

# COVID-19 Research Laboratory Biosafety Guidelines<sup>1</sup>

Research Activities	Biosafety Level	Contacts
<ul style="list-style-type: none"> <li>▪ Any work that involves culture or propagation of the SARS-CoV-2 virus OR any generation of recombinant viruses               <ul style="list-style-type: none"> <li>○ Work with seed stocks, working stocks or specimens with intent or potential to grow live virus</li> <li>○ Virus isolation, characterization, expansion</li> </ul> </li> <li>▪ Use of live virus in functional assays               <ul style="list-style-type: none"> <li>○ Plaque/Focus Forming Unit assays</li> <li>○ Serologic virus capture/binding assays</li> <li>○ Therapeutic MIC assays</li> <li>○ Live cell sorting with intact virus</li> </ul> </li> <li>▪ Use of live virus in animals<sup>2</sup></li> </ul>	<p><b>BSL3/ABSL3<sup>2</sup></b></p>	<p>Phil Hanna, Ph.D., BSL3 Facility Director  <a href="mailto:pchanna@umich.edu">pchanna@umich.edu</a>, (734) 615-3706</p> <p>Janet Follo, Biosafety Officer / RO  <a href="mailto:follo@umich.edu">follo@umich.edu</a>, (734) 647-3133</p> <p>Environment Health and Safety (EHS)  <a href="mailto:EHSBiosafety@umich.edu">EHSBiosafety@umich.edu</a>            (734) 647-1143</p> <p><b>Advance Review/Approval Required:</b>            U-M Institutional Biosafety Committee (IBC):  <a href="mailto:ibcstaff@umich.edu">ibcstaff@umich.edu</a></p>
<ul style="list-style-type: none"> <li>▪ Processing, aliquoting or preparing specimens for use and storage</li> <li>▪ Preparation of chemical or heat-fixed specimens for microscopic analysis</li> <li>▪ Nucleic acid extraction of specimens for molecular analysis</li> <li>▪ Preparation of inactivated specimens for other laboratory assessments</li> <li>▪ Diagnostic tests (e.g. serology) that DO NOT involve activities with the potential to propagate virus</li> <li>▪ Inoculating bacterial or mycological culture media</li> <li>▪ Analysis of specimens originating in BSL3 that have been inactivated by a method approved by UM IBC/EHS-Biosafety</li> </ul>	<p>BSL2 with UM COVID-19            Standard Practices<sup>3</sup></p>	<p>Janet Follo, Biosafety Officer / RO  <a href="mailto:follo@umich.edu">follo@umich.edu</a>, (734) 647-3133</p> <p>Environment Health and Safety (EHS)  <a href="mailto:EHSBiosafety@umich.edu">EHSBiosafety@umich.edu</a>            (734) 647-1143</p> <p><b>Advance Review/Approval Required:</b>            U-M Institutional Biosafety Committee (IBC):  <a href="mailto:ibcstaff@umich.edu">ibcstaff@umich.edu</a></p>
<ul style="list-style-type: none"> <li>▪ Analysis of already extracted nucleic acid preparations<sup>4</sup></li> <li>▪ Pathologic/microscopic examination of fixed specimens<sup>4</sup></li> <li>▪ Routine staining and microscopic analysis of fixed smears<sup>4</sup></li> <li>▪ Routine examination of bacterial and mycotic cultures</li> </ul>	<p>BSL2</p>	<p>U-M Institutional Biosafety Committee (IBC):  <a href="mailto:ibcstaff@umich.edu">ibcstaff@umich.edu</a></p>
<p><sup>1</sup>Adapted from Duke University and Johns Hopkins University  <sup>2</sup>Facilities for performing ABSL3 work are currently unavailable  <sup>3</sup><u>COVID-19 Standard Practices</u></p> <ul style="list-style-type: none"> <li>▪ All handling of virus and specimens must be performed in a Biological Safety Cabinet (BSC)</li> <li>▪ Centrifuge safety cups are required</li> <li>▪ Microplate sealing film must be used for removal of plates from BSC for further testing</li> </ul> <p><sup>4</sup>BSL1 or BSL2 pending review by EHS/IBC</p>		