Alternative to the Research Paper: Wiki Webpage Development

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Alternative to the Research Paper: Wiki page development

Candace Timpte, Alexandra Kurtz
Georgia Gwinnett College
School of Science and Technology
What is a Wiki?

- Fully editable website
- Users can read, reformat, edit, update content
- Requirement: web browser
- Public? Campus wiki is openly searchable
  - Editing capability requires campus email logon

- A famous example!
  - has anyone it?

- Computer supported Collaborative Learning
Wikis = Viral Content

• Once a few people start using a wiki, they realize it would be more efficient if others used it too!
• Then Wiki accounts increase exponentially
• The more you use and contribute to a wiki, the better a resource it becomes.
• Wikipatterns.com
Wiki as CSCL catalyst

• **Computer Supported Collaborative Learning**
  • Promotes peer interaction and facilitates the sharing and distribution of knowledge and expertise amongst a group of learners (Lipponen, 2002).

• Collaborative learning exercises are student centered and enable students to share authority and empower themselves with the responsibility of building on their foundational knowledge (Myers, 1991).

• Students can use wikis to create a set of documents that reflect the shared knowledge of the learning group.
Building Collaborative Knowledge

Collaborative

Question

Synthesize

Read

Reflect

Discuss

Personal

Reflect

Compile

Research

Read
Instructions

To Begin, make sure that the disease you choose is not on the list of other diseases chosen from this semester or last. Next, add your genetic disease and your name below in the by editing this page. Copy the [[Disease Name]] - Your Name line and paste in a copy. Check the preview and if the Disease Name shows as a red link, you are about set to go. Save this page, then click on the Content template link. Click the edit button, but just copy everything in the edit window and cancel. Then come back to this page and click on your red link. You will be able to edit a new page: paste in the Template content, then edit it with your information.

Content Template - copy and paste this template format into your page. Then add your content! The template is divided into sections to organize your content. A series of web pages in similar formats is easier for the user, so please use this format. You may have other information to add, feel free to do so, and add more headers on your page if needed. Remember too, to cite your sources of information. You may also add images to supplement your text.

Remember the guidelines in the syllabus regarding plagiarism. If I find that you have copied and pasted a single sentence of 'your' content without appropriate citation, you will receive a zero for this project and drop a letter grade for the class. USE YOUR OWN WORDS; they may not be as elegant as those of professional scientists and professional editors but they are YOUR work. I want to see YOUR WORK.

Rubric and deadlines

Pages must be completed by 3:30 PM, Tuesday, November 30, 2010

You will be graded according to the Genetic Disease Rubric. You must have a topic selected by Tuesday, November 16.

Links to start with

Genetics Home Reference

Online Mendelian Inheritance
Editing Genetic Disease F10 (section)
From GGCWiki

== Instructions ==

To Begin, make sure that the disease you choose is not on the list of other diseases chosen from this semester or last. Next, add your genetic disease and your name below in the by editing this page. Copy the <nowiki> [[Disease Name]] - Your Name </nowiki> line and paste in a copy. Check the preview and if the Disease Name shows as a red link, you are about set to go. Save this page, then click on the Content template link. Click the edit button, but just copy everything in the edit window and cancel. Then come back to this page and click on your red link. You will be able to edit a new page: paste in the Template content, then edit it with your information.

[[Content Template]] - copy and paste this template format into your page. Then add your content! The template is divided into sections to organize your content. A series of web pages in similar formats is easier for the user, so please use this format. You may have other information to add, feel free to do so, and add more headers on your page if needed. Remember too, to cite your sources of information. You may also add images to supplement your text.

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=== Rubric and deadlines ===

"Pages must be completed by 3:30 PM, Tuesday, November 30, 2010"

Please note that all contributions to GGCWiki may be edited, altered, or removed by other contributors. If you don't want your writing to be edited mercilessly, then don't submit it here. You are also promising us that you wrote this yourself, or copied it from a public domain or similar free resource (see Project:Copyrights for details). **DO NOT SUBMIT COPYRIGHTED WORK WITHOUT PERMISSION!**

Summary:

/* Instructions */

☐ This is a minor edit ☐ Watch this page

Save page Show preview Show changes Cancel | Editing help (opens in new window)
Research Paper: Learning outcomes?

• Library and internet research
• Critical thinking
  – Synthesis of ideas
• Style
  – grammar, spelling, sentence construction
• Citation
Wiki Page: Learning outcomes?

• Library and internet research
• Critical thinking
  – Synthesis of ideas
• Style
  – grammar, spelling, sentence construction
• Citation
• Use of technology
• Visual organization
• Collaboration
• Production of a shared product
What does it look like?

• Sample pages from our wikis
Student comments

• “Wiki page is fun” 😊

• “Creating a wiki page was a better idea than writing a paper because the knowledge on wiki page are shared with everyone while a written paper is strictly limited for your own knowledge.”
Student comments

• “The wiki was a good experience both in learning a new format for knowledge transmission, and in the ability to break out of the confined structures of the paper format.”

• “The additional option of visual enhancement of the information and the ease of accessibility to other students made the wiki project far more useful to a far broader audience.”
2. Demonstrate knowledge of the process of gene expression and regulation.
3. Describe basic inheritance patterns and the chromosomal basis of heredity.
5. Explain mutation as a source of genetic variability.

Course Goals

Biol 3200K Genetics

Percent achievement

- 2. Demonstrate knowledge of the process of gene expression and regulation
- 3. Describe basic inheritance patterns and the chromosomal basis of heredity
- 5. Explain mutation as a source of genetic variability

No Wiki
Average with Wiki

Graph showing percent achievement for course goals.
2. Compare and contrast prokaryotic and eukaryotic cells as they apply to clinical diagnostics, antimicrobial therapy and antibiotic resistance.

3. Explain the interactions and impact of microorganisms and hosts to include the pathology and epidemiology.
I like writing research papers
I am creative
I liked creating the wiki page
Writing research papers allows me to be more creative than a wiki assignment

Student Perceptions

- strong disagree
- disagree
- uncertain
- agree
- strong agree
I enjoy researching topics in the library
I enjoy researching topics online
I am more likely to search for information on the web rather than paper
I use the same sources for a wiki project as a research paper

Student Perceptions

- strong disagree
- disagree
- uncertain
- agree
- strong agree
I prefer writing a research paper over creating a wiki page

I spent more time working on the wiki than I would have on a research paper

Student Perceptions

- strong disagree
- disagree
- uncertain
- agree
- strong agree
Evaluation Rubric for Genetic Disease Wiki
Student name:

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Poor</th>
<th>Satisfactory</th>
<th>Excellent</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>Much inaccurate information is included. Information is unclear.</td>
<td>Some inaccurate information is included.</td>
<td>Information is accurate and useful to the reader.</td>
<td>10</td>
</tr>
<tr>
<td>Citation</td>
<td>Many sources not clearly cited. Evidence of plagiarized elements.</td>
<td>Some sources do not have full citation.</td>
<td>All sources are cited properly and completely. All links to citations work.</td>
<td>4</td>
</tr>
<tr>
<td>Spelling/Grammar/Style</td>
<td>Many spelling, grammar or usage errors.</td>
<td>Some spelling, grammar or usage errors.</td>
<td>No spelling, grammar or usage errors.</td>
<td>3</td>
</tr>
<tr>
<td>Formatting</td>
<td>Inconsistent format, entry doesn’t look ‘readable’</td>
<td>Formatting is inconsistent, some areas are good, others not as clean</td>
<td>Formatting is clear and consistent</td>
<td>3</td>
</tr>
</tbody>
</table>
The Finished Product!


- Compendium from three semesters:
Best Practices

• Clear, specific assignment
• Template for students to copy into their wiki page
• Strong plagiarism statement
• Encourage more collaboration and discussion on pages
• Share wiki among class: oral presentations; treasure hunts; others?
Screen shots of wikis

• (in case internet is not available...)
INFECTIONOUS DISEASE PROJECT Fall 2010
From GGCWiki

Georgia Gwinnett College

Biol 3300K-02

Fall 2010

Infectious Disease Project Wiki

Anthrax Fall '10 - Ashley Board
Bird Flu Fall '10 - Nne Uko
Chlamydia Fall '10 - Sheldon Herbert
Creutzfeldt-Jakob disease Fall '10 - Ivy Onyechi
Cryptosporidiosis Fall '10
Diphtheria Fall '10 - Adhitya Katkam
E. coli 0157:H7 Fall '10 - Monica Guerrero
Gardiasis Fall '10
Gonorrhea Fall '10 - Sean Koshy
Group A Streptococcal infection Fall '10
Group B Streptococcal infection Fall '10
H1N1 Flu Fall '10
Kuru Fall '10
Legionellosis Fall '10 - Kelsey Amall
Lyme Disease Fall '10 - Lijo Oommen
Malaria Fall '10 - Solomon Matovu
Methicillin Resistant Staphylococcus aureus-MRSA Fall '10 - Jessica Egea
Mycoplasma pneumoniae Fall '10
Anthrax Fall '10
From GGCWiki

Contents

1. Anthrax
2. Organism
   3. Scientific name
      3.1 Symptoms
      3.2 Statistics
      3.3 Treatment
      3.4 Related Diseases/Sequence
3. References

Anthrax
Anthrax is an infectious disease caused by the microorganism Bacillus anthracis[1]. Infection in humans can occur three different ways: cutaneous which is spread by a cut or scrape on the skin, inhalation which occurs when spores enter the lungs, and gastrointestinal which occurs when a person eats infected meat[1]. In 2001 Anthrax was used as a bioterrorism weapon being sent through the mail and infecting 22 people [1]. Only 7 survived.

Organism
Anthrax is caused by the bacteria Bacillus anthracis[3]. This bacteria is very large, spore forming, and gram-positive organism. It can be cultivated under aerobic or anaerobic conditions. Below is a picture of the staining of Bacillus anthracis.

Cutaneous Anthrax:
Creutzfeldt-Jakob disease is a fatal, neurodegenerative disease, which can be caused by a buildup in the brain of an abnormal conformation of the normal prion protein (R5). The onset of the disease occurs around sixty years of age and most diagnosed die within one year of the start of symptoms (R1 and R2).

Organism

Creutzfeldt-Jakob Disease is contracted sporadically (sporadic CJD) in 85% of cases through a random mutation of the prion protein (R3). Another 5 to 10% of people acquire the disease due to genetic abnormalities in the CJD prion protein gene (hereditary CJD). A final 1% acquire it through exposure to brain or nervous tissues that contain the abnormal CJD prion (acquired CJD) (R2). The prion is coded for by the prion protein (PRNP) gene, which is located at position thirteen on chromosome twenty (R4).

Scientific name

The causative organism is an abnormal version of what is called the prion protein (R4).

Symptoms

Symptoms of CJD include changes in personality, vision, memory, and cognition. These symptoms quickly progress into depression, dementia, and possible blindness. The loss of motor and vocal skills follows, and these symptoms inevitably lead to death. The neurological changes seen are caused by holes in the brain brought on by the aggregation of the abnormal prion (R2).

Statistics

In adults over fifty years of age, the chance of contracting CJD is 3.4 cases per million people. As age increases, the chance of contracting the disease increases as well (R1).

Treatment

There is no treatment for the disease, and the only option currently is to treat the characteristic symptoms of the disease (R2). The current method of diagnosing the disease involves studying the cerebrospinal fluid of patients displaying hallmark symptoms for specific proteins and looking at brain tissue samples to find aggregates (R3). A new method of diagnosing the disease includes a protein assay that detects aggregates of the abnormal prion in brain tissues (R5).

Related Diseases/Sequela

CJD is part of a group of diseases called transmissible spongiform encephalopathies. All diseases that belong to this group create holes in the brain of the infected human or animal. The animal diseases include mad cow disease (bovine spongiform encephalopathy), mink encephalopathy, feline encephalopathy, and scrapie (in sheep and goats). The human diseases include Gerstmann-Straussler-Scheinker disease, kuru, and fatal familial insomnia (R2).

References


Your Disease Name here!

Chromosome location

this is my disease because its weird

Characteristics of the Disease

Treatment or Management of the Condition

Molecular Genetics

(Here you will tell exactly what the lesion is: a repeat, deletion, frameshift, single amino acid change...or perhaps not yet determined.)

Genetic Testing

(Is testing available? what type of testing?)

Other relevant information

References

Return to Genetic_Disease_F10 home page.
Genetic Disease F10

BIOL 3200K Fall 2010 Georgia Gwinnett College

GENETIC DISEASE PROJECT WIKI

This page will become a table of contents of the diseases. As you assemble your pages, I will insert a map of the human genome and place links to your pages on the approximate location of the targeted chromosome.
XX (de la Chapelle syndrome)
- TRT (Testosterone Replacement Therapy) is used due to low levels of production
- Gynecomastia can be surgically removed if present.

XY Disorder of sex Development (DSD)
- Avoid gender assignment until babies properly evaluated
- Surgery to repair external genitalia and/or to create or enlarge a vagina.
- HRT (Hormone Replacement Therapy) beginning in puberty
- Streak gonads are removed to reduce the risk of cancer

Molecular Genetics
It is a common belief that receiving either an X or Y chromosome determines sex in human being. However, a Sex Determining region of the Y (SRY region) is the key determinant of developing a male or female phenotype. This region contains the major gene coding region for testes formation. It is believed that the SRY protein is responsible for the activation of several other proteins that are responsible for testes development. SRY improperly cross’s over during gamete formation and/or translocate’s onto another chromosome. This results in the SRY region either missing (xy female) or being place on the wrong chromosome (xx male). 1 in 20,000 to 25,000 people are affected.

Genetic Testing
XX (de la Chapelle syndrome) is slight harder to diagnose. Babies unless born peno-scrotal hypospadias (urethra on underside of penis) are hard to diagnose at birth. Various tests are usually later performed. “Endocrine studies usually show hypergonadotropic hypogonadism secondary to testicular failure. Cytogenetic studies at the 550 band level demonstrate a 46,XX karyotype (Villain).”

XY (Swyer Syndrome) and XY (DSD) are hard to detect. Babies born with Swyer and DSD usually do not have very obvious phenotypic characteristics. Most sufferers do not show any symptoms until secondary sex characteristics are absent to appear. At this point the disease is detected by Cytogenic testing resulting in XY sex chromosomes. Endocrine testing shows lack of estrogen and progesterone needed for sexual development in XY females, and testosterone in XY males. Ultrasounds are also used and reveal streak gonads (Swyer) or female reproductive organs (DSD).

Other relevant information

Athlete article Details another athlete determined to be a hermaphodite as well as a discussion on Santhi Soundarajan. Unclear whether this condition
Not as High Quality

---Treatment or Management of the Condition---
Currently there are no known treatments however it can be managed by relieving related symptoms depending on the severity of the disorder. Management involves: • Eyes and skin protection from the sun. • Use of sunscreen with a high SPF and proper coverage of expose body parts to the sun. • Glasses or eye surgery for vision correction

---Molecular Genetics---
Albinism is caused by mutation in the N-terminus and few in the trans-membrane regions but very rarely in the C-terminus. A total of 25 missense, 2 nonsense, 9 frame shifts, 5 splicing mutations have been reported till date. In addition to these mutations, there also occur several deletions in one or many of the exons of OA1 gene (oculo-cutaneous albinism), especially exon 2.

---Genetic Testing---
In human, genetic testing can confirm albinism. There are two types of oculocutaneous albinism testing, the diagnostic testing and the carrier testing.

6 Diagnostic testing: This is used to confirm or rule out a diagnosis in a person suspected to have the disorder. Carrier testing. This is typically offered after a clinical diagnosis and/or mutations have already been identified in an affected family member.

---Other relevant information---
Persecution of people with albinism: People with albinism faces both social and cultural challenges (even threats) as the condition is often a source of ridicule, discrimination, or even fear and violence. Various cultures around the world have developed many beliefs regarding people with albinism. These beliefs range from harmless myth to dangerous superstitions that cost human lives. In some East African countries there have been an increase rituals and witchcraft-related killings of albinos. This is because albino body parts are used in potions sold by witchdoctors. Numerous authenticated incidents have occurred in Africa during the 21st Century. Other examples: In Zimbabwe, People belief that sex with an albino woman will cure a HIV infected male, these has resulted to rapes of albino women therefore resulting in HIV infection and in Jamaica, the albinos are seen as cursed in the community.