: degree to which the correctness of quantity is expressed

This test always yields the correct results: its accuracy is $100 \%$. In well-reported results, the number of digits after the decimal point tells us the precision (but not the accuracy!) of the measurement.

## ADMINISTER, ADMINISTRATE

Administer: to deliver treatment

Administrate: to manage or direct the affairs of a business, institution, etc.

Administer the drug subcutaneously if intramuscular injection is contraindicated. The university administrates the laboratory's funding.

AFFECT, EFFECT

Affect: Normally a verb meaning to produce a change in; sometimes a noun meaning feeling or observed emotional response
Effect: Normally a noun meaning result or consequence; sometimes a verb meaning to bring about

Different types of antibiotics affect different types of bacteria in different ways.

The effects of antibiotics are both concentrationdependent and time-dependent.

## DEFINITION <br> EXAMPLE

## AFFECTION, AFFECTATION

Affection: fondness; rarely, disease Affectation: behavior, speech, or writing that is not Her British accent is an affectation. genuine and aims to impress

ALTERNATELY, ALTERNATIVELY

| Alternately: in an alternating sequence or position | The product was purified by alternately |
| :--- | :--- |
| centrifuging and re-suspending in ultrapure water. |  |
| Alternatively: as an alternative | We could use RT-PCR; alternatively, we could use |
|  | NASBA. |

## ALTHOUGH, WHILE

Although: in spite of the fact that

While: standard use expresses simultaneity of actions; when used to mean although, while can generate confusion

Although they rewrote the manuscript, it was rejected.
While they rewrote the manuscript, the authors suspected it would be rejected.
(In this case, while can be interpreted as both
time-related and whereas.)

AMONG, BETWEEN
Among: used for the relationships between one element and two or more others
Between: used for the relationship between two elements or between more than two elements considered individually

Lower respiratory tract infections are the leading cause of death among all infectious diseases. No differences in mortality were found between the experimental subjects and controls.

AMOUNT, CONCENTRATION, CONTENT, LEVEL
Amount: total quantity measured
The amount of cerebrospinal fluid drained from the experimental animals was lower than the amount drained from the controls.
Concentration: relative quantity of a substance in a There is a positive correlation between the plasma quantity of another substance concentration of $\beta$-lactam antibiotics and the response of bacterial infections.
Content: total quantity of a substance in a quantity The malignant liver lesions had higher fat content of another substance

Level: position on the vertical axis; position on a scale; sometimes used to mean amount, concentration, or content than the benign lesions. Retinol binding protein-4 circulating levels were higher in patients with nonalcoholic fatty liver disease.

AMOUNT, NUMBER
Amount: uncountable quantity
We recorded the amount of fluid drained in 24 h . Number: countable quantity We recorded the number of SNPs identified.

## EXAMPLE

ANESTHESIOLOGIST, ANESTHETIST,
ANAESTHETIST
Anesthesiologist: (US English) a physician specialized in anesthesiology
Anesthetist: (US English) a nurse, technician, or physician trained to administer anesthetics
Anaesthetist: (UK English) a physician specialized in anesthesiology

AS, LIKE
As: a conjunction, used before a clause with a subject and a verb
Like: a preposition, used before a noun
ASSURE, ENSURE, INSURE, REASSURE
Assure: to affirm something is right to reinforce belief
Ensure: to make sure

Insure: to contract insurance to cover possible losses
Reassure: to restore confidence

Like Smythe et al..$^{12}$, we also found...

They assured me that the reagent would arrive today.
Please ensure that the door to the laboratory is locked when you leave.
We need to insure this equipment against theft.

The negative results of the RT-PCR reassured the patient.

Anesthesiologists usually complete a four-year residency program after obtaining their MD or DO. The anesthetist asked the patient to count backward from one hundred.
The anaesthetist was responsible for perioperative care.

As Smythe et al. ${ }^{12}$ reported,...
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ATRIUM, ATRIAL, AURICLE, AURICULAR
The noun atrium (plural, atria) and the adjective atrial (adjective) usually refer to the upper chambers of the heart.
The noun auricle and the adjective auricular refer to the outer projecting part of the ear or to the earshaped appendage projecting from each atrium in the heart.

## BECAUSE, SINCE

Because: used to give the reason for something

Since: from a point of time in the past; also used to mean because, but this use can generate confusion

Atrial flutter is caused by a reentrant rhythm in either atrium.

The left auricle serves as a decompression chamber when left atrial pressure is high.

She needs to inject insulin because she has diabetes mellitus.
Since she was diagnosed with diabetes mellitus, she always carries sweets in her purse.
(In this case, since can be interpreted as both time-related and casual.)

BESIDE, BESIDES

Beside: next to

Besides: moreover, in addition to

The operating room is beside the emergency room.

Besides the residents, a staff physician is always present.

## DEFINITION

## EXAMPLE

## BOTH, THE TWO

Both: the two together Both groups improved after treatment. (In this case, the two would also be correct.)
The two: is used to differentiate between or to compare

No differences in age, sex, severity of disease, or comorbidities were found between the two groups. (In this case, both would be incorrect.)

## CAN, MAY

Can: to be able to; used for ability and general possibility
May: to be possible; used for possibility in a specific case

Breast cancer can affect men as well as women

In light of his symptoms and the results of the physical examination, this man may have breast cancer.

COMPETENCE, COMPETITION
Competence: having the necessary skill, knowledge, etc.
Competition: rivalry or contest for desired goal

We hired her because of her competence in statistical analysis.
The competition between the two research teams was fierce.

COMPRISE, COMPOSE, CONSIST OF, INCLUDE
Comprise: include (exhaustive), contain, consist of, The zygomycoses comprise a diverse group of or constitute; considered by many to be incorrect rare mycotic diseases.
in the passive voice

Compose: to make or form by combining things, parts, or elements; often used in the passive

Consist of: to be composed of

Include: nonexhaustive

These clusters are composed of paralogous genes, which are probably the products of local gene duplications.
Teratomas consist of cells from the three main tissue layers of an embryo.

Early warning signs of schizophrenia include social withdrawal; hostility or suspiciousness; oversleeping or insomnia; and inappropriate laughter or crying.

CONTINUAL, CONTINUOUS
Continual: occurring regularly or frequently

Continuous: nonstop
The patient's reflexes were continually monitored (a neurologist tested him every 3 hours). The pH in the perfusate was continuously monitored throughout the experiment.

## DISCREET, DISCRETE

Discreet: prudent Health is a private matter; medical professionals need to be discreet.

Genotypic data support the existence of six stable discrete typing units (DTU) in Trypanosoma cruzi.

## DEFINITION

## EXAMPLE

DOSE, DOSAGE
Dose: quantity of medicine taken at one time

Dosage: administration of medicine in doses; determining the quantity, frequency, and number of doses

DOUBLE, DUPLICATE
Double: twofold When asthma control deteriorates, clinicians may instruct patients to take a double dose of their inhaled corticosteroid medication for a short period.
Duplicate: an exact copy of
The maximum daily dose of acetaminophen is 4000 mg in adults.
He asked for information about the dosage of acetaminophen for children on CRRT. The region of mRNA that encodes the protein is a duplicate of the exon region of the DNA since the introns are removed from the mRNA.

DURING, FOR

During: preposition used before a noun; it does not tell us how long something took or lasted For: preposition used with a period to say how long something took or lasted

During my postdoctoral fellowship, I discovered an enzyme that...
I worked under Dr. Diamond for three years.

EAR TUBE, EAR CANAL, AUDITORY TUBE

Ear tube: tympanostomy tube

Ear canal: external auditory meatus
Auditory tube: Eustachian tube

An ear tube creates an airway that ventilates the middle ear and prevents the accumulation of fluids behind the eardrum.
Due to its relative exposure to the outside world, the ear canal is susceptible to diseases. The auditory tube links the nasopharynx to the middle ear.
e.g., i.e.
e.g.: abbreviation of the Latin term exempli gratia, which means "for example"
i.e.: abbreviation of the Latin term id est, which means "in other words"

Signs of overdose (e.g., slow heart beat, blue lips or fingertips, deep snoring or gurgling) require immediate action.
Hypoglycemia (i.e., fasting glucose $<4.0 \mathrm{mmol} / \mathrm{I}$ ) is a medical emergency.

Note: both abbreviations are mostly used within parentheses

EXCISE, RESECT

Excise: to remove (e.g., a tumor) by cutting

Resect: to remove part of an organ or structure

The tumor was excised, and the patient remained free of disease until death from unrelated causes 22 years later.
We resect the tissue that contains the cancer from the lungs.

## DEFINITION

EXAMPLE

## EXPERIENCE, EXPERIMENT

Experience: knowledge gained from what you have observed

Experiment: a test, trial, or tentative procedure aimed at discovering something unknown

Our experience shows that nosocomial infection rates can be improved through an educational program.
This experiment investigated whether immunostimulation with TLR-2 agonists under conditions of sterile inflammation affects the immune response and remote organ inflammation.

EXPOSITION, EXPOSURE, EXHIBITION

Exposition: expounding or explaining

Exposure: being exposed

Exhibition: displaying or showing

Her exposition of the role of reverse transcriptase in DNA sequencing was helpful.
Exposure to ionizing radiation during pregnancy can result in miscarriage or malformation. The authors of the best posters in the exhibition were invited to publish their work in the society's journal.

## EXTENSION, EXTENT

Extension: the act or state of extending
Extent: the degree to which something extends

The extension of disease through the bowel wall indicates a poor prognosis.
It is crucial to determine the extent of disease.

## FEWER, LESS

Fewer: less in number (used with countable nouns) Women reported fewer adverse effects than men. Less: less in amount (used with uncountable Less fluid formed in the pleural space of treated nouns) animals.

## FARTHER, FURTHER

Farther: to a greater distance

Further: additional
The experienced colonoscopist was able to reach much farther than the trainee. The trainee made further progress in the succeeding weeks.

## FROM, OF

These two prepositions have many, sometimes overlapping meanings. Read them in a good dictionary and pay attention to how they are used

Copying of an article = copying the entire article Copying from an article = copying parts of the article

GENDER, SEX
Gender: a social construct Masculine and feminine are gender categories.
Sex: a biological concept
Male and female are sex categories.

| DEFINITION | EXAMPLE |
| :--- | :--- |
| HEAR, LISTEN TO | I heard on the radio that a hospital in Barcelona <br> had made an exciting discovery. <br> Hear: perceive with the ears <br> I listen to the radio while I'm setting up my <br> experiments. |
| Listen to: direct the attention of the ears to |  |
| HUMAN, HUMANE | The Declaration of Helsinki outlines guidelines for <br> research on human subjects. |
| Human: related to people | The Office of Laboratory Animal Welfare <br> guarantees the humane treatment of animals used <br> for research. |
| and animals characterized by compassion for people |  |

## IF, WHETHER

If: introduces conditional (yes or no), cannot be used before infinitives or after prepositions Whether: (yes or no), can be used with infinitives and prepositions

Whether or not: in most cases, or not can be omitted. However, when we want to express the idea "both if or if not" we need to use whether or not.

We did not know if/whether the animals would survive.
We did not know whether the animals would die after the first dose or after the second dose (only two possibilities).
We did not know if the animals would die after the first or second dose (three possibilities - maybe the animals would not die).
We cannot decide whether to include the chief as an author.
I would like to talk about whether you should apply for the fellowship.
Call me if you can come to my talk in Salamanca. (Conditional.)
Call me whether or not you can come to my talk in Salamanca. (Both if and if not.)

INCIDENCE, PREVALENCE

Incidence: the number of new cases of a disease in a population in a specified period of time Prevalence: the total number of cases of a disease in a given population at a specific time

The incidence of AIDS in Spain is about 2.0 cases per 100,000 population per year.
The estimated prevalence of AIDS among adults in Spain is $0.4 \%$.

## DEFINITION

## EXAMPLE

INCREASE, AUGMENT, INCREMENT, ENHANCE, IMPROVE

Increase: to make or become greater

Augment: to make greater, especially by addition from the outside
Increment: to increase by discrete amount

Enhance: to increase a good quality

Improve: to make better

His systolic blood pressure increased from 100 mmHg to 120 mmHg .
We examined whether estrogen withdrawal augments parathyroid-induced IL-6 production. The dose was incremented by $1 \mathrm{mg} / \mathrm{kg}$ to reach a final dose of $12 \mathrm{mg} / \mathrm{kg}$ on the fourth day. All patients reported enhanced self-esteem after the sessions.
Cerebral blood flow improved after treatment.

## ILLEGIBLE, UNREADABLE

Illegible: impossible to read because of poor handwriting, faded print, etc.
Unreadable: impossible to read because of poor writing

The pharmacist had to phone the hospital because the prescription was illegible. Somebody has to supervise her reports: her last report was unreadable.

IMMUNIZE, INOCULATE, VACCINATE

Immunize: to render immune

Inoculate: to introduce serum, vaccine, or antigenic substance to increase immunity; to implant microorganisms or infectious material on a culture medium

Vaccinate: to inoculate with a vaccine (e.g., modified virus) as a preventive or sometimes curative measure

Young children are immunized to many diseases through natural contact with microbes. We inoculated 15 male Wistar rats with anthrax.

## INTERVAL, PERIOD

Interval: an intervening period of time
Period: an interval of time characterized by the
occurrence of a certain condition, event, or phenomenon

Animals' heart rate was measured at tenminute intervals for a period of 30 minutes after administration of verapamil.

## LOCATE, LOCALIZE

Locate: determine the location of Localize: confine

We located the foreign body in the ileum. We hypothesized we could decrease localized bleeding by using blended current at the end of the sphincterotomy.

## LOOK, SEE

Look at: direct the attention of the eyes to See: perceive with the eyes

We looked at the specimen under the microscope, but we couldn't see any abnormalities.

## DEFINITION <br> EXAMPLE

MADE FROM, MADE OF, MADE OUT OF
Made from: used when the material undergoes Wine is made from grapes.
an essential change so that it is no longer recognizable
Made of: used when the material is recognizable
Made out of: implies the transformation of an object

This heart valve is made of titanium.
Dr. McGyver made a tracheostomy tube out of a ballpoint pen.

MINIMAL, MINIMUM
MAXIMAL, MAXIMUM

Minimal, maximal: adjectives, although minimum and maximum are more common

Minimum and maximum: nouns and adjectives

Decide on the minimal (or minimum) number of samples you can use and the maximal (or maximum) number you are prepared to invest in. Our goal is to keep complications to a minimum.

MOLALITY, MOLARITY
Molality: number of moles of solute per kilogram of Solutions labeled with molal concentration are solvent denoted with a lower case m: a 1.0 m solution contains 1 mole of solute per kilogram of solvent.
Molarity: number of moles of solute per liter of solution Solutions labeled with the molar concentration are denoted with a capital M : a 1.0 M solution contains 1 mole of solute per liter of solution.

MUCOUS, MUCUS, MUCOSA

Mucous: adjective
Mucus: noun

The mucous membranes secrete mucus.
Mucus is a viscous mixture of mucins, water, electrolytes, epithelial cells, and leukocytes.
Grafts from the oral mucosa can be used to reconstruct the urethra.

MULTIVARIATE, MULTIVARIABLE
Multivariate: refers to a statistical analysis with multiple outcomes

Multivariable: refers to a statistical analysis with multiple predictors

Multivariate models are appropriate for data from longitudinal studies with an outcome measured for the same individual at multiple time points (repeated measures) or for nested/clustered data with multiple individuals in each cluster. A multivariable linear regression model has a continuous outcome and multiple continuous or categorical predictors.

They didn't notice the flaw in their experimental design.
When they realized their design was flawed, they understood why their results made no sense.

## DEFINITION

EXAMPLE
OPTIMAL, OPTIMUM
Optimal: adjective We sought to determine the optimal (or optimum) biologic dose of sirolimus prior to prostate surgery.
Optimum: noun and adjective They are not functioning at their optimum.

## ORTHOTOPIC, ORTHOTROPIC

Orthotopic: in the correct or normal position
In orthotopic heart transplantation, the patient's heart is always removed.
Orthotropic: showing growth in direct line with the Timely orthotropic procedures can often eliminate stimulus the need for orthodontic procedures.

OSCILLATE, RANGE, VARY

Oscillate: to swing back and forth at a regular speed
Range: to vary within certain limits

Vary: to change, to differ

Basal insulin level oscillates with a regular period of three to six minutes.
The normal range for red blood cells in women ranges from 4.2 to 5.4 million cells per microliter of blood.

Concentrations of enzymes involved in both phase I reactions vary significantly between individuals with normal hepatic function.

## PARAMETER, VARIABLE

Parameter: a potential variable to which a particular value can be assigned to determine the value of other variables

Parameters do not relate to actual measurements or attributes but to quantities defining a theoretical model.
Variable: values that vary from individual to individual

The dependent variable is often called the response variable.

## PATENT, PERMEABLE

Patent: unobstructed
After the angioplasty procedure, the stenosed artery was patent.
Permeable: with penetrable pores or interstices, etc.

The walls of capillaries are permeable to ions, water, nutrients, and even whole cells.

## PERCENT, PERCENTAGE, PERCENTILE

Percent: a fraction expressed as a number of hundredths
Percentage: a rate or proportion
Eighty-five percent of the patients were men.

A large percentage of patients developed complications.
Percentile: Any of the 100 equal parts into which the range of the values of a set of data can be His head circumference was in the 95th percentile for his age. divided to show their distribution

## DEFINITION

## EXAMPLE

PERIODIC, PERIODICAL
Periodic: recurring at intervals of time

Periodical: a journal issued at regularly recurring intervals

We investigated whether periodic intra-articular Ctp injections could delay disease progression in patients with osteoarthritis.
He spoke at the International Conference on Biomedical Periodicals.

PHOSPHORUS, PHOSPHOROUS
Phosphorus: noun Calcitonin helps control the levels of calcium and phosphorus in the blood.
Phosphorous: adjective
Phosphorous acid is an intermediate in the preparation of other phosphorus compounds.

PREDOMINATE, PREDOMINANT,
PREDOMINANTLY, PREDOMINATELY

Predominate: verb

Predominant: adjective

Predominantly or predominately: adverb

The 1b genotype, which predominates in Japan was the most widely distributed genotype and accounted for $58 \%$ of all isolates sequenced. The predominant vacA genotype was s1c/m1b (22/30, 73.3\%).
Lymphomas predominantly affect men in their second and third decades of life.

## PRINCIPLE, PRINCIPAL

Principle: a fundamental law from which others are derived

Principal: main

The principle that the simplest explanation for a phenomenon is the best one is called Occam's razor.
The principal contraindication for thorazine is depression.

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PROSTATE, PROSTRATE, PRONE, SUPINE,
RECUMBENT
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Prostate: gland surrounding neck of the bladder in male mammals
Prostrate: lying face down (strongly suggests submission)
Prone: lying face down

Supine: lying face up

Recumbent: reclining, lying

Enlargement of the prostate may interfere with urination.
The terrorist made everybody lie prostrate on the floor.

Stereotactic breast biopsy is usually done with the patient in the prone position.
To insert a central line in the internal jugular vein, place the patient in the supine position.
Patients who spend weeks or months in a recumbent position are likely to develop urinary tract problems.

## DEFINITION

## EXAMPLE

## REPRESENT, BE

Represent: to designate, stand for, denote

Be: to exist, to equal

In this box-and-whisker plot, the ends of the whiskers represent the minimum and maximum of all the data.
Methicilin is a narrow-spectrum beta-lactam antibiotic of the penicillin class.

REABSORPTION, RESORPTION
Reabsorption: reclaiming what is taken
Resorption: remodeling

REVIEW, REVISE
Review: to go over critically
Revise: to make changes to

In the intestine, PTH increases reabsorption of calcium and inhibits reabsorption of phosphate. PTH increases bone resorption of both calcium and phosphate.

We have revised our manuscript; we are grateful for this opportunity to have the referees review it again.

## SAFE (SAFETY), SECURE (SECURITY), SURE

Safe: not dangerous
Secure: preventing unwanted intrusion Sure: certain

## TEMPORAL, TEMPORARY, TRANSIENT,

 TRANSITORYTemporal: relating to or near the temples of the skull
Temporary: suggests an arrangement established with the idea of being changed soon
Transient: suggests something in the process of passing by
Transitory: suggests an innate characteristic by which a thing, by its very nature, lasts only a short time

The drug is safe.
The database is secure.
We are sure that the results are valid.

## THAT, WHICH

That: relative pronoun used only in defining clauses; cannot be used after a preposition Which: relative pronoun used in both defining and non-defining clauses

Temporal arteritis is inflammation and damage to blood vessels that supply the head.
After the disaster, the school was set up as a temporary hospital.
A transient ischemic attack usually lasts about 24 hours.
Transitory oxygen-glucose deprivation induced both apoptosis and necrosis in cerebellar granule cells.

The fellowship that was advertised in Molecular Genetics has been filled.
The experiment, which has never been repeated, yielded some interesting results.

EXAMPLE
VARIABILITY, VARIATION, VARIANCE
Variability: condition of being variable
Homologous recombination is a significant source of variability.
Variation: the act, process, or result of varying
We used custom-designed virulence arrays to try to understand the high genotypic variation in streptococci.
Variance: a statistical term referring to the spread of data from the mean

We compared normalization methods for high density oligonucleotide array data based on variance and bias.
Note: Variability and variation are often used interchangeably.

VARIOUS, VARYING

Various: different
Varying: changing

Various studies have found a strong association between the two variables. The widely varying results reflect methodological differences.

VISCID, VISCOUS, VISCUS
Viscid: adhering, glutinous

Viscous: sticky, with high viscosity

Viscus: an internal organ enclosed within a cavity

The slime layer forms when the amorphous viscid secretion from the bacteria diffuses into the surrounding media.
Viscous body fluid samples may result in sampling errors and samples with insufficient volume. The liver is the largest abdominal viscus.

Whereas: although

While: usually implies simultaneity, but can also be used to mean although (this figurative can lead to confusion in some cases)

Whereas Morton's neuroma is much more common in women, neurofibromas are equally distributed between the sexes.

The orderly restrained the patient while the resident injected the sedative. Blood pressure was recorded by the nurse while heart rate was automatically recorded. (In this case, whereas would be preferable unless the actions took place simultaneously.)

## Appendix III

## False friends

Words that look very similar across different languages but differ in meaning are called false cognates or false friends.

A few words are total false friends; in other words, none of their meanings coincide. More commonly, similar-appearing words may coincide across languages in some meanings and differ in others.

| ENGLISH | Spanish meaning | SPANISH | English meaning |
| :---: | :---: | :---: | :---: |
| ABILITY | capacidad | HABILIDAD | skill |
| ABORTION | aborto | ABORTO | abortion (voluntary), miscarriage (involuntary) |
| ACTUAL, ACTUALLY | en realidad | ACTUALMENTE | currently, nowadays |
| ADEPT | experto | ADEPTO | adherent, fanatic |
| ADEQUATE | suficiente | ADECUADO | appropriate |
| ADVERTISE, ADVERTISEMENT | anunciar, anuncio (publicidad) | ADVERTIR, ADVERTENCIA | warn, warning |
| ADVICE, ADVISE | consejo, aconsejar | AVISO, AVISAR | notification, notify |
| ALTERATION | alteración | ALTERACIÓN | alteration, but more usually abnormality or dysfunction |
| ANTHRAX (disease caused by Bacillus anthracis) | carbunco | ÁNTRAX (forunculosis) | carbuncle |
| APPLY FOR | solicitar | APLICAR | apply |
| ARGUMENT | discusión, argumento | ARGUMENTO | argument, plot |
| ASPECT | aspecto en el sentido de elemento, faceta o matiz de algo | ASPECTO | appearance |
| ASSIST | ayudar | ASISTIR | attend |
| BILLION | mil millones | BILLÓN | trillion |


| ENGLISH | Spanish meaning | SPANISH | English meaning |
| :---: | :---: | :---: | :---: |
| BLAND | soso | BLANDO | soft |
| CANAL | Canal para estructuras abiertas, pero conducto para estructuras cerradas | CANAL | canal |
| CEREBRUM | cerebro (la parte superior y frontal del encéfalo, consistiendo principalmente de los hemisferios) | CEREBRO | brain |
| CAREER | carrera profesional | CARRERA | university studies |
| CARPET | alfombra | CARPETA | folder |
| CASUAL | informal | CASUAL | casual, chance, accidental, random |
| CASUALTY | herido, muerto en guerra o accidente | CASUALIDAD | chance, coincidence |
| CATHETER | catéter, sonda, drenaje | CATÉTER | catheter, line |
| COLLEGE | universidad, facultad | COLEGIO | school, professional association |
| CONTROL (birth control, self-control, symptom control) | anticoncepción, autodominio, supresión de síntomas | CONTROL | check-up, follow-up, surveillance |
| COMPLEXION | tez, cutis | COMPLEXIÓN | build |
| CONDITION (verb) | acondicionar | CONDICIONAR | affect, modulate |
| CONSISTENT, CONSISTENCY | coherente, constante | CONSISTENTE, CONSISTENCIA | solid, firm |
| CONSTIPATED | estreñido | CONSTIPADO | has a cold |
| CONVENIENT | oportuno, cómodo | CONVENIENTE | suitable, advisable |
| CURRENTLY | actualmente, hoy en día | CORRIENTEMENTE | ordinarily |
| DECEPTION | engaño | DECEPCIÓN | disappointment |
| DEMAND | exigencia | DEMANDA | lawsuit |
| DIAGNOSTIC | diagnóstico (adjetivo) | DIAGNÓSTICO (noun) | diagnosis |
| DETERMINE | determinar | DETERMINAR | cause, lead to, result in |
| DISCARD | desechar | DESCARTAR | rule out |
| DISCUSS | tratar, desarrollar un tema | DISCUTIR | argue, fight |
| DISGUST | asco | DISGUSTO | annoyance, misfortune |


| ENGLISH | Spanish meaning | SPANISH | English meaning |
| :--- | :--- | :--- | :--- |
| DISORDER | trastorno, enfermedad | DESORDEN | disorder, but not in the <br> sense of malfunction or <br> disease |
| DISTINCT | bien definido | DISTINTOS | different |
| DIVERSE | diverso, en el sentido de <br> heterogéneo | DIVERSOS | various |
| DIVERSION | desviación | DIVERSIÓN | fun |
| EDUCATED | culto | EDUCADO | polite, courteous |
| EFFECTIVELY | práctica | avergonzado | EFECTIVAMENTE |


| ENGLISH | Spanish meaning | SPANISH | English meaning |
| :---: | :---: | :---: | :---: |
| INFANT | bebé (1-12 meses de edad) | INFANTE, INFANTA | prince, princess |
| INJURY | lesión, herida | INJURIA | offense, insult |
| INHABITANT | habitante | HABITANTE | inhabitant |
| INTRODUCE | presentar | INTRODUCIR | insert, add, put inside |
| LECTURE | conferencia, clase | LECTURA | reading |
| LENS | lente pero, en el ojo, cristalino | LENTE | lens |
| LIBERATE | liberar en el sentido de hacer que alguien quede libre | LIBERAR | release, secrete |
| LIBRARY | biblioteca y otras -tecas (software library, gene library, etc.) | LIBRERÍA | bookstore |
| MAJOR | más importante | MAYOR | greater, larger |
| MANIPULATE | manipular, en el sentido de intervenir con medios arteros | MANIPULAR | handle |
| MAYOR | alcalde | MAYOR | greater, larger |
| MEDIC | soldado paramédico | MÉDICO | medical, physician |
| MEDULLA | médula oblonga (bulbo raquídeo), médula del riñón, de la glándula suprarrenal | MÉDULA | marrow |
| NOTICE | anuncio, notar, observar | NOTICIA | news |
| ORIGINATE | comenzar | ORIGINAR | cause, lead to |
| OSCILLATE | oscilar, en el sentido de crecer y disminuir alternativamente, moverse como un péndulo | OSCILAR | range, oscillate, fluctuate |
| OSTEOARTHRITIS | artrosis | OSTEOARTRITIS | arthritis with <br> inflammation of the ends of bones that come together at the joint |
| PARENTS | padres, progenitores | PARIENTES | relatives |
| PERMEABLE | penetrable | PERMEABLE | patent, permeable |


| ENGLISH | Spanish meaning | SPANISH | English meaning |
| :---: | :---: | :---: | :---: |
| PHYSICIAN | médico | FÍSICO | physicist |
| PRESERVATIVE | conservante | PRESERVATIVO | condom |
| PRESUME | suponer | PRESUMIR | to be conceited |
| PRETEND | fingir, aparentar | PRETENDER | to try to, to claim |
| PROVE | demostrar | PROBAR | try, try out |
| PUNCTUAL | puntual, sólo en el sentido de que llega a la hora prevista | PUNTUAL | one-time only, single, exact mutación puntual = point mutation |
| QUIET | callado | QUIETO | still |
| QUIT | abandonar | QUITAR | remove |
| REALIZE | darse cuenta | REALIZAR | carry out |
| REMOVE | quitar | REMOVER | stir |
| REST | descansar | RESTAR | subtract |
| RESUME | reanudar | RESUMIR | summarize |
| SCIENTIFIC | científico (adjetivo) | CIENTÍFICO (noun) | scientist |
| SENSIBLE, SENSIBILITY | sensato, sensatez | SENSIBLE, SENSIBILIDAD | sensitive, sensitivity |
| SUBSTITUTE A FOR B | sustituir B por A | SUSTITUIR A POR B | substitute B for A |
| SUCCESS | éxito | SUCESO | event, incident |
| SUPPOSE | suponer | SUPONER (un reto, un éxito) | be, represent, constitute |
| SYMPATHETIC, SYMPATHY | comprensivo, comprensión (pero simpática cuando se refiere al sistema nervioso) | SIMPÁTICO, SIMPATİA | nice, kindness, sympathy |
| TARGET | diana, objetivo | TARJETA | card |
| TERRIFIC | fantástico | TERRORÍFICO | terrifying |
| TEST | test, pero varía mucho. <br> Apgar test = Índice de... <br> blood test = análisis <br> diagnóstic test = prueba <br> Pap test = citología <br> urine test = análisis | TEST | test |
| TOPIC | tema | TÓPICO | cliché |


| ENGLISH | Spanish meaning | SPANISH | English meaning |
| :--- | :--- | :--- | :--- |
| TRACT | tracto, pero varía mucho <br> digestive tract = tubo <br> genital tract = aparato <br> olfactory tract = cintilla |  | tract |
|  | traducir | TRASLADAR | move |
| TRANSLATE | transpirar, ocurrir, <br> resultar que | TRANSPIRAR | transpire in the sense of |
| TRANSPIRE | en última instancia, a la <br> larga | ÚLTIMAMENTE | perspire |

## Appendix IV

## Guidelines for forming plurals in words from classical languages

- Most words ending in -a change to ae. Here are a few examples: alga/algae, ampulla/ampullae, fenestra/fenestrae, lamina/laminae, sequela/sequelae, vertebra/vertebrae, etc. Importantly, this includes many families and genera in taxonomic classification and plurals used to refer to their members collectively: Candida/Candidae, Drosophila/Drosophilae, etc.

Be careful with words that end in -ma: they change to -mas or -mata. Here are a few examples: adenoma/adenomas*, carcinoma/carcinomas*, chiasma/chiasmata, stigma/stigmas or stigmata**, stoma/stomata, etc.
*It is possible but very uncommon to make the plurals of tumor names by adding -ata instead of $-s$.
** We usually use stigmata in biology and medicine, and we use stigmas in everyday language to refer to being marked by social disgrace.

- Most words ending in -us change to -i. Here are a few examples: alveolus/alveoli, bronchus/bronchi, coccus/cocci, embolus/emboli, fungus/fungi, etc.

However, not all words ending in -us change to -i . Some words remain the same in the plural (e.g., ductus/ductus, meatus/meatus, nexus/nexus, plexus/plexus, etc.) and some changed to -era or -ora (corpus/corpora, genus/genera, glomus/glomera, opus/opera, viscus/viscera).

- Many words ending in -is change to -es. Here are a few examples: anastomosis/anastomoses, axis/ axes, crisis/crises, diaphysis/diaphyses, metastasis/metastases, etc.

However, some words ending in -is change to -des (e.g., arthritis/arthritides, dermatitis/dermatitides, glottis/glottides, iris/irides, neuritis/neuritides, etc.).

- Words ending in -um change to -a. Here are a few examples: acetabulum/acetabula, atrium/atria, diverticulum/diverticula, hilum/hila, infundibulum/infundibula, septum/septa, etc.
- Most words ending in $-x$ change to -ces. Here are a few examples: appendix/appendices, apex/apices, calyx/calyces, cervix/cervices, fornix/fornices, matrix/matrices, thorax/thoraces, varix/varices, etc.

However, in words ending in -cyx or $-n x$, the plural is formed with -ges (e.g., coccyx/coccyges, larynx/larynges, menix/meninges, nasopharynx/nasopharynges, salpinx/salpinges, etc.).

- Many words ending in -ion change to -a. Here are a few examples: criterion/criteria, ganglion/ganglia, mitochondrion/mitochondria, phenomenon/phenomena, polyhedron/polyhedra, etc.


## Appendix V

## Some common dependent prepositions

## Verb + preposition

Add to, adhere to, agree with somebody on something, aim for, allow for, apply for, approve of, arise from, ask for, attend to, believe in, belong to, beware of, blame somebody for, call for, care for, choose between, comment on, compare to/with, complain of, comply with, conceal from, concentrate on, conform to, congratulate somebody on, consent to, consist of, contribute to, count on, cure of, deal with, decide on, depend on, die of, disagree on/with, discriminate against, distinguish between/from, excel in, exchange something for, hide from, insist on, interfere with, listen to, mistake something for, object to, participate in, pay for, persist in, prepare for, prevent something/someone from, prohibit from, protect from/against, provide somebody with, react to, recover from, rescue from, refer to, rely on, respond to, search for, specialize in, stop from, substitute for, succeed in, suffer from, take advantage of, wait for, warn someone about.

## Adjective + preposition

Abreast of, absent from, according to, accustomed to, acquainted with, addicted to, adjacent to, afraid of, associated with, anxious about, ashamed of, attached to, aware of, based on, capable of, characteristic of, close to, coated with, committed to, compatible with, composed of, concerned about, connected to, conscious of, consistent with, contrary to, convinced of, coordinated with, covered with, dedicated to, different from, dissatisfied with, distinct from, eligible for, engaged in, equipped with, equivalent to, exempt from, exposed to, familiar with, filled with, full of, incapable of, interested in, involved in, limited to, made of/from/up of, married to, opposed to, preferable to, prepared for, prone to, related to, relevant to, responsible for something/somebody, responsible to somebody, safe from, sensitive to, similar to, suitable for susceptible to, typical of, unaware of.

## Noun-preposition collocations

In addition to, (take) advantage of, in agreement with, all in all, attack on, attitude toward, on average, on behalf of, certainty about, in charge of, under (no) circumstances, chance of, comparison between, in comparison with, on condition, connection between, decrease in, delay in, difference between/of, difficulty in/with, disadvantage of, in doubt, doubt about, drop in, evidence for/against/of, experience in, under guarantee, impact on, increase in, information about, (have no) intention of, knowledge of, (keep) in mind, need for, (take no) notice of, under (no) obligation, in order, (take) pleasure in, point in, in power, in practice, preference for, prophylaxis for/against, proposal for, protection from, reaction to, reason for, reduction in, report on, result of, rise in, at risk, risk of, room for, solution to, substitute for, at stake, on strike, under surveillance, surveillance of, on suspicion of, under suspicion, in theory, in trouble, trouble with, uncertainty about, use of, on the whole.

## Appendix VI

## Unnecessarily complex words

| HIGH COMPLEXITY WORDS | SIMPLER WORDS |
| :--- | :--- |
| ambulate | walk |
| capability | ability |
| cognizant | aware |
| commence | begin or start |
| customarily | usually |
| demonstrate | prove or show |
| determinant | cause |
| dilatation | dilation |
| elucidate | explain |
| expeditious | fast |
| facilitate | help, cause |
| familiarization | familiarity |
| finalize | end |
| firstly, secondly | first, second |
| following | after |
| heretofore | use |
| hitherto | see |
| inception | previous |
| methodology | until now |
| mitigate | start |
| oftentimes | method |
| preventative | lessen, relieve |
| prioritize | assese |
| prior to | beficize |

## Appendix VII

 Nominalization

| NOMINALIZED CONSTRUCTION | VERB |
| :--- | :--- |
| perform the measurement of | measure |
| perform the monitorization of | monitor |
| place a major emphasis on | stress, emphasize |
| provides a methodological emphasis | emphasizes methodology |
| provides appropriate information for | informs |
| provides guidance for | guides |
| reach the conclusion that | conclude that |
| show a peak | peak |
| take an assessment of | assess |
| take into consideration | consider |
| undertake the surveillance | monitor |

## Appendix VIII

## Empty expressions that can be eliminated

- all things considered
- as already stated
- as has already been stated
- as we stated above
- the fact is
- in this day and age (or replace with now or today)
- in a very real sense (or replace with in a sense)
- it has been found that
- it is a fact that
- it is evident that
- it has long been known that
- it is interesting to note
- it is not impossible that
- it is possible that the cause is
- it is worth noting that
- it seems that there can be little doubt that
- it should be obvious that
- it is well known that
- month of
- needless to say
- obviously
- quite
- to all intents and purposes


## Appendix IX Redundant expressions

| REDUNDANT EXPRESSION | CAN BE REDUCED TO |
| :--- | :--- |
| absolutely essential | essential |
| actual facts | facts |
| already existing | existing |
| alternative choices | choices |
| at the present time | at present |
| basic fundamentals | fundamentals |
| benign skin tag | skin tag |
| bright intensity | bright or brightness |
| complete stop | stop |
| completely eliminate | eliminate |
| completely empty | empty |
| completely full | full |
| consensus of opinion | consensus |
| currently underway | underway |
| definitively proved | proved |
| descend down | join |
| empty space | expert |
| end result | descend |
| entirely eliminate together | space |
| exactly identical | result |
| fewer in number | eliminate |
| future plans | identical |
| green in color | fewer |
| had done previously |  |
| important essentials |  |
| introduced a new |  |


| REDUNDANT EXPRESSION | CAN BE REDUCED TO |
| :---: | :---: |
| large in size | large |
| malignant carcinoma | carcinoma |
| mandatory requirement | requirement |
| mix together | mix |
| mutual cooperation | cooperation |
| necessary prerequisite | prerequisite |
| never before | never |
| never before in the history of | never |
| new initiative | initiative |
| none at all | none |
| obviate the need for | obviate |
| optional choice | choice |
| period of time | period |
| pooled together | pooled |
| positive benefits | benefits |
| private industry | industry |
| refer back | refer |
| round in shape | round |
| rough texture | rough |
| separate entities | entities |
| serious crisis | crisis |
| still persists | persists |
| smaller in size | smaller |
| subject matter | subject or matter |
| successful solution | solution |
| sweet in taste | sweet |
| symmetrical in form | symmetric |
| time period | time or period |
| titanium metallic prosthesis | titanium prosthesis |
| very necessary | necessary |
| very unique | unique |
| 8 p.m. Monday evening | 8 p.m. Monday |

## Appendix X

 Wordy expressions| WORDY EXPRESSIONS | SHORTER SUBSTITUTE |
| :---: | :---: |
| a considerable amount of | much |
| a considerable number of | many |
| a great number of times | often |
| a large number of | many |
| a majority of | most |
| a number of | some |
| a small number of | few |
| a sufficient amount of | enough |
| accounted for by the fact that | because |
| adversely impact on | hurt, hinder |
| afford an opportunity | let, allow |
| after the conclusion of | after |
| along the lines of | like |
| an example of this is the fact that | for example |
| an overwhelming amount | most |
| are of the same opinion | agree |
| as a consequence of | because, due to |
| as a means of | to |
| as of this date | today |
| as it stands right now | as it stands |
| as long as | if, unless |
| as to whether | whether |
| at a rapid rate | rapidly |
| at an early date | soon |
| at an earlier date | previously |
| at some future time | later |
| at the conclusion of | after |


| WORDY EXPRESSIONS | SHORTER SUBSTITUTE |
| :---: | :---: |
| at the present time | now |
| at this point in time | now |
| at this time | now |
| based on the fact that | because |
| because of the fact that | because |
| brought about an increase in | increased |
| by a factor of two | twice, double, twofold |
| by means of | by, with |
| causal factor | cause |
| considerable amount of | much |
| despite the fact that | although |
| due to the fact that | because |
| during the course of | during, while |
| during the period of | while |
| during the time that | while |
| equally as well | as well, equally well |
| fatal outcome | death |
| first of all | first |
| for a period of | for |
| for the purpose of | for, to |
| for the reason that | because |
| from the point of view of | for |
| give an account of | describe |
| give rise to | cause |
| has been engaged in a study of | has studied |
| has proved to be | is |
| has the capability of | can |
| has the functionability of | can function |
| have the appearance of | look like, resemble |
| having regard to | about |
| if and when | if, when |
| if you want so save on time | to save time |
| in all cases | always |


| WORDY EXPRESSIONS | SHORTER SUBSTITUTE |
| :---: | :---: |
| in an effort to | to |
| in a number of cases | some |
| in a position to | can |
| in a satisfactory manner | satisfactorily |
| in a timely manner | promptly |
| in almost all instances | nearly always |
| in close proximity to | close to, near |
| in excess of | more than |
| in a large measure | largely |
| in lieu of | instead |
| in light of the fact that | because |
| in many cases | often |
| in most cases | usually |
| in order to | to |
| in order that | for, so |
| in respect to | about |
| in spite of the fact that | although |
| in the absence of | without |
| in the event that | if |
| in the eventuality that | if |
| in the field of | in |
| in the first place | first |
| in the near future | soon |
| in the vast majority of cases | usually |
| in view of the fact that | because |
| inasmuch as | because |
| including but not limited to | including |
| it is essential for you to | you must |
| it is interesting to note that | note that |
| it is often the case that | often |
| it may be that | we think |
| laboratory environment | laboratory |
| larger in comparison to | larger than |


| WORDY EXPRESSIONS | SHORTER SUBSTITUTE |
| :---: | :---: |
| led to an increase in | increased |
| majority of | most |
| manner in which | the way that, how |
| not later than | by |
| notwithstanding the fact that | although |
| of insufficient magnitude | too small |
| of the opinion that | think that |
| on a daily basis | daily |
| on account of | because |
| on behalf of | for |
| on no occasion | never |
| on the grounds that | because |
| on the part of | by |
| owing to the fact that | because |
| presents a similar picture to | resembles |
| provided that | if |
| quite a large quantity of | much |
| quite unique | unique |
| rather large | large |
| reported in the literature | reported |
| resultant effect | result |
| resulted in a decrease in | decreased |
| serves the function of being | is |
| subsequent to | after |
| successfully complete | complete, pass |
| the great majority of | most |
| the predominant number of | most |
| the question as to whether | whether |
| the vast majority of | most |
| this result would seem to indicate | this result indicates |
| through the use of | by, with |
| to the extent that | if |
| to the fullest possible extent | fully |


| WORDY EXPRESSIONS | SHORTER SUBSTITUTE |
| :--- | :--- |
| until such time as | until |
| was of the opinion that | believed |
| we have insufficient knowledge | we do not know |
| what is the explanation of | why |
| whether or not | whether |
| with a view to | to |
| with reference to | about |
| with regard to | about |
| with respect to | about |
| with the result that | so that |
| writing activity | writing |

## Appendix XI

## Transition markers

To add information: again, also, besides, equally important, finally, first, further, furthermore, in addition, last, moreover, next, second, still, too.

To concede a point: granted, naturally, of course.

To compare: also, in the same way, likewise, similarly.

To show contrast: at the same time, by contrast, despite that, even so, however, in contrast, instead, nevertheless, on the contrary, on the other hand, otherwise, regardless, still.

To emphasize: indeed, in fact, of course.

To introduce examples: after all, as an illustration, even, for example, for instance, in conclusion, indeed, in fact, in other words, in short, of course, namely, specifically, that is, to illustrate, thus.

To summarize: all in all, altogether, finally, in brief, in conclusion, in other words, in particular, in short, in simpler terms, in summary, on the whole, that is, therefore, to summarize.

To show sequence: after X minutes/hours/days/months/years, afterward, again, also, at last, at length, at that time, besides, eventually, finally, formerly, further, furthermore, in addition, first, in the past, last, lately, meanwhile, moreover, next, second, shortly, simultaneously, since, so far, soon, still, subsequently, then, thereafter, until now.

## Appendix XII

## UK vs. US English

The most important differences between the English of the United Kingdom and the English of the United States are in pronunciation and vocabulary, especially colloquial vocabulary. Neither of these differences is important for scientific writing. Here there is a list of the few differences between the two varieties that can affect scientific writing.

## Spelling

Differences between American and British spelling tend to be systematic and relatively easy to learn. Be sure to select the correct variety of English in your word processor's toolbox and to add new words to a personal dictionary for each variety. Although most journals accept manuscripts written in either variety, nearly all caution against mixing British and American spellings in the same document. The following table lists the most common differences and a few examples for each.

| UNITED KINGDOM | UNITED STATES |
| :--- | :--- |
| RE | ER |
| calibre | caliber |
| centre | center |
| fibre | fiber |
| goitre | goiter |
| litre | liter |
| metre | meter |
| theatre | theater |
| titre | titer |
| OU | O |
| behaviour | behavior |
| colour | color |
| favourite | favorite |
| humour | humor |
| tumour | tumor |
| AE | E |
| aetiology | etiology |
| anaemic | anemic |
| anaesthetic | anesthetic |
| caecum | cecum |
| haemolysis | hemolysis |
| paediatrics | pediatrics |


| UNITED KINGDOM | UNITED STATES |
| :--- | :--- |
| OE | E |
| diarrhoea | diarrhea |
| dyspnoea | dyspnea |
| foetus | fetus |
| manoeuvre | maneuver |
| oedema | edema |
| oesophageal | esophageal |
| oestradiol | estradiol |
| S | $Z$ |

But note that $Z$ is becoming more common in
British English

| analyse | analyze |
| :--- | :--- |
| catheterisation | catheterization |
| criticise | criticize |
| ionising | ionizing |
| organisation | organization |
| randomised | randomized |
| specialise | specialize |
| tranquilliser | tranquilizer |
| visualise | visualize |
| LL | L |
| bevelled | beveled |
| callipers | calipers |
| cancellation | cancelation |
| labelling | labeling |
| panellists | panelists |
| traveller | traveler |
| tunnelled | tunneled |
| L | LL |
| enrolment | enrollment |
| fulfil | fulfill |
| instalments | installments |
| skilful | skillful |
| PH | F |
| The Royal Society of Chemistry recommends |  |
| the Fspelling. | sulfur |
| sulphur | sulfuric |
| sulphuric | sulfanamides |
| sulphatase |  |


| UNITED KINGDOM | UNITED STATES |
| :--- | :--- |
| C | K |
| sceptical | skeptical |
| leucocyte | leukocyte |
| leucopenia | leukopenia |
| leucorrhoea | leukorrhea |
| But note leukaemia | leukemia |
| C and S | C or S |
| defence | defense |
| licence (noun), license (verb) | license (noun and verb) |
| offence | offense |
| practice (noun), practise (verb) | practice (noun and verb) |
| pretence | pretense |
| $X$ | CT |
| connexion | connection |
| inflexion | inflection |
| Connection and inflection are also common | But note flexion |

## MISCELLANEOUS

| acknowledgements | acknowledgments <br> analogue |
| :--- | :--- |
| analog (analogue is also common) |  |
| artefacts | artifacts |
| cheque (money) | check (all uses) |
| grey | gray |
| judgement | judgment |
| per cent (two words) | percent (one word) |
| programme (for congresses, concerts, etc. But | program (all types) |
| computer program) |  |
| speciality | specialty |

COMPOUND MEDICAL WORDS
Tend to be hyphenated, though there is a strong
Tend to be written without hyphens
current trend to write these words without
hyphens

| pancreato-duodeno-cystomy | pancreatoduodenocystomy |
| :--- | :--- |
| sterno-cleido-mastoid | sternocleidomastoid |
| ventriculo-peritoneal | ventriculoperitoneal |

## Grammar

There are also a few differences in grammar between UK and US English. The use of the definitive article in some common expressions differs:

| UNITED KINGDOM | UNITED STATES |
| :--- | :--- |
| In future | In the future |
| In/to hospital | In/to the hospital |
| In the light of | In light of |
| In the press | In press |
| At university | In/at the university |

There are also a few differences in the use of prepositions:

| UNITED KINGDOM | UNITED STATES |
| :--- | :--- |
| At weekends | On weekends |
| At school | In school |
| Different to (from is also common) | Different from |
| The hospital is in the High Street | The hospital is on Main Street |
| Monday to Friday | Monday through Friday |
| On heat (in estrus) | In heat |
| Up to chapter 3 | Through chapter 3 |

## Collective nouns

In the English of the United Kingdom, collective nouns can take either the singular or plural verb forms, depending on whether the emphasis is on the collective as a whole or on the individual members respectively. Some collective nouns, such as the Government or staff, nearly always take the plural form of the verb. By contrast, in the English of the United States, collective nouns nearly always take a singular verb. When a speaker wants to emphasize that the individuals are acting separately, a plural verb is possible, but it is much more common to change the construction to avoid this usage (Instead of "The audience are taking their seats" "The members of the audience are taking their seats").

United Kingdom: The team are operating on a fifty-five-year-old woman with breast cancer.
United States: The team is operating on a fifty-five-year-old woman with breast cancer.
Collective nouns with plural forms take a plural verb in both the United Kingdom and the United States. The Rolling Stones are doing a concert to raise money for Doctors without Borders.

There are also minor differences in the use of some verbs; for example, past participles sometimes change, some verbs are transitive in one and intransitive in the other, and phrasal verbs are sometimes used differently. These differences are unlikely to present problems in scientific writing.

## Punctuation

A few differences in punctuation practices are worth mentioning.

| UNITED KINGDOM | UNITED STATES |
| :--- | :--- |
| The punctuation mark to end a sentence is called | The punctuation mark to end a sentence is called |
| a full stop. | a period. |
| The abbreviations Mr, Mrs, Ms, and Dr are not | The abbreviations Mr., Mrs., Ms., and Dr. are |
| followed by full stops. | followed by periods. |
| (between brackets) | (between parentheses) |
| [between square brackets] | [between brackets] |

## Appendix XIII

## Useful websites

## SCITABLE

## http://www.nature.com/scitable

The Nature Publishing Group's free science library and personal learning tool, concentrating mainly on genetics and cell biology, but also containing a section devoted to scientific communication.
http://www.nature.com/scitable/topic/scientific-communication-14121566
Organized as a course consisting of six self-contained units, this website contains dozens of resources to help you master scientific communication. Unit 1: Basic communication strategies for various audiences. Unit 2: Designing and drafting scientific papers. Unit 3: Designing and drafting e-mails, résumés, and short reports. Unit 4: Structuring, supporting, and delivering oral presentations. Unit 5: Creating and presenting posters, chairing sessions, and participating in panels. Unit 6: Preparing, running, and evaluating classroom sessions. You can browse the list of selected entries for help on particular topics.

## PURDUE OWL

## http://owl.english.purdue.edu/owl

This online writing lab provides clear guidelines and examples, as well as lots of exercises. It includes special sections for speakers of English as a foreign language.

## UNIVERSITY OF RICHMOND'S WRITER'S WEB

## http://writing2.richmond.edu/writing/wweb.html

This free, public-access handbook provides clear advice about many topics in the writing process. It includes a general guide for writing most basic biology laboratory reports.

## DUKE GRADUATE SCHOOL SCIENTIFIC WRITING RESOURCE

## https://cgi.duke.edu/web/sciwriting/index.php

Three great lessons explain key principles and provide illustrative examples. Each is followed by a worksheet to help you put theory into practice.

## CLINICAL CHEMISTRY GUIDE TO SCIENTIFIC WRITING

## http://www.aacc.org/publications/clin_chem/ccgsw/Pages/default.aspx

A series of educational articles on how to design and write scientific research papers. Easy to read, full of useful information and illustrative examples. Spanish translation available.

## ENGLISH FOR MEDICAL STUDENTS

http://www.english-Iss.com/English\ for\ Medical\ Students/Introduction.htm
Based on a systems approach to the human body, this site contains a wealth of material covering anatomy, chemistry, microbiology, pharmacology, and physiology. Each unit contains readings to expand students' technical and nontechnical vocabulary, a variety of exercises for practicing different elements of grammar and vocabulary, listenings, and other activities like crossword puzzles, doctor-patient dialogues, and quizzes.

## MEDLINEPLUS

## http://www.nlm.nih.gov/medlineplus/

MedlinePlus is the National Institutes of Health's website for patients, who can learn about the latest treatments, look up information on a drug or supplement, find out the meanings of words, or view medical videos or illustrations. It also provides links to the latest medical research on your topic and information about clinical trials on a disease or condition.

You can switch back and forth between the English and Spanish versions.

## Appendix XIV

## Selected books and articles

- Cómo escribir un artículo científico en inglés. Guy Norman. Published by Editorial Hélice, 1999. 141 pp. Helpful advice for Spanish speakers about all aspects of publishing science in English, especially about organizing ideas and structuring papers.
- The Elements of Style. W. Strunk Jr. and E.B. White. 3rd edition published by Allyn and Bacon, 1979. 92 pp. ISBN 0-205-19158-4. A standard for many decades. It remains up-to-date and has the merit of brevity. An on-line version of this book is available at http://www.bartleby.com/141/
- Essentials of Writing Biomedical Research Papers. Mimi Zeiger. 2nd edition published by Mc-Graw-Hill, 2000. 440 pp. ISBN 0071345442 . Excellent explanation and useful exercises. Written for advanced, native English-speaking students.
- The Craft of Scientific Writing. M. Alley. 3rd edition published by Springer, 1996. 282 pp. ISBN 0-387-94766-3. Great explanations of the less tangible elements of expository style and examples from a wide variety of authors and disciplines.
- The Craft of Scientific Presentations: Critical Steps to Succeed and Critical Errors to Avoid. M. Alley. Published by Springer, 2003. 241 pp. ISBN 0-387-95555-0. Provides scores of examples of scientific presentations to show what makes an effective presentation.
- Writing, Speaking, \& Communication Skills for Health Professionals. The Health Care Communication Group. Published by Yale University Press, 2001. 338 pp. ISBN 0-300-08861-2. Offers practical advice on a broad range of essential medical communication skills.
- Preparing and Delivering Scientific Presentations: A Complete Guide for International Medical Scientists. J. Giba and R. Ribes. Published by Springer, 2011. 153 pp. ISBN 10-3-642-15888-9. Aimed especially at non-native English-speaking physicians and biomedical scientists, this book gives clear advice on scientific presentations, includes dealing with questions, chairing sessions, and avoiding common pitfalls in English usage and pronunciation.
- Inglés Médico y Sanitario. R. Ribes and J. Giba. Published by Editorial LID, 2010. 352 pp. ISBN 978-848-35611-71. Clear and thorough explanation with illustrative examples of points Spanish speakers must understand if they want to master biomedical English.
- Scientific English: A Guide for Scientists and Other Professionals. R.A. Day. 2nd edition published by Oryx, 1995. 148 pp. ISBN 0-89774-989-8. A simple nuts and bolts approach to clear writing.
- Mastering Scientific and Medical Writing: A Self-Help Guide. S. Rogers. Published by Springer, 2007. 146 pp. ISBN 103-540-34507-8. Explains important aspects of scientific writing and offers some exercises. Especially useful for non-native-English speakers.

