



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

Research Activities with Known or Likely Infected Specimens from Humans or Animal Models	Assigned Biosafety Level	Contact for Help, Approvals & Access to Appropriate Laboratory Facilities
<ul style="list-style-type: none"> Storage and laboratory work with seed stocks, working stocks or specimens¹ with the intent to grow or use live virus at UChicago. <ul style="list-style-type: none"> Virus isolation, characterization and/or expansion Viral cultures or isolates should be transported as Category A, UN2814, "infectious substance, affecting humans"² Use of live SARS-CoV-2 virus in functional assays: <ul style="list-style-type: none"> Plaque/Focus Forming Unit assays Serologic virus capture/binding assays Therapeutic MIC assays Live cell sorting with intact virus Use of live SARS-CoV-2 virus in animal 	BSL-3/ABSL3 ³	<p>Joseph Kanabrocki, Ph.D., CBSP Associate Vice President for Research Safety, Select Agent Responsible Official</p> <p>Office of Research Safety Phone: 773-834-2707 jkanabro@bsd.uchicago.edu https://researchsafety.uchicago.edu/ https://htrl.uchicago.edu/</p>
<ul style="list-style-type: none"> Processing, aliquoting or preparing specimens¹ for research use and storage Preparation of chemical- or heat-fixed specimens¹ for microscopic analysis Nucleic acid extraction of specimens¹ for molecular analysis Preparation of inactivated specimens for other laboratory assessments Performing diagnostic tests (e.g. serology) that <u>do not</u> involve activities with the potential to propagate virus Inoculating bacterial or mycological culture media 	BSL-2 with enhancements ⁴	<p>John Bivona, RBP Senior Biological Safety Officer, Select Agent Alternate Responsible Official</p> <p>Office of Research Safety, Howard T. Ricketts Lab Phone: 630-252-1742 jbivona@uchicago.edu</p>
<ul style="list-style-type: none"> Molecular analysis of already extracted nucleic acid preparations Analysis of specimens¹ that have been inactivated by a method approved by the Office of Research Safety. Final packaging of specimens¹ already in a sealed, decontaminated primary container for transport to collaborating laboratories for additional analyses <ul style="list-style-type: none"> Specimens from suspected or confirmed cases should be transported as UN3373, "Biological Substance, Category B" Pathologic/microscopic examination of fixed specimens¹ (e.g. formalin-fixed tissues or glutaraldehyde-fixed grids). Routine staining and microscopic analysis of fixed smears Routine examination of bacterial and mycotic cultures 	BSL-2	<p>Allen Helm, PhD., RBP, CBSP Senior Biological Safety Officer, Select Agent Alternate Responsible Official</p> <p>Office of Research Safety Phone: 773-834-6756 ahelm@uchicago.edu</p>

***Please note that all proposed research with SARS-CoV-2 (COVID-19) requires review by the Office of Research Safety and will require approval of a Standard Operating Procedure (SOP) for the research. In addition, some research will also require approval by the Institutional Biosafety Committee (IBC), which will be coordinated by the Office of Research Safety, researchsafety@uchicago.edu**

¹Specimens are defined as, but not limited to, blood, serum, plasma, tissues, feces, urine, sputum, mucosal swabs or washes/secretions collected from any species.

²For assistance with *required* import permits and export licenses contact **University of Chicago's Export Control Compliance Manager** (dsanchezr@uchicago.edu, 773-702-8601).

³Animal Biosafety Level-3 (ABSL-3)

⁴Required Enhancements to standard BSL2:

- 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.
- Personnel will wear a closed front gown, face shield and double pair of gloves, or similar PPE base on availability to protect mucous membranes from exposure.
- Centrifugation of specimens must be performed using sealed centrifuge rotors or sample cups.
- The use of sharps should be eliminated wherever possible.