

**ULV SACNAS Chapter → Research Lab Information**

**Biology:**

Things to Consider: Do you want to get published? What is your career path? What are your own personal interests? How does this lab work with your own personal schedule? Can you commit to the lab?

Keep in mind.... your graduate school or career goals do not limit what research you do here as an undergraduate student. Doing research and maybe even getting published is still a display of your skills as a scientist and a writer, and it shows commitment.

Two paths are available:

<b>Apprenticeship Undergrad Research; Independent Research</b>	<b>Course Based Undergrad Research Two Additional Courses (CURES)</b>
Christine Broussard, Ph.D Heidy Contreras, Ph.D. Stacey Darling-Novak, Ph.D. Jerome Garcia, Ph.D. Jay Jones, Ph.D. Todd Lorenz, Ph.D. Jennifer Tsui, Ph.D. Pablo Weaver, Ph.D. Tatiana Tatarinova, Ph.D. David Bickford, Ph.D.	BIO313 Developmental BIO314 Biochemistry BIO316 Molecular Biology BIO327 Mountains and Deserts BIO345 Immunology BIO361 Plant Physiology BIO385 Community-based Health Research

**Apprenticeship:**

Christine Broussard MB 257	-Endocrine disrupting chemicals → how do these chemicals affect the development of the immune system? -Developmental Immunotoxicology -Students train in summer; are guided at first but gain more independence -apply treatments to cell lines and model organisms (mice)
Heidy Contreras FH 109A	-Comparative Physiology → lab and field work -Madagascar hissing cockroaches -More independent lab environment
Stacey Darling-Novak FH 109B	-Plants → orchids and maize (corn) -Signal transduction and plant development -Looking at genes and gene regulation -Bacterial endophytes  Student Experience → training done by Dr Novak or other students in the lab

<p>Jerome Garcia MB 258</p>	<p>-Physiological Biochemistry -Aging Model (oxidative stress) and Lipoic Acid Model; Probiotics - Aside from trainings and meetings, students are independent -Animal training → working with mice -Training is in the summer</p>
<p>Jay Jones MB 158B</p>	<p>-Broad interests: sustainability, environmental issues... -Here is the actual list:</p> <ol style="list-style-type: none"> <li>1. Modification of small engines to use methanol as a fuel</li> <li>2. Human nutrition and the assessment of food stuff</li> <li>3. Various aspects of gardening</li> <li>4. Floristic analysis of the phytoplankton in Puddingstone Reservoir</li> <li>5. Analysis of plastic in the environment</li> <li>6. Analysis of environmental particulates</li> <li>7. Paleofloristic and ecological analysis of fossil wood</li> <li>8. Ecological lifestyle analysis</li> <li>9. Other topic will be considered.</li> </ol>
<p>Todd Lorenz FH 109D</p>	<p>-Microbiology! -Current focus → phage(virus) hunting from soil sample isolates -Interested in Chitinase producing bacteria -Does not hold your hand → this lab is more independent</p>
<p>Jennifer Tsui MB 152D</p>	<p>-iGEM → Synthetic Biology → bioengineering</p> <ul style="list-style-type: none"> <li>• Dedicate every day in summer to lab work</li> <li>• Independent; students make their own projects</li> <li>• Recent Projects → microplastics, coral bleaching</li> </ul> <p>-Community engaged health research</p>
<p>Pablo Weaver MB 154H</p>	<p>-Evolution and Ecology : birds, fish, etc -Building phylogenetic trees to determine patterns of colonization in the Caribbean -Field project in Montana → Magpie Ranch -Student Experience → No animal sacrifice; guidance at the beginning, independence later</p>
<p>Tatiana Tartarinoa FH 109C</p>	<p>-Computational Biology -Genome Assembly -provenance prediction -Ancient DNA analysis -Use of R statistical software → computer programming skills are useful -Super fun, high energy, broad interests</p>

David Bickford MB 250	<ul style="list-style-type: none"> <li>-Ecology, Conservation, climate change, behavior</li> <li>-Amphibians and Reptiles</li> <li>-<b>FIELD</b> work → be willing to get dirty</li> <li>-Animal handling</li> <li>-Lab is still relatively new</li> <li>-He has written many papers and they are very interesting- we recommend reading some</li> </ul>
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In general, many students start a lab during their sophomore year, but it varies for each lab.

### **Course Based Research:**

These courses fill the research requirement because research is integrated into the course. The topic of what will be done is related to that class. It is a semester long commitment. This requires two extra courses from the list above. Keep in mind that these classes cannot double dip with other requirements that are needed to graduate. For example: Mountain and Desert biology cannot be used as both a CURE and to fill the environmental theme requirement. Something else must fill the other requirement. (Don't worry about this too much for now)

### **Chemistry Research Labs →**

Less extensive than the biology labs. Chem majors need one as a senior research requirement. Different professors have different lab options.

### **If you have questions:**

Email → [kimberlie.rossello@laverne.edu](mailto:kimberlie.rossello@laverne.edu)

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Tell us the lab you are interested in and we will get you in contact with a student from that lab so you can get more specific information.

Also----- Talk to the professors!!!! Show them you are interested!!!