<table>
<thead>
<tr>
<th><strong>Research Field</strong></th>
<th><strong>Cancer Cell Biology</strong></th>
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<tr>
<td><strong>Lab Head/Supervisor</strong></td>
<td><strong>Associate Professor Jörg Heierhorst</strong></td>
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<tr>
<td><strong>Project Title</strong></td>
<td><strong>Transcriptional Control of Dynein Light Chain Expression</strong></td>
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<td><strong>Project Description</strong></td>
<td><strong>Dyneins are molecular motors with essential functions in microtubuli-dependent transport and the separation of chromosomes during mitosis. One subunit of dynein motor complexes, the dynein light chain DYNLL1 (LC8), also has additional dynein-independent functions in the regulation of cell death pathways and cellular DNA damage responses. Our laboratory has discovered a novel Zinc-finger transcription factor, called ASCIZ, that is highly specific for activation of Dynll1 gene expression. We recently found that loss of ASCIZ or DYNLL1 dramatically prevents the onset of B cell cancers in lymphoma-prone mice. The aim of this summer project is determine in more detail how ASCIZ regulates the Dynll1 gene. The project will be focused on biochemical and cellular analyses of the Zinc-finger domain of ASCIZ, including the effect of recently identified Asciz point mutations on protein stability and DNA binding activity. During this 6-week project students will be able to learn a range of biochemical, molecular biology and cell biology techniques, and will contribute to a basic research project with important implications for our understanding of cancer development.</strong></td>
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<tr>
<td><strong>Supervisor email</strong></td>
<td><strong><a href="mailto:jheierhorst@svi.edu.au">jheierhorst@svi.edu.au</a></strong></td>
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*If you are interested in this project, please contact A/Prof Heierhorst on the above email, in the first instance, to discuss in more detail.*