

Supplemental Information

An ancient influenza genome from Switzerland allows deeper insights into host adaptation during the 1918 flu pandemic in Europe

Christian Urban, Bram Vrancken, Livia V. Patrono, Ariane D  x, Mathilde Le Vu, Katarina L. Matthes, Nina Maria Burkhard-Koren, Navena Widulin, Thomas Schnalke, Sabina Carraro, Frank R  hli, Philippe Lemey, Kaspar Staub, S  bastien Calvignac-Spencer, and Verena J. Schuenemann

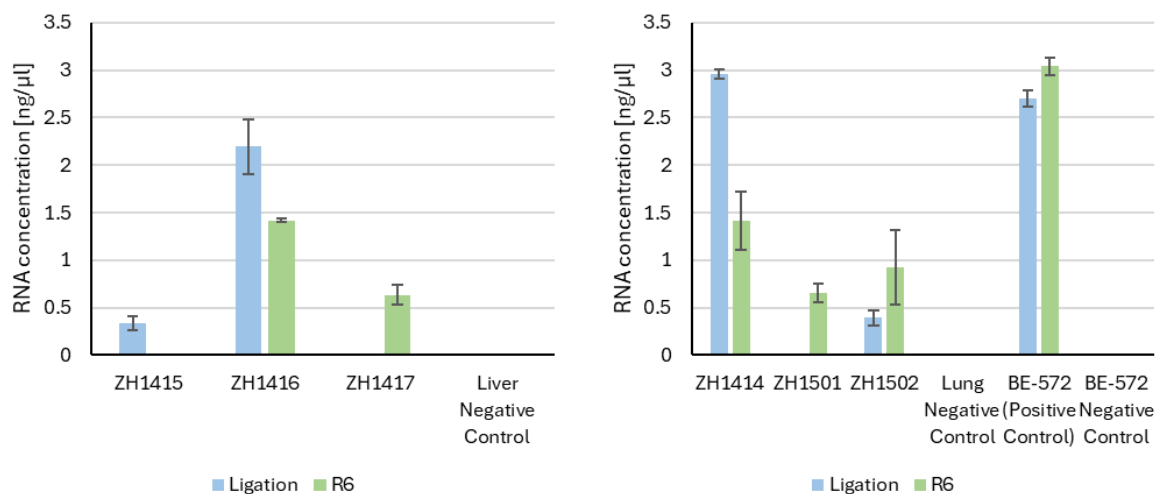


Figure S1: RNA quantification after extraction. Results for Liver samples are displayed on the left and lung samples on the right.

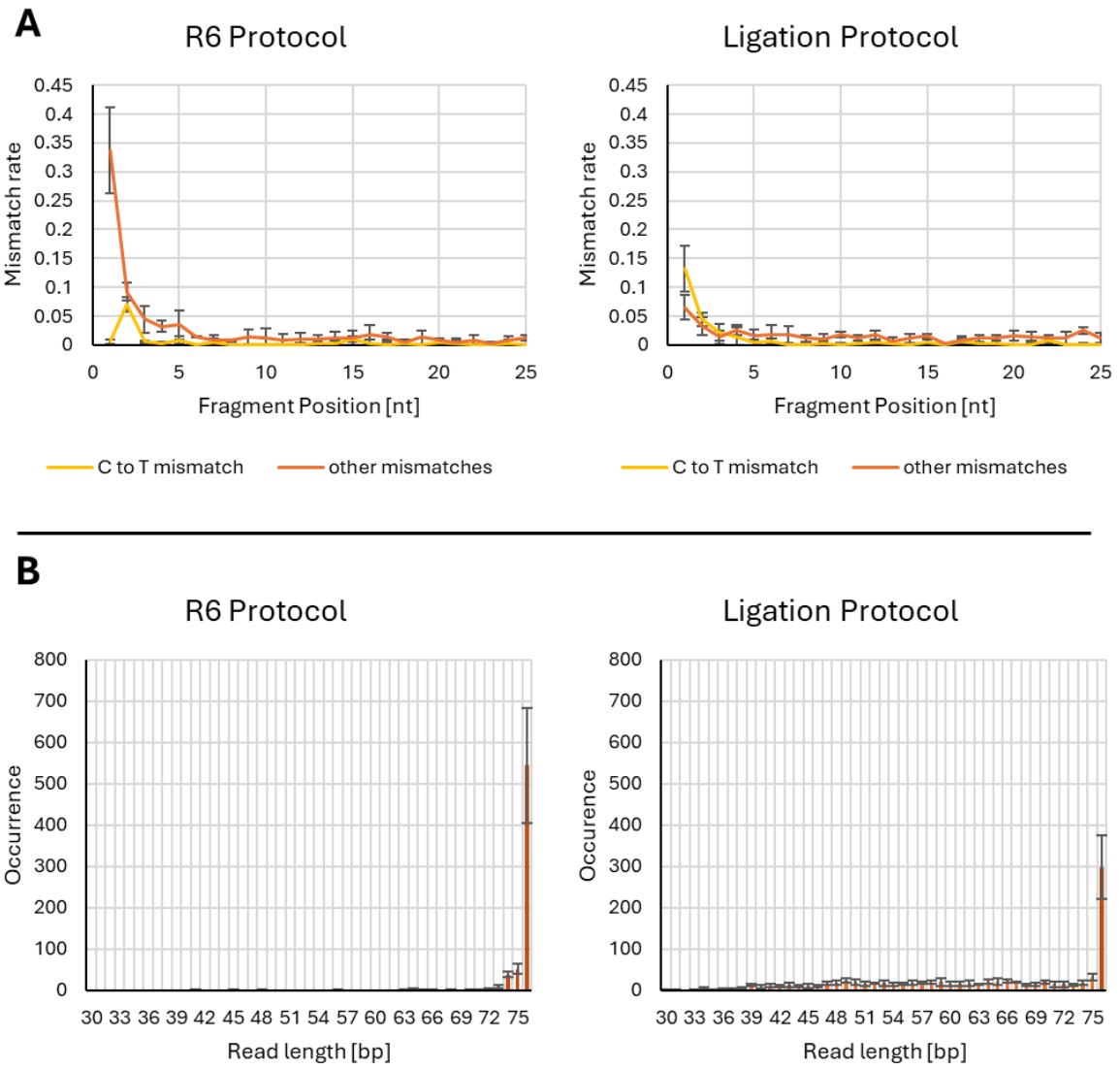


Figure S2: Mismatches A) and read-length B) distribution for mapping of the positive control BE-572 against the influenza A reference MU-162 [12].

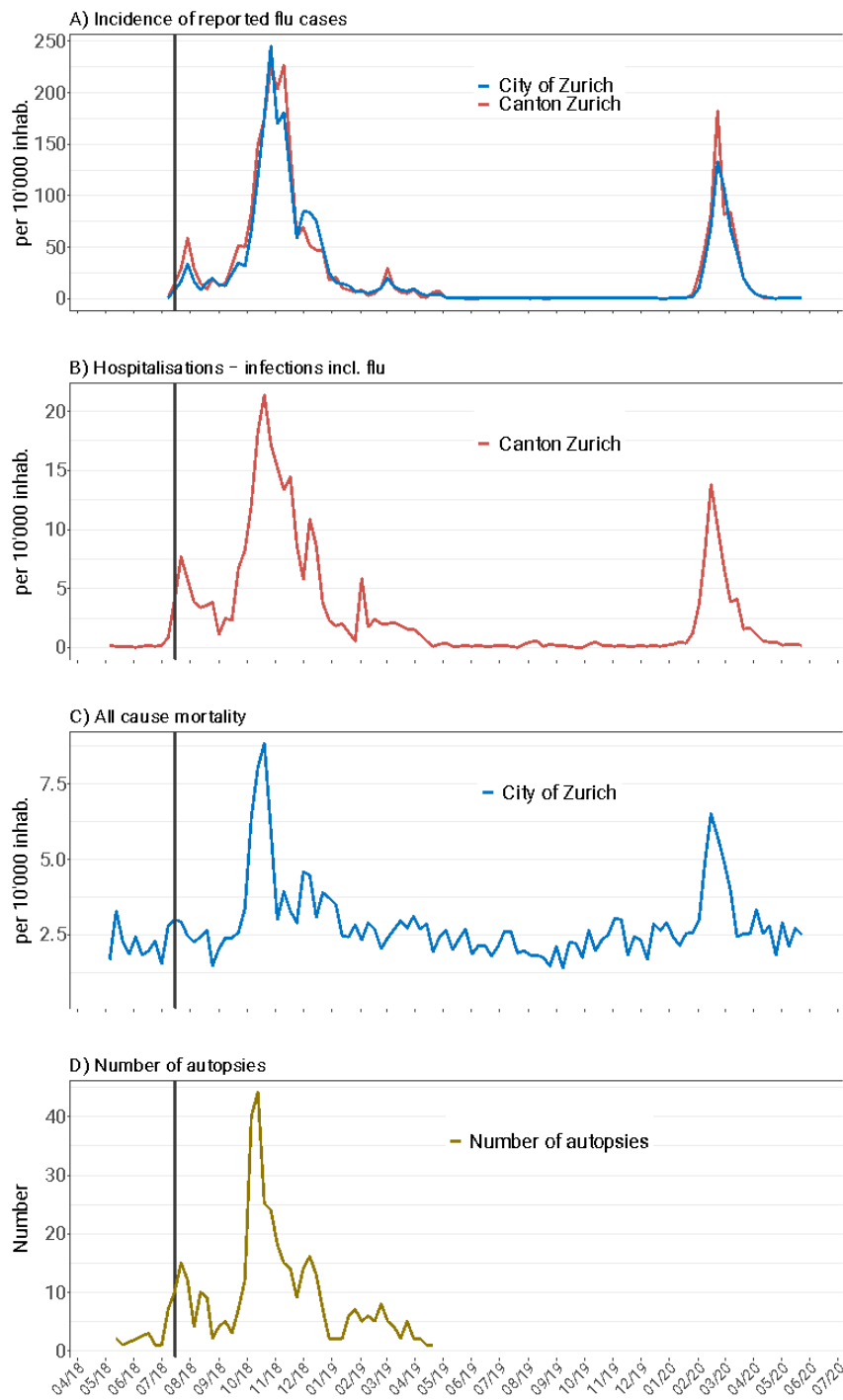


Figure S3: The weekly course of the 1918-1920 pandemic in Zurich. A) Incidence of new cases of influenza reported by physicians (excluding mild cases that did not go to the physician); B) Hospitalisations due to the category "Infections incl. influenza"; C) Deaths (all causes); D) Number of autopsies at Zurich University Hospital in which influenza pneumonia was the main cause of death (data sources: A-C [81], D [36]). The black vertical line represents the week of autopsy of the presented death of the 18-year-old male (sample ZH1502).

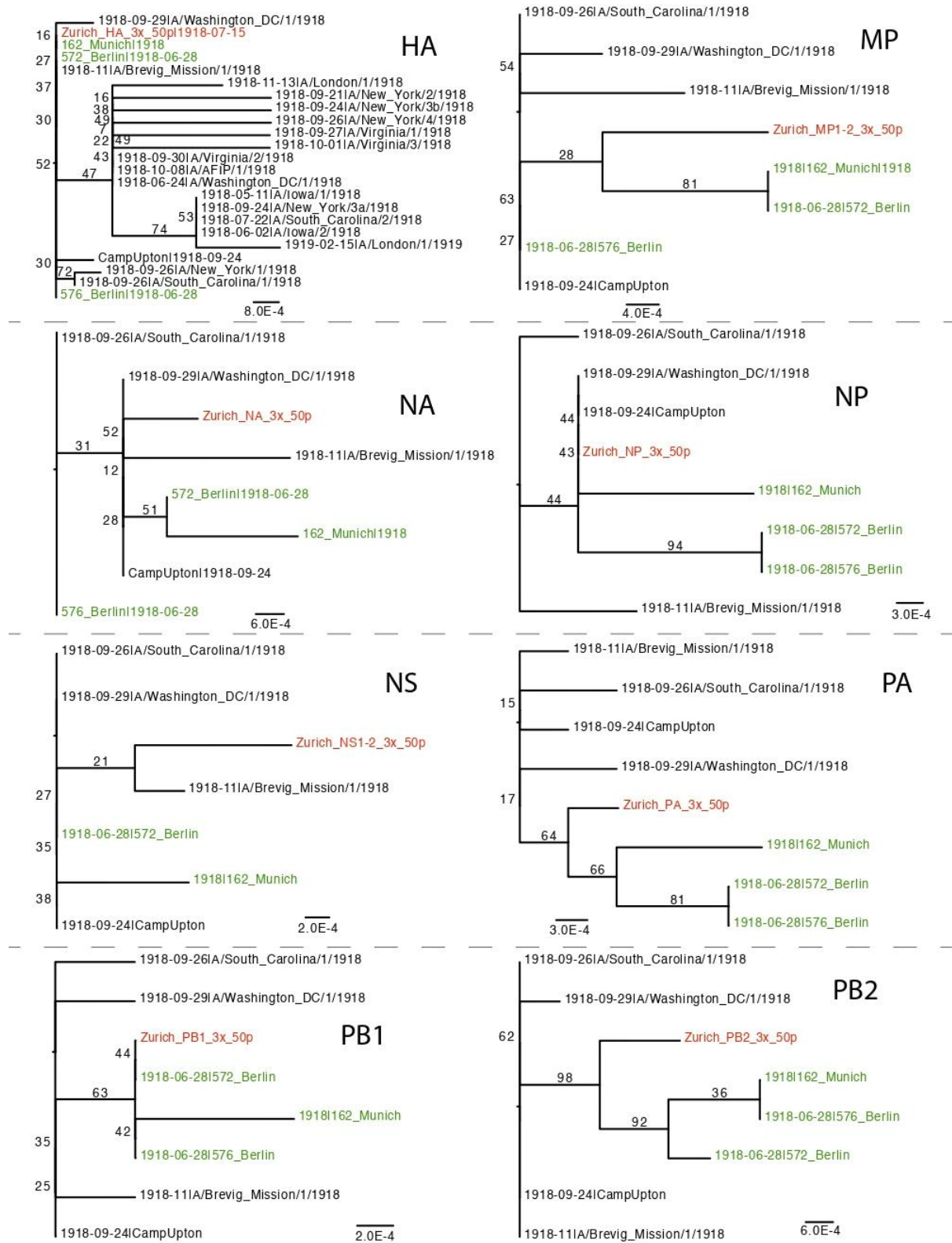


Figure S4: Maximum Likelihood trees for all individual IAV segments.

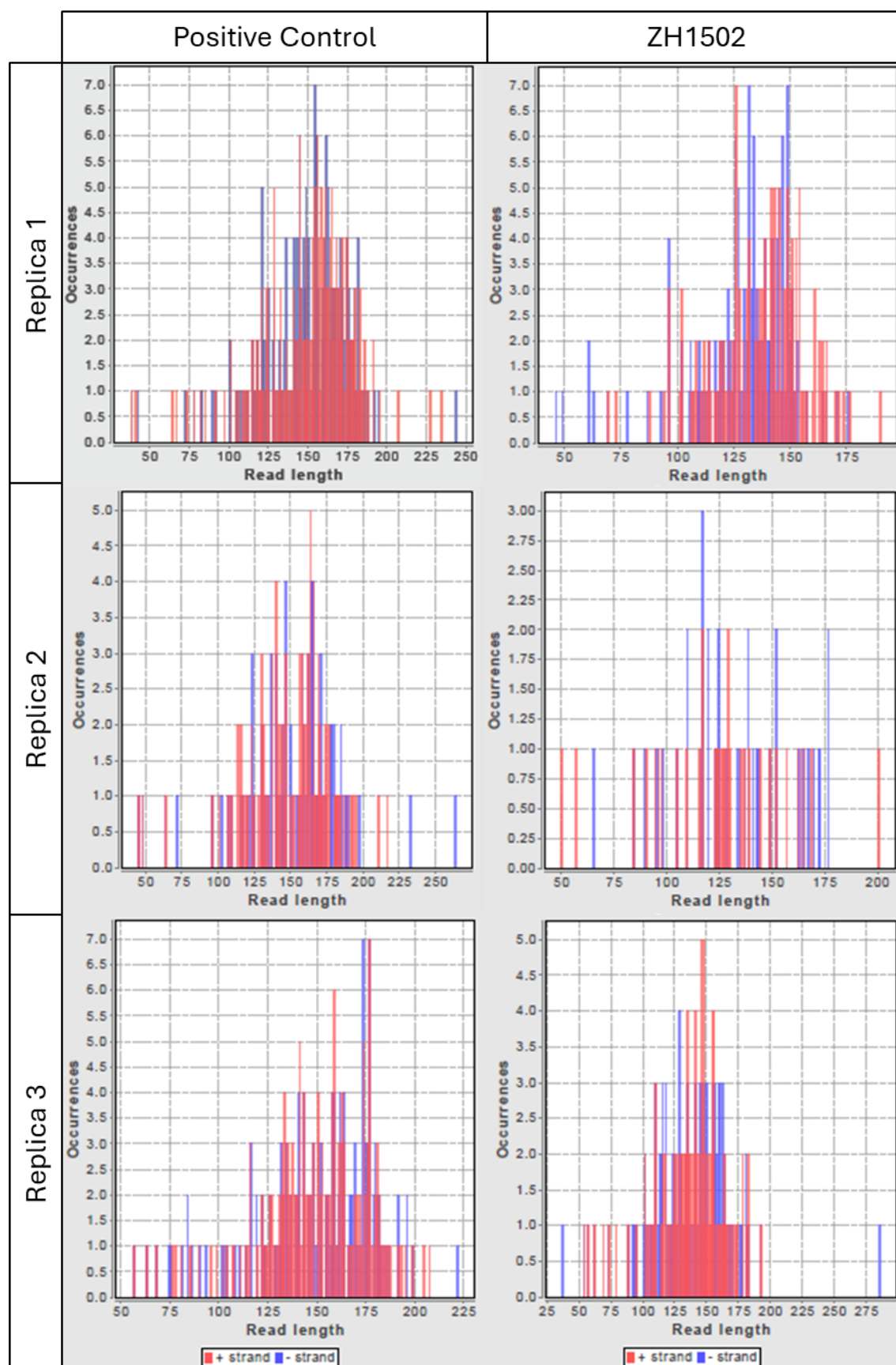


Figure S5: R6 Protocol fragment length distribution from 300 PE sequencing.

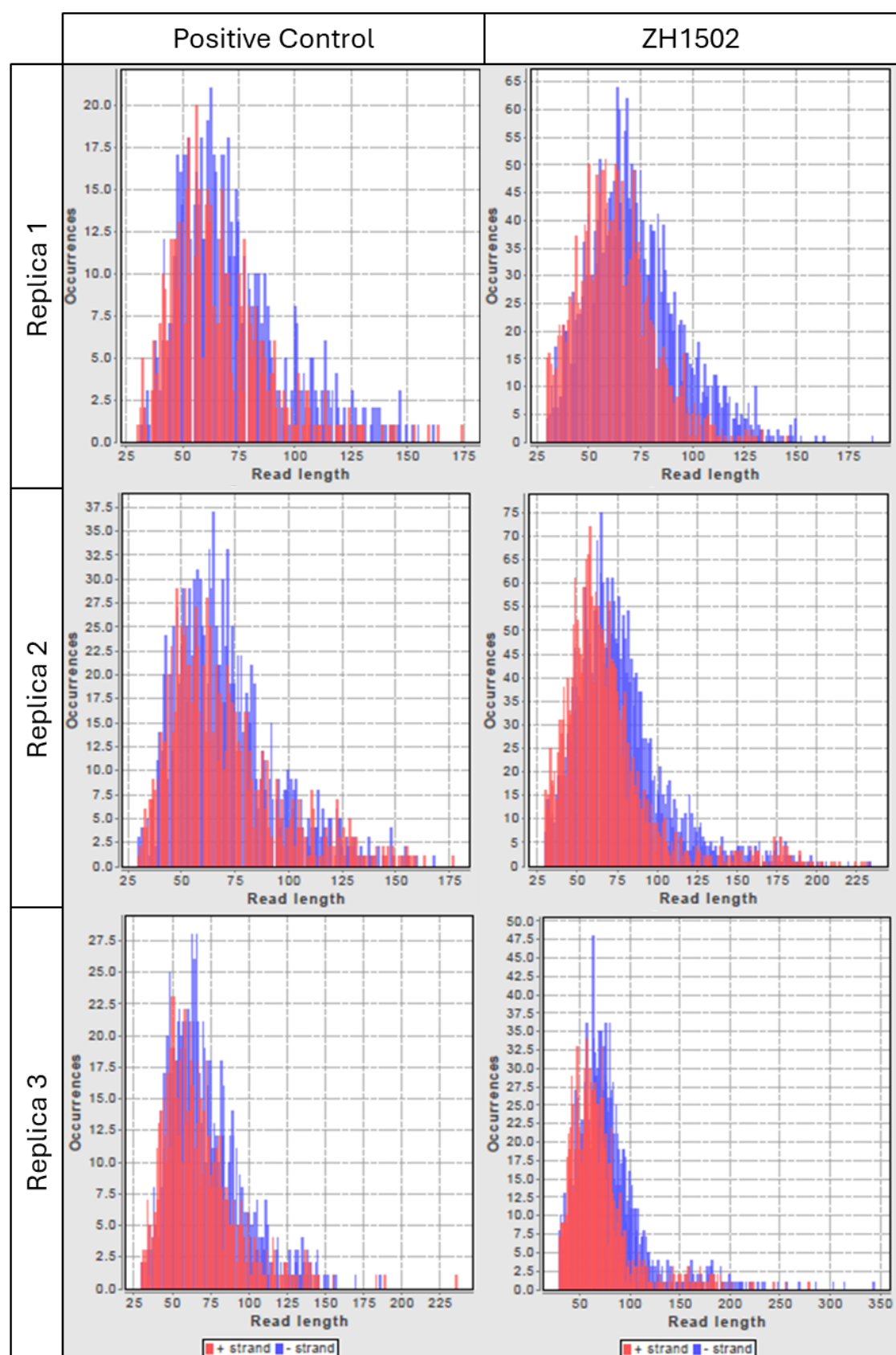


Figure S6: Ligation Protocol fragment length distribution from 300 PE sequencing.

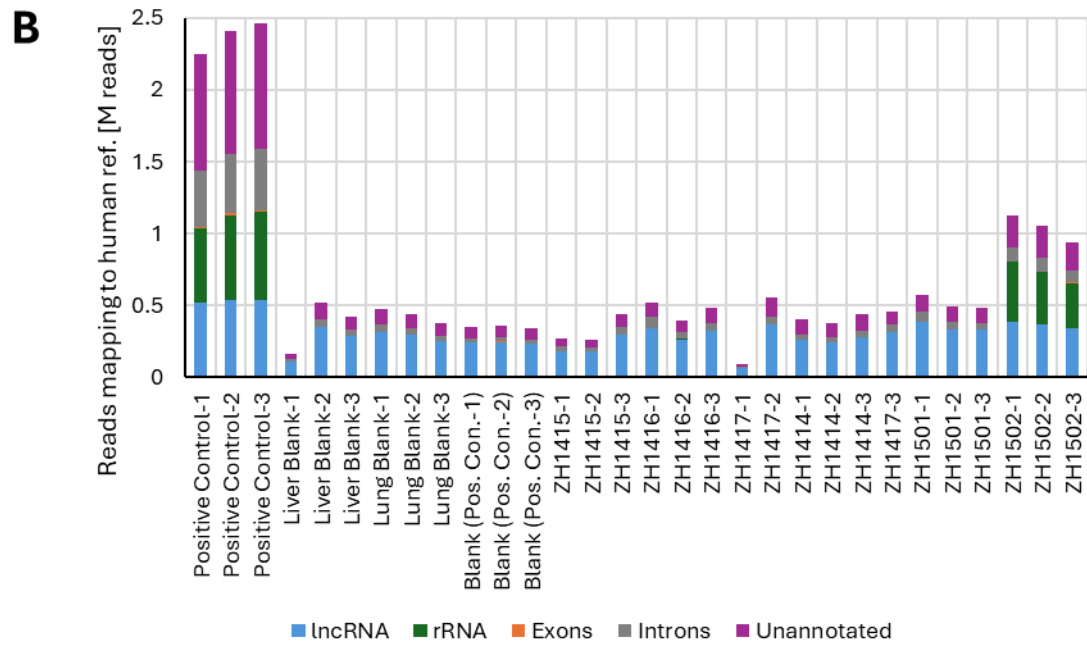
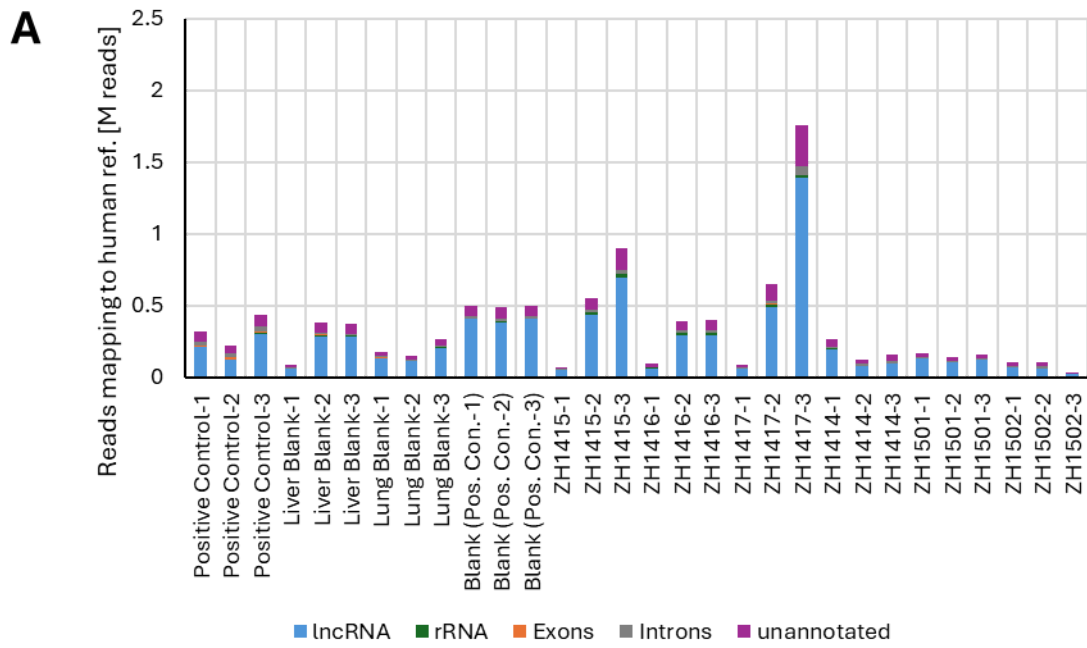


Figure S7: Mapping results against human reference. A) Results for the R6 workflow. B) Results for the Ligation workflow.