

**Table: differences between BMBL4 and BMBL5**

<b>Changes</b>	<b>BMBL4</b>	<b>BMBL5</b>
<b>Chapter expansion</b>	<b>SECTION V: Risk Assessment</b>  <b>SECTION II: Principles of Biosafety</b>	<b>SECTION II: Biological Risk Assessment</b>  Revised chapter on risk assessment that gives more emphasis on the importance of this process in selecting the appropriate practices and level of containment.  <b>SECTION III: Principles of Biosafety</b>
<b>new chapter</b>	<b>APPENDIX F: Laboratory Security and Emergency Response for Microbiological and Biomedical Laboratories</b>	<b>SECTION VI: Principles of Laboratory Biosecurity</b>  The discipline addresses the security of microbiological agents and toxins and the threats posed to human and animal health, the environment, and the economy by deliberate misuse or release.
<b>Chapter expansion</b>	<b>SECTION IV: Vertebrate Animal Biosafety Level Criteria</b>	<b>SECTION V: Vertebrate Animal Biosafety Level Criteria, for Vivarium Research Facilities</b>  Animal Facility Manager will also assume responsibility for ABSL facility, in addition to the lab supervisor  1. Risk Assessment for ABSL: a. Hazard evaluation

	<ul style="list-style-type: none"><li>b. Determine ABSL level</li><li>c. Proper PPE and respiratory protection (ABSL-3: Level B + PAPR, ABSL4: Level A Blue suite)</li><li>d. Aerosol Hazards-ABSL3 and ABSL4</li></ul> <p>2. Biosafety manual and standard operation procedure</p> <ul style="list-style-type: none"><li>a. Facility specific</li><li>b. Prepared in consultation with animal facility director, lab supervisor and biosafety officer</li><li>c. Adopt as a policy</li></ul> <p>3. Training and Proficiency</p> <ul style="list-style-type: none"><li>a. Document training</li><li>b. Document proficiency (by PI and Facility Manager)</li></ul> <p>4. Occupational Health and Safety</p> <ul style="list-style-type: none"><li>a. Medical staff informs potential occupational hazards</li><li>b. Medical surveillance once a year</li><li>c. Inform of Risk</li><li>d. OSHA BBP standard should be implemented</li><li>e. Sharps</li><li>f. Annual update</li></ul>
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		<p>5. ABSL-4 requires using ventilated cage to control allergen</p> <p>6. Emergency Protocols</p> <ul style="list-style-type: none"> <li>a. Advanced disaster plan</li> <li>b. Incidents response</li> <li>c. Incidents report</li> </ul>
<b>new chapter</b>	<b>APPENDIX B: <i>Immunoprophylaxis</i></b>	<b>SECTION VII: <i>Occupational Health and Immunoprophylaxis</i></b>
<b>New and updated section including select agents</b>	<b>SECTION VII. Agent Summary Statements</b>	<p><b>SECTION VIII: Agent Summary Statements</b></p> <p><b>SECTION VIII-E: Viral Agents</b></p> <p>Substantive revisions to the Influenza Agent Summary Statement that address non-contemporary human influenza strains and recommend safeguards for research involving reverse genetics of the 1918 influenza strain.</p> <p><b>SECTION VIII-F: Arboviruses and Related Zoonotic Viruses:</b> updated section on arboviruses and related zoonotic viruses</p> <p><b>SECTION VIII-G: Toxin Agents</b></p>
<b>Revised Appendix</b>	<p><b>APPENDIX A: Primary Containment: Biological Safety Cabinets</b></p> <p><b>APPENDIX C: Transportation and Transfer of Biological Agents</b></p> <p><b>APPENDIX G: Integrated Pest Management</b></p>	<p><b>APPENDIX A: Primary Containment for Biohazards: Selection, Installation and Use of Biological Safety Cabinets</b></p> <p><b>APPENDIX C: Transportation of Infectious Substances</b></p> <p><b>APPENDIX G: Integrated Pest Management</b></p>

	<p><b>APPENDIX H: Working with Human and Other Primate Cells and Tissues</b></p> <p><b>APPENDIX E: Resources for Information</b></p> <p><b>APPENDIX I: Guidelines for Work with Toxins of Biological Origin</b></p>	<p><b>APPENDIX H: Working with Human, NHP and Other Mammalian Cells and Tissues</b></p> <p><b>APPENDIX K: Resources for Information</b></p> <p><b>APPENDIX I: Guidelines for Work with Toxins of Biological Origin</b></p>
New Appendix		<b>APPENDIX B: Decontamination and Disinfection</b>
New Appendix		<b>APPENDIX D: Agriculture Pathogen Biosafety; Biosafety Level 3 (Ag) laboratories</b>
New Appendix		<b>APPENDIX F: Select Agents and Toxins</b>
New Appendix		<b>APPENDIX J: NIH Oversight of Research Involving Recombinant Biosafety Issues</b>
New Appendix		<b>APPENDIX L: Acronyms</b>
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