**SUPPORTING INFORMATION LEGENDS**

Figure S1. Coverage plot of CX-5461-induced genome rearrangements

using 5 kb wide overlapping sliding windows.

Figure S2. Coverage plot of CX-5461 + UVA -induced genome rearrangements

using 5 kb wide overlapping sliding windows.

Figure S3. Distribution of CX-5461-induced SNVs across all six chromosomes.

Note the higher frequency of on the balanced chromosomes III and V.

Figure S4. CX-5461 does not inhibit mung bean nuclease. CX-5461 stabilizes PCR products at 25°C. MBN degraded DNA in the presence of CX-5461 when the temperature was raised from 25°C to 75°C in 10°C intervals every 5 minutes.

Table S1. Table of CX-5461-induced SNVs.