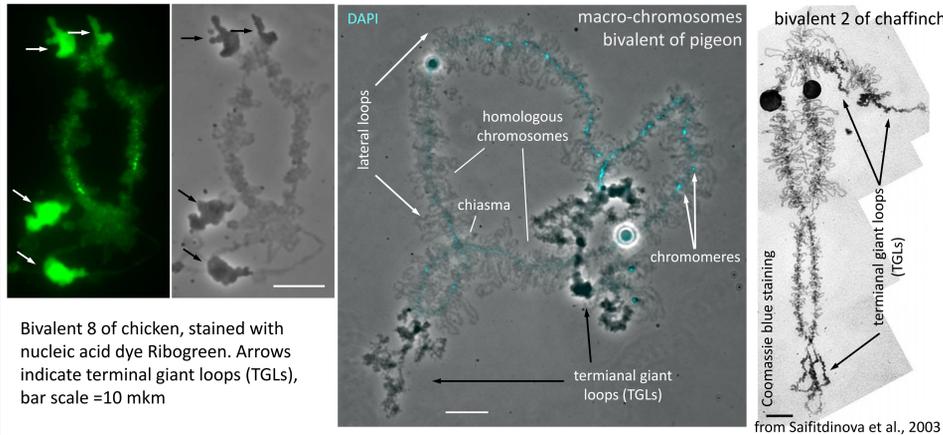


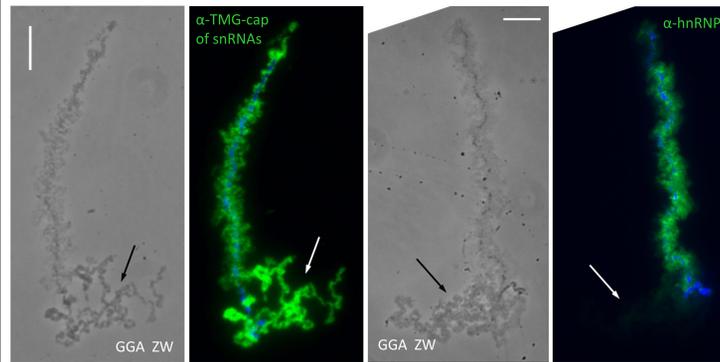
# Nuclear retained subtelomeric transcripts bind paraspeckle protein p54/nrb and hnRNP I/PTB forming telomere associated nuclear domains in growing oocytes of pigeon *Columba livia*

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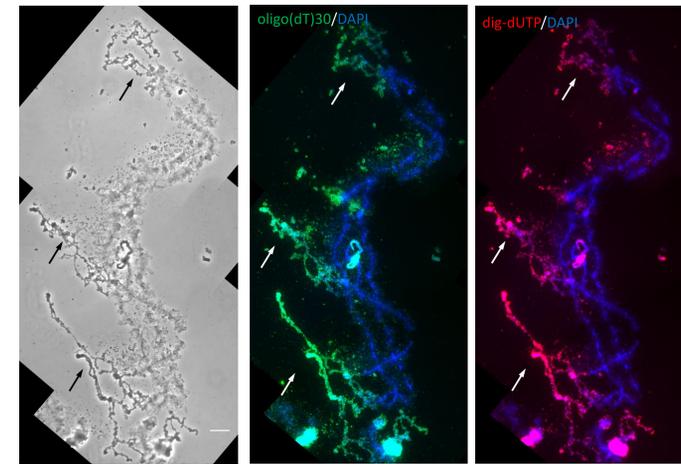
RNP-agglomerates, called Terminal Giant Loops (TGLs), form at the termini of lampbrush chromosomes of chicken, pigeon and chaffinch



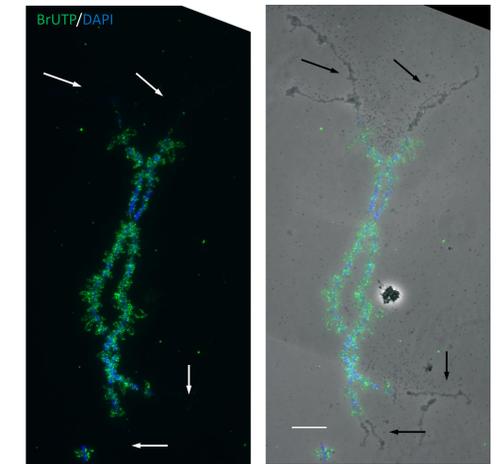
TGLs accumulate splicing factors and do not contain hnRNP protein L



TGLs accumulate poly(A)+ RNA

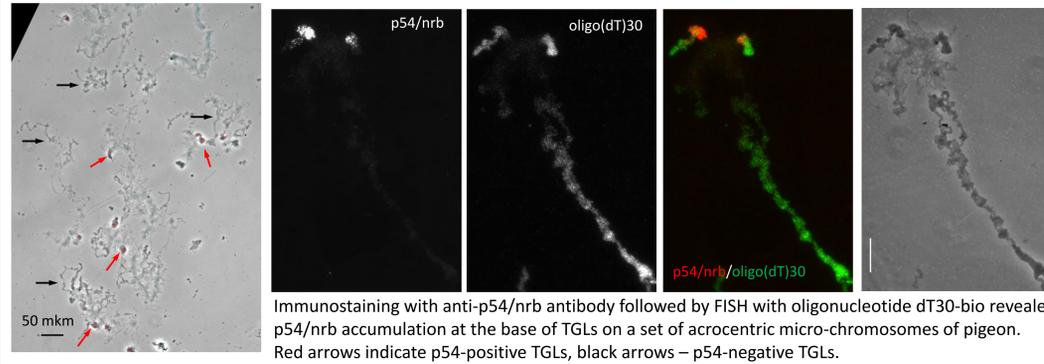


TGLs do not incorporate BrUTP

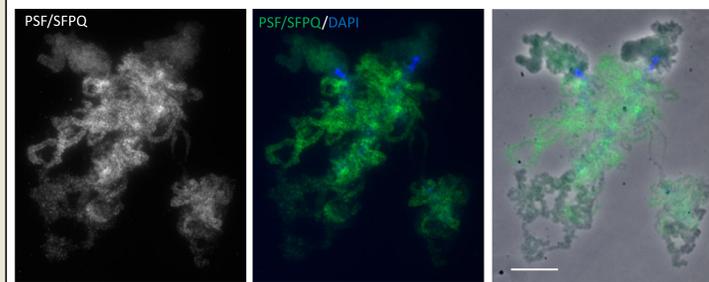


Thus TGLs might be involved in nuclear RNA retention. We wonder whether TGLs contain proteins involved in nuclear RNA retention in mammalian somatic cell nuclei such as paraspeckle marker proteins p54/nrb/NonA and PSF/SFPQ.

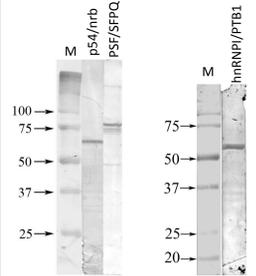
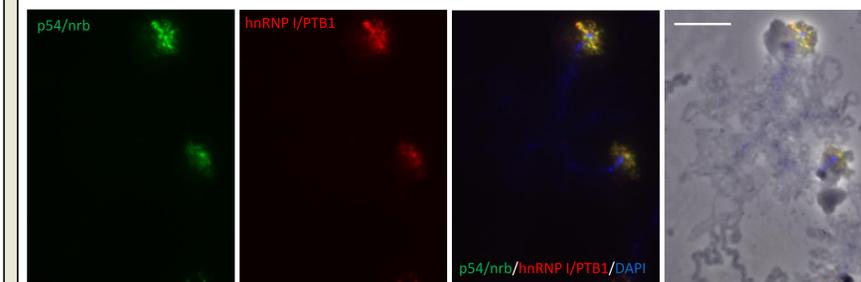
Lampbrush chromosomes of pigeon bear two types of TGLs: p54-positive and p54-negative TGLs



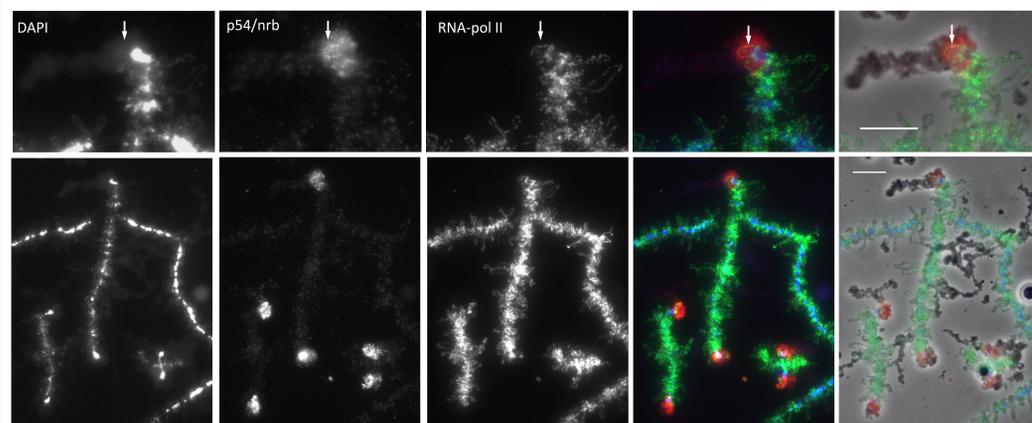
Both types of TGLs do not accumulate PSF/SFPQ



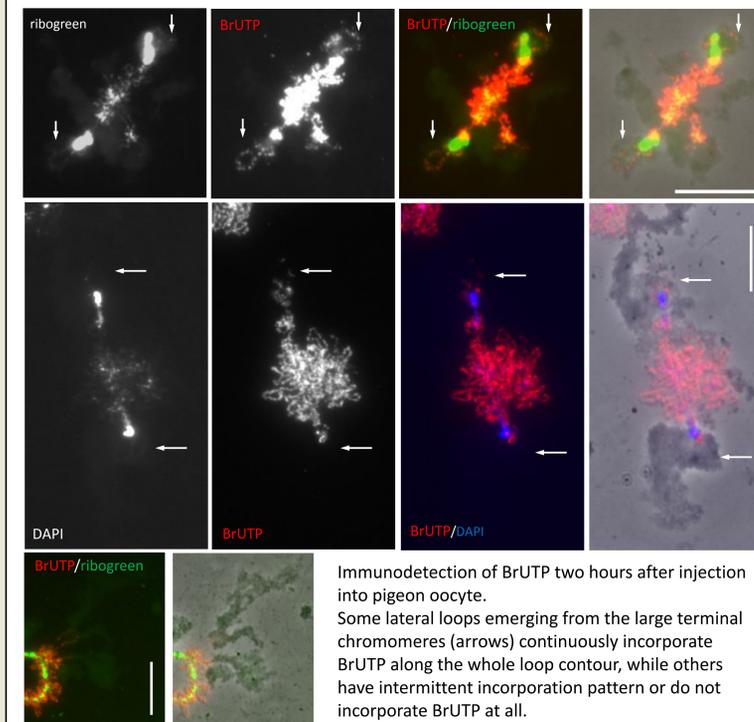
p54/nrb colocalize with hnRNP I/PTB1 in p54 -positive TGLs



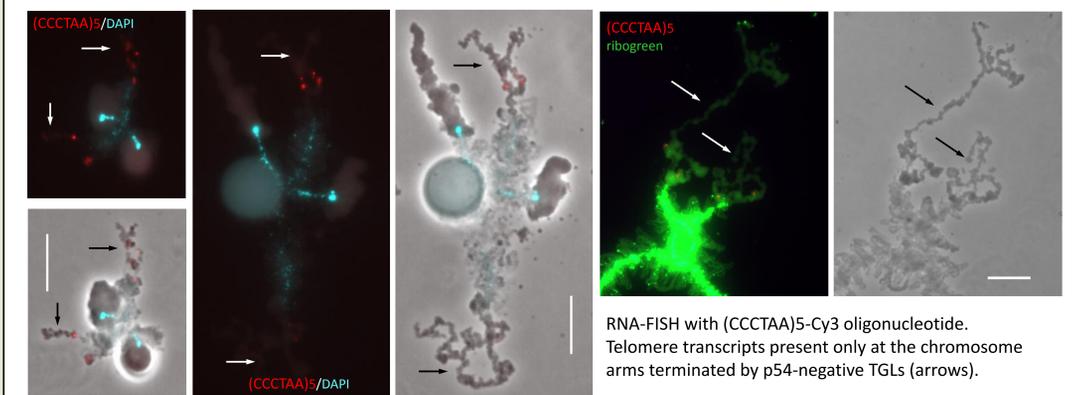
p54/nrb-binding transcripts are transcribed by RNA-polymerase II



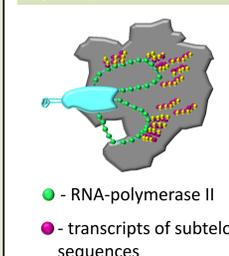
p54/nrb binding transcripts can have intermittent transcription pattern



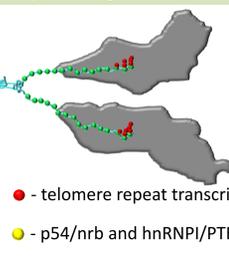
p54-positive TGLs forms at chromosome termini with transcriptionally inactive telomere repeat



p54-positive TGLs



p54-negative TGLs



Discussion

- p54/nrb and hnRNP I/PTB bind chromosome specific and presumably non-coding transcripts of subtelomere sequences and form domains involved in nuclear RNA retention in growing oocytes of pigeon.