IgA preservation in gut in SIVagm infection is associated with inflammation control

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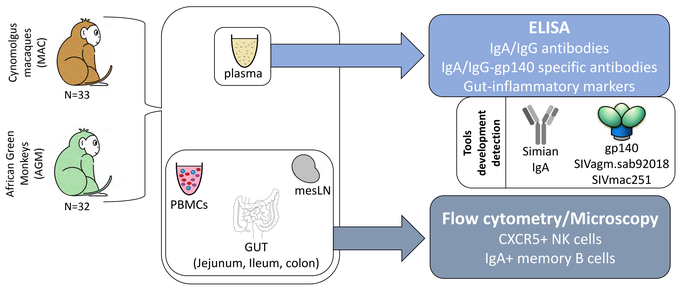
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BACKGROUND

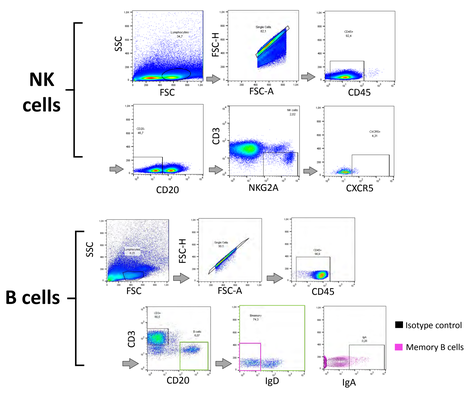
Lymph nodes (LN) and intestine are major anatomical HIV reservoirs. During SIVagm infection in African Green Monkeys (AGM), NK cells express CXCR5 and migrate into B cell follicles (BCF) of peripheral LN (pLN) where they efficiently control SIVagm replication. In the intestine, SIVagm replicates at high levels but this does not lead to bacterial translocation and chronic inflammation. IgA are important for the control of bacterial translocation and inflammation in the gut. Our hypothesis is that viral control in BCF of mesenteric LN (mesLN) avoids B cell abnormalities. In this study, we aimed at investigating whether there is a link between NK cell-mediated viral control in BCF and intestinal inflammation control via maintenance of IgA production.

METHODS

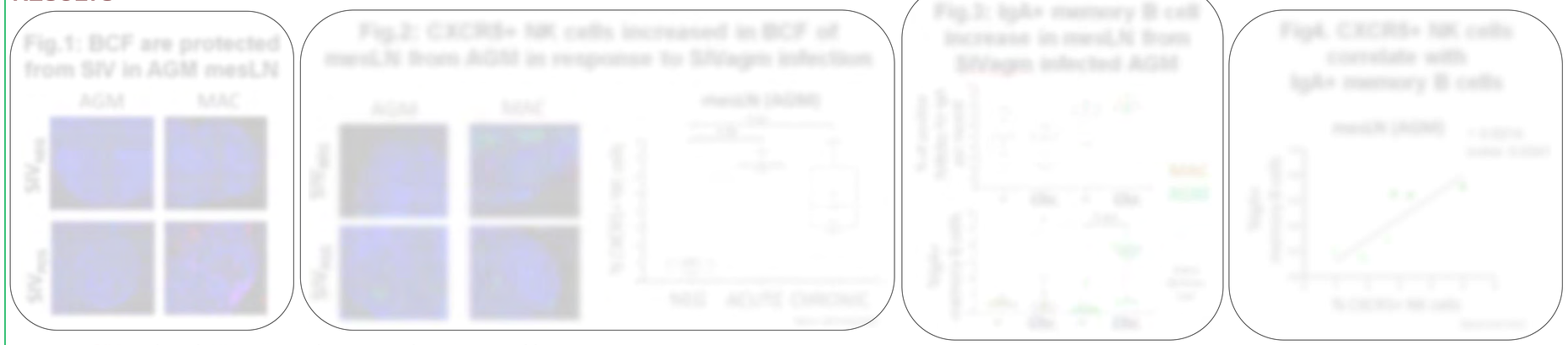
EXPERIMENTAL DESIGN



GATING STRATEGY



RESULTS



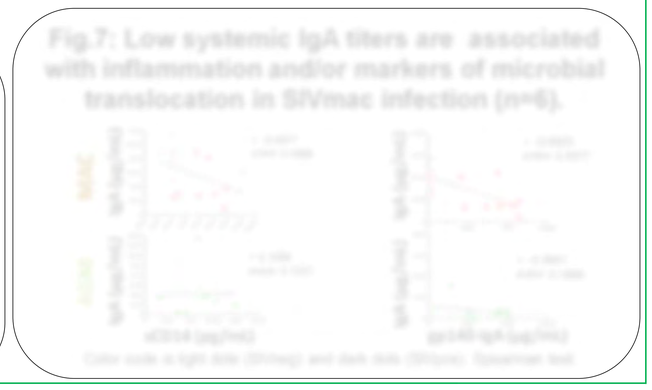
$_{RNA}$SIV are in red, NK cells are in green and nucleus are blue.

AGMs (green dots on graph) and MACs (brown dots on graph) was analyzed in acute infection (9dpi), in chronic infection (>90dpi) and non-infected condition (n= 3-10). For correlation, color code is light green (AGM SIVneg) and dark green (AGM SIVpos).



IgA staining is in yellow, nucleus in blue. Relative quantification was calculated by (MFI_{IgA} – MFI_{IgA} background)/ (MFI_{DAPI} - MFI_{DAPI} background). Animals were analyzed in acute infection (9dpi), chronic infection (>90dpi) and non-infected condition (n= 3-5).





CONCLUSIONS



ADDITIONAL KEY INFORMATION

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