***in situ* Hi-C without crosslinking**

in situ Hi-C can be performed without the use of crosslinking. In this study, we constructed five Hi-C libraries without the use of formaldehyde, or any, crosslinker. One library was constructed using the standard in situ Hi-C protocol (without crosslinking) with extremely gentle handling to avoid disrupting the nucleus or genome structure within the nucleus. The other four no-crosslinking libraries were constructed after embedding the uncrosslinked nuclei in agar plugs (section I.a.4) in order to maintain nuclear shape and structure. While the data generated by the no-crosslinking protocols is noisier, the main features we report in this study are all visible in our nocrosslinking maps.