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# Supplemental Material to:

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## Nuclear localization signal deletion mutants of lamin A and progerin reveal insights into lamin A processing and emerin targeting

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# Figure S1


Fig S1: Sequences and positions of the primers used for generation of the NLS mutants. The 150bp deletion in progerin cDNA is highlighted in orange. Primers used for NLS deletion by PCR mutagenesis are shown in blue. The sequences underlined in blue indicate that the primer sequences are consecutive. The red box indicates the position of the NLS deletion.

# Figure S2

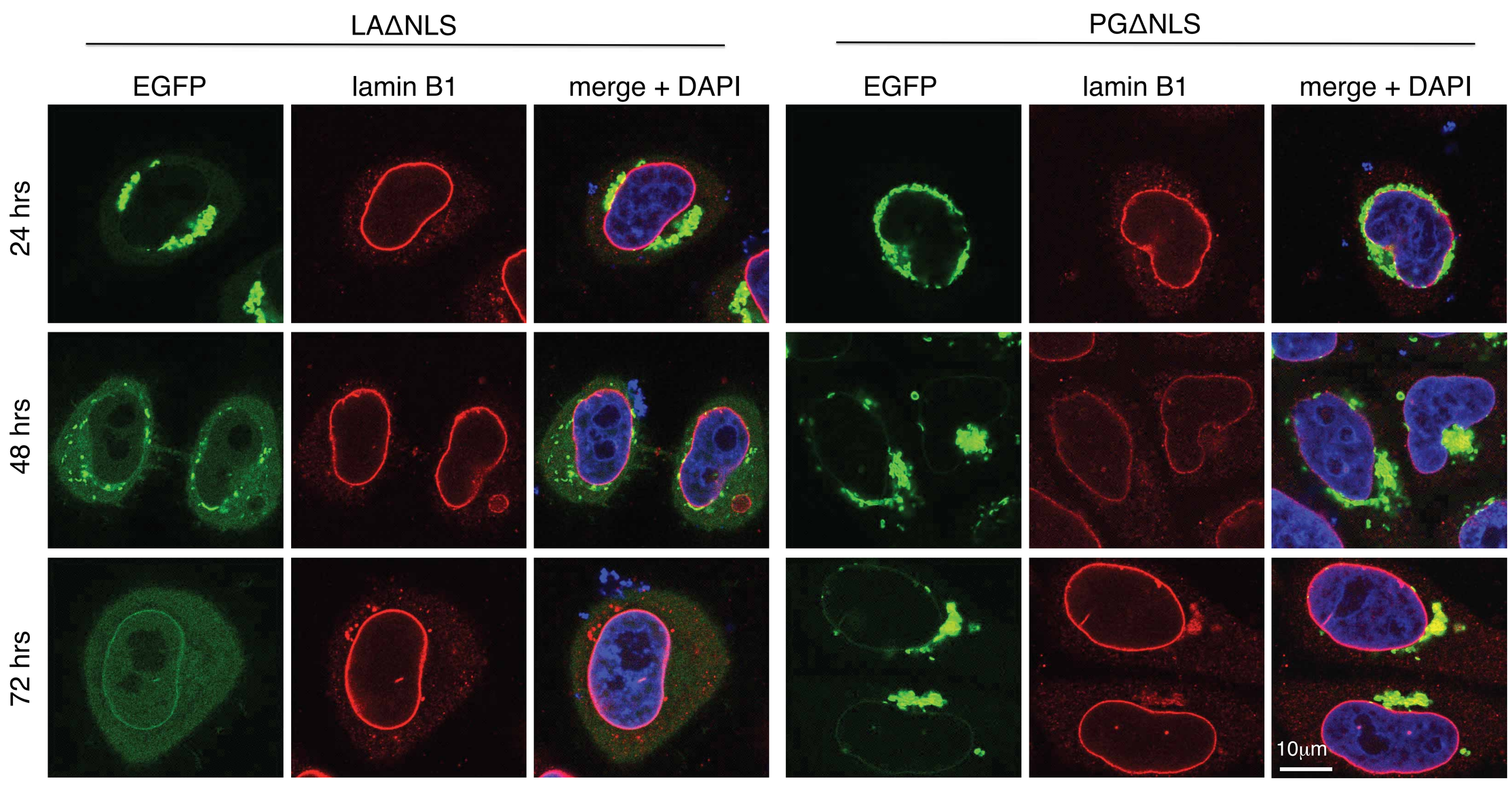


Fig S2: The time course experiment. The signals of EGFP-LAΔNLS and EGFP-PGΔNLS were fixed and photographed at 24, 48 and 72 hours post-transfection. We found that the aggregates of LAΔNLS gradually solubilized with the passage of time. In contrast, the PGΔNLS aggregates remained associated with the ER throughout the 72 hour experiment. Scale Bar: 10μm.

# Figure S3

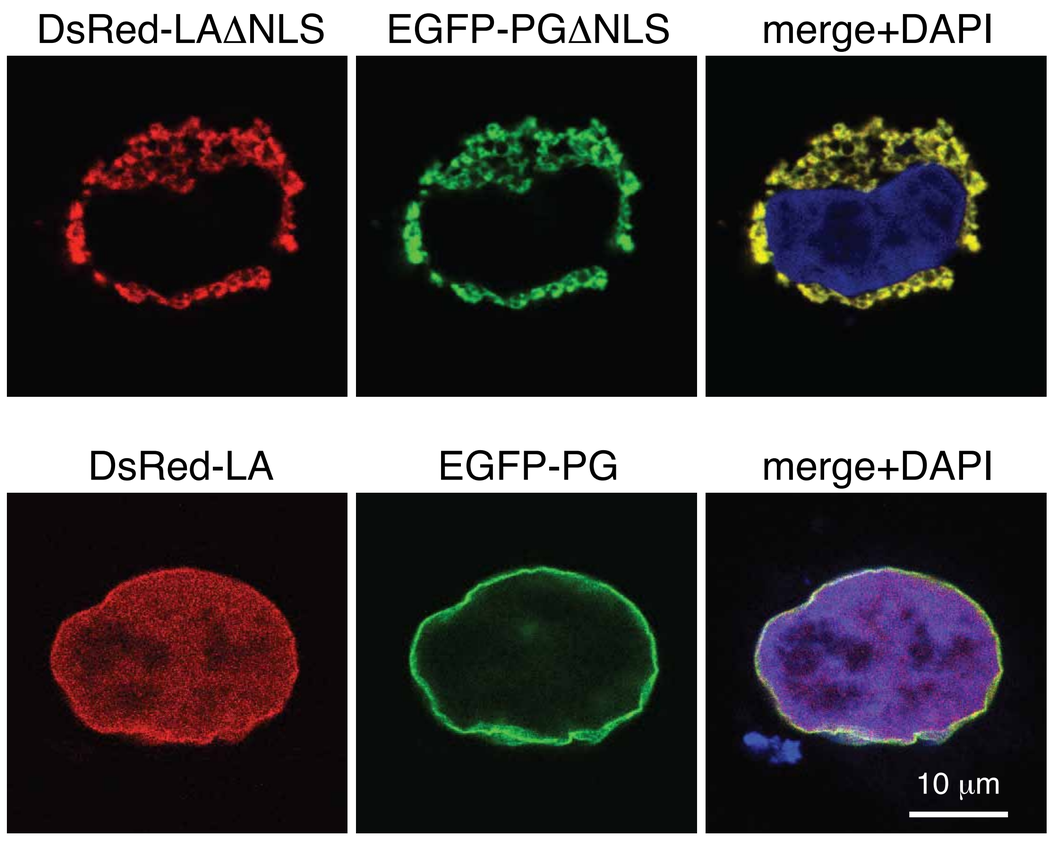


Fig S3: Confocal images show that LAΔNLS and PGΔNLS aggregates are co-localized in a sub-domain of the ER. HeLa cells were co-transfected with either LAΔNLS and PGΔNLS or lamin A and progerin. Lamin A and LAΔNLS are in red and progerin and PGΔNLS are in green. The distribution of DNA was detected with DAPI in blue. In merged images, yellow indicates overlapping between red and green. Scale bar: 10μm.

# Figure S4

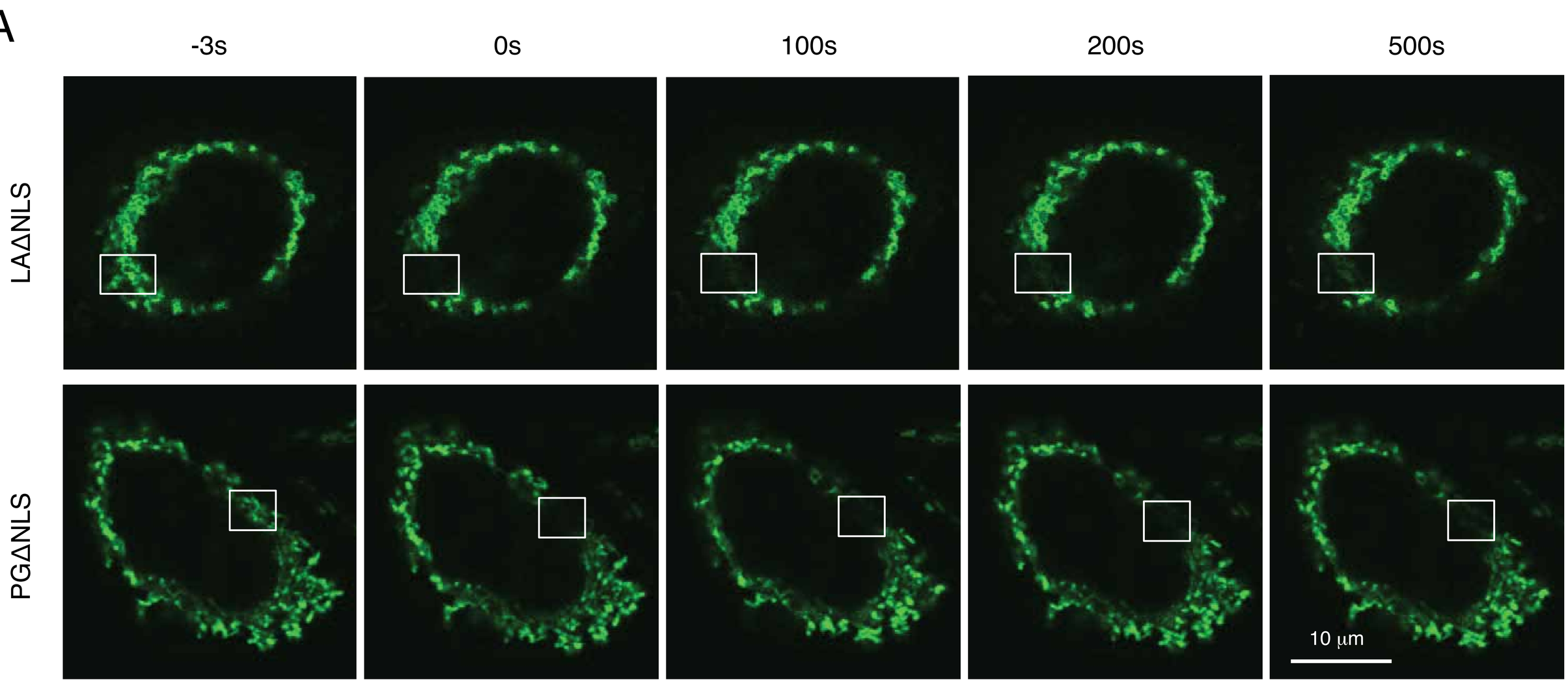


Fig S4: Fluorescence Recovery After Photo bleaching (FRAP) analysis of LAΔNLS and PGΔNLS aggregates. (A) Confocal images of the representative pictures at the denoted timepoints during the FRAP experiment. Squares indicate the photobleached areas. The ΔNLS mutants are shown in green. Bars, 10μm. (B) Quantification of (A).