# A Crash Course in Wikipedia for Cell Biologists

+
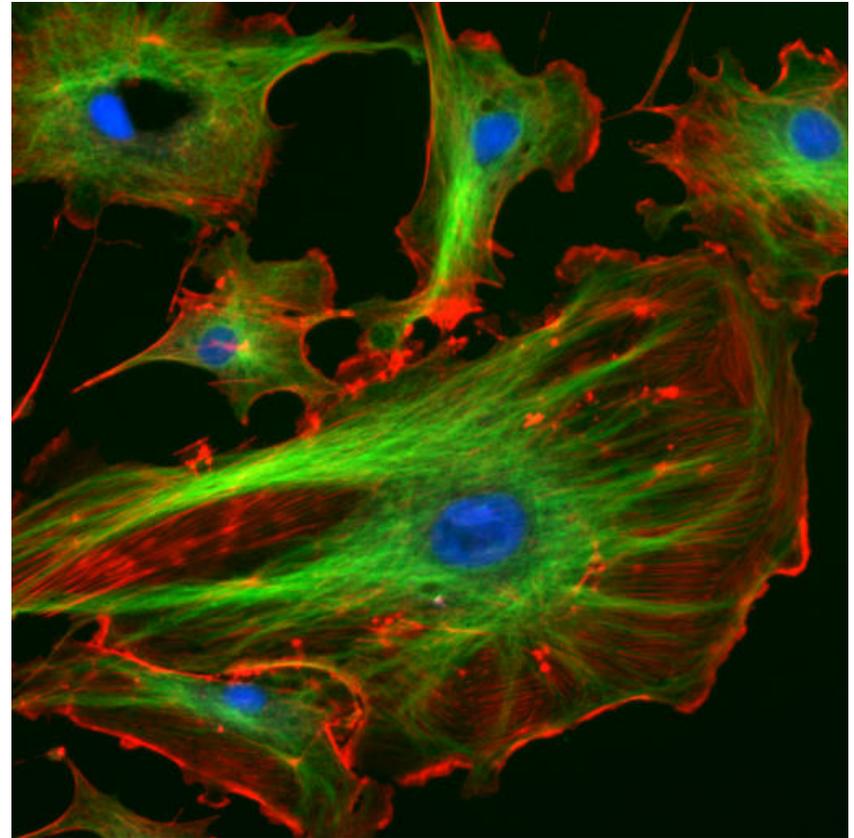
Tim Vickers, Washington University, St. Louis

Bill Wedemeyer, Michigan State University

Five sections of a few slides each
We'll field questions after each section
### We'll try to get you editing ASAP

- Basics of Wikipedia

- Tim's Introduction to Wikipedia and its contributors

- **Parts of an Article**

- **Let's Start Editing!**

- **Tricks of the Trade**

Part I: Basics of Wikipedia

Wikipedia is a **free** encyclopedia

Free as in *beer* – and as in *liberty* (copyright-free educational materials)

- **Created and refined by volunteers**
  - **Nearly anyone can change nearly any article**
- All versions are recorded indefinitely
- Vast: ~2.7 million articles in English
  - 263 other languages
- **Run by a non-profit educational charity**, the **Wikimedia Foundation**

Number of articles

2 million September 2007

~2600/day, ~1 million/year
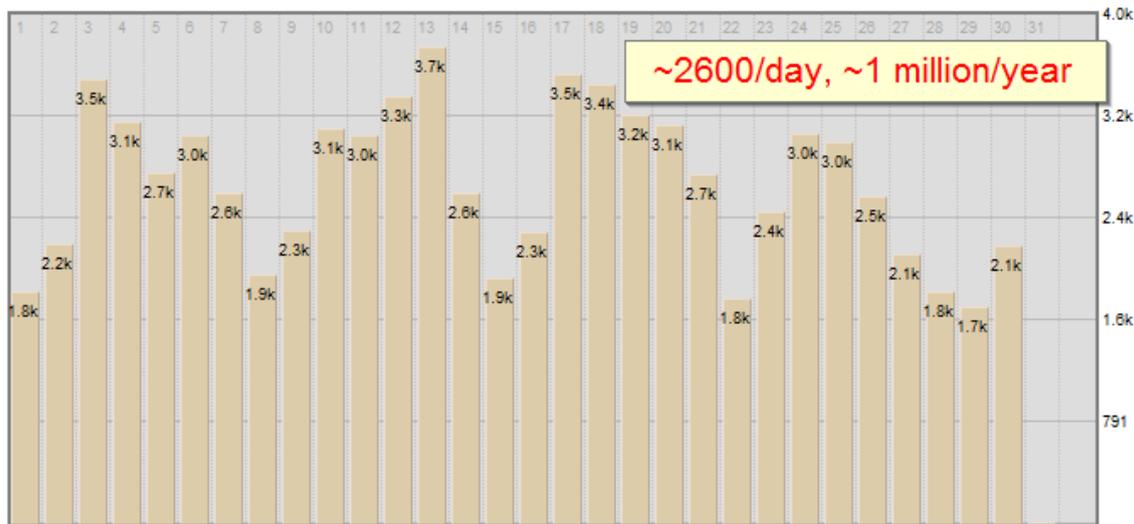
The "Immune system" article was read roughly a million times last year.
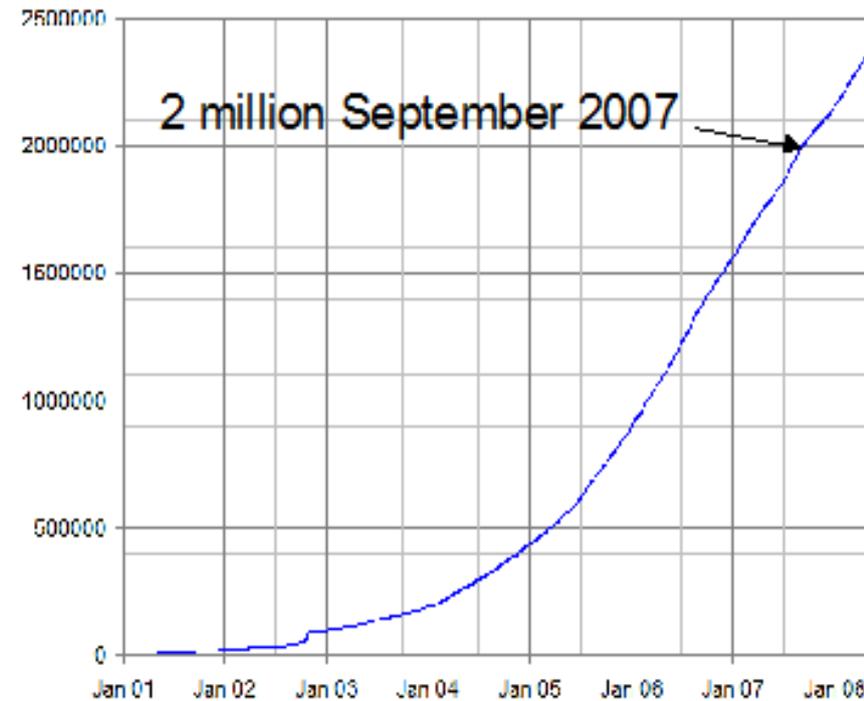
Even scientific articles can get a million readers per year!

Doesn't include versions in other languages, people reading offline, hard copies, mirror sites

Some Reasons for Contributing

- **"Broader impact": science outreach and education**

    – Millions of people worldwide read Wikipedia, #1 Google hit

    – Share the excitement of your research

    – Draw attention to your field

    – Explain to family, friends, journalists and voters what you do

- **Attract students to your field of research**

    – After visiting your faculty webpage, where do they go next?

- **Collaborative development of teaching materials**

    – Colleagues benefiting from each other's work

    – Get feedback on clarity from students, non-academics

- **The fun...**

    – ...of working with smart, well-informed, well-meaning people, working in many complementary fields

WikiProjects...

...are venues on Wikipedia where editors gather to coordinate the coverage of a given field

Fellow editors will review your work and offer suggestions on the presentation, content, and writing. They'll also find typos, add references, make images, clarify arguments, improve flow, etc.

Examples of WikiProjects include

- the Molecular and Cellular Biology (MCB) WikiProject,

- the Math WikiProject,

- the Military History WikiProject, etc.

WikiProjects may have specialty sub-projects, such as the RNA WikiProject.

The Molecular and Cellular Biology WikiProject
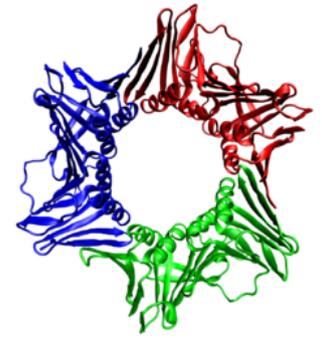
- Loose group of about 200 editors
- Central spot for discussions and requests
- Collaborations with outside groups
  - ProteinBoxBot
  - RNA Biology journal

- Achievements so far
  - Articles on all human genes
  - Articles on all enzymes with EC numbers
  - Articles on all RNA families in Rfam database

- Aim for the future - increase quality
  - In top importance articles only 10 in 160 are FA
  - In low importance, only 2 in 15,724
  - Accuracy, verifiability and accessibility

Number of articles

2 million September 2007
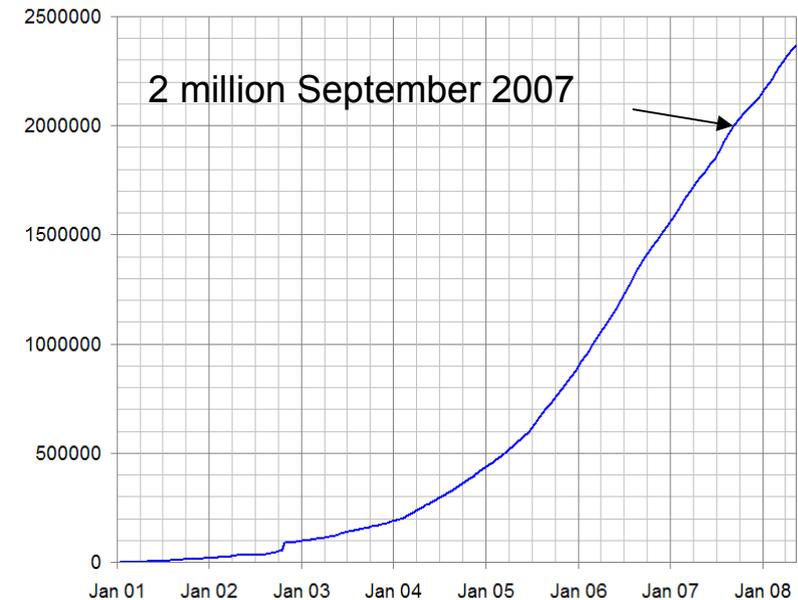
Questions before we continue?

Part 2: Parts of an Article

Type "Immune system" into Google and follow the first link to Wikipedia

An article has three standard parts:

- **One lead section** (quasi-abstract)
  - Summarizes whole article in 3-4 paragraphs

- **The main body** (sections 1-11 here)
  - Up to four levels of subsections

- **Various closing sections**
  - **See also**, Footnotes, **References**
  - Bibliography, Further reading, **External links**
  - **Categories**, interwiki links

We'll use an article template that incorporates these 3 parts automatically.

Immune system TOC
note the sectioning

Contents [hide]

1 Layered defense
2 Surface barriers
3 Innate

Article title not repeated

  3.1 Humoral and chemical barriers
    3.1.1 Inflammation
    3.1.2 Complement system
  3.2 Cellular barriers

Sections and subsections

4 Adaptive
  4.1 Lymphocytes
    4.1.1 Killer T cells
    4.1.2 Helper T cells
    4.1.3 γδ T cells
    4.1.4 B lymphocytes and antibodies
    4.1.5 Alternative adaptive immune system
  4.2 Immunological memory
    4.2.1 Passive memory
    4.2.2 Active memory and immunization
5 Disorders of human immunity
  5.1 Immunodeficiencies
  5.2 Autoimmunity
  5.3 Hypersensitivity
6 Other mechanism
7 Tumor immunolo

Closing sections

8 Physiological regulation
9 Manipulation in medicine
10 Manipulation by pathogen
11 History of immunology
12 See also
13 References
14 External links

Typical lead section

Quasi-abstract: perhaps the most important part of the article because many casual readers won't read beyond it

One picture, 3-4 paragraphs, **Keep It Simple**!

Stand-alone summary of the topic

Even if readers understand little else, they should understand the lead

Immune system ← Article title

A featured article from Wikipedia, the free encyclopedia

An **immune system** is a collection of biological processes within an organism that protects against disease by identifying and killing pathogens and tumor cells. It detects a wide variety of agents, from viruses to parasitic worms, and needs to distinguish them from the organism's own healthy cells and tissues in order to function properly. Detection is complicated as pathogens can evolve rapidly, producing adaptations that avoid the immune system and allow the pathogens to successfully infect their hosts.

← Main use of boldface type

Lead image →

To survive this challenge, multiple mechanisms evolved that recognize and neutralize pathogens. Even simple unicellular organisms such as bacteria possess enzyme systems that protect against viral infections. Other basic immune mechanisms evolved in ancient eukaryotes and remain in their modern descendants, such as plants, fish, reptiles, and insects. These mechanisms include antimicrobial peptides called defensins, phagocytosis, and the complement system. Vertebrates such as humans have even more sophisticated defense mechanisms.[1] The immune systems of vertebrates consist of many types of proteins, cells, organs, and tissues, which interact in an elaborate and dynamic network. As part of this more complex immune response, the human immune system adapts over time to recognize specific pathogens more efficiently. This

Lead section summarizes article in 3-4 paragraphs

encounters with that same, specific pathogen. This process of acquired immunity is the basis of vaccination.

Disorders in the immune system can result in disease. Immunodeficiency diseases occur when the immune system is less active than normal, resulting in recurring and life-threatening infections. Immunodeficiency can either be the result of a genetic disease, such as severe combined immunodeficiency, or be produced by pharmaceuticals or an infection, such as the acquired immune deficiency syndrome (AIDS) that is caused by the retrovirus HIV. In contrast, autoimmune diseases result from a hyperactive immune system attacking normal tissues as if they were foreign organisms. Common autoimmune diseases include rheumatoid arthritis, diabetes mellitus type 1 and lupus erythematosus. Immunology covers the study of all aspects of the immune system which has significant relevance to human health and diseases. Further investigation in this field is expected to play a serious role in promotion of health and treatment of diseases.
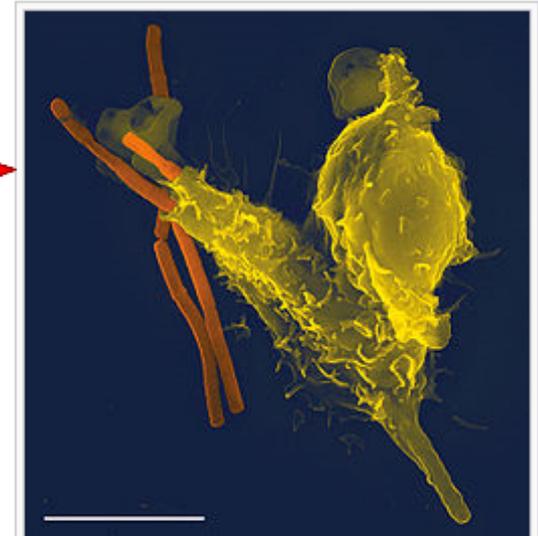
Featured Article star →

A scanning electron microscope image of a single neutrophil (yellow), engulfing anthrax bacteria (orange).

A Wikipedia article is like a mini-review but...

- No original data, conclusions or speculation

- Collaborative; work with partners to improve the article

- You're writing for general public, not scientists in your field

  - Don't assume much prior knowledge; give context

  - State the obvious, be clear, write with strong "flow"

  - Explain difficult concepts fully or use links to other articles

Other features you'll notice in Wikipedia articles:

- Material grouped into sections

- Blue words and phrases hyperlinked to other articles

- Text formatting: bold/italics, super/subscripts, mathematics

- Tables, images, footnotes, references (superscript blue numbers)

Briefly call your attention to three items:
Interwikis, closing sections, and categories

Wikipedians may add these elements for you;
don't worry about them for now!

languages
- العربية
- বাংলা
- Български
- Català
- Česky
- Cymraeg
- Dansk
- Deutsch
- Eesti
- Español
- Esperanto
- Euskara
- Français
- Galego
- 한국어
- Bahasa Indonesia
- Italiano
- עברית
- Lietuvių
- Magyar
- Македонски
- Nederlands
- 日本語
- Norsk (bokmål)
- Polski
- ★ Português
- Română
- Runa Simi
- Русский
- Slovenčina
- Српски / Srpski
- Suomi
- Svenska
- Tagalog
- தமிழ்
- Türkçe
- اردو
- ייִדיש
- 中文

languages
- Arabic
- Bengali
- Bulgarian
- Catalan
- Czech
- Welsh
- Danish
- German
- Estonian
- Spanish
- Esperanto
- Basque
- French
- Galician
- Korean
- Indonesian
- Italian
- Hebrew
- Lithuanian
- Hungarian
- Macedonian
- Dutch
- Japanese
- Norwegian (Bokmål)
- Polish
- ★ Portuguese
- Romanian
- Quechua
- Russian
- Slovak
- Serbian
- Finnish
- Swedish
- Tagalog
- Tamil
- Turkish
- Urdu
- Yiddish
- Chinese

See also [edit]
- Clonal selection
- Epitope
- Hapten
- Human physiology
- Immunostimulator
- Monoclonal antibodies
- Original antigenic sin
- Polyclonal antibodies
- Tumor antigens
- Immune system receptors
- Polyclonal response

Wikimedia Commons has media related to: *Immunology*

References [edit]
1. ^ a b c Beck, Gregory; Gail S. Habicht (November 1996). "Immunity and the Invertebrates" (PDF). *Scientific American*: 60–66. Retrieved on 1 January 2007.

65. ^ Miller J (1993). "Self-nonself discrimination and tolerance in T and B lymphocytes". *Immunol Res* 12 (2): 115–30. doi:10.1007/BF02918299. PMID 8254222.

63. ^ Joos L, Tamm M (2005). "Breakdown of pulmonary host defense in the immunocompromised host: cancer chemotherapy". *Proc Am Thorac Soc* 2 (5): 445–8. doi:10.1513/pats.200508-097JS. PMID 16322598.

64. ^ Copeland K, Heeney J (1996). "T helper cell activation and human retroviral

> Typical scholarly reference (2-column format)

External links [edit]
- How Your Immune System Works - from HowStuffWorks
- Immune System - from the University of Hartford
- Immunobiology; Fifth Edition – Online version of the textbook by Charles Janeway (Advanced undergraduate/graduate level)
- Immunology - BioMed Central (free content) scientific journal
- The Inner Life of a Cell - Rendering of the inner functions of the human body
- The Microbial World - Animal defenses against microbes - Chapter in on-line microbiology textbook
- Microbiology and Immunology On-Line Textbook - from the University of South Carolina School of Medicine

> A choice set of 7-10 external links

v · d · e   Immune system / Immunology   [show]

v · d · e   Immune system: Lymphatic system (Lymph, Lymphocytes)   [show]

v · d · e   Human organ systems   [show]

v · d · e   Transmembrane receptors: immune receptors   [show]

> Navigational templates

Categories: Cell signaling | Signal transduction | Featured articles | Immune system | Immunology

> Categories

Preliminary Summary; end of part 2

- You know some basics about Wikipedia and its community.

- You know how articles are structured.

But you don't yet know

- what the article tabs and user commands are.

- How to start articles or edit existing ones

Questions before we continue?

Part 3: Let's Start Editing!

Creating an account & logging in

- **Advantages of creating an account**

  - You can *edit* without an account (your IP is recorded) but...

  - You need an acct. to create/rename articles or upload images

  - Other advantages: anonymity, record of your work, extra tools

  - *Social aspect:* more likely to get help from others

- **Choosing a user name for yourself**

  - *You are not required to identify yourself in any way*

  - **Real name** may be preferable for experts, since it can lend more credibility to your contributions

    - You can also identify yourself on your user page

  - Alternatively, you may wish to use a **pseudonym**, since everything you write is recorded for posterity

| article | discussion | view source | history |

Support Wikipedia: a non-profit project. **Donate Now »** [Expand]

Welcome to Wikipedia,
the free encyclopedia that anyone can edit.
2,643,574 articles in English

- Geography   - Science   ■ **All portals**

Overview · Editing · Questions · Help

Contents · Categories · Featured content · A–Z index

Today's featured article

St Kilda is an isolated archipelago 64 kilometres (40 mi) west-northwest of North Uist in the North Atlantic Ocean. It contains the westernmost islands of the Outer Hebrides of Scotland. The largest island is Hirta, whose sea cliffs are the highest in the United Kingdom. The Gaelic-speaking population probably never exceeded

In the news

- In the **Thai political crisis**, the Constitutional Court dissolves three parties in the ruling coalition, and Prime Minister Somchai Wongsawat (pictured) resigns.
- A **cholera outbreak** in Zimbabwe spreads, with

Start by clicking here

The "Create account" page gives information above and below the input boxes for your new user name, password and e-mail address

Log in / create account
From Wikipedia, the free e

Then click here

Log in

Don't have an account? **Create one**.

Username: [   ]

Password: [   ]

☐ Remember me (up to 30 days)

[**Log in**] [**E-mail new password**]

Unable to see the image? An administrator can create an account for you.

suchtruth

[suchtruth   ]

Username: BillWedemeyer

Password: ●●●●●●●●●●

Retype password: ●●●●●●●●●●

E-mail (optional)*: [proteins@msu.edu]

After reading the information, create your user account

- E-mail (optional): Allows us to e-mail your password to you if you forget it. If you also "Enable e-mail from other users", then others can e-mail you from your User or User talk page by using the "E-mail this user" feature. Note that the sender's e-mail address will be visible to the recipient. If you change your e-mail address, you will need to reconfirm it.

☐ Remember me (up to 30 days)

[**Create account**]

If you're successful, you'll see this:

If you're not successful right away, don't worry!

The first step in editing

To *create* a article:

- Click on any redlink
  - Automatically creates the page and starts you editing
- Search unsuccessfully, then click on the resulting redlink

Search results

From Wikipedia, the free encyclopedia

You searched for **pedagogical carphology** (all pages starting with "pedagogical carphology" | all pages that link to "pedagogical carphology")

No article title matches

No page with that title exists.

Clicking on this link opens an editing window for the new article

You can search again:
- Titles on Wikipedia are case sensitive, except for the first character; please check alternate capitalizations and consider adding a redirect here to the correct title.

Original search that led to this page

search: pedagogical carphology — Go | Search

You can create this article:

To *edit* an article:

- "Edit this page" tab edits the whole article
- "[edit]" links in every major section heading

Proteins · my talk · my preferences · my watchlist · my contributions · log out

article | discussion | edit this page | history | watch

Immune system

Edits whole page

Edits just this section → [edit]

A featured article

An **immune system** is a collection of biological processes within an organism that protects against disease by identifying and killing pathogens and tumor cells. It detects a wide variety of agents, from viruses to parasitic worms, and needs to distinguish them from the

Your user page: A good place to begin editing

Let's edit! 1. Click on your redlink user name at the top right

- On the resulting page, click on *Start the User:... page*

- 2. Into the textbox, write a sentence describing yourself.

- 3. After that, add {{ASCB workshop}} and click "Save page" below

- 4. Congratulations − you're a Wikipedian!

Over time, you can add links, images, tables, publications, etc.

user page | discussion | **create this page** | watch

Support Wikipedia: a non-profit project. — Donate Now   [Expand]

Editing User:WilliamWedemeyer

From Wikipedia, the free encyclopedia

Wikipedia does not have a **user page** with this exact title. In general, this page should be created and edited by **User:WilliamWedemeyer**.

- To start a page called *User:WilliamWedemeyer*, type in the box below. When you are done, preview the page to check for errors and then save it.

`B  I  Ab  A  √n  #R  str  x²  x₂  x²`

I am a professor at Michigan State University studying self-assembling proteins involved in the pathogenesis of cholera, the plague and prion diseases.

{{ASCB workshop}}

a sentence about myself

ASCB workshop in double curly braces

If you need help, ask a volunteer **or** edit your user page & add **{{ASCB helpme}}** or **{{ASCB helpme|*reason*}}**

Always add an edit summary

Content that violates any **copyright** will be deleted. Encyclopedic content must be **verifiable**. You irrevocably agree to release your contributions under the terms of the **GFDL***.

Edit summary (Briefly describe the changes you have made):

begin user page

☐ This is a minor edit (what's this?)   ☐ Watch this page

| Save page | Show preview |

Click "Preview", look it over, click "Save"

How will online people help you? Your user talk page

It allows you to communicate with other users,
e.g., to ask for help, peer reviews, coordinate writing, etc.

Enquiry   [edit]

Note asking for Tim's help

Dear Dr Vickers

Clicking on this link allows you to add/change material in this section

I have been working on the Plasmodium page for a while. My impression is that there are few editors interested in parasites on Wikipedia. I nearly have pages done for all the parasites now. While there is I admit considerable variability in the content of these pages that for the most part reflects the amount of material available on that species. Many have but a single paper. Most of the ones that need a page done for them are those where there is a lot of information that I have yet to get around to summarising. So many species, so little time :-)

Given your background in Fairland's lab I would think you know quite a bit about parasites in general. I would be grateful for your opinion on this page in its current layout and what you think should be done to improve it further.

A note: I'm still checking out the list of dubious species. Several of these are listed in the taxobox.   Tim's answer is not here, because   a peer reviewed
published reference to them but little else. My impression is that more than a few have been decl   he replied on DrMicro's talk page.   ite opinion on this
one way or the other I have simply listed them as dubious cases. There are a few in the taxobox that I need to check up but I will move these to the dubious section once I can fomulate an better informed opinion on them. Any species with a seperate page has been validly described.

Thank you in advance for your time DrMicro (talk) 14:08, 30 November 2008 (UTC)

Thank you for your note. There is no rush. Wikipedia was not built in a day.DrMicro (talk) 11:51, 1 December 2008 (UTC)

- Users may reply to you *either* on your talk page *or* where you posted

- When you post, please remember to sign your name by adding four tildes to the end of your message, ~~~~

- Whenever you receive a message, you'll be alerted with an orange box

You have new messages (last change).

Article talk pages are similar
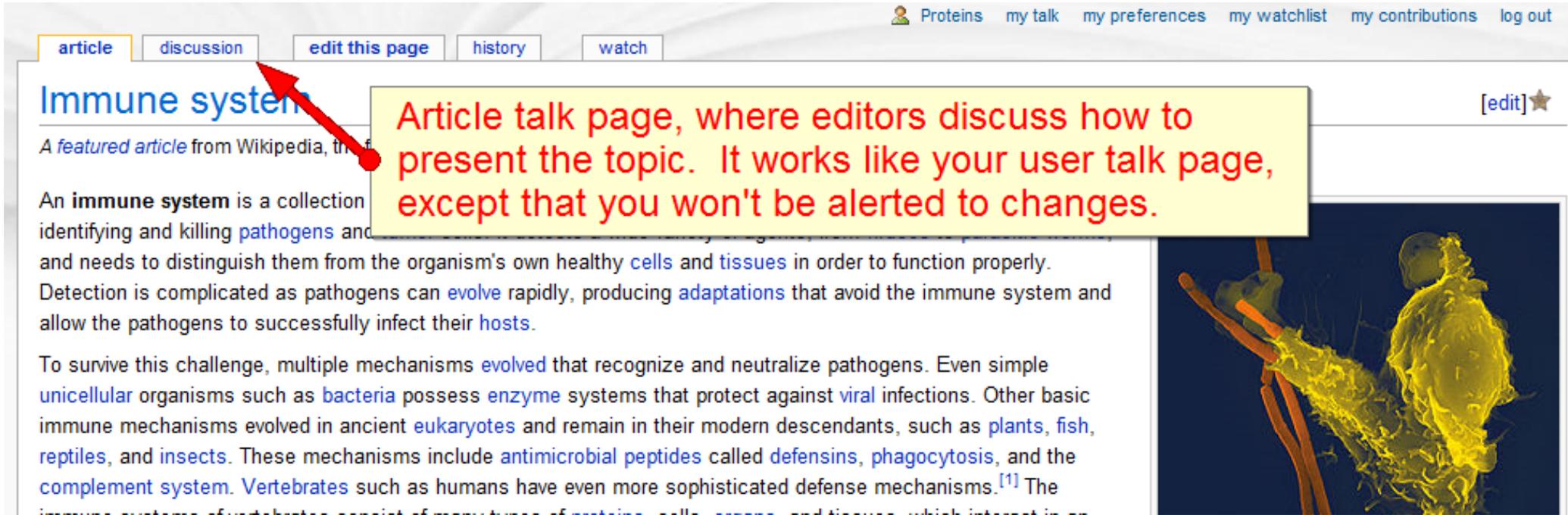
- On the talk page, editors coordinate on the presentation of the topic, its nomenclature, the depth of coverage, etc.

- If part of an article is unclear or inaccurate, you can ask the authors questions and suggest ways it can be improved, as well as just editing it yourself.

Advice for editing collaboratively

- Develop a network of friends who will help you copyedit, peer-review, and generally improve your articles. WikiProjects are a good starting place. As Tim says, do good turns, and you'll receive the same.

- Be open to different perspectives and emphases. A cell biologist might have a different view of a topic than, say, a physiologist, a biochemist, a physicist, or a historian; but together they can find common ground and complementary perspectives.

- Stay grounded in facts and reliable sources. Agree on a common tone and approach. Be cool and professional, even if others are not.

Monitoring changes: watch & history tabs

Proteins   my talk   my preferences   my watchlist   my contributions   log out

| article | discussion | edit this page | history | watch |

Immune system

See latest changes in watched articles

Record of your edits

Revision history of Virus

See the differences between any two versions of the article

Helpful tip #1:
To find an article you've worked on recently, click on **my contributions** at the top right of every page

Browse history

From year (and earlier):   ▼ Go

Date and time of edit

Editor making the change

(Latest | Earliest) View (newer 50) (older 50) (20 | 50 | 100 | 250 | 500)
For any version listed below, click on its date to view it. For more help, see Help:Page history and
External tools: Revision history statistics ⧉ · Revision history search ⧉ · Page view statistics ⧉

Present page size

(cur) = difference from current version, (last) = difference from preceding version, **m** = minor edit, → = section edit, ← =

Edit summary

Compare selected versions

- (cur) (last)   ◉ 22:54, 1 December 2008 GrahamColm (Talk | contribs) (96,090 bytes) (→*Weapons: just to reduce whitespace*) (undo)

Helpful tip #2:
To see the latest changes in your watched articles, click on **my watchlist** at the top right of every page

16 December 2008

- (diff) (hist) . . Wikipedia talk:Manual of Style; 07:37 . . **(+1,177)** . . Greg L (Talk | contribs) (→*Using color and typeface to set off example text on MOS and MOSNUM:* **114%**)
- (diff) (hist) . . Wikipedia:Manual of Style; 07:33 . . **(+457)** . . Headbomb (Talk | contribs) (→*Capital letters:* **more xt**)
- (diff) (hist) . . Wikipedia:Village pump (technical); 07:18 . . **(+339)** . . Baoshan Sheng (Talk | contribs) (→*Where do the rendered html elements come from?*)

Preliminary Summary; end of part 3

- You know some basics about Wikipedia and its community.

- You know how articles are structured.

- You know what the article tabs and user commands do.

But you don't yet know the details, such as how to:

- make wikilinks, section headings, format text, etc.

- how to find and add images, and references

Questions before we continue?

Part 4: Tricks of the Trade

Article template

Provides article outline, with examples of references, footnotes, images and tables

- **Strategy:** You'll begin your new article in a temporary file ("sandbox") under your user name, then move it to its final home

- When you added {{ASCB workshop}} to your user page, you should have seen this salmon-colored bar:

Practical tutorial in editing Wikipedia; click on "show" to reveal [show]

- Click on "show", then on the redlink to create your sandbox article

Practical tutorial in editing Wikipedia; click on "show" to reveal [hide]

This tutorial outlines the practical steps of writing a new Wikipedia article and developing it into a Featured Article, that is, one of Wikipedia's best articles. Designed for a 2008 workshop at the annual meeting of the American Society for Cell Biology, this tutorial is aimed primarily at scholars.

Step 0: Edit in your sandbox

If you are viewing this page for the first time, the following link User:Proteins/Tutorial_sandbox should be colored red, meaning that Wikipedia has no article under that name. Click on that link, type in a few characters, and click on the **Save page** button near the bottom. Your "tutorial sandbox" page should have been created and your text should have been saved there. Congratulations — you're a Wikipedian! You can return to this sandbox to write drafts for articles, to try out new editing methods, or simply to experiment.

Click on the corresponding redlink

- Add **{{subst:User:Proteins/ASCB_article_template}}** to your sandbox and click "Save page"; a new article should appear!

A quick look at the article template

The template article has examples of many editing tasks.

User:Proteins/ASCB article template

From Wikipedia, the free encyclopedia
< User:Proteins

In cell biology, **X** is...The significance of X is that...

The study of X began with the discovery of...

X has the following properties...

The applications of X include...

Contents [hide]

3-4 paragraphs & image in lead section, typical cell-biology sections, closing sections such as "See also" and "References"

A three-dimensional image of the proteasome.
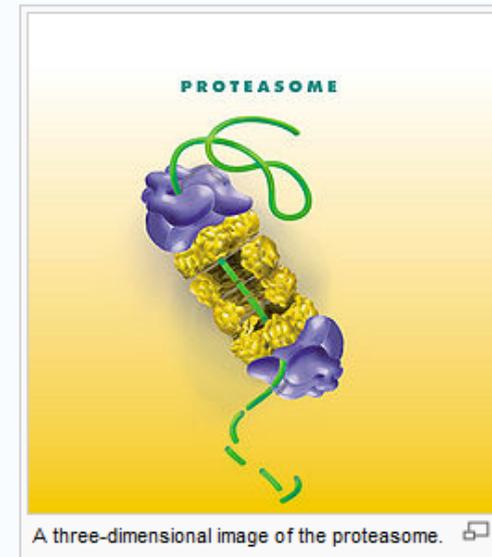
Examples of tables, references and footnotes

Structure

X is arranged in a...

Substructure	Proteins involved
bizome	1ABC, 3XYZ
trizome	4PQR, 3JKL

Regulation

The X process is regulated by the concentration of glucose.[1]

Evolution

X appears to have evolved first in the...[footnote 1]

When writing, work from basic principles

- **Verifiability (V)**

  - Assertions should be supported by references to reliable sources.

- **No original research (NOR)**

  - Your new insights or unpublished data may be great, but resist the temptation to add them. Wikipedia articles are summaries of previously-published material.

- **Neutral point of view (NPOV)**

  - Try to keep the article focused on the facts. If opinion is divided, give the most weight to the mainstream - articles should reflect the views of the majority of experts on a topic. Neutral writing means that the reader should not be able to guess your preference.

- Respect copyright law

- Standards of notability for people and topics

  - Wikipedia isn't the place to promote something new. If there isn't much published on a topic, it might not warrant its own article yet.

Mechanics of Editing: What will I see?

Editing Immune system

From Wikipedia, the free encyclopedia

Total article size, including formatting.

This page is 83 kilobytes long. It may be appropriate to split this article into smaller, more specific articles. See Wikipedia:Article size.

[toolbar with formatting buttons]

22 buttons to aid formatting

```
[[Image:Neutrophil with anthrax copy.jpg|thumb|right|250px|A [[scanning electron microscope]] image of a
single [[neutrophil]] (yellow), engulfing [[anthrax]] bacteria (orange).]]

An '''immune system''' is a collection of biological processes within an [[organism]] that protects
against [[disease]] by identifying and killing [[pathogen]]s and [[tumor]] cells. It detects a wide
variety of agents, from [[virus]]es to [[parasitic worm]]s, and needs to distinguish them from the
organism's own healthy [[cell (biology)|cells]] and [[biological tissue|tissues]] in order to function
properly. Detection is complicated as pathogens can [[evolution|evolve]] rapidly, producing
[[adaptation]]s that avoid the immune system and allow the pathogens to successfully infect their [[host
(biology)|hosts]].
```

scroll bar

Editing box, highlighted in yellow; type here!

```
==Manipulation by pathogens==
The success of any pathogen is dependent on its ability to elude host immune responses. Therefore,
pathogens have developed several methods that allow them to successfully infect a host, while evading
immune-mediated destruction.<ref name=Finlay>{{cite journal | author = Finlay B, McFadden G |title=Anti-
```

Content that violates any **copyright** will be deleted. Encyclopedic content must be **verifiable**. You irrevocably agree to release your contributions under the terms of the **GFDL**[*].

Helpful edit summary

Edit summary (Briefly describe the changes you have made):

added section on immune evasion by pathogens

☐ This is a minor edit (what's this?) ☑ Watch this page

Opens "cheatsheet" for wiki markup

Save page **Show preview** Show changes Cancel | Editing help (opens in new window)

Do not copy text from other websites ... tible license. It will be...

Main buttons

Add special characters and formatting commands

Insert ▼ – — ... ' " " ' ' " " ≈ ≠ ≤ ≥ ± − × ÷ ← → · § Sign your posts on talk pages: ~~~~ Cite your sources: <ref></ref>

Markup language for formatting
What you see is NOT what you get (sorry!)

```
[[Image:Proteaosome 1fnt side.png|thumb|right|Cartoon representation of a proteasome. Its active sites are sheltered
inside the tube (blue). The caps (red; in this case, 11S regulatory particles) on the ends regulate entry into the
destruction chamber, where the protein is degraded.]]
[[Image:Proteaosome 1fnt top.png|thumb|right|Top view of the proteasome above.]]
```
← Typical image formatting (green)

```
'''Proteasomes'''                                    ukaryote]]s and [[archaea]], as well as in some
[[bacteria]]. In eukaryotes, they are located in the [[cell nucleus|nucleus]] and the [[cytoplasm]].<ref name=Peters>
{{cite journal |author=Peters JM, Franke WW, Kleinschmidt JA |title=Distinct 19 S and 20 S subcomplexes of the 26 S
proteasome and their distribution in the nucleus and the cytoplasm |journal=J Biol Chem |volume=269 |issue=10
|pages=7709-18 |year=1994 |month=March |pmid=8125997 |doi= |url=http://www.jbc.org/cgi/pmidlookup?view=long&
pmid=8125997}}</ref>  The main function of the proteasome is to degrade unneeded or damaged [[protein]]s by
[[proteolysis]], a [[chemical reaction]] that breaks [[peptide bond]]s. [[Enzyme]]s that carry out such reactions are
called [[protease]]s. Prote                     mechanism by which [[cell (biology)|cells]]
[[concentration]] of particular proteins and degrade [[protein folding|misfolded proteins]]. The
```
Boldface type used only to highlight article subject

← Typical reference (grey)

[[Wikilinks]] (red)

Three classes of markup tasks: (use the 22 buttons or by hand)

- **Italics/boldface, sections, wikilinks, external links, lists (easy)**

- **Images, tables, footnotes, categories (medium)**

- **References (harder; convenient programs or servers can help)**

```
== See also ==
```
← Section headings are enclosed between 2 or more equal signs; more = smaller

```
* [[The Proteolysis Map]]
* [[Exosome complex|Exosome]]
* [[ERAD|Endoplasmic reticulum-associated protein degradation]]

==References==

{{reflist|2}}
```
← List items begin with * (unordered) or # (ordered)

← Code for formatting references in two columns

```
==External links==

*[http://www.plosbiology.org/plosonline/?request=get-document&doi=10.1371/journal.pbio.0020013 PLOS Primer: The
Proteasome and the Delicate Balance between Destruction and Rescue]
*[http://biochemie.web.med.uni-muenchen.de/feldmann/proteasome_units.html The Yeast 26S Proteasome with list of
subunits and pictures]
```
External links use one square bracket, not two; don't forget to include "http://" and don't use a vertical bar to separate the link from its label

Cheatsheet
for remembering markup

Four ways to find the cheatsheet:

- "Editing help" button next to edit summary

Edit summary (Briefly descr...

Opens "cheatsheet" in separate window

- [ ] This is a minor edit (what's this?) [x] Watch this page

Save page **Show preview** **Show changes** Cancel | Editing help (opens in new window)

- Download PDF cheatsheet to your computer
  - commons.wikimedia.org/wiki/Image:Cheatsheet-en.pdf

- Type WP:CHEAT into the Search box

search

WP:CHEAT

Go **Search**

- Click on Help in lefthand column, then click on "Cheatsheet" under "Editing"

Wikipedia
Cheatsheet

Everyone can contribute to the free encyclopedia Wikipedia. This is possible because Wikipedia is a wiki: Simply click on the link "Edit this page" on top of an article and start writing. This cheatsheet shows the basic formatting tricks.

WIKIPEDIA
The Free Encyclopedia

Wiki text	Result
''italic''	*italic*
'''bold'''	**bold**
'''''bold and italic'''''	***bold and italic***
==heading== ===level 2=== ====level 3==== =====level 4=====	Headings in different sizes
[[Link to another page]] [[Link|different title]]	Internal Link to another page on the wiki
http://www.test.org [http://www.test.org Text]	External link Link with description
[[fr:Page en français]]	Interwiki link to french Wikipedia (appears under ''languages'')
[[Category:Example]]	Add article to category ''example''
----	horizontal line
* one * two * three	Bullet list
# one # two # three	Numbered list
[[Image:File.jpg|Text]] [[Image:File.jpg|frame|Text]] [[Image:File.jpg|thumb|Text]]	Image with alternative text Image aligned right with caption Thumbnail
[[Media:File.ogg]]	Download link
{{Name}}	Include template ''Name''
--~~~	Signature (Link to userpage)
--~~~~	Signature with timestamp
#REDIRECT [[Other article]]	Redirect to another article

http://www.wikipedia.org

Wikimedia Foundation
http://www.wikimediafoundation.org
info-en@wikimedia.org

Adding and formatting images
Wikipedia can use only **copyright-free** images.

- Two solutions:

  – Find images already on Wikipedia or related projects

  – Upload images that you have the copyright to.

- **Basic Format:**

  [[Image:Chloroplast.png|thumb|right|Caption text]]

  – Enclose in double brackets

  – Begin with image name Image:Chloroplast.png, then "thumb"

  – Add right or left to specify the margin alignment

  – The last entry is always the caption, which tells the reader how to interpret what they're seeing, what to focus on in the image

  – You can also vary the size, position and other features.

Finding good images on Wikipedia

Simple approaches

- Look at related articles and take already formatted images

- Failing that, click on image(s) to get to their pages

- Go to their Categories and look for the best image

- Check both Wikipedia and the Commons, a sister project

Get full-resolution image

Click here to go to the corresponding Commons page

Size of the preview: 575 × 600 pixels
Full resolution (2,304 × 2,403 pixels, file size: 2.28 MB, MIME type: image/jpeg)

This is a file from the Wikimedia Commons. The description on its **description page there** is shown below.
Commons is a freely licensed media file repository. *You can help.*

Metadata

This file contains additional information, probably added from the digital camera or scanner used to create or digitize it. If the file has been modified from its original state, some details may not fully reflect the modified file.

Show extended details

Click on this category to find more images of blood cells

Categories: Featured pictures on Wikipedia, Turkish | Blood cells | Immune system

Uploading your own images

Login successful

You are now logged in to Wikimedia Commons as "Proteins".

Logging you in to projects of the Wikimedia Foundation:

Return to Main Page.

WIKIMEDIA COMMONS

search

[ ] [Go] [Search]

navigation
- Main Page
- Welcome
- Community portal
- Village pump

participate
- Upload file

Your user name will work on all Wikimedia projects, such as the Commons, Wikiversity, Wikibooks, etc.

Click here to upload an image or media file

Where is the work from? (Click on the appropriate link)

- It is entirely my own work

Click here if you own the copyright (usual case)

After reading the information on the upload page, please fill in the form.

It's important to choose a license; otherwise, your image may be deleted.

Upload your own work

Local filename: [ ] [Browse_]

Maximum file size: 100 MB

Permitted file types: png, gif, jpg, jpeg, xcf, pdf, mid, ogg, ogv, svg, djvu.

Destination filename: [ ]

Name of the file at Commons after the upload.

Original source: [Own work by uploader] ✔

Where does this file come from?

Author(s): [[[User:Proteins|Proteins]]] ✔

Who created this file? Also, if it shows some artwork, who created that?

Date of the work: [ ]

Date of creation and/or first publication of the work.

Description: ?

References
Citations to the scientific literature are vital

- Place a new reference tag at the position in the text where it should appear, usually at the end of a sentence or clause, *after punctuation*. It will be numbered automatically.

<ref name=Kornberg98>Contents of reference**</ref>**

- For now, you can format the contents by hand, using your knowledge of *italics* and **boldface** types (enclose text in *two* or **three** single quotes)

- However, **citation templates** render all references in Wikipedia consistently

- For those, get help from programs such as **Zotero** or servers such as
  - **http://diberri.dyndns.org/cgi-bin/templatefiller/**

- To cite the same article/book in a different place, add **only**

<ref name=Kornberg98 />

- Add a "References" section after "See also" and any "Footnotes"
  - Sole content: {{reflist}}

Summary; and Good Luck!

Now you know:

- some basics about Wikipedia and its community

- how articles are structured.

- what the tabs and user commands do.

- how to make wikilinks, section headings, format text, etc.

- how to find, add and upload images

- how to include references to the scientific literature

- There's much left to learn; but friendly Wikipedians will help you

- The ASCB tutorial, and other tutorials listed on User:Proteins

- Tim and I are always glad to help or answer questions:

    tjvickers@gmail.com   &   proteins@msu.edu