WIKIPEDIA EDITING FOR ACADEMICS

A SYMBIOTIC RELATIONSHIP
Why edit Wikipedia and Sister Projects?

**Selfless**
- The noble cause of free information
- Giving back to a resource you’ve benefitted from
- Expert input on difficult topics
- Being part of the world’s largest open-access project

**Selfish**
- Public engagement and education
  - Massive exposure and reach
- Ensure your field is thoroughly and accurately represented
  - First google hit for most topics
  - (Students, Reviewers, Grant assessors, Journalists, Policymakers)
- Maximise use of the writing and images that you’ve already done
- Improve your non-specialist writing
OUTLINE

WHY SHOULD YOU BE INTERESTED IN EDITING WIKIPEDIA?
- A brief introduction to the largest encyclopaedia of all time
  Why it needs you
  Why you need it

HOW TO EDIT
- Interactive demonstration
  Edit a page
  Upload an image
  Comment on a talk page

HOW TO EDIT RIGHT!
- Differences with academic writing
  Writing style
  Protocols and policies
  Etiquette and pitfalls

HELP, COMMUNITY AND RESOURCES
- The hidden world behind Wikipedia
A BRIEF HISTORY

- 2001 began
- 2007 editing peak
  But poor accuracy
  Stricter standards lead to fall-off in editors
- 2015 resurgence
  Concerted recruitment
  Easier editing tools
  First year since 2007 with editor growth
- In 295 languages
- 5th busiest website

Data: http://stats.wikimedia.org/EN/TablesWikipediaEN.htm
WHO READS WIKIPEDIA?

- Thesis: 1-10
- Median Journal Paper: 800
- Top 5% Journal Paper: 3,000
- Median Wikipedia page: 10,000 pa
- Top 5% Wikipedia page: 1,000,000 pa
WHO READS WIKIPEDIA’S MEDICAL CONTENT?

General public
Medical students
Practicing doctors
Research scientists
### ARTICLE QUALITY AND IMPORTANCE

- **Articles are rated**
  - Importance
  - Quality
- **Top two quality ratings**
  - Promoted by review
- **Status**
  - Displayed on talk page
  - Status can also be revoked by review

<table>
<thead>
<tr>
<th>Quality</th>
<th>Top</th>
<th>High</th>
<th>Mid</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>FA</td>
<td>1199</td>
<td>1847</td>
<td>1737</td>
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<td>4239</td>
<td>30919</td>
<td>228711</td>
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</tr>
</tbody>
</table>

**WikiProject Molecular and Cellular Biology** (Rated FA-class, Top-importance)

This article is within the scope of the WikiProject Molecular and Cellular Biology. To participate, visit the WikiProject for more information.

- **FA**
  - This article has been rated as **FA-Class** on the project's quality scale.
- **Top**
  - This article has been rated as **Top-importance** on the project's importance scale.

WHO writes WIKIPEDIA?

- Admins & Bureaucrats (600 active)
  - Peer exam and interview
  - Can mark pages as protected and block editors
  - Some niche privileges (e.g. delete pages, allow editing bots)

- Editors (30,000 active)
  - Access to Visual Editor
  - Persistent reputation
  - Able to edit protected pages

- Anonymous users (⅓ of all edits)
  - Text recognition test to prove human
  - Edits are marked with ip address
  - Can edit >99% of pages

WHO WRITES WIKIPEDIA?

Wikimedia Foundation
- Wikimedia foundation
- Wikimedia Board of Trustees
- Wikimedia staff

Technical
- Wikimedia tech staff
- Template makers
- Instructional content writers

Article creators
- Article creators
- Articles for Creation (AfC)

Article curators
- New Page Patrol
- Recent Changes Patrol
- Copyeditors
- Spellcheckers
- Vandalism reverters
- Articles for deletion (AfD)
- Bots

Elected committees
- Arbitration Committee
- Mediation Committee
- Stewards
- Bureaucrats
- Admins

Dispute resolution
- Dispute resolution about viewpoint pushing

Article disruptors
- VANDALS
- HOAXERS
- SPAMMERS
- VIEWPOINT PUSHERS
- “ARTICLE OWNERS”
How is Wikipedia ruled?

- **Democracy**
  - Elected committees
  - Content by consensus

- **Bureaucracy**
  - Policies and guidelines
  - Manual of style

- **Anarchy**
  - Fully volunteer
  - Extremely flexible system
  - No centralised task delegation
WIKIPEDIA–ACADEMIA INTEGRATION

Academic publishing directly to Wikipedia

- *PLoS Computational Biology* “Topic” review articles

- *RNA Biology* research articles & Rfam

Academic peer review of existing Wikipedia articles

- *Open journal of Medicine*

- *WikiJournal of Medicine*
A MASSIVE MEDIA REPOSITORY

- Multimedia file repository
  - Images
  - Video
  - Sound

- Open-licensed / Public domain
  - Mostly creative commons licenses

- Content scope
  - Educational
  - Informative
  - Instructional
# The Future of Data

- Free, open, structured knowledge base

- Humans and machine readable and editable
  - Multilingual, queryable

- Standardised, centralised, highly interlinked
  - Statements, sources, and connections to other databases

<table>
<thead>
<tr>
<th>Item</th>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q42</td>
<td>P69</td>
<td>Q691283</td>
</tr>
<tr>
<td>Douglas Adams</td>
<td>educated at</td>
<td>St John's College</td>
</tr>
</tbody>
</table>
BRIDGING THE ACADEMIC DIVIDE

- Content published into both Wikipedia and academic corpus
  
  Stable, citable, peer-reviewed version with the credibility of a scholarly journal
  Living version with extreme impact of Wikipedia

- Example journals
  PLOS Genetics
  PLOS CompBiol
  Wiki.J.Med
  Wiki.J.Sci
  Wiki.J.Hum
  Gene
  RNA Biology

JOURNAL FIRST

WIKIPEDIA FIRST

PARALLEL
Circular Permutation in Proteins

Spencer Bilven*, Andreas Prič

Abstract

Circular permutation is a type of relationship between proteins, whereby the proteins have a changed order of amino acids in their protein sequence, such that the sequence of the first portion of one protein (adjacent in the Nomenclature) is related to that of the second portion of the other protein (see Figure), and vice versa (see Figure 1). This is in direct analogy to the mathematical notion of a cycle permutation over the set of residues in a protein.

Circular permutation can be the result of evolutionary events, post-translational modification, or artificially engineered mutations. The result is a protein structure with different connectivity, but overall similar three-dimensional (3D) shape. The interactions between portions of the proteins can be established by observing similar sequences between N- and C-terminal portions of the two permuted variants of cyclic wild-type proteins [10]. SIVYPHUS is a database that contains a collection of hand-curated manual alignments of proteins with structural relationships, several of which have circular permutations [11].

Evolution

There are two main models that are currently being used to explain the evolution of circularly permuted proteins: permutagenesis by duplication and fusion and fusion. The two models have compelling examples supporting them, but the relative contribution of each model in evolution is still under debate [15]. Other, less common, mechanisms have been proposed, such as "cut and paste" [13] or "cradle shaking".

Permutagenesis by Duplication

References

The 2012 version of this article has passed academic peer review (here) and has been published in PLOS Computational Biology and can be cited as:


A WikiJournal’s Publishing Flow

Preprint server → Public peer review → Publication

- Citable
- Stable
- Indexed
- Version of record
- Highly accessed
- Broad readership
- Editable and updatable

Wikipedia-integration
A WikiJournal’s Publishing Flow

Preprint server
Wikipedia as preprint

Public peer review

Publication
Wikipedia-integration

Citable
Stable
Indexed
Version of record

Highly accessed
Broad readership
Editable and updatable
The WikiJournal User Group publish a set of open-access, peer-reviewed academic journals with no publishing costs to authors. Its goal is to provide free, quality-assured knowledge. Secondly, it aims to bridge the Academia-Wikipedia gap by enabling expert contributions in the traditional academic publishing format to improve Wikipedia content.
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SIGNING UP

To try editing a blank test page, sign up and click "Sandbox"
Demonstration

Editing the article
- Using ‘Visual Editor’ -
- Edit summary -

Adding images
- Uploading -
- Captioning -

Editing talk pages
- Discussion -
- Ratings -

Ovalbumin

Ovalbumin (abbreviated OVA[1]) is the main protein found in egg white, making up 60-65% of the total protein.[2] Ovalbumin displays sequence and three-dimensional homology to the serpin superfamily, but unlike most serpins it is not a serine protease inhibitor.[2] The function of ovalbumin is unknown, although it is presumed to be a storage protein.[4]

Research

Ovalbumin is an important protein in several different areas of research, including:

- general studies of protein structure and properties (because it is available in large quantities).
- studies of serpin structure and function (the fact that ovalbumin does not inhibit proteases means that by comparing its structure with that of inhibitory serpins, the structural characteristics required for inhibition can be determined).
- proteomics (chicken egg ovalbumin is commonly used as a molecular weight marker for calibrating electrophoresis gels).
- immunology (commonly used to stimulate an allergic reaction in test subjects, e.g. established model allergen for atopy/hypersensitivity, Anti).

(For in vivo and in vitro studies based on ovalbumin it is important that the exocytosis content is less than 1 EU/mg.[2] [Editor: reviewed]

Medicinal characteristics

In cases where poisoning by heavy metals (such as iron) is suspected, ovalbumin may be administered.[5] Ovalbumin chelates to heavy metals and traps the metal ions within the octahydrate bonds of the protein. Chelating prevents the absorption of the metals into the gastrointestinal tract and prevents poisoning.

See also

- Egg allergy

References

THE TWO WAYS TO EDIT

- Scripting language (‘Markup’) Versatile with experience
  - Very few things you actually need to know
    - [[link]] ➔ link
    - [[link | other words]] ➔ other words
    - ‘italic’ ➔ italic
    - ‘‘bold’’ ➔ bold
    - *bullet* ➔ • bullet
  - References are tricky

== Biological function ==

Enzymes serve a wide variety of [[function (biology)]] inside living organisms. They are indispensable for [[signal transduction]] and cell regulation, often via [[kinase]]s and [[phosphatase]]s. [[cite journal | authors = Hunter T; title = Protein kinases and phosphatases: the yin and yang of protein phosphorylation and signaling | journal = Cell | volume = 80 | issue = 2 | pages = 225-36 | date = January 1995 | pmid = 7834742 | doi = 10.1016/0092-8674(95)90405-0 ]]. They also generate movement, with [[myosin]] hydrolyzing ATP to generate [[muscle contraction]] and also moving cargo around the cell as part of the [[cytoskeleton]].

Other ATPases in the cell membrane are [[ion pump (biology)]] involved in [[active transport]]. Enzymes are also involved in more exotic functions, such as [[luciferase]] generating light in [[firefly]]; [[fireflies]].

[[cite journal | authors = Berg JS; Powell BC, Cheney RE | title = A millennial myosin census | journal = Molecular Biology of the Cell | volume = 12 | issue = 4 | pages = 780-94 | date = April 2001 | pmid = 11294836 | pmc = 32266 | doi = 10.1091/mbc.12.4.780 ]]. Other ATPases in the cell membrane are [[ion pump (biology)]]; enzymes involved in [[active transport]]. Enzymes are also involved in more exotic functions, such as [[luciferase]] generating light in [[firefly]]; [[fireflies]].

[[cite journal | authors = Neighen EA | title = Molecular biology of bacterial bioluminescence | journal = Microbiological Reviews | volume = 55 | issue = 1 | pages = 123-42 | date = March 1991 | pmid = 2030669 | pmc = 372803 ]].
THE TWO WAYS TO EDIT

EDIT SOURCE

- Scripting language (‘Markup’)
  Versatile with experience

- Very few things you actually need to know

  `[[link]]` → link
  `[[link | other words]]` → other words
  `'italic'` → italic
  `'bold'` → bold
  `*bullet` → *bullet
  `==Heading==` → Heading
  `===Subheading===` → Subheading

EDIT (VISUAL EDITOR)

- Edit like word processing software
  More intuitive

EXAMPLE

- Write some text -
- Add a reference -
- Summarise and save -
Images

1. Upload to Wikimedia commons

2. Use on Wikipedia

Example
- Upload image
- Insert into article
- Add caption
TALK PAGES

- Currently can’t use VisualEditor
  Need to use mark up text
  ~~~~ → Signature

- Header banners
  Page rating
  Wikiproject

- Topic discussion
  Uncertain edits
  Controversial edits
  Suggested improvements

EXAMPLE

- Make a comment -
- Reply to a comment -
USEFUL PERIPHERAL FEATURES

- **User pages**
  - Pseudonym / orthonym
  - Editing aims
  - Brief biography
  - Points of pride

- **User talk pages**
  - Discussion
  - Notifications

- **User sandbox**
  - Personal testing area
  - Try things out without accidentally breaking articles

- **Watchlist**
  - Any changes to your favourite pages
  - Wikipedia-wide announcements

- **History**
  - Permanent record of all versions of a page
  - Summary descriptions and sizes of edits
- Be careful not to violate copyright when adding to Wikipedia
  Plagiarism detectors monitor all edits (TurnItIn)

- All text is under the Creative Commons licence
  - **Share** copy and redistribute the material in any medium or format
  - **Adapt** remix, transform, and build upon the material for any purpose (even commercial)
  - **Attribute** credit must be given (link to the license, and indicate any changes)
  - **Share alike** if you do reuse this information, it must be distributed under the same license

- Images are also Creative Commons by default
  - **Optionally** Remove share alike requirement
    - Remove all requirements (full public domain)

https://creativecommons.org/licenses/by-sa/4.0/
CREATING A NEW ARTICLE

Upload as Draft:XYZ
- Using “Articles for Creation” -
- WP:AFC -

Editor review
- Notability -
- Sufficient References -
- Formatting -

Moved to XYZ page
- Rating -
- Ongoing improvement -

Welcome to Articles for Creation!

Welcome to Articles for Creation! If you don’t have a Wikipedia user account, consider registering an account now so that you can create encyclopedia articles yourself. If you choose not to register, or you have a conflict of interest, but have an idea for a new article and some references, you can create one here and it will be reviewed and considered for publication. If you have an idea for the title of an article, but no content for the article itself, please make a request at Wikipedia:Requested articles. If you already have a Wikipedia user account, you can also use the Article Wizard to help you create your article. To nominate an existing draft or user sandbox for review at Articles for Creation, add the code \{\{subst:submit\}\} to the top of the draft or sandbox page.

Note that if you are being paid to contribute to Wikipedia, under the Terms of Use and WP:Paid, you must disclose your employer, client and affiliations. If you have another type of conflict of interest, you should disclose the conflict of interest, per WP:COI.

Bona fide reviewers at Articles for Creation will never contact or solicit anyone for payment to get a draft into article space, improve a draft, or restore a deleted article. If someone contacts you with such an offer, please post on Wikipedia:WikiProject Articles for creation/Help desk.

Click here to create an article now!

WP:AFC
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SIMILARITIES TO ACADEMIC WRITING

- Neutral point of view [[WP:NPOV]]
  Balanced information

- Cite reliable, verifiable sources [[WP:RS]] [[WP:VER]]

- Avoid plagiarism [[WP:PLAG]]
  Several detection bots search for instances
  Don’t accidentally copyvio yourself!

- Short lead abstract [[WP:LEAD]]

- Permanent record

- Open-access mentality [[WP:FIVEPILLARS]]

- Post-publication peer review (of a sort)
  Continuous editing and improvement by other authors
  Organised peer review for ‘Good Article’ or ‘Featured Article’ status [[WP:GA]], [[WP:FA]]
A BRIEF SIDENOTE ON SHORTCUTS [[WP:CUTS]]

- WP:XYZ links shortcut to various ‘behind the scenes’ pages
  Policies
  Tools
  Community pages
  Wikiprojects


“Nominated article for deletion due to original research and lack of notability; in addition, it does not appear to be possible to verify the accuracy of the sources, as the article contains only references that are contained in unpublished manuscripts.”
DIFFERENCES TO ACADEMIC WRITING

- Content & format
- Referencing & quality
- Peers & collaboration
DIFFERENCES (CONTENT & FORMAT)

- General audience! [[WP:TECHNICAL]]
  Everything should be understandable to a undergraduate
  The first paragraph should be understandable to a secondary school pupil

- Wikilink to key relevant topics [[WP:LINK]]

- Writing style [[WP:MOS]]
  No referencing images, they should stand alone
  Minimise name-dropping
  Date-relevant statements become out of date quickly
  Avoid review-style colloquialisms

"In this article we focus on examples from proteases..."

“See figure 5”
“Jones et.al. have demonstrated that...”
“Currently / the newest / recent...”
DIFFERENCES (REFERENCES & QUALITY)

- Secondary sources are preferred \([\text{WP:SCIRS}]\)
  - Open online preference
  - Especially for medical statements

- No original research \([\text{WP:NOR}]\)
  - Including synthesis of information
  - Can only summarise published work

- Constantly updating work-in-progress \([\text{WP:WIP}]\)

- Different grades Stub – Start – C – B – A – Good – Featured \([\text{WP:ASSESS}]\)

“Active site mutations inactivate enzymes.\([1][2][3][4][5][6][7][8][9][10]\)"

“CRISPR-cas9 can be used to edit mammalian genomes.\([1][2][3][4][5][6]\)"

“Together, these data indicate..."
DIFFERENCES (PEERS & COLLABORATION)

- No ownership [[WP:OWN]]
  There’s no official lead or corresponding author

- Everyone’s equal [[WP:FIVEPILLARS]] , [[WP:BE BOLD]]
  You may sometimes need to explain your edits to people with less knowledge than you
  Editors don’t have to be experts on the topic or on Wikipedia editing
  The average edit is more helpful than harmful

- Notability [[WP:NOTE]]
  Academic biographies must be particularly so [[WP:PROF]]

- Disagreements [[WP:DISPUTE]]
  Article’s talk page
  Dispute resolution mediation request [[WP:DRR]]
## COMPARISON SUMMARY

<table>
<thead>
<tr>
<th></th>
<th><strong>Academic Journal</strong></th>
<th><strong>Wikipedia</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>Readership size</strong></td>
<td>Small and brief&lt;br&gt;Median article - 800 total&lt;br&gt;Top 5% article - 3000 total</td>
<td>Very large and extended&lt;br&gt;Median article - 10,000 per year&lt;br&gt;Top 5% article - 1,000,000 per year</td>
</tr>
<tr>
<td><strong>Readership composition</strong></td>
<td>Other academics, often within narrow field</td>
<td>General public as well as experts and professionals</td>
</tr>
<tr>
<td><strong>Peer review</strong></td>
<td>Pre-publication, private review by 2-4 subject specialists</td>
<td>Post-publication public review by generalists</td>
</tr>
<tr>
<td></td>
<td>Main focus is on reliable sourcing&lt;br&gt;‘Good article’ - 1 reviewer&lt;br&gt;‘Featured Article’ - 5-12 reviewers</td>
<td></td>
</tr>
<tr>
<td><strong>Reputation</strong></td>
<td>Varies by journal but generally extremely high</td>
<td>Public generally trust&lt;br&gt;Academics have mixed opinions by improving</td>
</tr>
<tr>
<td><strong>Authorship</strong></td>
<td>Small number with relevant, accredited expertise. Organised group with lead and corresponding authors.</td>
<td>Large number with mixed expertise levels. Loose organisation. Includes pseudonymous anonymous and simple AI contributors.</td>
</tr>
<tr>
<td><strong>Timeliness</strong></td>
<td>Static&lt;br&gt;Updated by new publications</td>
<td>Constantly updated&lt;br&gt;Only one consensus version</td>
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COMMUNITY

- General community portal [[WP:COM]]
  Help, suggestions, news

- Region-specific Affiliates [[WP:Affiliates]]
  Wikimedia Australia (Wikimedia.org.au)

- Topic-specific Wikiprojects [[WP:WPDIR]]
  Computational biology (Yearly $500 competition)
  Molecular and Cell Biology
  Evolutionary biology
  Genetics
  Chemistry
  Medicine

Wikipedia:WikiProject Molecular and Cell Biology

WikiProject Molecular and Cell Biology
A community for editors of — molecular biology · cell biology · developmental biology · microbiology
PROJECT AND COLLABORATION FORMATS

Institutional / Long-term
- Wikipedian in Residence
  - Formal, ongoing partnerships
- Monthly meetups
- Edit-a-thons / Wikibombs

Individual / Short-term
- Treasurehunts (content, images, citations)
- Edit training (Wikipedia, Wikidata, Commons)
Further Help

- Interactive help (scarily fast response times)
  - Teahouse for new editors [[WP:TH]]
  - Helpdesk for experienced editors [[WP:HD]]

- Tutorials
  - General tutorial [[Help:Intro]]

- Scientist-specific advice

- This presentation is freely available online
Contact

Email    Thomas.Shafee@gmail.com
Google Scholar Thomas Shafee
ResearchGate Thomas Shafee
LinkedIn   Thomas Shafee
Username  Search [[user:tshafee]]

Journals

WikiJournal of Medicine (WikiJMed.org)
WikiJournal of Science (WikiJSci.org)
WikiJournal of Humanities (WikiJHum.org)
PLOS (TopicPagesWiki.plos.org)


