# APPENDIX E. CERTIFIED HOST-VECTOR SYSTEMS

While many experiments using *Escherichia coli* K-12, *Saccharomyces cerevisiae*, and *Bacillus subtilis* are currently exempt from the *NIH Guidelines* under Section III-F, *Exempt Experiments*, some derivatives of these host-vector systems were previously classified as Host-Vector 1 Systems or Host-Vector 2 Systems. A listing of those systems follows:

## Appendix E-I. *Bacillus subtilis*

### Appendix E-I-A. *Bacillus subtilis* Host-Vector 1 Systems

The following plasmids are accepted as the vector components of certified *B. subtilis* systems: pUB110, pC194, pS194, pSA2100, pE194, pT127, pUB112, pC221, pC223, and pAB124. *B. subtilis* strains RUB 331 and BGSC 1S53 have been certified as the host component of Host-Vector 1 systems based on these plasmids.

### Appendix E-I-B. *Bacillus subtilis* Host-Vector 2 Systems

The asporogenic mutant derivative of *Bacillus subtilis*, ASB 298, with the following plasmids as the vector component: pUB110, pC194, pS194, pSA2100, pE194, pT127, pUB112, pC221, pC223, and pAB124.

## Appendix E-II. *Saccharomyces cerevisiae*

### Appendix E-II-A. *Saccharomyces cerevisiae* Host-Vector 2 Systems

The following sterile strains of *Saccharomyces cerevisiae*, all of which have the ste-VC9 mutation, SHY1, SHY2, SHY3, and SHY4. The following plasmids are certified for use: YIp1, YEp2, YEp4, YIp5, YEp6, YRp7, YEp20, YEp21, YEp24, YIp25, YIp26, YIp27, YIp28, YIp29, YIp30, YIp31, YIp32, and YIp33.

## Appendix E-III. *Escherichia coli*

### Appendix E-III-A. *Escherichia coli* (EK2) Plasmid Systems

The *Escherichia coli* K-12 strain chi-1776. The following plasmids are certified for use: pSC101, pMB9, pBR313, pBR322, pDH24, pBR325, pBR327, pGL101, and pHB1. The following *Escherichia coli*/S. cerevisiae hybrid plasmids are certified as EK2 vectors when used in *Escherichia coli* chi-1776 or in the sterile yeast strains, SHY1, SHY2, SHY3, and SHY4: YIpI, YEp2, YEp4, YIp5, YEp6, YRp7, YEp20, YEp21, YEP24, YIp25, YIp26, YIp27, YIp28, YIp29, YIp30, YIp31, YIp32, and YIp33.

### Appendix E-III-B. *Escherichia coli* (EK2) Bacteriophage Systems

The following are certified EK2 systems based on bacteriophage lambda:

#### Vector Host

λgt *WES*λB' DP50*sup*F

λgt *WES*λB\* DP50*sup*F

λgt Z*J vir*λB' *Escherichia coli* K-12

λgtALO·λB DP50*sup*F

Charon 3A DP50 or DP50*sup*F

Charon 4A DP50 or DP50*sup*F

Charon 16A DP50 or DP50*sup*F

Charon 21A DP50*sup*F

Charon 23A DP50 or DP50*sup*F

Charon 24A DP50 or DP50*sup*F

*Escherichia coli* K-12 strains chi-2447 and chi-2281 are certified for use with lambda vectors that are certified for use with strain DP50 or DP50*sup*F provided that the *su*-strain not be used as a propagation host.

## Appendix E-IV. Neurospora crassa

### Appendix E-IV-A. *Neurospora crassa* Host-Vector 1 Systems

The following specified strains of *Neurospora crassa* which have been modified to prevent aerial dispersion: In1 (inositol-less) strains 37102, 37401, 46316, 64001, and 89601. Csp-1 strain UCLA37 and csp-2 strains FS 590, UCLA101 (these are conidial separation mutants). Eas strain UCLA191 (an "easily wettable" mutant).

## Appendix E-V. *Streptomyces*

### Appendix E-V-A. *Streptomyces* Host-Vector 1 Systems

The following *Streptomyces* species: *Streptomyces coelicolor, S. lividans, S. parvulus*, and *S. griseus*. The following are accepted as vector components of certified *Streptomyces* Host-Vector 1 systems: *Streptomyces* plasmids SCP2, SLP1.2, pIJ101, actinophage phi C31, and their derivatives.

## Appendix E-VI. Pseudomonas putida

### Appendix E-VI-A. *Pseudomonas putida* Host-Vector 1 Systems

*Pseudomonas putida* strains KT2440 with plasmid vectors pKT262, pKT263, and pKT264.