



**INTREPID NEPAL**  
 4<sup>th</sup> Floor SwarajSadan, Thapathali-11,  
 Kathmandu, Nepal  
 Tel: 01-4251590/4101501  
[www.intrepidnepal.com](http://www.intrepidnepal.com)

## HANDS ON MOLECULAR BIOLOGY TRAINING

<b>Day</b>	<b>Particulars</b>
<b>1</b>	<ul style="list-style-type: none"> <li>• Lab Safety</li> <li>• DNA theory, PCR theory and DNA isolation</li> <li>• Basic pipetting skills</li> </ul>
<b>2</b>	<ul style="list-style-type: none"> <li>• Nucleic acid extraction and quantitation using Pico-Green and UV/vis spectroscopy</li> <li>• Theory discussion</li> </ul>
<b>3</b>	<ul style="list-style-type: none"> <li>• Students set up their own PCR rxn</li> <li>• Preparation of agarose gel</li> <li>• Theory discussion</li> <li>• Internet as powerful PCR design tool</li> </ul>
<b>4</b>	<ul style="list-style-type: none"> <li>• Agarose gel electrophoresis of products from previous day</li> <li>• PCR reaction optimization theory</li> <li>• PCR optimization reactions setup</li> <li>• Gel preparation</li> </ul>
<b>5</b>	<ul style="list-style-type: none"> <li>• Gel electrophoresis of previous day's products</li> <li>• Data analysis/interpretation of optimization variables</li> <li>• Quantitative Real Time PCR theory viral load</li> <li>• RT-PCR viral load reaction setup</li> </ul>
<b>6</b>	<ul style="list-style-type: none"> <li>• Data analysis from viral load PCR experiment</li> <li>• Real Time PCR theory genotyping</li> <li>• RT-PCR genotyping reaction setup</li> </ul>
<b>7</b>	<ul style="list-style-type: none"> <li>• Data analysis from genotype PCR experiment</li> <li>• Further drilling on why the internet is such a useful tool</li> <li>• Last chance to ask questions</li> <li>• Certificate distribution</li> </ul>