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List of Changes for submission of MSc Dissertation titled:

**GENERATION OF SOLUBLE, CATALYTICALLY ACTIVE COVALENT HIV-1
SUBTYPE C INTEGRASE-DNA COMPLEXES TO IDENTIFY NOVEL STRAND
TRANSFER INHIBITORS**

1. Mention of 20°C optimization attempts (results not shown) added to section 3.2.1 page 78 paragraph 1.
2. Formatting table of contents: section 2.2.3: *E. coli* corrected to italics. Page vii.
3. Title of section 2.2.3 changed to “*Transformation of E.coli BL21 Cells with HIV-1 IN constructs*” page 54 (also reflected in T.O.C. page vii).
4. Title of section 2.2.3.3 changed to “*Transformation of Chemically Competent E.coli BL21*” page 56 (also reflected in T.O.C. page vii).
5. “Clelands Reagent” removed from list of abbreviations (Row containing DTT) page xviii.
6. Spaces added between value of measurement and unit of measurement (throughout entire thesis).
7. Changed “Western blot analysis (Figure 3.12) showed that IN was present in fractions 7-19” to “Western blot analysis (Figure 3.12) showed that IN was present in fractions 7-17” page 81 paragraph 1.
8. Figure 3.14 – added brackets to indicate non-significantly different values. Page 84, top.
9. Deleted figure 3.17 page 87 top. Adjusted subsequent figure numbers and figure references accordingly.
10. Spelling correction: “if” replaced with “is”. Page 26, second paragraph.
11. Figure 1.2 enlarged. Page 29, top.
12. Figure 1.3 enlarged. Page 30, top.
13. Section 1.3.4 renamed to “The Preintegration Complex”. Page 32, bottom. T.O.C. updated accordingly.
14. Section 1.4 renamed to “Antiretroviral Therapy”. Page 33, middle. T.O.C. updated accordingly.
15. Number of NNRTI’s changed to six, specific mention of Rilpivirine removed. Page 35, second paragraph. Page 36, first paragraph.
16. Replaced “2” with “two”. Page 38, paragraph 2.
17. Added reference, page 38 second paragraph.
18. Added “to”. Page 40, paragraph 2.
19. Added “*et al.*” to Gao and Huang references. Page 48, paragraph 1.
20. Replaced “with” with “to”. Page 48, paragraph 2.
21. Section 2.1 opening sentence structure rearranged. Page 52 paragraph 1.
22. “...all transformed into” replaced with “which were used to transform”. Page 52, paragraph 1.
23. “...added to” replaced with “incorporated into”. Page 54 paragraph 2.
24. “added” replaced with “incorporated” page 53, paragraph 3 (three instances edited.)

25. "The lyophilized HIV-1 subtype C mutant constructs GBCsol and GBCY143C were resuspended and immediately transformed into chemically competent *E.coli* BL21 cells upon reconstitution" changed to "The lyophilized HIV-1 subtype C mutant constructs GBCsol and GBCY143C were resuspended and chemically competent *E.coli* BL21 cells were immediately transformed with this construct upon reconstitution." Page 55 paragraph 2.
26. "Made" replaced with "prepared". Page 56 paragraph 2.
27. Section 2.2.3.3. title changed to *Transformation of Chemically Competent E.coli BL21*" Page 57, top.
28. Opening sentence changed to "Chemically competent *E.coli* DH5α and *E.coli* BL21 cells were transformed with each plasmid..." Page 57 paragraph 1.
29. IPTG stock concentration removed. Page 58 paragraph 1.
30. Changed to "...average *absorbance* of the no-protein..." Page 65 paragraph 2.
31. Equation changed to "% Activity = (*Experiment*/*INBsol*) x 100" Page 66 paragraph 1.
32. Equation changed to "% Inhibition = [1-(*drug/control*)] x 100" Page 66 paragraph 4.
33. Added reference (Miss T. Traut, personal communication) to figure 3.2 legend page 73.
34. Added sentence "Consequently, the C280S mutation is not visible in this model." Page 72 paragraph 1.
35. Changed "with" to "to" on page 74 paragraph 1.
36. Changed last sentence of paragraph 1 on page 74 to "...while residue 280 did not resolve in this structure."
37. Corrected spelling of "litre" on page 80 paragraph 1.
38. Corrected significant figures on figure 3.14 page 85 paragraph 1.
39. Changed "and" to "an" page 91 paragraph 1.
40. Page 92 paragraph 1: corrected to lower case amino acids names.
41. Page 93 paragraph 2: changed "know" to "known".
42. Page 93 paragraph 1: last sentence changed to "...however the NTD is not catalytic, rather serving dimerization functions and thus changes here are not expected to influence protein functionality to any great degree. (53-55)". Page 75.
43. Figure 3.4 legend changed to "The active site of HIV-1 subtype C INY143C..."
44. Added "Co-ordinates obtained from Miss T. Traut." to Figure 3.4 legend. Page 75.
45. Added a comma after "After extensive optimisation efforts" on page 79 paragraph 1.
46. Changed Figure 1.1 title to "Chronology and geographical distribution..." Page 24 paragraph 1.
47. Changed figure 1.6 title to "Schematic representation of the in vitro strand transfer reaction." Page 41 paragraph 1.

48. List of figures now includes only the figure title, not the entire figure legend.