

Biosafety in Microbiological and Biomedical Laboratories

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and

National Institutes of Health

Fifth Edition

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Foreword

Biosafety in Microbiological and Biomedical Laboratories (BMBL) quickly became the cornerstone of biosafety practice and policy in the United States upon first publication in 1984. Historically, the information in this publication has been advisory in nature even though legislation and regulation, in some circumstances, have overtaken it and made compliance with the guidance provided mandatory. We wish to emphasize that the 5th edition of the BMBL remains an advisory document recommending best practices for the safe conduct of work in biomedical and clinical laboratories, from a biosafety perspective and is not intended as a regulatory document; though we recognize that it will be used that way by some.

During the latest revision of the BMBL additional sections were added; sections on the principles and practices of biosafety and on risk assessment were expanded; all agent summary statements and appendices were revised; and effort was made to harmonize recommendations with guidance issued and regulations promulgated by other federal agencies. Wherever possible, an attempt was made to clarify both the language and intent of the information provided. The events of September 11, 2001 and the anthrax attacks in October of that year re-shaped and changed, forever, the way we manage and conduct work in biological and clinical laboratories and draw into focus the need for inclusion of additional information in the BMBL. In an attempt to better serve the needs of our community in this new era, information on the following topics has been added in the 5th edition:

- Occupational medicine and immunization
- Decontamination and sterilization
- Laboratory biosecurity and risk assessment
- Biosafety Level 3 (Ag) laboratories
- Agent summary statements for some agricultural pathogens
- Biological toxins

At last count, over two hundred of our scientific and professional colleagues have assisted in the preparation of the 5th edition through participation on technical working groups; serving as reviewers and guest editors; and as subject matter experts. We wish to thank them all for their dedication and hard work for without them the 5th edition of the BMBL would not be possible. We also want to recognize the hard work and contributions made by all who participated in preparation of the previous editions of the BMBL; we have built on their solid work and commitment. It is impossible to publish this revision without recognizing the visionary leadership of the previous BMBL editors, Drs. John Richardson and W. Emmett Barkley and Drs. Jonathan Richmond and Robert W. McKinney, without whom the BMBL would not be the widely and well regarded resource it is today. The Executive Steering Committee did a stellar job in shepherding this massive revision effort and not without many bumps and bruises along the way. It is through their absolute commitment to quality, technical accuracy, and dedication to the professional practice of biosafety that the 5th edition is born. We are truly grateful to Ms.

Kerstin Traum, Council Rock Consulting, for her expertise, keen eye for detail and seemingly tireless efforts in performing the duties of technical writer-editor.

Finally, without the superb project management abilities and leadership of Dr. Joseph McDade and the technical/scientific editing expertise of Dr. Karl Johnson, especially in virology, the 5th edition of the BMBL would not be possible.

We hope you find *Biosafety in Microbiological and Biomedical Laboratories*, 5th edition complete, timely and most of all easy to use. Thank you for your patience and understanding during the long and comprehensive revision process. We know you will find it was well worth the wait.

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Contributors:

BMBL is by its nature a continuously revised manual, and each revision refines and extends the contributions to previous editions. Since 1984, when the first edition of BMBL was published, many scientists and biosafety specialists have contributed to this important reference work. The 5th edition is no exception, as specialists in multiple disciplines generously provided their considerable expertise to this revision. The Editors and Steering Committee gratefully acknowledge the contributions of all of these many contributors over the life of the BMBL, especially contributors to the current edition, who are listed below.

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