Guidance on Fluorescent Activated Cell Sorting (FACS) of Unfixed Cells

It has been suggested that FAC sorting of unfixed cells may be responsible for some laboratory acquired infections with Hepatitis B virus. The University now has a number of FACS machines and the safety of those operating the machines is of concern. The International Society for Analytical Cytology have produced a document [Schmidt et al (2007), Cytometry (A) 71(6):414-37] that is a thoroughly informative attempt to set a standard for sorting unfixed cells. The University Biosafety Committee has agreed that this publication should be considered as University guidance because it is an extremely thorough document. It has several introductory sections including one on possible infections in human blood, one on general biosafety as well as another on the selection and use of disinfectants. Along with this is practical advice on minimizing droplets and aerosols, operation of the sorter and methods for assessing aerosol containment.

The document can be accessed via PubMed (please link PubMed to http://www.ncbi.nlm.nih.gov/sites/entrez) or via the International Society for Analytical Cytology's website where there are a number of further biosafety links (please link to http://www.isac-net.org/index.php?option=com_content&task=view&id=660&Itemid=150).