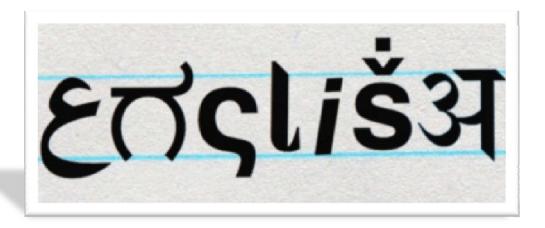
# THE Migen GUIDE

### TO WRITING



# How to use this guide

This guide was compiled specifically for scientists at TIGEM to help prevent common English grammar mistakes in manuscripts. I suggest skimming through it before sitting down to write your first draft so the correct forms of regularly used phrases are fresh on your mind. Good luck and remember to proofread your work!

### **PREPOSITIONS**

Prepositions are problematic in many languages and

English is no exception. Here are a few important ones
to keep in mind:

TFEB translocates to (or into) the nucleus.

TFEB stays in (not into) the nucleus.

X depends on Y.

Our group plans to focus on xyz.

A has an inhibitory effect on B.

According to recent studies...

X is commonly referred to as Y.

You must participate in the seminar.

I am especially interested in XYZ.

We observed a significant decrease/increase in X.

### **PREPOSITIONS**

He has an in-depth knowledge of X.

One of the causes of A is B.

Gene A is downstream of Gene B.

A affects B, regardless of C.

A is independent of B.

X is composed of Y (not composed by... The Four Seasons was composed by Antonio Vivaldi.)

X is responsible for Y.

The seminar is rescheduled for 2:15.

We performed these tests taking into consideration the effect of A on B

A is often associated with B.

Xs have a pattern of Ys that distinguishes them from Zs.

The interaction between X and Y is called Z.

# **ADVERB PLACEMENT**

Adverbs in the middle of a sentence belong

after the verb "to be"

after auxilliary verbs

before all other verbs

This assay clearly reveals the location of TFEB.

We want to see if this is also the case for liver cells.

We also want to see if this is the case for liver cells.

These folding mutations mostly affect the transport of TMPs.

I can always run a gel for confirmation.

It usually works like this.

# **ARTICLES**

Articles are not used in English if the noun is generic or indefinite. Here are some examples:

According to the recent studies...

We are trying to find a cure for the cancer.

This study is in tune with the emerging novel concepts.

The osteoclasts provide an interesting model for investigating transcytosis.

The Western blot analysis and the EGFP quantification further confirmed these results.

The goal of this study is to analyze the Clrn1 expression in the pig retinae.

The goal of this study is to analyze *the* expression of Clrn1 in *the* retinae of pigs.

These results can also be verified at the molecular level.

Our goal is to clarify *the* transcriptional regulation of pluripotency.

We want to better understand the mechanisms that regulate *the* expression of TFEB.

### COMPARISONS

If you are using the comparative form ("—er" or "more \_\_\_\_")
then you must also use "than."

"—er" or "more \_\_\_\_" cannot be followed by "compared to."

If you want to use "compared to" you must use the adjective form.

X is bigger than Y. (bigger = comparative form)

X is big compared to Y. (big = adjective form)

Avoid: "when compared to" and "as compared to"

### By vs. using

To choose between "by" and "using" ask yourself the following question:
How did you do it?
If the answer is: We used(often a tool), then you did it using that tool.
If the answer is: We(often an action/process), then you did it by completing that action/process.
These data were obtained using chemiluminescence. Results were confirmed by sequencing the precipitated RNA The system was perturbed by applying a stimulus. The plasmid was designed using SerialCloner.
Avoid: "by using"

If you say "by someone" or "by something" it means that person or that thing completed the action. (The Godfather was written by Mario Puzo.)

# THAT VS. WHICH

It is important to use "that" and "which" correctly.

**That** is used in *restrictive clauses*.

A restrictive clause is necessary for the sentence to make sense. The part of the sentence after "that" (the restrictive clause) answers the question "which one(s)?" The answer is "the one(s) that\_\_\_\_" and this answer is needed to identify what the sentence is talking about.

Eggs that smell bad should be thrown away. Which eggs should be thrown away? Only the ones that smell bad.

Which is used in unrestrictive clauses.

An unrestrictive clause adds extra information and is not essential to the logic of the sentence. A "which" (or unrestrictive) clause is not needed to identify what the sentence is talking about.

Rotten eggs, which smell bad, should be thrown away. The fact that rotten eggs smell bad is simply extra information. We could take away the "which" clause and still know which eggs should be thrown away.

# THAT VS. WHICH

Another way to keep them straight is to imagine by the way following every which

Rotten eggs, which (by the way) smell bad, should be thrown away.

It boils down to this: if you can tell which thing is being discussed without the *which* or *that* clause, use *which*; if you can't, use *that*.

If you're not confused enough already, just remember: use *that* to tell which and *which* to tell that...

### Punctuation reminder:

"That" clauses should not be detached with commas.

"Which" clauses should be set off with commas.

# "WHILE" & "SINCE"

Remember that "while" primarily means "during the time that." It can sometimes be used to mean "whereas" or "although," but only if the meaning is clear.

### Although

While the results are encouraging, future research still needs to be performed.

Risk factors focus on pathology and hazards, while protective factors emphasize positivism and hope for change.

Similarly, "since" refers to how much time has past. Be careful when using it to mean "because."

# **STRONG**

The primary definition of "strong" is "physically powerful." Though there are many other meanings and ways to use the word, sometimes there is a better choice. (For the most part I would avoid using "strongly") Consider using some of the options below:

- Strong reduction significant reduction
- Strong increase sharp increase
- Strong decrease evident decrease
- Strong promoter effective promoter
- Strong network robust network
- A strong induction high levels of induction
- Strongly limits considerably limits
- Strongly affects markedly affects
- Strongly impaired greatly impaired
- Strongly indicate clearly indicate
- Strongest tropism most pronounced tropism
- Strong mixture concentrated mixture, potent
- Strong lens powerful lens

Note: a thesaurus is a great tool to use while writing (I like thesaurus.com.) But BE CAREFUL: do not blindly pick a synonym and assume it has the correct meaning!!

# **ALLOW**

Many non-native speakers try to use the verb "allow" in the form "allow to," which unfortunately does not exist.

Here are the ways you can use "allow":

A allows B.

A tends to allow B.

(B is a noun or noun phrase.)

X allows Y to [verb].

X tends to allow Y to [verb].

(Y is the direct object - who/what receives the allowance - and is followed by an infinitive complement.)

\*\*Allow cannot be used with just an infinitive complement;

"allow to [verb]" is incorrect without a direct object

between "allow" and "to".

# VERBS AND DIRECT OBJECTS

### Try not to separate the verb from its direct object.

We studied in X the effects of Y. should be...

We studied the effect of Y in X.

(verb = studied, direct object = the effect of Y)

We evaluated in the mouse model of the retina each of the AAV-based systems.

should be...

We evaluated each of the AAV-based systems in the mouse model of the retina.

(verb = evaluated, direct object = each of the AAV-based systems)

An overused or misused comma is as bad as a missing one. Comma rules are not always straight forward, but here are some general guidelines:

### A comma is required for:

Independent clauses with coordinating conjunctions (and, but, for, or, nor, so, yet):

The game was over, but the crowd refused to leave.

Introductory clauses (after, although, as, because, if, since, when, while):

Because her alarm clock was broken, she was late for class.

Introductory phrases:

Having finished the test, he left the room early.

Introductory words (yes, however, well): However, you may not be satisfied with the results.

Mid-sentence clauses, phrases, words that could also be thrown out:

Next Tuesday, which happens to be my birthday, is the only day I am available to meet.

Not every sentence needs a comma. In this sentence, however, a comma is necessary.

### A comma is required for:

Lists of 3 or more words, phrases, or clauses:

The constitution establishes the legislative, executive, and judicial branches of government. (3 words)
The candidate promised to lower taxes, protect the environment, and end unemployment. (3 phrases)
The prosecutor argued that the defendant, who was at the scene of the crime, who had a strong revenge motive, and who had access to the murder weapon, was guilty of homicide. (3 clauses)

Two or more coordinate adjectives that describe the same noun:

This strategy represents an effective, minimally invasive gene therapy.

Geographical names, dates, titles:

Rachel B. Lake, MD, will be the principal speaker.

Prevent confusion or misreading: To Ray, Charles had been a sort of idol.

### Do not put a comma:

Between a subject and its verb:

An eighteen-year-old in Texas, is now considered an adult.

Between two verbs in a compound predicate:

I turned the corner, and ran smack into a patrol car.

Between two nouns in a compound subject or object:

The music teacher from your high school, and the football coach from mine are married.

Between the main clause and a dependent clause: The cat scratched at the door, while I was eating.

With a conjunction if the rest of the phrase can't stand alone: "But, she did get it done on time."

(You would, however, use a comma here:

"But, to be fair, she did get it done on time.")

Commas in clauses: essential (no comma) vs. nonessential (comma)

That clauses: essential (or restrictive)

The book *that I borrowed from you* is excellent. The apples *that fell out of the basket* are bruised.

Essential: Students who cheat only harm themselves.

Nonessential: Fred, who often cheats, is only harming himself.

Essential: The baby wearing a yellow jumper is my niece.

Nonessential: My niece, wearing a yellow jumper, is playing in the living room.

"To my parents, Ayn Rand and God."

### The Oxford Comma:

Personally, I am a fan of the Oxford (or serial) comma, which is the optional comma before "and" in a list.

Whether or not you choose use it, it is important to be consistent.

The oxford comma is required, however, if it will help avoid confusion. This may apply to long lists containing scientific jargon or in simple (silly) sentences like:

"To my parents, Ayn Rand and God."

# SEMICOLONS

### There are two main uses for semicolons:

The first is to separate items in a list, often after a colon, especially when the listed items contain commas. "The following books will be covered on the midterm: the Odyssey, through book 12; Ovid's Metamorphoses, except for the passages on last week's quiz; and the

selections from Chaucer."

The semicolon makes it clear that there are three items, whereas using commas to separate them could produce confusion.

The second is to separate two independent clauses in one sentence.

"Shakespeare's comedies seem natural; his tragedies seem forced."

Here's how to tell whether this one is appropriate: if you could otherwise use a period and begin a new sentence, you are allowed to use a semicolon.

### Misc

Comprise means include or contain.

A zoo comprises animals — it is not comprised of them (though it is *composed of* them).

Avoid the phrase "is comprised of."

A compound noun used as an adjective is often hyphenated. If the hyphenated adjective involves a number, then the noun is singular:

The pizza I ate yesterday cost 10 dollars.

Yesterday I ate a 10-dollar pizza. (dollar is singular)

Less means "not as much"; fewer means "not as many."

They are both the opposite of more, but more has two meanings: one for a greater amount of stuff, the other for a greater number of things.

# MISC

If you want to say "with regard to something, in reference to something, considering or relating to something, of or about something," use with respect to. (Don't forget the "with"!)

"Instead" usually means "as a substitute."

Instead of "instead" consider using:

on the other hand

conversely

in contrast

"both" + "as well as" should never be together in the same sentence!

### Remember...

Written English is not easy! Even native speakers often rely on editors or grammar manuals to guide their writing. It is important to be patient and thorough – the more you read and write in English, the easier it will become.

# In bocca al lupo!