Dr. Mikael Haggstrom

Wikimania Stockholm

WikiJournal

Outline

Wikipedia background

WikiJournal structure and features

Sister project proposal

Wikipedia Background

How medical Wikipedia interacts with the world

Picture A (image attribut

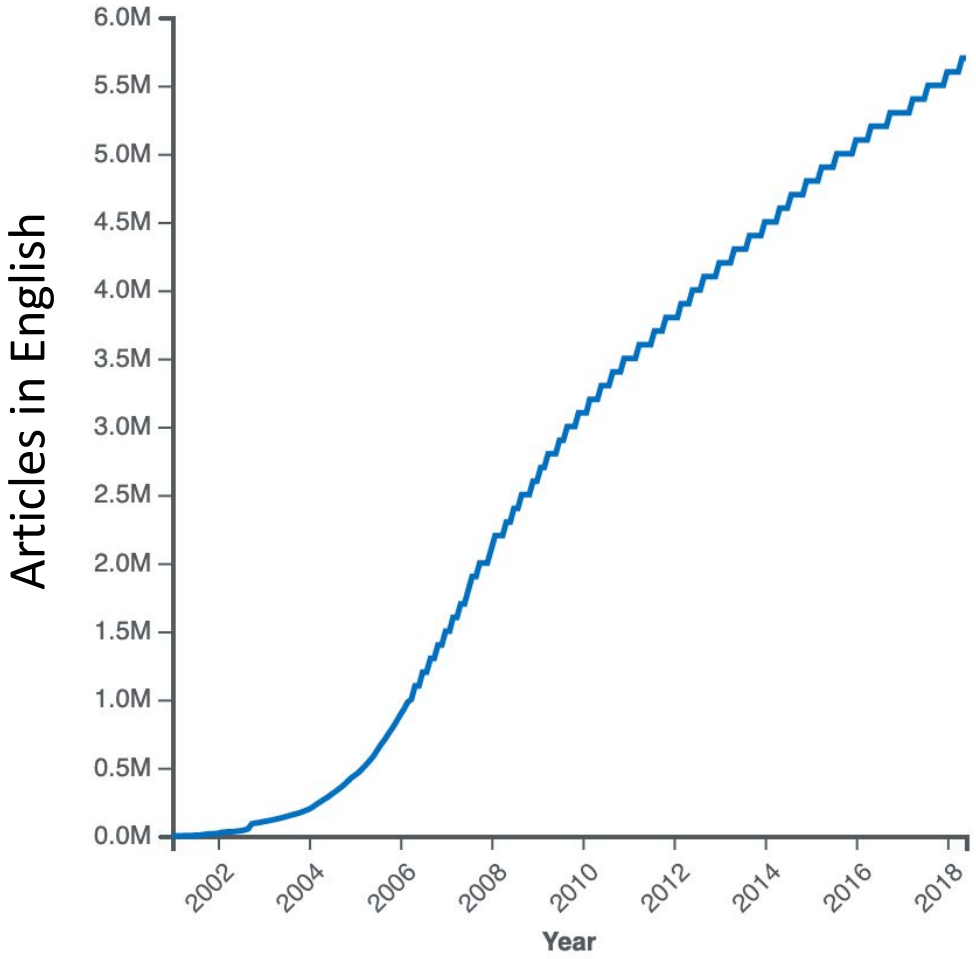
Wikipedia

The largest and most popular general reference work on the Internet

- Over 50 million articles[1]
- Over 300 languages[2]

15 billion views per month[3]

11th most visited website[4]



Picture B

Wikipedia matters

The general public trust it.[5, 6]

Used by doctors (50% - 70%)[7], students (>95%)[8], educators (>85%)[9] and lawmakers[10] .

Wikipedia's limitations

Inconsistent quality and coverage[11]

Changes are reviewed, but not systematically

Clinicians/academics/ researchers often want credit for their work

More than a mention in the "history" tab

A shortage of images

Can not simply use any image on the internet due to copyright

Cannot incorporate original research

Academic limitation

Academic journals' limitations

Maintenance costs, subscription costs, advertising

Most are paywalled to readers

Non-paywalled journals charge authors (article processing charge)

… Some charge both authors and readers!

Copyright of images

Limited readership (size and demographics)

Rigid, unchanging articles become outdated

Similarities and differences

	Academic Journal	Wikipedia
Readership size	Small and brief Median article - 800 total Top 5% article - 3000 total	Very large and extended Median article - 10,000 per year Top 5% article - 1,000,000 per year
Readership composition	Other academics, often within narrow field	General public as well as experts and professionals
Peer review	Pre-publication, private review by 2-4 subject specialists	Post-publication public review of a sort by subject generalists 'Good article' - 1 reviewer 'Featured Article' - 5-12 reviewers
Reputation	Varies by journal but generally extremely high	Public generally trust Academics have mixed opinions but improving
Authorship	Small number with relevant, accredited expertise. Organised group with lead and corresponding authors.	Large number with mixed expertise levels. Loose organisation. Many pseudonymous or anonymous.
Timeliness	Static Updated by new publications	Constantly updated Only one consensus version

Shafee, T. et al. (2017). Evolution of Wikipedia's medical content: past, present and future. JECH. 71(10)

WikiJournal User Group

Wikipedia-integrated • Public peer review • Libre open access

Search the journals

Search

Ethics statement | Publishing | Future | About | Journal | Resources

The WikiJournal User Group publishes 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.

WikiJournal of Medicine

Medicine and biomedicine (Flagship)

WikiJournal of Humanities

Humanities, arts and social sciences

WikiJournal of Science

Science, engineering, technology and mathematics

WikiJournal Preprints

Content under peer review or still being drafted

How do WikiJournals complement Wikipedia?

Published in a standard academic journal format

- Compliant with international journal guidelines (ICMJE, COPE, & BOAI)
- Indexed, dissemination in academic world
  - *G-scholar, DOAJ, CrossRef (DOI codes), ISSN, informit, ScienceOpen*
- Familiar format to researchers and health professionals
- Permanent, citable “version of record”

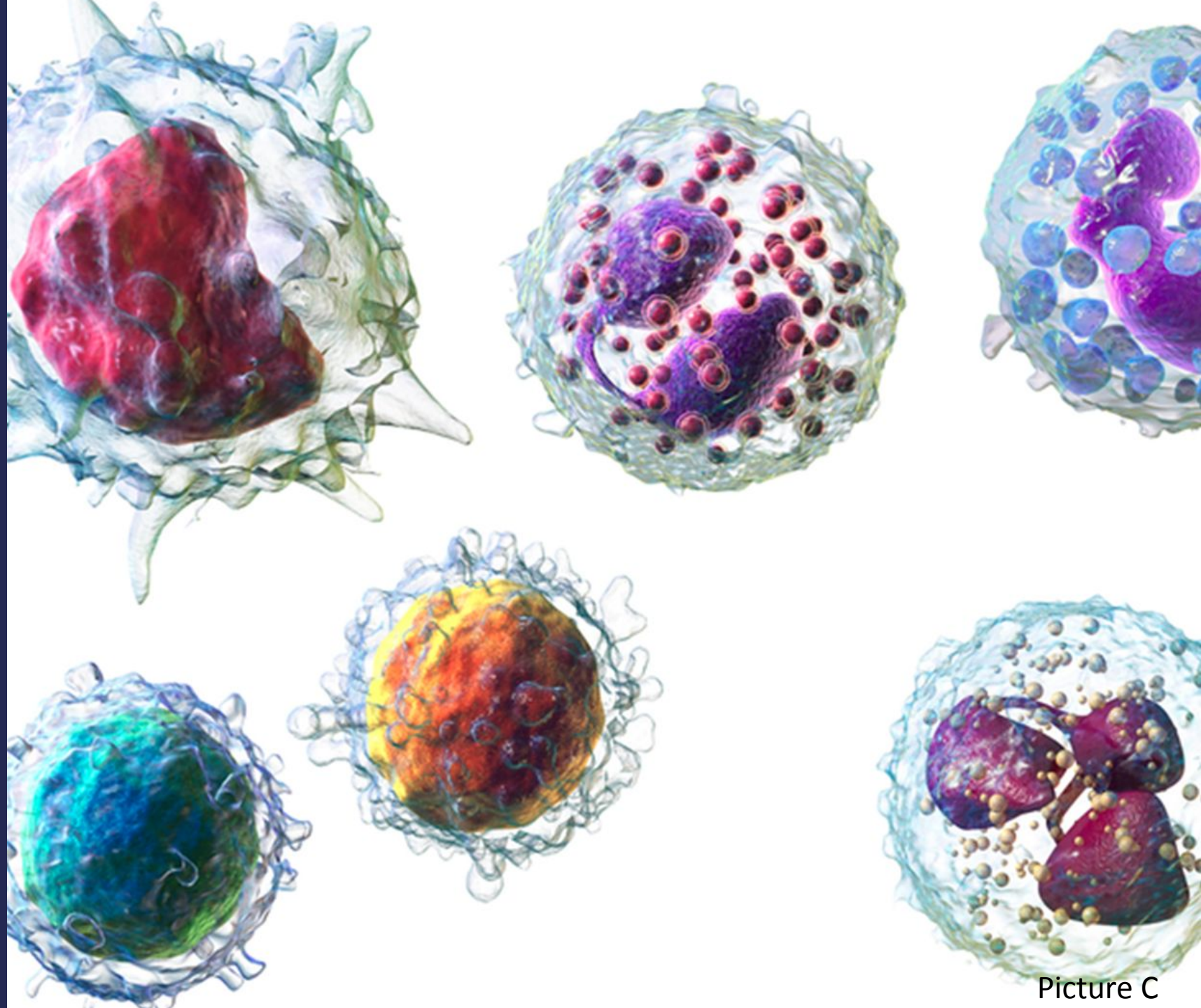
Externally peer reviewed (publicly accessible reviews)

Authors are credited for their work

Ethics, guidelines and processes externally audited (member of COPE and ICJME)

Suitable material is incorporated into the encyclopaedia to be dynamic living version with maximum reach and impact

WikiJournal concepts and features



Picture C

Key features

Open Access

All published articles are openly accessible under a free Creative Commons license

Free to publish

WJM is a fully non-profit journal run by volunteer editors so has no publication charges of any kind

Public peer-review

All article peer reviews are published and publicly accessible

Wikipedia-integrated

Appropriate material is integrated into Wikipedia for added reach and exposure

Publication formats

Research

Original research

Generally including *Method, Results, Discussion*.

Case studies

A patient case in the medical journal, or a significant event, decision, project, or policy.

Review

Focused

on a specific detail of a topic.

Encyclopaedic

- Broad summaries covering an entire topic.
- Encyclopaedic tone.

They can be re-writes, expansions or improvements of existing important Wikipedia articles.

Multimedia

These are short reviews centred around a key image or other multimedia.

Wikiversity Journal of Medicine, 2014, 1 (2)
doi: 10.15347/wjm/2014.012
Review Article

Insights into abdominal pregnancy

Gwinyai Masukume

Editor's note

This article provided a great deal of valuable evidence that was not mentioned in the Wikipedia article on abdominal pregnancy, and the Wikipedia article has subsequently been expanded with text from this publication. However, because of this purpose, it has never been the aim of this article in itself to be a complete review of the subject, and many aspects of abdominal pregnancy are not included herein.

This article also provides an example of how to contribute to Wikimedia projects such as Wikipedia by means of academic publishing.

Introduction

While rare, abdominal pregnancies have a higher chance of maternal mortality, perinatal mortality and morbidity compared to normal and ectopic pregnancies, but on occasion a healthy viable infant can be delivered.[1]

Because tubal, ovarian and broad ligament pregnancies are as difficult to diagnose and treat as abdominal pregnancies, their exclusion from the most common definition of abdominal pregnancy has been debated.[2]

Others - in the minority - are of the view that abdominal pregnancy should be defined by a placenta implanted into the peritoneum.[3]

Symptoms and signs

Abdominal pregnancy does not have any specific symptoms and signs so much so that in about half of instances it is missed, only being discovered during surgery; because of the "vague" yet serious nature of the symptoms, signs and results of medical tests patients with abdominal pregnancy will generally have surgery at some point.[4][5][6]

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Risk factors

Risk factors are similar to tubal pregnancy with sexually transmitted disease playing a major role.[7] However, about half of those with ectopic pregnancy have no known risk factors - known risk factors include damage to the Fallopian tubes from previous surgery or from previous ectopic pregnancy and tobacco smoking.[8]

Mechanism

Typically an abdominal pregnancy is a secondary implantation which means that it originated from a tubal (less common an ovarian) pregnancy and re-implanted.[9] Other mechanisms for secondary abdominal pregnancy include uterine rupture, rupture of a uterine rudimentary horn and fimbrial abortion.[3]

Diagnosis

Suspicion of an abdominal pregnancy is raised when the baby's parts can be easily felt, or the lie is abnormal, the cervix is displaced, or there is failed induction of labor.[4] X-rays can be used to aid diagnosis.[9]

To diagnose the rare primary abdominal pregnancy, Studdiford's 1942 criteria need to be fulfilled: tubes and ovaries should be normal, there is no abnormal connection (fistula) between the uterus and the abdominal cavity, and the pregnancy is related solely to the peritoneal surface without signs that there was a tubal pregnancy first.[10] Studdiford's criteria were refined in 1968

Before

```
Suspicion of an abdominal pregnancy is raised when the baby's parts can be easily felt, or the [[Lie (obstetrics)|lie]] is abnormal. [[Obstetrical ultrasonography|Sonography]] is extremely helpful in the diagnosis as it can demonstrate that the pregnancy is outside an empty uterus, there is no [[amniotic fluid]] between the placenta and the fetus, no uterine wall surrounding the fetus, fetal parts are close to the abdominal wall, and the fetus is in abnormal lie.<ref name=hk/> [[MRI]] has also been used with success to diagnose abdominal pregnancy.<ref name=dahiya/> Elevated [[alpha-fetoprotein]] levels are another clue of the presence of an abdominal pregnancy.<ref>{{cite journal | author=Tromans PM, Coulson R, Lobb MO, Abdulla U |title= Abdominal pregnancy associated with extremely elevated serum alphafetoprotein: case report |journal= British Journal of Obstetrics and Gynaecology |pmid=6200135 | year=1984 | volume=91 | issue=3 | pages=296–8 | doi=10.1111/j.1471-0528.1984.tb04773.x}}</ref>
```

+

After

```
Suspicion of an abdominal pregnancy is raised when the baby's parts can be easily felt, or the [[Lie (obstetrics)|lie]] is abnormal, the [[Cervix|cervix]] is displaced, or there is failed [[Labor induction|induction of labor]]. <ref name=Nunyalulendho/> [[X-ray#Medical uses|X-rays]] can be used to aid diagnosis. <ref name=bonn/> Sonography can demonstrate that the pregnancy is outside an empty uterus, there is reduced to no [[amniotic fluid]] between the placenta and the fetus, no uterine wall surrounding the fetus, fetal parts are close to the abdominal wall, the fetus has an abnormal lie, the placenta looks abnormal and there is [[Ascites|free fluid in the abdomen]]. <ref name=hk/> <ref>{{cite doi|10.1186/1752-1947-7-10}}</ref> [[MRI]] has also been used with success to diagnose abdominal pregnancy and plan for surgery. <ref>{{cite journal | author=Lockhat F, Corr P, Ramphal S, Moodly J |title=The value of magnetic resonance imaging in the diagnosis and management of extra-uterine abdominal pregnancy |journal= Clin Radiol |pmid=16488208 | year=2006 | volume=61 | issue=3 | pages=264-9 | doi=}}</ref><ref name=dahiya/> Elevated [[alpha-fetoprotein]] levels are another clue of the presence of an abdominal pregnancy.<ref>{{cite journal | author=Tromans PM, Coulson R, Lobb MO, Abdulla U |title= Abdominal pregnancy associated with extremely elevated serum alphafetoprotein: case report |journal= British Journal of Obstetrics and Gynaecology |pmid=6200135 | year=1984 | volume=91 | issue=3 | pages=296–8 | doi=10.1111/j.1471-0528.1984.tb04773.x}}</ref>
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Text used to expand Wikipedia articles

Wikiversity Journal of Medicine, 2015, 2(1)
doi: 10.15347/wjm/2015.001
Figure Article

Images of *Aerococcus urinae*

Mikael Häggström[1,2,3] and Jonatan Mattila[4,5]

Abstract

This is a description of an infection in 73 year old man with multiple comorbidities, with images of *Aerococcus urinae* from resultant blood cultures, showing their alpha hemolytic and Gram-positive properties.

Plain language summary: *Aerococcus urinae* is a type of bacteria that can lead to infections in the urinary system. This work describes a 73 year old man who had an infection with *Aerococcus urinae*. Samples of blood and urine were taken from the patient, and when put on blood cells the bacteria weakly changed the color of the blood cells around them. This result is called *alpha hemolysis*, and can be seen in *Image 1*. Adding Gram stain to the bacteria turned them violet, and therefore the bacteria were *Gram-positive*. This can be seen in microscopy in *Image 2*. The patient was treated with antibiotics.

Aerococcus urinae

Aerococcus urinae is a relatively new species of bacteria in clinical and microbiological practice, first reported in 1989 and designated as a separate species in 1992.[1] It can cause urinary tract infections, bacteremia / septicemia and/or endocarditis.[2] As a urinary tract pathogen, it causes infections predominantly in elderly persons with local or general predisposing conditions.[3] Aerococcus urinae has been estimated to cause approximately 0.31 - 0.44% of urinary tract infections.[3]

Patient case

A 73 year old man presented to the emergency department with two days of fatigue, fever and chills. He had a previous history of left arterial cerebral media infarction with expressive aphasia, right side hemiparesis and post-stroke seizures. He suffered from hypertension, atrial fibrillation and aortic stenosis with normal systolic left ventricular function as well as urinary incontinence and prostatic hyperplasia.

In the emergency department he was afebrile and the blood-samples showed a C-reactive protein level of 19 mg/l (normally less than 5[4] or 6[5]) and a leukocyte count of 13.7*10⁹/l (normally less than 9.0[6] or 10.0[7]). The patient was admitted to the hospital for observation, and after one day on the ward he developed chills and was subfebrile with a tympanic body temperature of 37.6°C (normally up to 37.5°C).[8] Blood and urine samples were taken for culture. Microscopy of the blood samples showed gram-positive cocci. The patient received intravenous cefotaxime. After three days all blood samples and urine samples showed growth of gram-positive catalase-negative cocci *Aerococcus urinae* (**Figures 1 and 2**).

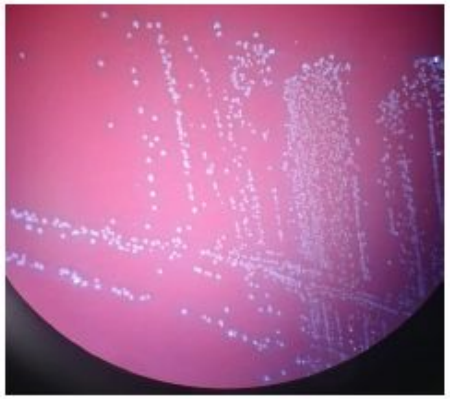


Figure 1 | Blood agar with alpha hemolytic colonies following culture from the patient's blood samples.

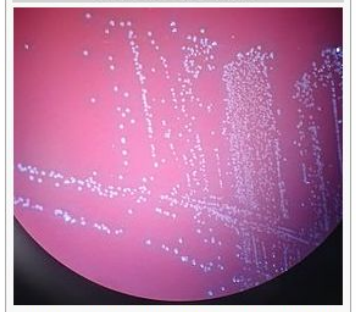
Sundsvall Regional Hospital
[1] Image credits and author of introduction
[2] ORCID: 0000-0002-2732-7631
[3] Author Correspondence: online form
[4] Author of patient case
[5] Author Correspondence: online form

Received 01-03-2015; accepted 03-03-2015

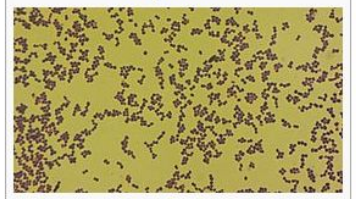
Aerococcus urinae

From Wikipedia, the free encyclopedia

Aerococcus urinae is a member of the bacterial genus *Aerococcus*. The bacterium is a Gram-positive, catalase-negative coccus growing in clusters. Isolates of this species were originally isolated from the urine of patients with urinary tract infections and were denoted *Aerococcus*-like organisms.[1] In 1992, *A. urinae* was assigned as distinct species.[2] Due to difficulties in the biochemical identification of *A. urinae* in clinical microbiological laboratories, the incidence of infections with this bacterium has likely been underestimated and secure identification relies on genetical or mass spectroscopic methods.[3] *A. urinae* may also cause invasive infections including urosepsis and infective endocarditis, especially in elderly men with underlying urinary tract diseases.[4][5] *A. urinae* is sensitive to many commonly used antibiotics such as penicillin, cephalosporins, and vancomycin. However, the bacterium is often resistant to many antibiotics used in urinary tract infections such as sulphametoxazole, trimethoprim and ciprofloxacin.[6] The bacterium can form biofilms on foreign materials and can aggregate human platelets, two features of potential importance for the disease causing capacity of this organism.[7] *A. urinae* is the most common aerococcus isolated from invasive human infections whereas *Aerococcus sanguinicola* is isolated from human urine as often as *A. urinae*.[8]



Aerococcus urinae on blood agar, showing alpha hemolytic colonies.



Microscopy of *Aerococcus urinae* with gram stain, showing gram positive cocci.

Scientific classification	
Kingdom:	Bacteria
Phylum:	Firmicutes
Class:	Bacilli
Order:	Lactobacillales
Family:	Aerococcaceae
Genus:	*Aerococcus*

References [edit]

1. ^ Christensen, JJ; Vibits, H; Ursing, J; Korner, B (May 1991). "*Aerococcus-like organism, a newly recognized potential urinary tract pathogen.*". *Journal of Clinical Microbiology* **29** (5): 1049–53. PMC 269932. PMID 2056040.
2. ^ Aguirre, M.; Collins, M. D. (1 February 1992). "Phylogenetic analysis of some Aerococcus-like organisms from urinary tract infections: description of Aerococcus urinae sp. nov.". *Journal of General Microbiology* **138** (2): 401–405. doi:10.1099/00221287-138-2-401.
3. ^ Rasmussen, M (December 2012). "Aerococci and aerococcal infections.". *Journal of Infection* **66** (6): 467–74. doi:10.1016/j.jinf.2012.12.006. PMID 23277106.
4. ^ Ebnöther, C; Altwegg, M; Gottschalk, J; Seebach, JD; Kronenberg, A (Oct 2002). "Aerococcus urinae endocarditis: case report and review of the literature.". *Infection* **30** (5): 310–3. doi:10.1007/s15010-002-3106-x. PMID 12382093.
5. ^ Senneby, E; Petersson, A-C; Rasmussen, M (June 2012). "Clinical and microbiological features of bacteremia with *Aerococcus urinae*.". *Clinical Microbiology and Infection* **18** (6): 546–50. doi:10.1111/j.1469-0691.2011.03609.x.
6. ^ Rasmussen, M (June 2013). "Aerococci and aerococcal infections.". *Journal of Infection* **66**

Images are stored in Wikimedia Commons, and can be used across sister projects.

Wikiversity Journal of Medicine, 2014, 1 (1)
doi: 10.15347/wjm/2014.001
Figure Article

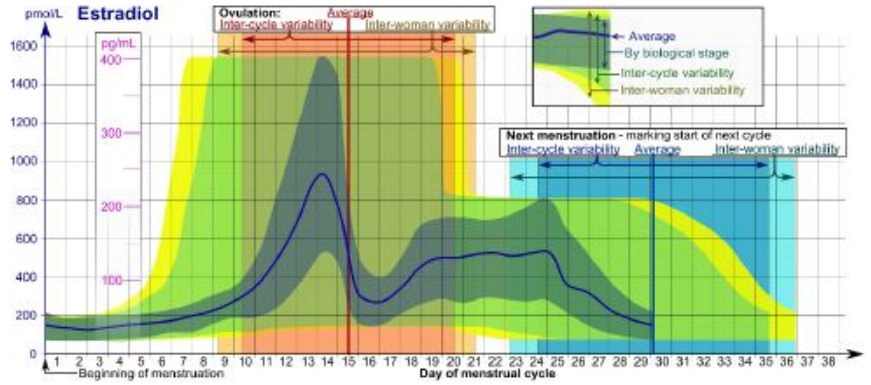


Figure 2 | Estradiol during menstrual cycle

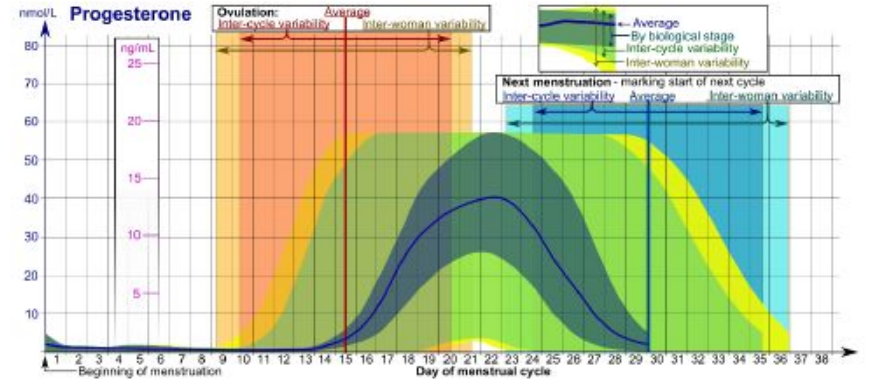


Figure 2 | Progesterone during the menstrual cycle

the up to 95% prediction intervals for any single woman, assuming an inter-cycle average duration that is equal to population average. These ranges are more appropriate to use in non-monitored cycles with only the beginning of menstruation known, but where the woman accurately knowing her average cycle lengths and time of ovulation, and that they are somewhat averagely regular, with the time scale being compressed or stretched to how much a woman's average cycle length is shorter or longer, respectively, than the average of the population.

- The ranges denoted Inter-woman variability are the up to 95% prediction intervals for hormone levels in the overall population. These ranges are more appropriate in non-monitored cycles, where the average cycle lengths and time of ovulation are unknown, but only the beginning of menstruation is given.

Derivation

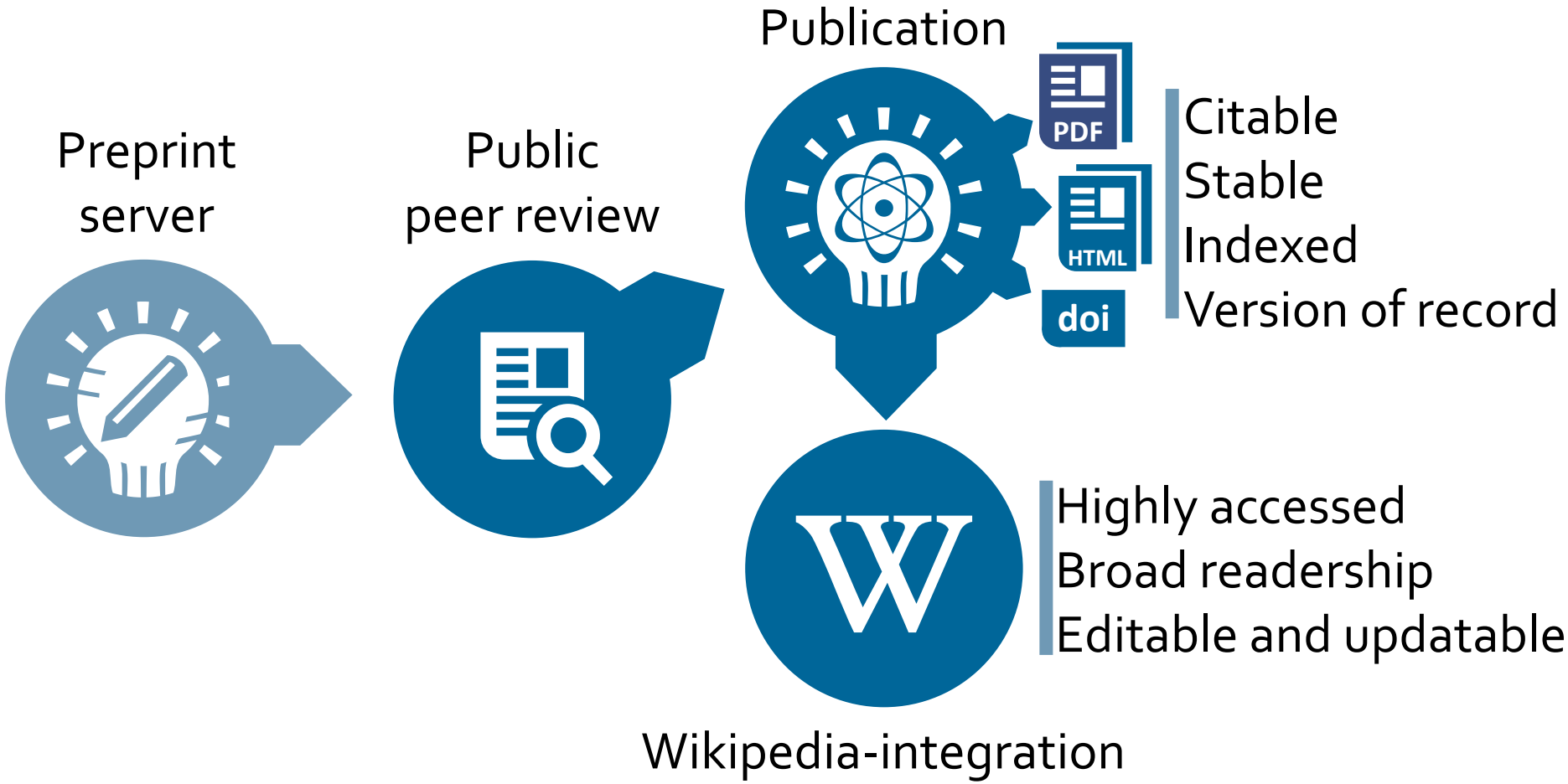
Average hormone values

The average hormone levels are taken from Stricker 2006,[3] with some regression to a smoother curve between values of a rather zigzag pattern. The confidence intervals for the average values are not given in this

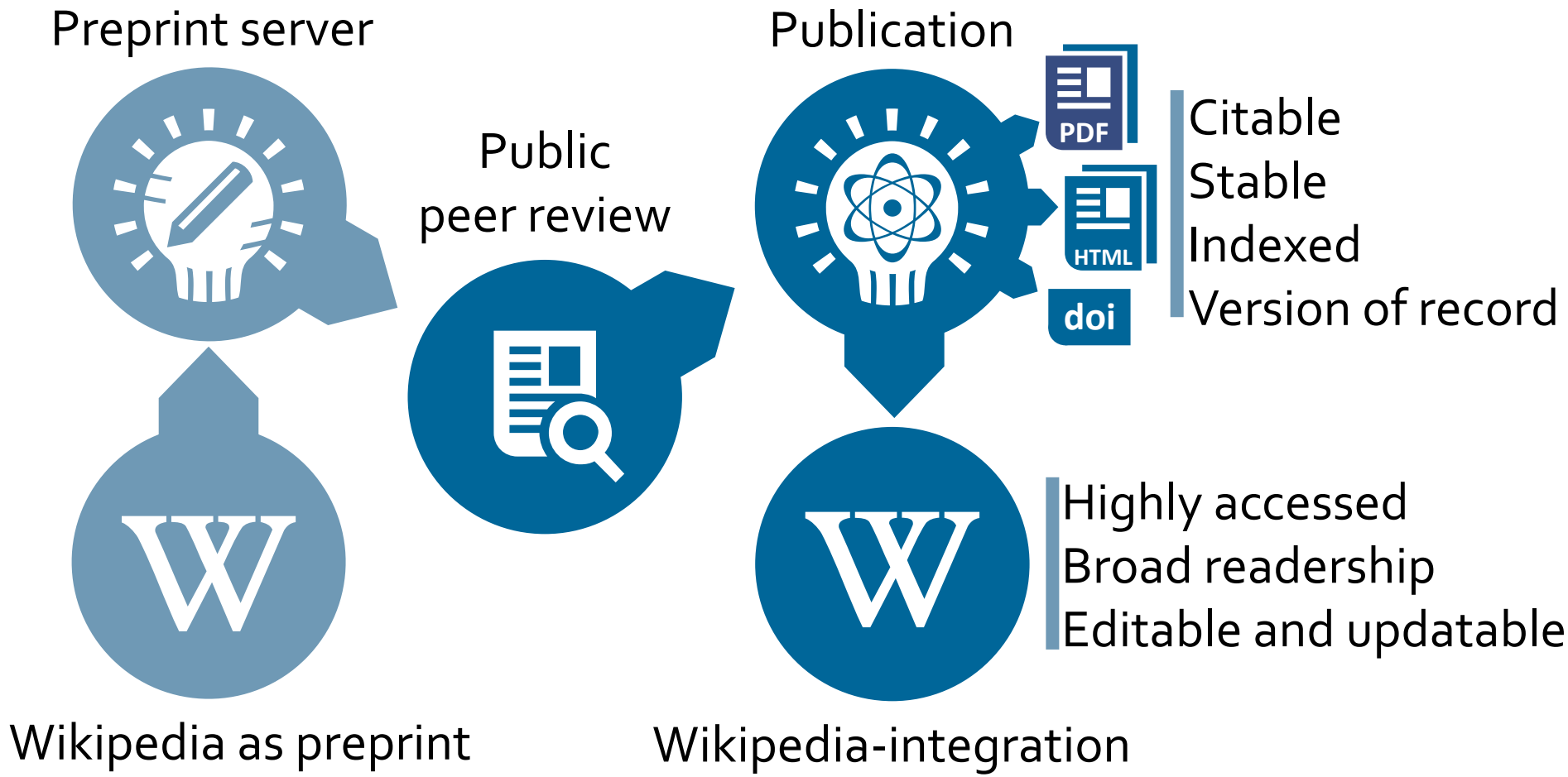
Images from this one paper appear in articles with a total of **255,000** readers per month.

Wikipedia articles where media are used	View count (Feb 2015)
Estrogen	53793
Estradiol	27055
Menstrual cycle	53209
Ovulation	15584
Reference ranges for blood tests	23898
Progesteron	34680
Follicle-stimulating hormone	22883
Luteinising hormone	23706

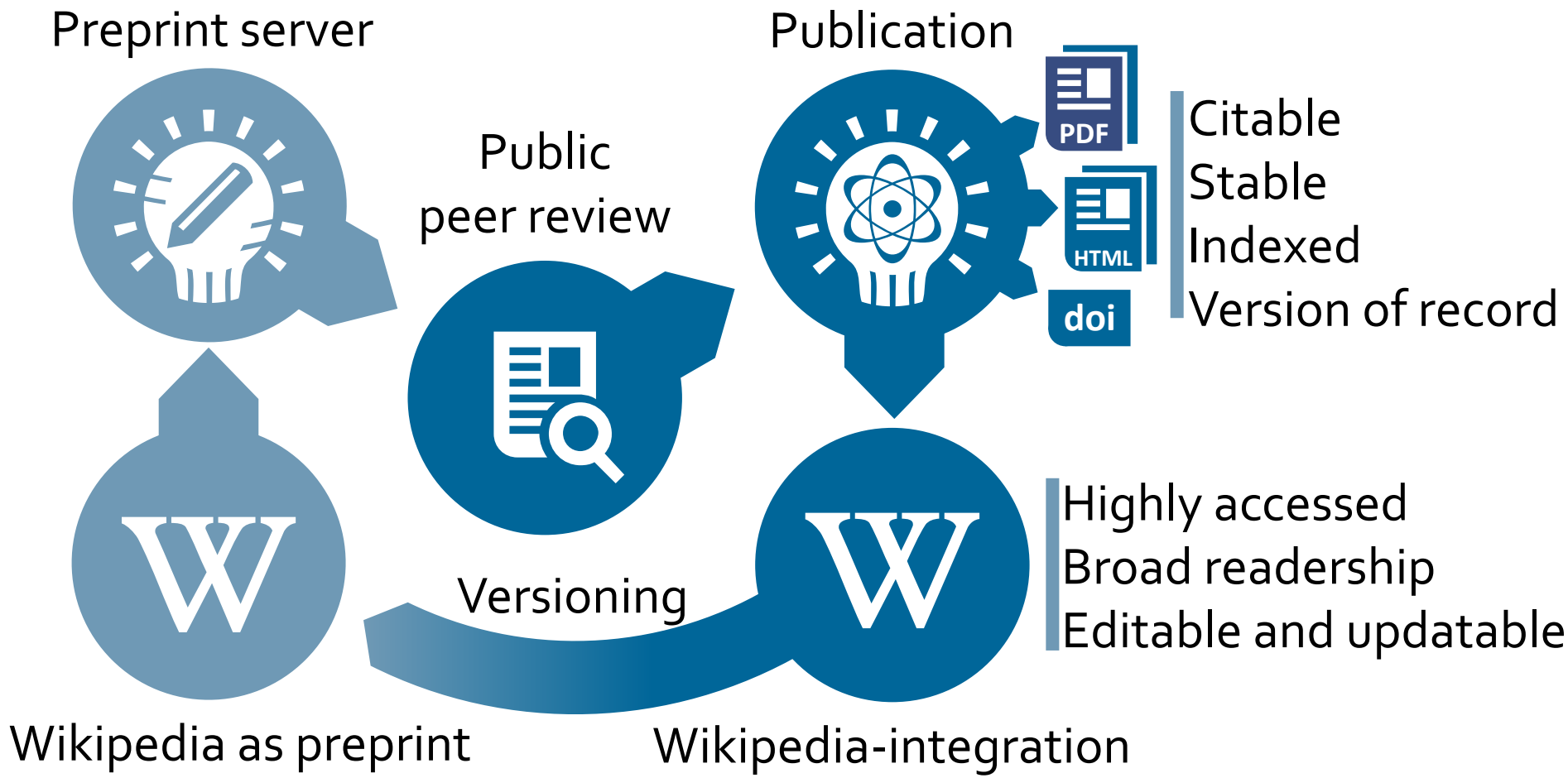
Publishing flow (Journal first)



Publishing flow (Wikipedia first)



Publishing flow (Versioning)



Beyond Wikipedia

Teaching resource used in Wikiversity

- Acute gastrointestinal bleeding from a chronic cause: a teaching case report

Image gallery in Commons and used throughout Wikimedia sister projects

- Medical Gallery of Blausen Medical

Stand-alone research article

- Vitamin D as an adjunct for acute community-acquired pneumonia among infants and children: systematic review and meta-analysis

Possibly also

- Wikibooks
- Wikidata

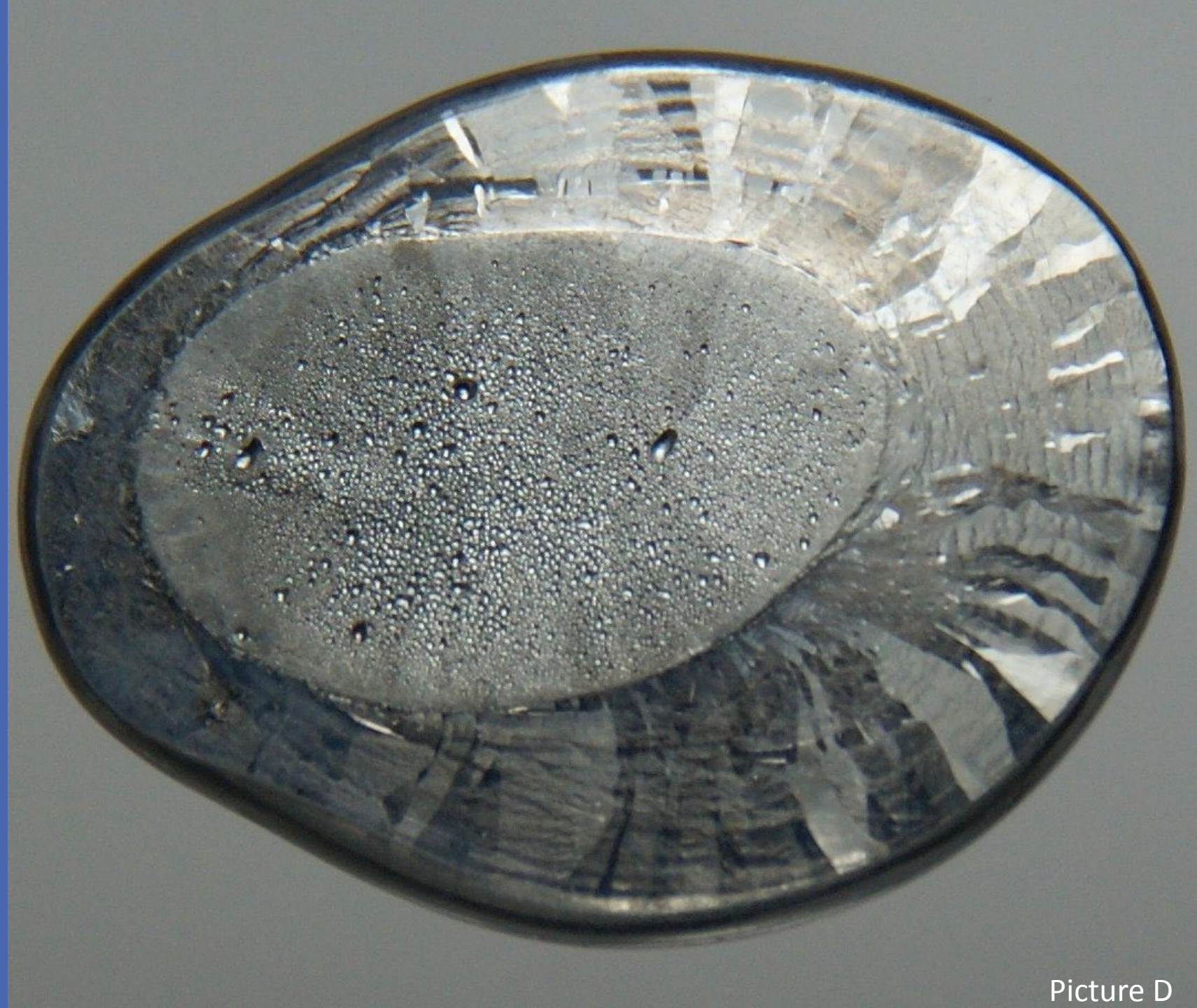
Who can submit articles?

Anyone can submit

- All authors treated equally
- The *content* counts

Ideal for research and acedemics aiming to

- Achieve maximum outreach, exposure, and impact
- Be credit for expert input to open access projects
- Contribute to the world's most read encyclopaedia



Picture D

Who can peer review articles?

Anyone can give review

Pre- or post-publication

External experts invited to review (*at least* 2 required)

Have expertise in the topic at hand, and be willing to provide relevant credentials if requested.

Be willing to disclose any potential conflicts of interests

Not be editorial board members of the journal

Anonymity optional

Picture E

High impact

- 66,000 journal article views during 2018.[12]
- **4.2 million views** (2018) of all material integrated into Wikipedia.[13]
- 11 publications so far in 2019.

Participants

WikiJournal of Science: 27 board members and 3 associate editors

WikiJournal of Medicine: 12 board members and 1 associate editor

WikiJournal of Humanities: 17 board members

Authors, peer reviewers

Picture F

Sister project proposal

Currently hosted in Wikiversity

Sister project would allow for journal-specific features

Discussion and support/oppose: https://meta.wikimedia.org/wiki/WikiJournal

Picture G

Wikimedia journal hosting platform

Features

- Site identity and branding
  - journals.wikimedia.org / wikijournals.org / journals.wiki / j.wiki
  - Specialised sidebar items and logos
  - CC BY default license (compatible with most scientific journals)
- Automation of repetitive tasks
  - Copying accepted articles into latest volume & issue
  - Formatting PDFs
- Specialised extensions
  - Automated email reminders to reviewers
  - Wikidata integration to track peer reviews (currently written in talkpages)

Contribute

- **Publish** an article. Credentials are not necessary.
- **Peer reviewing** of article submissions. Does require expertise in the subject at hand.
- Help **preparing** submitted articles
- Join an **editorial board** and share your ideas about journal management
- Will hire a **technical editor**.

Individual WikiJournals

WikiJournal of Science

www.WikiJSci.org

Contact@WikiJSci.org
WikiJSci
WikiJSci

WikiJournal of Medicine

www.WikiJMed.org

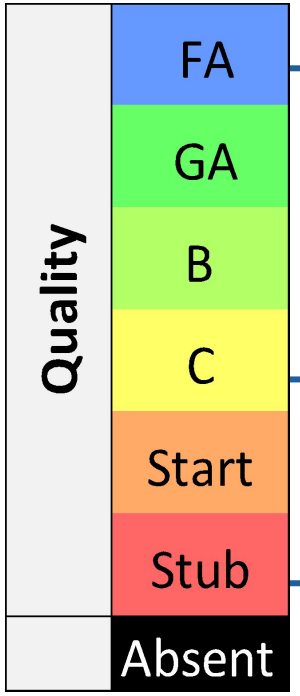
Contact@WikiJMed.org
WikiJMed
WikiJMed

WikiJournal of Humanities

www.WikiJHum.org

Contact@WikiJHum.org
WikiJHum
WikiJHum

Case studies – improving Wikipedia



Full review articles

Existing high-quality Wikipedia article updated and submitted

- Hippocampus

Wikipedia article previously existing but flawed/outdated

- Lysine

Wikipedia article previously completely absent/stub

- Anthracyclines

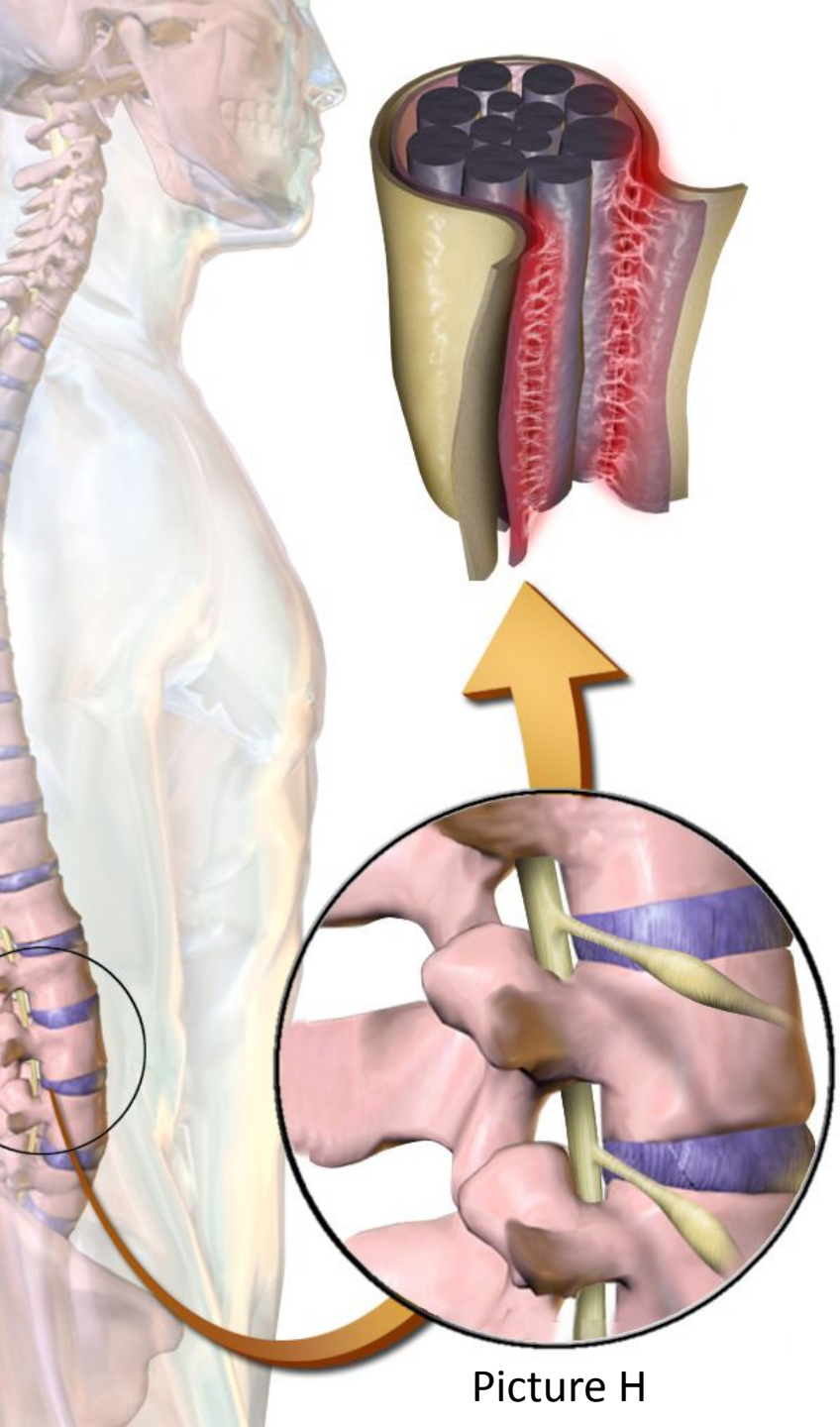
Article sections

Section of Wikipedia article warranted own page

- Gene structure

Wikipedia articles previously lacked images

- Cell disassembly during apoptosis



Picture H

Possible partnership systems

Article co-published in both a specialist “conventional” journal and in a WikiJournal.

- Specialist journal: Invite authors, identify peer reviewers
- WikiJournal: Advise on Wikipedia policy compliance, readability, style and formatting

Co-publishing in two journals is frequent. Example:

Staniszewska, S., et al. (2017). GRIPP2 reporting checklists: tools to improve reporting of patient and public involvement in research. ***Research involvement and engagement*, *3*(1), 13**

Staniszewska, S., et al. (2017). GRIPP2 reporting checklists: tools to improve reporting of patient and public involvement in research. ***British Medical Journal 358*(1), j3453**

Appropriate content then copied into Wikipedia per ‘journal-first’ model

References and notes

1. List of Wikipedias – Grand Total (updated daily)". Wikimedia.org. Retrieved 15 August 2019.
2. List of Wikipedias. Wikimedia.org. Retrieved Aug 15, 2019.
3. Wikimedia Traffic Analysis Report - Wikipedia Page Views Per Country – Overview. Monthly requests or daily averages, for period: 1 Sep 2018 - 30 Sep 2018 . Retrieved Aug 15, 2019
4. Alexa - The top 500 sites on the web. Retrieved Aug 15, 2019.
5. Giles J (2005). "Internet encyclopedias go head to head". *Nature'*
6. Lucassen T, Schraagen JM (2010) Trust in Wikipedia: how users trust information from an unknown source. *Proceedings of the 4th workshop on Information credibility*
7. Heilman JM, West AG (2015) "Wikipedia and Medicine: Quantifying Readership, Editors, and the Significance of Natural Language." *J Med Internet Res*
8. Allahwala UK *et al.* (2013) "Wikipedia use amongst medical students–New insights into the digital revolution" *Medical teacher*
9. Purcell K *et al.* (2013) "How teachers are using technology at home and in their classrooms" *Pew Research Center*
10. Peoples LF (2009) "Citation of Wikipedia in Judicial Opinions, The." *Yale JL & Tech*
11. Clauson, K. A; Polen, H. H; Boulos, M. N K.; Dzenowagis, J. H (18 November 2008). "Scope, Completeness, and Accuracy of Drug Information in Wikipedia". Annals of Pharmacotherapy 42 (12): 1814–1821. doi:10.1345/aph.1L474. PMID 19017825.
12. Category:Articles that have passed peer review, Wikimedia Toolforge.
13. WikiJMed, WikiJSci, WikiJHum statistics at Wikimedia Toolforge for 2018.

Images

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