

Introduction	1
Part I: Preservation	
A Subculture	2
B Reduced metabolism and periodic transfer	4
C Drying	5
D Freezing	6
E Freeze-drying	8
F Practical aspects of freeze-drying	11
G Stability of characters	23
H Viability	23
Part II: Separate taxa	
A Algae	25
B Bacteria	25
C Bacteriophages	26
D Cell lines	26
E Fungi	26
F Mycoplasmas	27
G Protozoa	27
H Rickettsiales	28
I Spirochaetes	28
J Viruses	29
K Yeasts	30
Part III: Media and methods by genus and species	31
Part IV: Survival of freeze-dried bacteria	64
Part V: formulae of media	83
Part VI: Index of manufacturers and supply houses	98
Acknowledgements	100
References	101
List of Tables	
Table 1: Methods of maintenance used in the NCTC before Freeze-drying was introduced	3
Table 2: Genera held in the NCTC	31
Table 3: List of species and their requirements	35
Table 4: Viability of some freeze-dried bacteria	67
List of Figures	
Figure 1: Flow chart of freeze-drying	10
Figure 2: Diagram of Edwards 5PS machine	19

Figure 3: Edwards 5PS machine	20
Figure 4: Sordelli's method of preservation	20
Figure 5: Opening of an ampoule	22