

# Viva and Bacteris: blogging about the small stuff

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Courses: BIOL-105 Viruses and their Hosts, BIOL-205: Introduction to Microbiology, BIOL-388: Virology

Timeline: Fall 2010 / Spring 2011

## GOALS

Students in all my classes are expected to write an entry as a Guest Blogger on one of my two blogs. Students choose a recent study from the primary literature that is interesting and important and write a blog entry of approximately 350 words on this study. The format has several benefits. Students must learn to condense the information into a concise story, so they have to figure out what are the most important points that must be communicated. Sufficient background must be provided to place the study into context, again requiring distilling a potentially large field of study into the most salient points. The target audience is the general public, so it also requires the student to be able to describe research in an accessible and interesting way.

Finally, students are expected to post comments on each other's entries and the author of the post is expected to address commenter's questions. This means the writer must become the expert on the topic and may require additional reading to seek out answers.

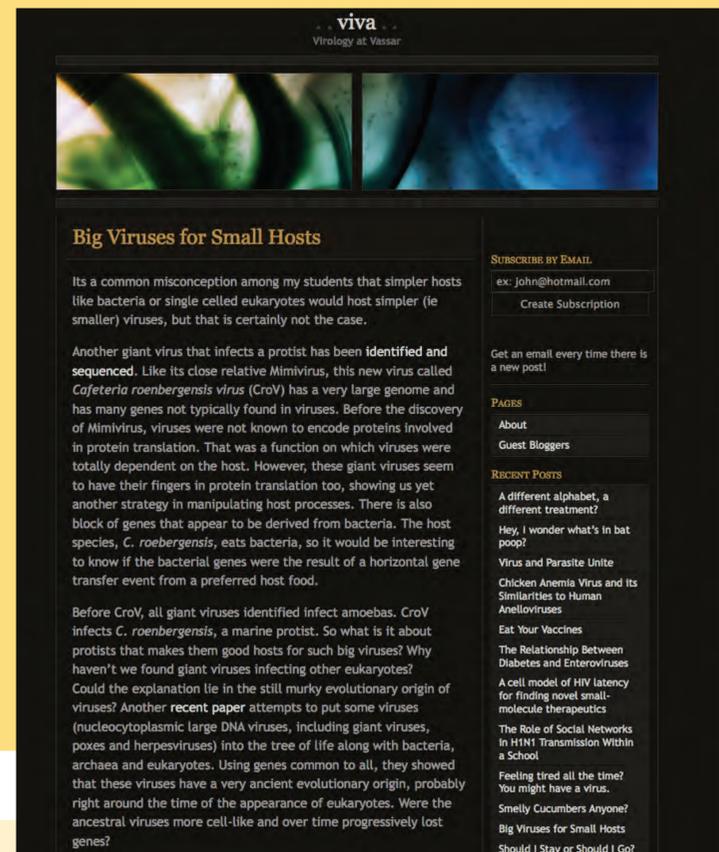
Deadlines are staggered throughout the semester, so that student posts are put on the blog once or twice per week.

## DESCRIPTION

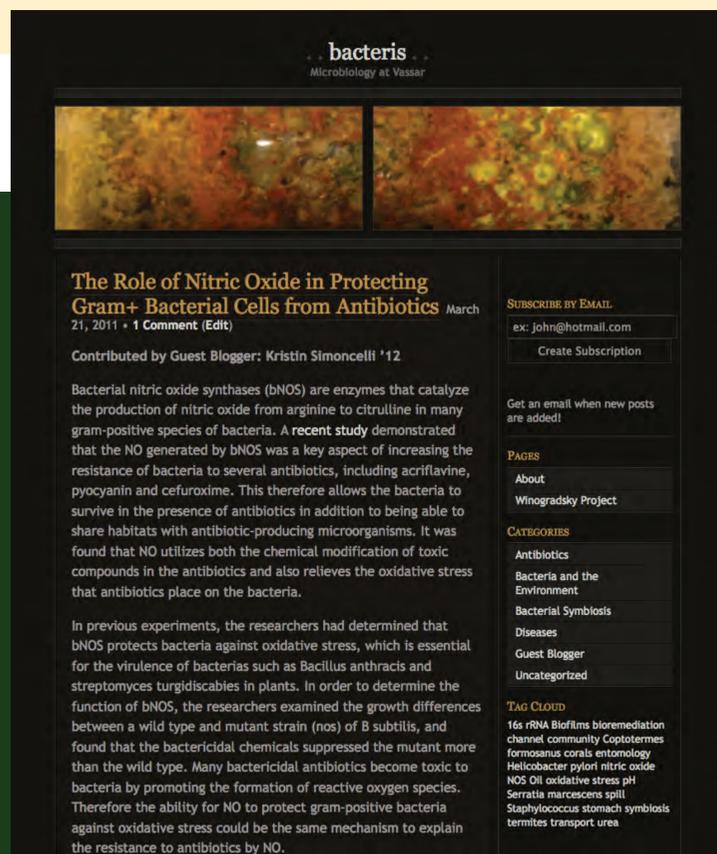
An important part of doing science is communication. This includes communicating results of research to peers in your field of study and other scientists but also to the general public. The internet is full of valuable scientific information but it is also full of unsupported and bogus claims. An important role of scientists is to ensure accurate scientific information is accessible and understandable for the general public.

Blogs are an effective way to quickly communicate news and new discoveries in microbiology. For my blogs, Viva and Bacteris, some blog entries are my own and others are written by students. I use the blogs to: 1) explain interesting new research in microbiology that complements classroom material or relates to my own research, 2) allows students to ask questions or make comments outside of class, 3) gives students an opportunity to practice writing about science.

**Viva: Virology at Vassar** -a blog about viruses  
<http://blogs.vassar.edu/viva/>



The screenshot shows a blog post on a dark-themed site. The title is "Big Viruses for Small Hosts". The main text discusses a common misconception about simpler hosts and introduces a new virus called *Cafeteria roenbergensis virus* (CroV). It mentions that CroV has a very large genome and many genes not typically found in viruses. The post also discusses the evolutionary origin of viruses and how CroV infects a marine protist. On the right side, there are navigation links for "SUBSCRIBE BY EMAIL", "PAGES" (About, Guest Bloggers), and "RECENT POSTS" (A different alphabet, a different treatment?, Hey, I wonder what's in bat poop?, Virus and Parasite Unite, Chicken Anemia Virus and its Similarities to Human Anelloviruses, Eat Your Vaccines, The Relationship Between Diabetes and Enteroviruses, A cell model of HIV latency for finding novel small-molecule therapeutics, The Role of Social Networks in H1N1 Transmission Within a School, Feeling tired all the time? You might have a virus., Smelly Cucumbers Anyone?, Big Viruses for Small Hosts, Should I Stay or Should I Go?).



The screenshot shows a blog post on a dark-themed site. The title is "The Role of Nitric Oxide in Protecting Gram+ Bacterial Cells from Antibiotics". The post is dated March 21, 2011, and has 1 comment. It is contributed by Guest Blogger Kristin Simoncelli '12. The main text discusses bacterial nitric oxide synthases (bNOS) and their role in protecting bacteria against oxidative stress. It mentions that bNOS catalyzes the production of nitric oxide from arginine to citrulline in many gram-positive species of bacteria. The post also discusses how bNOS helps bacteria survive in the presence of antibiotics by promoting the formation of reactive oxygen species. On the right side, there are navigation links for "SUBSCRIBE BY EMAIL", "PAGES" (About, Winogradsky Project), "CATEGORIES" (Antibiotics, Bacteria and the Environment, Bacterial Symbiosis, Diseases, Guest Blogger, Uncategorized), and "TAG CLOUD" (16s rRNA, Biofilms, bioremediation, channel community, Coplotermes, formosanus corals, entomology, Helicobacter pylori, nitric oxide, NOS, Oil, oxidative stress, pH, Serratia marcescens, spill, Staphylococcus, stomach symbiosis, termites, transport, urea).

**Bacteris: Microbiology at Vassar** -a blog about bacteria and the rest of the microbial world  
<http://blogs.vassar.edu/bacteris/>

## RESULTS

Students appear to be quite comfortable with the blog format, and I have found it to be an effective way to maintain an online course presence, more so than wikis or forums.

Some students may need guidance in finding appropriate research papers to blog about (especially at the freshman level) and help distilling the most important points, but this also provides an opportunity for one-on-one conversation with a student about a paper or topic they are interested in. It is necessary to remind them to post comments to maintain a minimal level of activity on the blogs.