

Education forum

/ Where parents, students and the community can share ideas,

FROM THE STUDENTS

Sage Ridge group visited New York to learn about the African tree frog.

Sage Ridge students put research skills to good use

Compiled by Laurie Bissonette

Four Sage Ridge School students Ryan Dhindsa, Dylan Turner, Alexis Garduno, and Andrew Welcome, worked Sept. 19-20 in the laboratory of Dr. Jacques Robert at the University of Rochester Medical School in New York. Robert is one of only a few amphibian immunologists in the world, and he taught the students how to work with the African tree frog.

The immunological knowledge and skills gained will allow the students to inoculate and then isolate antibodies in frogs the students are studying in the Molecular Biology Self Study class. The goal of the project is to produce a novel diagnostic tool for a type of porphyrial disease in humans and to possibly complement (in a test tube) the genetic mutation that causes the disease.

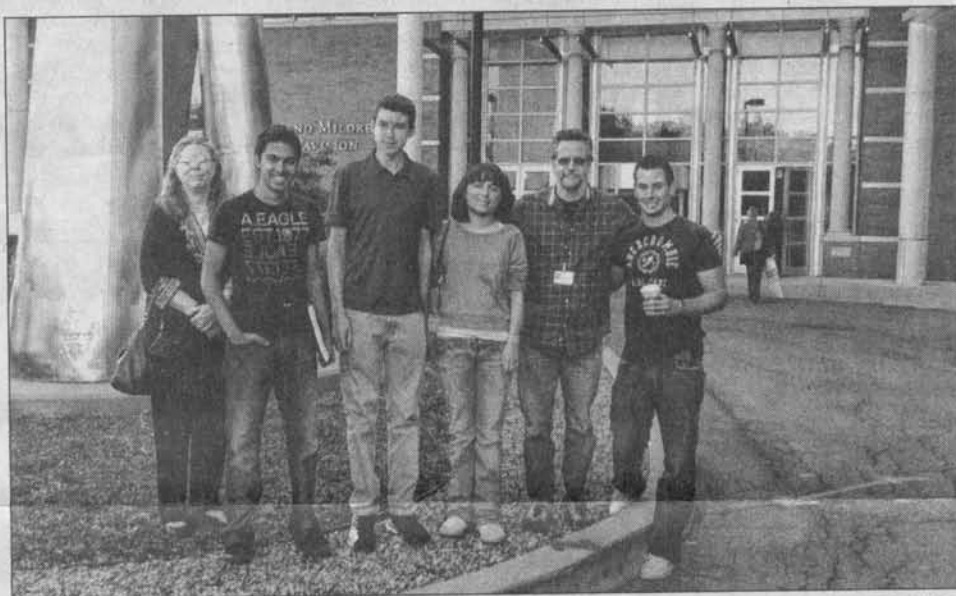
The class meets after school and on weekends and is offered to students who are interested in majoring in microbiology, molecular biology, biochemistry or medicine when they attend college.

Students learn both theory and laboratory techniques and are required to perform and record all experiments by themselves with supervision.

ALEXIS GARDUNO:

Why did you get into project?

I got into the project because science and research interests me. I felt that this project would give me a new chance to work with my classmates while learning "what it is" to do research. Personally, I got into this



SUBMITTED TO THE RGJ

Sage Ridge teacher Laurie Bissonette traveled with students Ryan Dhindsa, Andrew Welcome, Alexis Garduno and Dylan Turner, right, to work with Dr. Jacques Robert, second from right, of the University of Rochester Medical School.

project because I wanted to try it out before delving into college research projects.

Who will the project help?

This project will help those who suffer from hereditary coproporphyrin, a genetic disease that causes purple urine, photosensitivity and attacks of abdominal pain.

RYAN DHINDSA

Why did you get into the project?

I became interested in this project when my teacher, Ms. Bissonette, approached me my sophomore year with an idea for independent research on porphyrial diseases.

Additionally, I have always had an interest in biology, especially at the molecular level, so this opportunity definitely catered to my interests.

What has the experience been like?

The experience has been frustrating at times, as we

have reached road bumps throughout the process. Nonetheless, I have kept my faith in science, and we are starting to see some promising results. The experience has also been extremely educational.

ANDREW WELCOME

Why did you get into the project?

Last year, I approached Mrs. B about possibly starting an individual research project. At the time, I was very interested in doing anything science related, but when I learned of the project specifics, I was captivated by the project.

What has the experience been like?

Thus far, this project has greatly expanded the bounds of my scientific knowledge and as such, has been a very enlightening experience. We have experienced some occasional setbacks, however, they have shown us that

we can work through them and have aided us in better understanding our project.

DYLAN TURNER

Why did you get into project?

I decided to become involved with this project when Ms. B approached Ryan and I during our sophomore year, with this unparalleled research opportunity. I was captivated by the fact that I was being presented with an opportunity to do graduate-caliber research at the high-school level. I could not resist.

Laurie Bissonette is a biology teacher and science department chair at the Sage Ridge School. She accompanied the students to New York.