Using the Web—Internet: HELP! What is the Risk Classification for Gigantitus horriblis?

Richard C. Fink
Massachusetts Institute of Technology, Cambridge, Massachusetts

This section focuses on the latest Internet-available documents, data, and information applicable to the needs and interests of the ABSA membership. Be it a web site with breaking information on bioterrorism, developments in vaccine production, emerging viruses, or other timely topics, I will keep readers up-to-date on web sites that are critical for biological safety professionals. I welcome feedback or suggestions for future topics. Please e-mail them to rfink@mit.edu or to the Editor, Ira F. Salkin, at irasalkin@aol.com.

Professor Cuttingedge calls you and says she is about to work with Gigantitus horriblis and is it okay to work with it in her BL1 lab? Oh, and she also says she doesn’t know much about it. So, how does one begin to identify the risk associated with some organism that we’ve never heard of? The first place to look, of course, is www.absa.org under Biosafety Resources. There one can access the excellent MSDS pages for microorganisms published by Health Canada, the NIH/CDC BMBL book, and the excellent compilation by Stefan Wagener of agents and risk groups as defined by various countries. The latter was compiled in 1996 so may be a bit out-of-date. What if the agent is not in those references, or if you want to make sure that the agent in Stefan’s list has not changed risk group? (Note: the ABSA web site will be undergoing a massive updating in the coming months).

One very good source is
http://www.bacterio.cict.fr/hazard.html
which not only has a link to risk group classification (bacteria): European Community, but also to: List of Bacterial Names with Standing in Nomenclature. This link does not have a classification for any agent that is not a bacterium, and that of course leaves out many agents of interest. To find the classification for all types of agents per the European Union go to:
which gets you the PDF file, Directive 2000/54/EC of the European Parliament and of the Council of 18 September 2000 on the protection of workers from risks related to exposure to biological agents at work. This is the latest directive from the EU regarding use, containment, and classification of microorganisms. Of course, individual countries within the Union can augment the list, but this is the baseline for all European countries within the Union.

Figure 1

<table>
<thead>
<tr>
<th>CLASSIFICATION</th>
<th>VIRULENCE FACTORS</th>
<th>ENVIRONMENTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOCHEMISTRY</td>
<td>NORMAL FLORA</td>
<td>INDUSTRIAL USES</td>
</tr>
<tr>
<td>GENETICS</td>
<td>PATHOGENS</td>
<td>VACCINES</td>
</tr>
<tr>
<td>SEROLOGY</td>
<td>LABORATORY ID</td>
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Another very useful web site for researching risk from microorganisms is
This gets you to MicroBioNet which has a link to bacteriology (with virology and parasitology under construction). This is chiefly a clinical microbiology site so the agent profiles are mainly for those agents encountered in clinical disease. For the agents listed, it gives a good rundown on the factors listed in Figure 1.

Last, but certainly not least, you can send the question to the ABSA Biosafety listserv group and hopefully one of the approximately 600 subscribers will know about your agent. If you are not currently a subscriber, you can subscribe by sending an e-mail to listserv@mitvma.mit.edu and in the body of the e-mail type: sub biosafety YourFirstName YourLastName. Do not include a signature file as that can “upset” the listserv.

You now know what the organism is and what the risks are, but how can your subsidiary in the UK ship the agent within the EU? For a nice review, see the 1999 article by D. Smith, C. Rohde, and B. Holmes, “Handling and Distribution of Microorganisms and the Law,” Microbiology Today, 26, 14-16, available on the SMG web site
http://www.socgenmicrobiol.org.uk
For postal regulations in the UK, see
http://www.ukncc.co.uk/html/Information/
Postal%20Regulations.htm#regulations

Finally, two excellent web sites, which I am sure I have mentioned in previous articles but are worth mentioning, again, are the Belgian Biosafety Server (http://www.biosafety.be/HomePage.html) and the European Biosafety Association (http://www.ebsa.be/).