



VERMONT COMMONS SCHOOL

MOVING OUT OF THE CLASSROOM AND INTO THE WORLD

Press Release

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Vermont Commons Science Instructor Awarded \$27,000 in Grant Funding from National Science Foundation

Peter Goff has a passion for science and nature. He has been teaching science at Vermont Commons School in South Burlington since 1997 – the year the small, independent school was founded by the Skiff family. His mission is very simple: To produce naturalists.

This spring Goff submitted two National Science Foundation grant applications in conjunction with Dr. Lori Stevens and Dr. Donna Rizzo at the University of Vermont to examine the “Whirling Disease” system. This is a disease of salmonid fish (primarily members of the trout family) caused by a microscopic parasite that also spends part of its life cycle in an aquatic worm.

Goff was very excited when he learned that he had been awarded a Research Experience for Teachers grant to fund his involvement in the genetics research and computer modeling components of the study. He was *ecstatic*, however, when he learned that he had also been awarded a Research Assistantship for High School Students, which funds two female students from Vermont Commons to participate in the project as well. Seven girls applied for the two spots. The two students who were selected are Shana Wolfstein and Sarah Mueller.



Shana Wolfstein

Sarah Mueller

“I am so excited to become a part of this project,” says Wolfstein, a junior at VCS from Burlington. “I have been working on computer modeling projects throughout my career at VCS, and this is an amazing way to further my experience. I have always had a love of biology in and out of school. I plan on looking into biology as a possible field of study for college. This project combines two things that I am very passionate about, and I look forward to the opportunities it will bring.”



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“This is an amazing opportunity for both Shana and Sarah,” explains Goff. “They will spend one week living at UVM in the student dorms while working with the team of scientists and myself while we learn the genetic techniques necessary for the fieldwork. Then we will travel to Montana where we will spend a week knee deep in streams hunting for trout and aquatic worms.” The grant covers all expenses at UVM and in Montana, as well as money for equipment and even a stipend for each student. According to Goff, “We wrote the grant specifically targeting girls, as both Drs. Stevens and Rizzo are deeply committed to improving the opportunities for women in science.”

QUOTES from participants

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Shana Wolfstein

What appealed to you most about participating in this research project?

What appealed to me the most about participating in this research project is the opportunity to do research in the field as a high school student. In Science at VCS, the classes I have enjoyed most are those in which I can apply the skills I am learning to a hands-on activity. I feel this joint research project with UVM and MSU will be an amazing experience.

Do you have any plans to pursue math, engineering, computer science or science in the future?

Yes, as of right now I would like to study marine biology. I think it is one of the most interesting subjects I have encountered because there is a multitude of species humans have yet to discover in the ocean; I find that very intriguing.

If you were given a grant (say \$10,000 or so) to study anything, what would your research project involve?

If I were given a grant, my research project would revolve around the rehabilitation of wild animals, so they could live full lives whether the animal remains in captivity or returns to their natural habitat.

Sarah Mueller

From Dr. Donna Rizzo:

[What qualities do Sarah and Shana bring to this project that appealed to you and helped them be selected?](#)



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Lori and I were very impressed with all the VCS applications...in particular Sarah's and Shana's. In fact, if they want to give the UVM freshmen a crash course on how to prepare an application, I for one would welcome it. What separated both applications a little from the others was a proficiency with systems modeling. We were hoping that at least one of the applicants from VCS could bring knowledge of and/or familiarity with software such as STELLA to the table.

What do you hope the students will learn as individuals from this experience and/or will share with other members of the Vermont Commons community?

I love what I do for a living. To be able to perform meaningful research, travel to interesting places, work with people that are passionate about getting out of bed in the morning and get paid to do all this is a privilege. If this experience in any way shape or form helps Shana or Sarah attain a career that is half as fulfilling, my hopes would be exceeded. I'm also hoping that enthusiasm for scientific research is contagious.

How did you get inspired to pursue a career in science?

I actually pursued a career in engineering because although I loved performing research in general, I very much wanted/needed the research to be applied. I loved solving problems and was much more motivated to learn the science and math if I thought it could be used to improve the quality of life on this planet. I worked as an engineer before returning for graduate degrees and fell in love with groundwater and surface water remediation projects as well as issues associated with water rights/conflicts in California.

Dr. Lori Stevens sent me the following:

"At one level, I can't ever remember choosing to be a scientist, I feel like I've always been one. I enjoyed nature and collecting as a kid and started a collection of dead insects before I started grade school. I really enjoy the ability to ask questions and feel honored to be funded to spend my summer investigating how stream sediment dwelling worms contribute to fish disease. The ability to traipse around in streams with my colleagues is great fun and being able to pass on my knowledge to high school, college, graduate students and teachers is an added bonus." - Lori Stevens

About Vermont Commons School: *Vermont Commons School is an independent day school for students in grades 7 – 12. The school offers a rigorous, college-preparatory curriculum that includes a focus on community service and experiential education. Vermont Commons School students experience a unique blend of academics and global emersion, master fundamental academic disciplines, grasp the profound interdependence of the natural and human systems they inhabit, and graduate with the values, knowledge, skills and commitment necessary to become ethical and engaged ecological citizens. For more information, please visit www.vermontcommons.org.*

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