University of Miami SARS-CoV-2 (COVID-19) Research Laboratory Biosafety Guidelines

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| Cultures of or using live SARS-CoV-2 virus, including isolation, characterization, expansion, and in assays, including virus capture/binding, therapeutic MIC, and live cell sorting  
  • Cultures/isolates must be transported as Category A, UN2814  
  • Any other work with or storage of cultures, seed stocks, or specimens of the virus with the intent to grow live virus at the University of Miami | BL3            | There are currently no BL3 facilities at the University of Miami, therefore this research is not authorized at the University |
| Use of live SARS-CoV-2 virus in animals                                           | BL3-N          | There are currently no BL3-N facilities at the University of Miami, therefore this research is not authorized at the University |
| Processing, aliquoting or preparing specimens for research use and storage       | BL2 with enhancements |                        |
| Preparing samples to be fixed or otherwise inactivated for lab assessment or microscopic analysis  
  Preparing samples for nucleic acid extraction of specimens for culture or molecular analysis | BL2 with enhancements |                        |
| Work with attenuated strains or otherwise non-viable virus*                      | BL2-N / BL3-N  |                                |
| Performing diagnostic tests (e.g. serology) that do not involve activities with the potential to propagate virus  
  • Final packaging of specimens already in a sealed, decontaminated primary container for transport to collaborating laboratories for additional analyses  
  • Specimens from suspected or confirmed cases must be transported as Category B, UN3373 | BL2            |                                |
| Work/analysis of already fixed or inactivated samples, including:  
  • Molecular analysis of already extracted nucleic acid preparations  
  • Pathologic/microscopic examinations  
  • Routine staining of fixed smears | BL1            | Institutional Review Board (IRB)  
  Biosafety Officer (BSO) |
| Assays/testing that is performed on COVID-19 patients and concluded/discarded in patient room  
  • Collecting samples from individuals recovered from COVID-19, or otherwise healthy individuals with no signs suspected of COVID-19 | Clinic Patient Room | Institutional Review Board (IRB)  
  Biosafety Officer (BSO) |
|                                                                                   |                |                                |
| Contacts:                                                                        |                |                                |
| • Biosafety Office (BSO) – contact Shane Gillooly at sxg1519@med.miami.edu  
  • Institutional Biosafety Committee (IBC) – contact Lizzeth Meza at lmeza@med.miami.edu  
  • Institutional Animal Care and Use Committee (IACUC) – contact Ellen Kapsalis at ekapsali@med.miami.edu  
  • Institutional Review Board (IRB) – contact Cindy Gates at cmg345@med.miami.edu |                |                                |
| Specimens are defined as, but not limited to, blood, serum, plasma, tissues, feces, urine, sputum, mucosal swabs or washes/secrections collected from any species.  
  Required Enhancements to standard BL2:  
  • Any procedure with the potential to generate aerosols or droplets (e.g. vortexing, cell sorting, ELISA plate washing) will be performed in a certified Class II Biological Safety Cabinet (BSC). BSC must be decontaminated with an EPA approved disinfectant for coronavirus.  
  • Centrifugation of specimens must be performed using sealed centrifuge rotors or sample cups.  
  • The use of sharps should be eliminated wherever possible. |                |                                |
| *Will need to be assessed on a case by case basis by the IBC                     |                |                                |