

MSc Thesis - Chapter 4:

Figures and Tables

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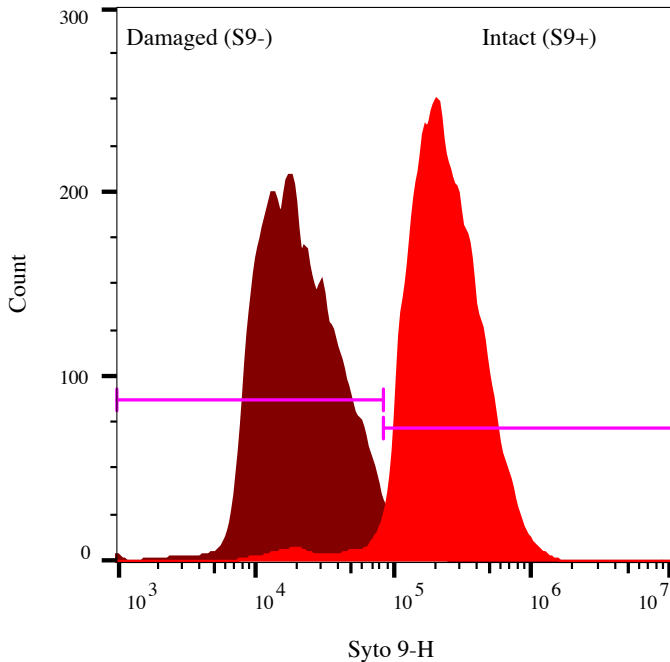


Figure 4.1 SYTO 9 fluorescence histogram of *B. animalis* control cells.

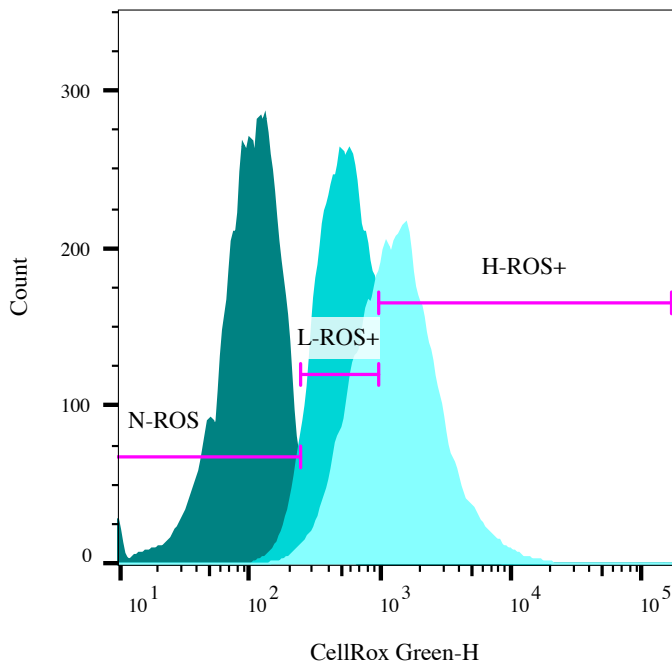
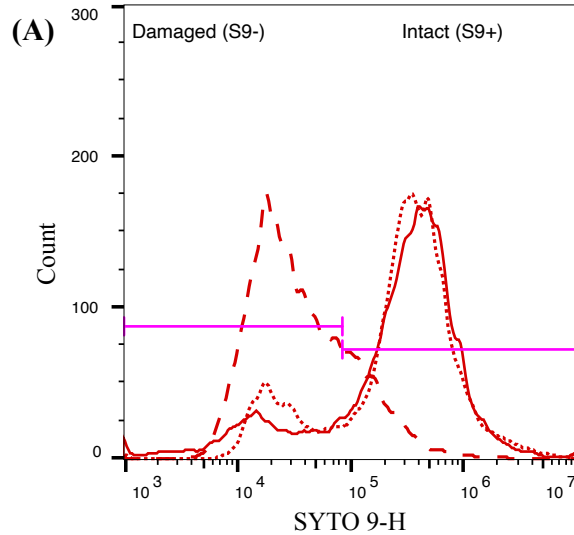


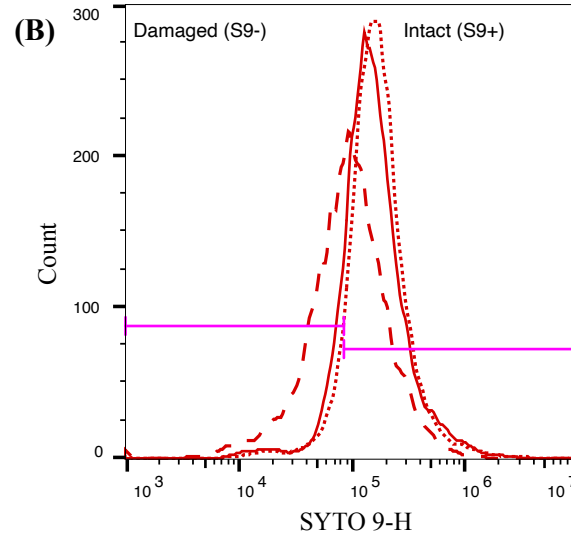
Figure 4.2 CellRox Green fluorescence histogram of *B. animalis* control cells. N-ROS represents the unoxidised cell gate, L-ROS+ represents a low-oxidised cell state, and H-ROS represents a highly-oxidised cell state.

- Unadapted *Bifidobacterium* spp.
- Sublethal H₂O₂-treated *Bifidobacterium* spp.
- Lethal H₂O₂-treated *Bifidobacterium* spp.

B. bifidum



B. breve



B. animalis

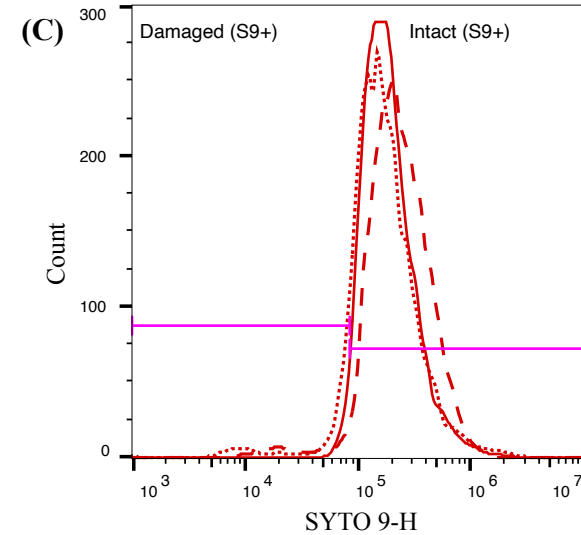


Figure 4.3 SYTO 9 fluorescence histograms of unadapted, sublethal- and lethal H₂O₂-treated (A) *B. bifidum*, (B) *B. breve* and (C) *B. animalis*. S9-: damaged membrane cell gate; S9+: intact membrane cell gate.

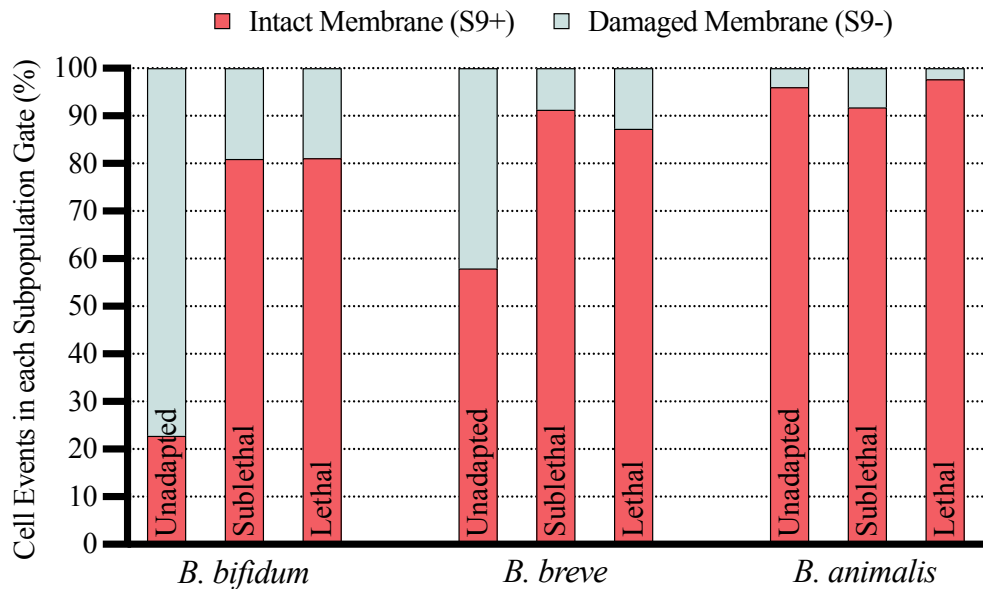
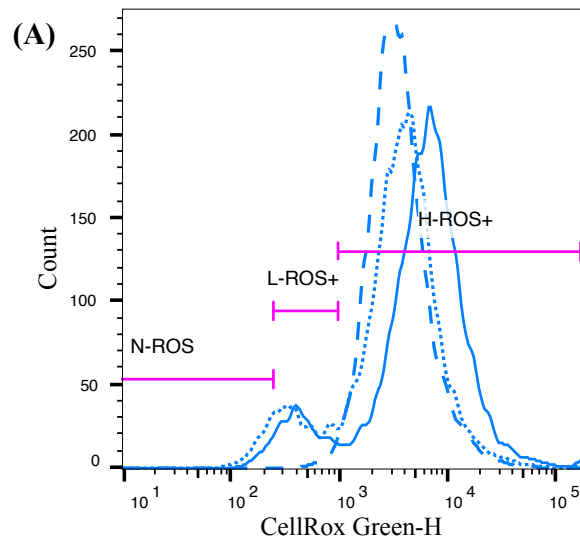


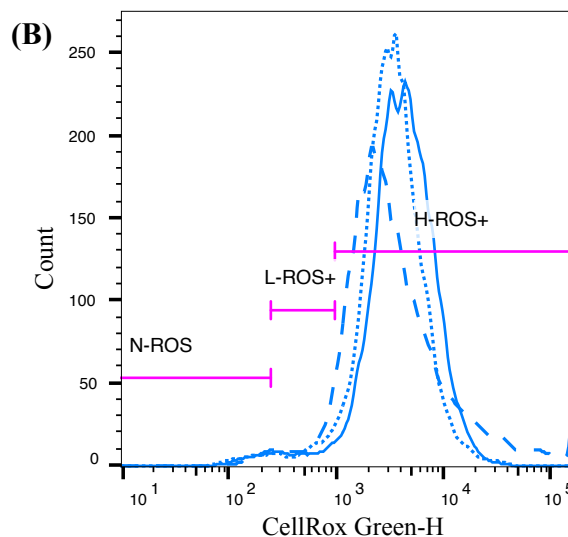
Figure 4.4 Relative proportions of membrane intact (S9+) and membrane damaged (S9-) subpopulations of unadapted, sublethal- and lethal H_2O_2 -treated *Bifidobacterium* species.

- Unadapted *Bifidobacterium* spp.
- Sublethal H₂O₂-treated *Bifidobacterium* spp.
- Lethal H₂O₂-treated *Bifidobacterium* spp.

B. bifidum



B. breve



B. animalis

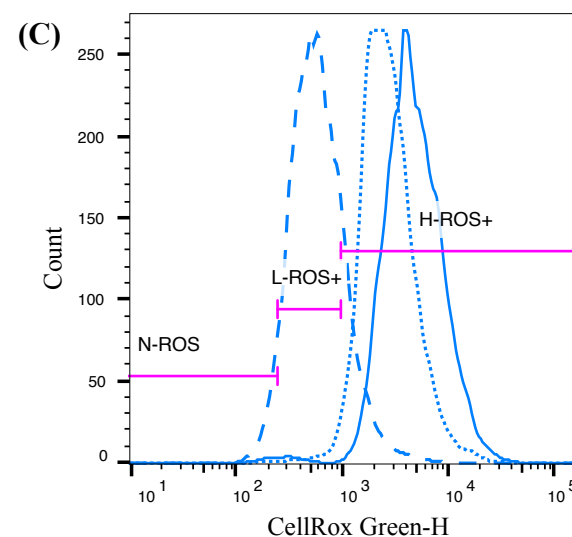


Figure 4.5 CellRox Green fluorescence histograms of unadapted, sublethal-, and lethal H₂O₂-treated (A) *B. bifidum*, (B) *B. breve* and (C) *B. animalis*. N-ROS: Unoxidised cell gate; L-ROS+: Low-oxidised cell gate; H-ROS+: High-oxidised cell gate.

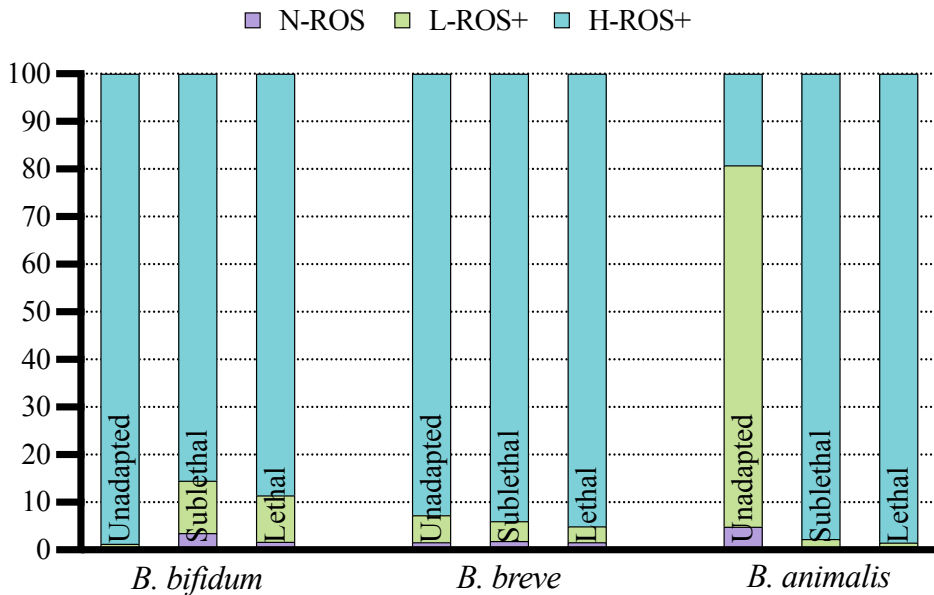
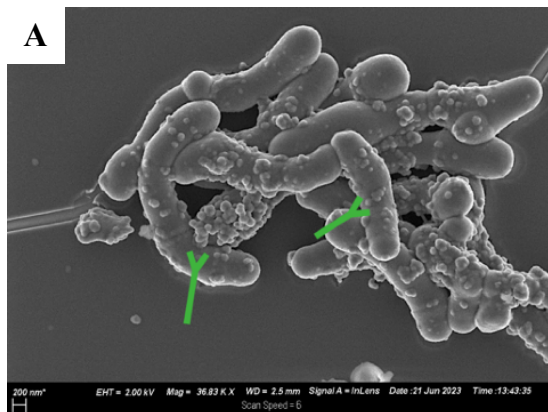
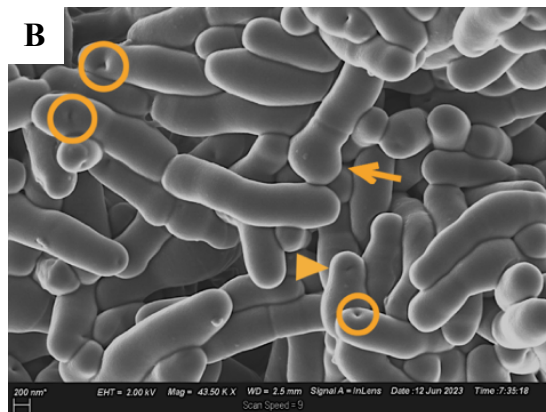
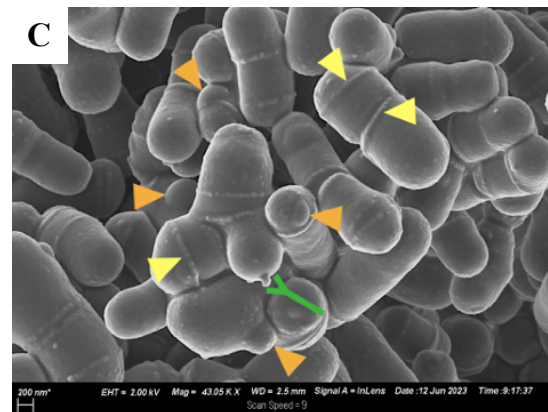
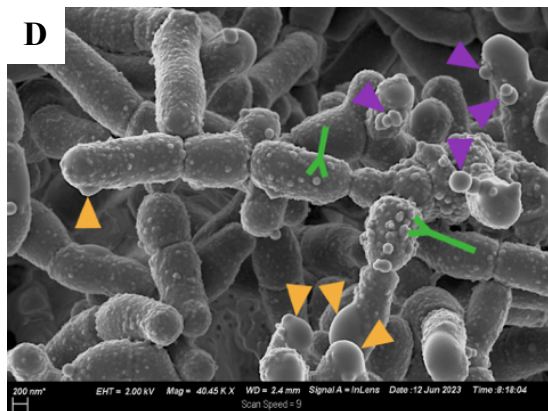
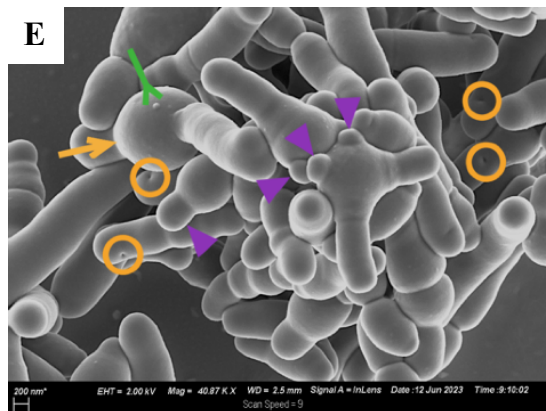
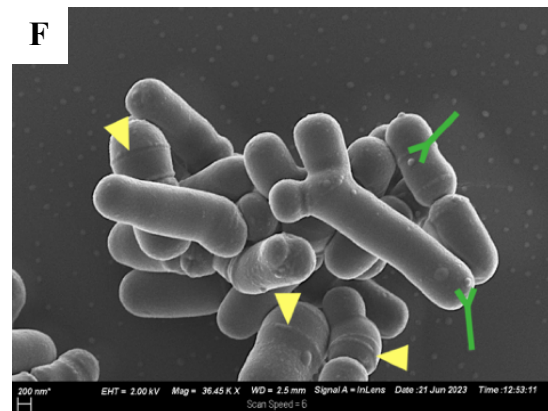


Figure 4.6 Relative proportions of unoxidised (N-ROS), low-oxidised (L-ROS+) and highly-oxidised (H-ROS+) subpopulations of unadapted, sublethal- and lethal H₂O₂-treated *Bifidobacterium* species.

*B. bifidum**B. breve**B. animalis***A****B****C****D****E****F**

(— outer membrane vesicles; — pores; — cellular swelling; — cellular protrusions; — circumferential rings; — irregular cell envelope/ cell damage; — coccoid progeny).

Figure 4.7 Scanning electron images of unadapted and H₂O₂-treated *B. bifidum*, *B. breve* and *B. animalis* cells.

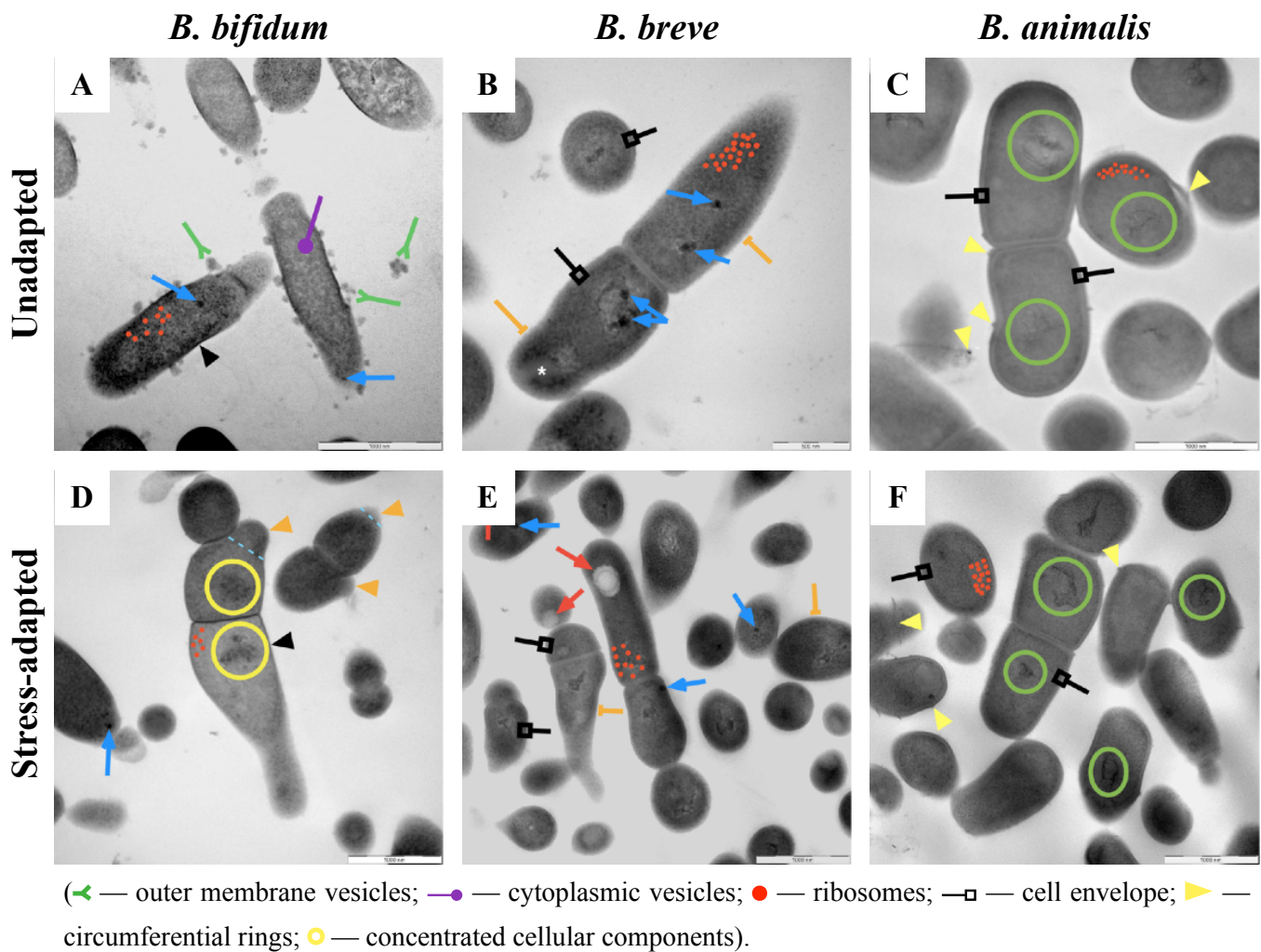


Figure 4.8 Transmission electron images of unadapted and H₂O₂-treated *B. bifidum*, *B. breve* and *B. animalis* cells.