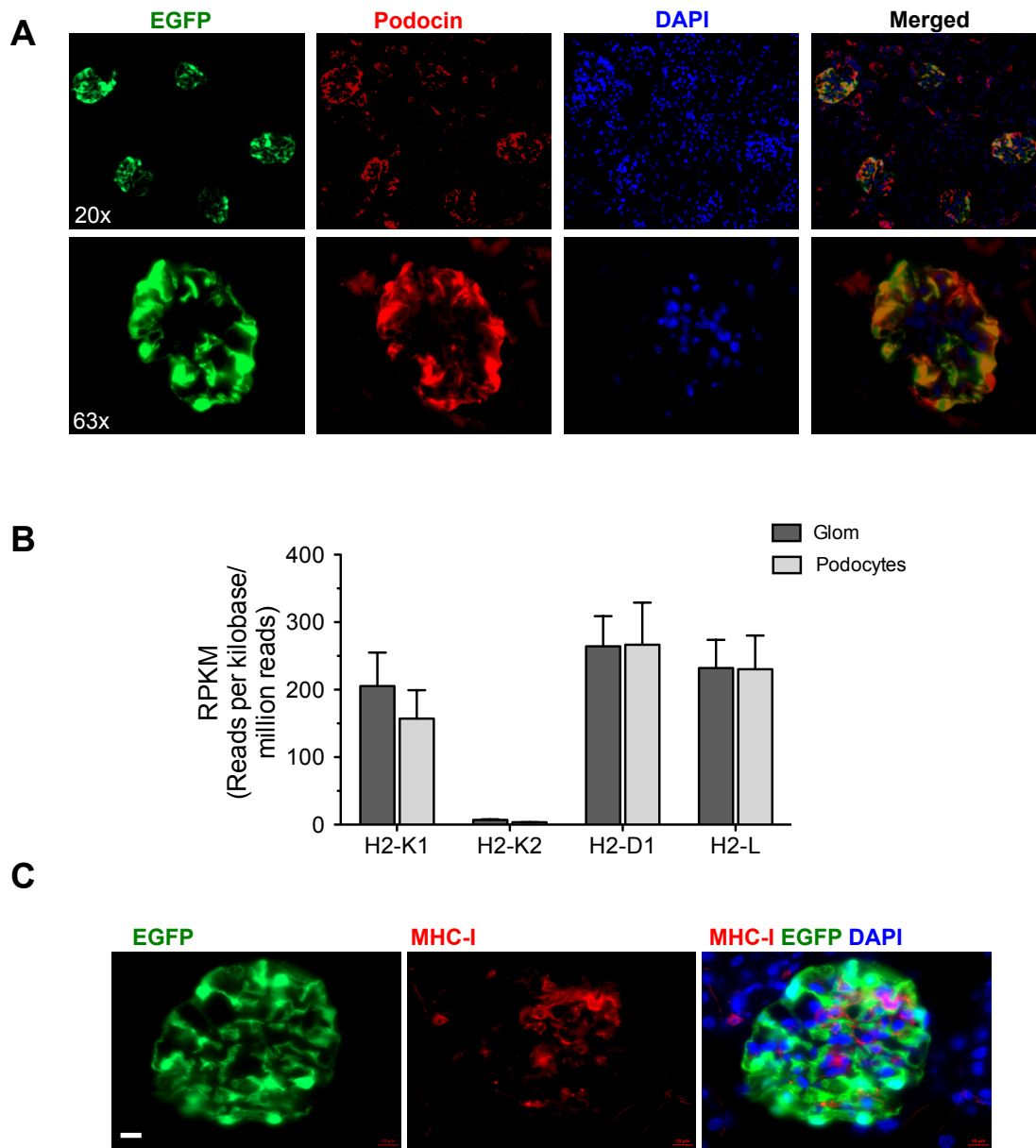
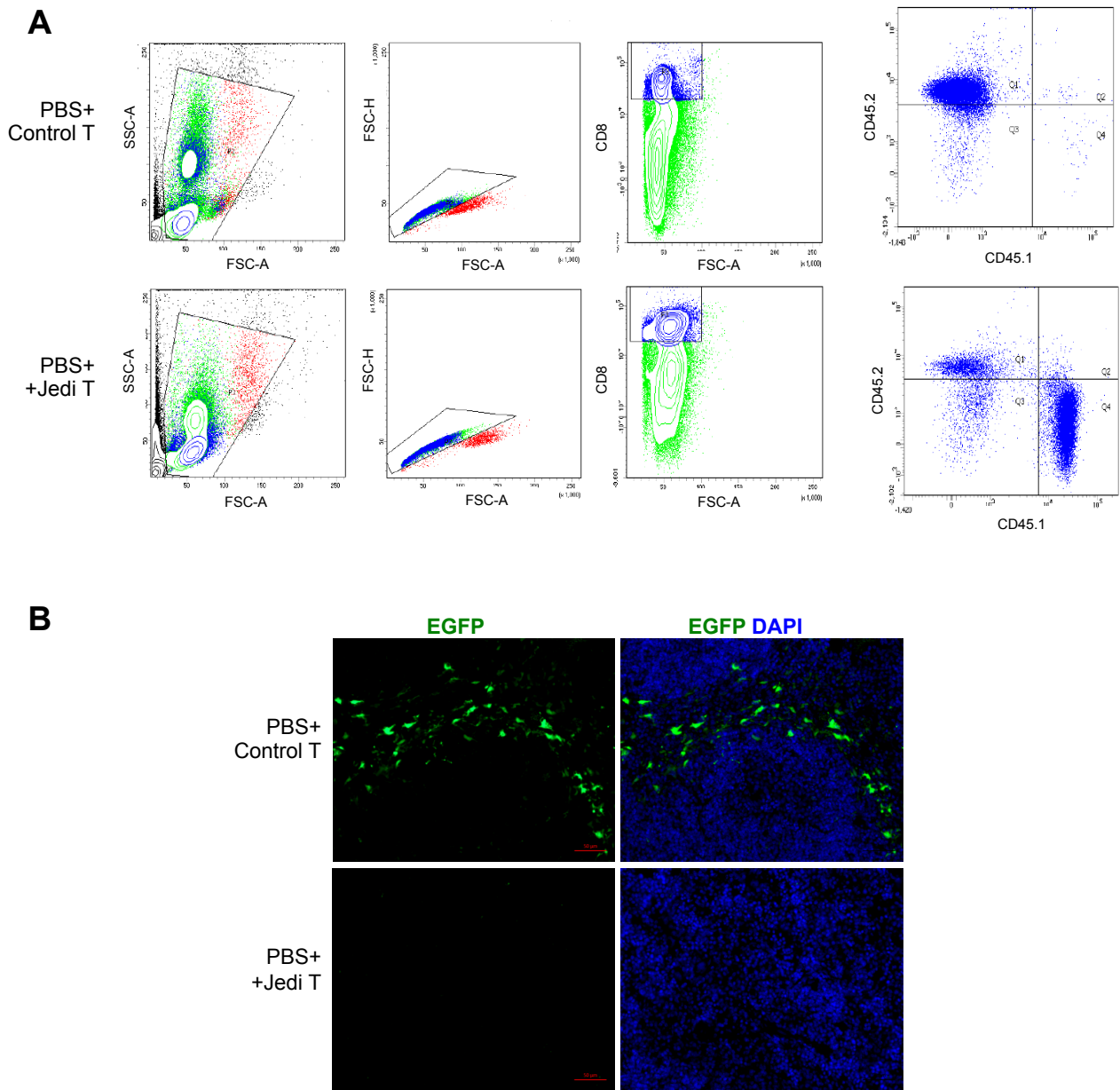


## Supplemental Figure1



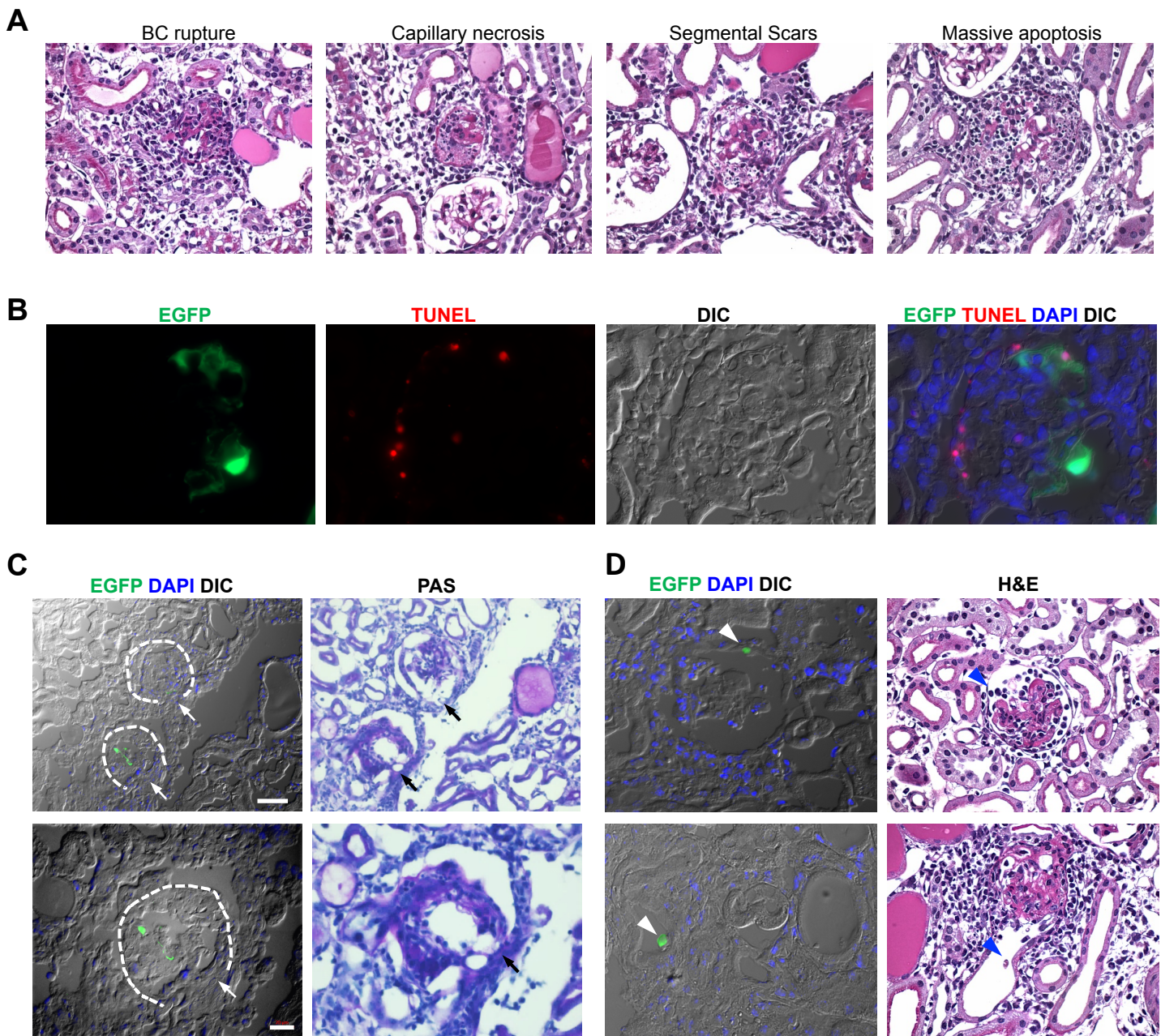
**Suppl. Fig. 1: Podocytes from pod-EGFP transgenic mice show expression of EGFP and MHC-I.** (A) Co-localization of the podocyte marker podocin (red) and EGFP (green) in pod-EGFP transgenic mice. (B) Expression of MHC-I genes in isolated glomeruli (Glom) and in sorted podocytes from pod-EGFP mice by mRNA sequencing. (C) Representative image of MHC-I immunofluorescence in pod-EGFP mouse kidneys. Scale bar: 10µm.

## Supplemental Figure2



**Suppl. Fig. 2: Jedi T cell injection in pod-EGFP mice.** (A) FACS analysis of peripheral blood after Jedi T cell injection. Jedi T cells are CD45.1+, control T cells are CD45.2+. Recipient pod-EGFP mice are also CD45.2+. In the PBS+control T cell-injected mice, there is only one population of CD45.2+/CD8+ T cells (top panels). In the PBS+Jedi T cell-injected mice, there is an additional population of CD45.1+/CD8+ T cells, indicating the expansion of the Jedi T cells in the recipient mice (bottom panels). (B) Spleen of LV.EGFP+control T cell-injected mice shows EGFP+ splenocytes (top panels). In the spleen of LV.EGFP+Jedi T cell-injected mice, the EGFP+ cells completely eliminated.

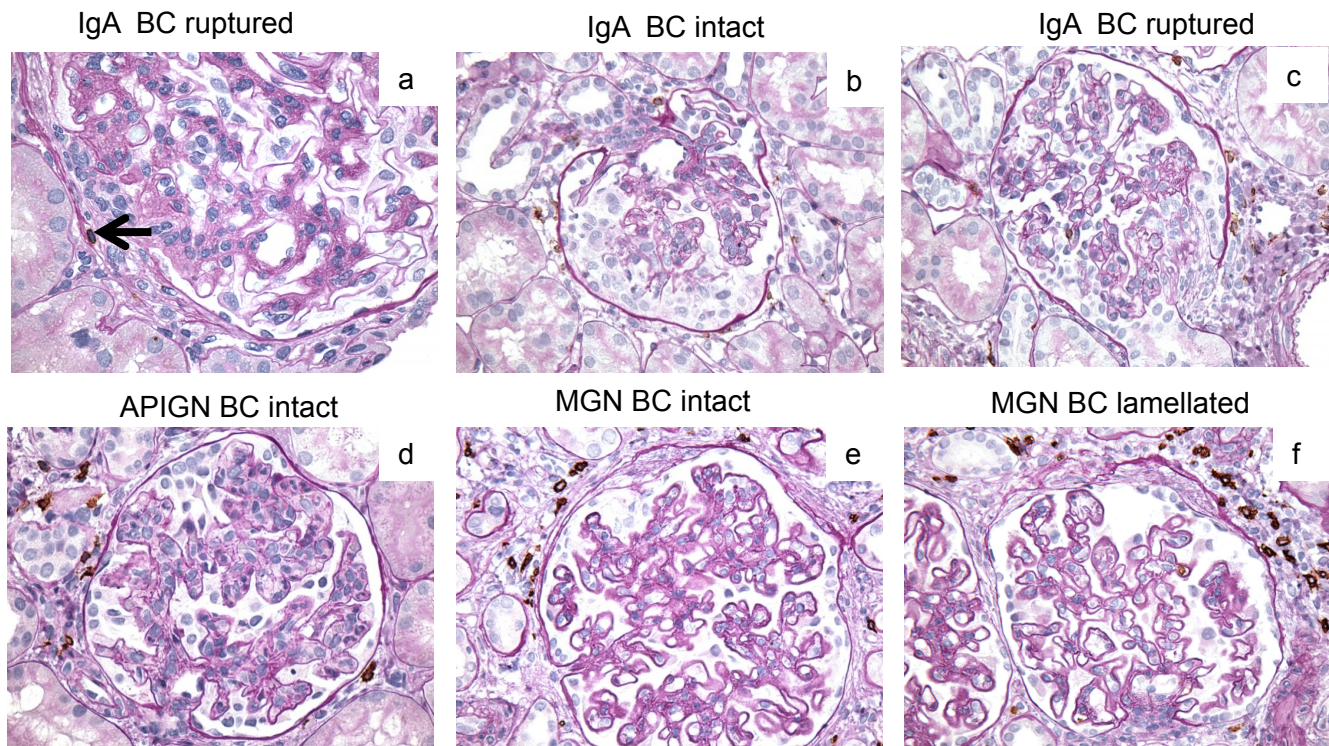
## Supplemental Figure 3



**Suppl Fig. 3** (A) Representative H&E stained section from NTS+EGFPLV+Jedi T cell injected mice showing from left to right: rupture of Bowman capsule, capillary necrosis, segmental scar and massive glomerular apoptosis, as also confirmed by TUNEL stain in (B). (C) Representative immunofluorescence histology with EGFP and DAPI superimposed on a DIC picture and juxtaposed to the PAS stained section. (Upper row: scale bar 50  $\mu$ m and lower row: Scale bars 20  $\mu$ m). Bowman's capsule is indicated by the interrupted line with arrows pointing at rupture of Bowman's capsule, crescent and loss of EGFP+ podocyte area. (D) Same as in part C, except that staining was with H&E. The arrowhead points at a detached EGFP+ podocyte inside Bowman's space (upper row) or inside a tubular lumen (lower row).



## Supplemental Figure 4



**Suppl Fig. 4 IHC for CD8 in human biopsies with IgA nephropathy (IgA), Acute post-infectious glomerulonephritis (APIGN) and Membranous glomerulopathy (MGN).** A single CD8+ cell (arrow) is seen infiltrating a segmental crescent in an area of ruptured Bowman's capsule in IgA nephropathy (a), (PAS counterstain, original magnification, x600). Other examples of IgA nephropathy have no infiltrating CD8+ cells in cellular crescents with intact Bowman's capsule (b) or segmentally ruptured Bowman's capsule (c), (PAS counterstain, original magnification, x400). No CD8+ cells are identified in a small cellular crescent of APIGN, with intact Bowman's capsule despite scattered CD8+ cells in the adjacent interstitium (d), (PAS counterstain, original magnification, x600). Rare examples of membranous glomerulopathy with small crescent-like subcapsular proliferations show no infiltration by CD8 cells, whether BC is intact (e) or lamellated (f), (PAS counterstain, original magnification, x600).



## Supplemental Table 1

Section #	Total # glomeruli	# of ruptured BC	Percentage (%)
Mouse 1-1	257	30	11.7
Mouse 1-2	267	32	12.0
Mouse 1-3	246	32	13.0
Mouse 1-4	250	28	11.2
Mouse 1-5	283	40	14.1
Mouse 1-6	280	39	13.9
Mouse 1-7	282	35	12.4
Mouse 1-8	264	29	11.0
Mouse 1-9	230	34	14.8
Mouse 1-10	243	30	12.3
Mouse 1-11	272	33	12.1
Mouse 1-12	267	42	15.7
Mouse 1-13	278	37	13.3
Mouse 1-14	280	40	14.3
Mouse 1-15	281	40	14.2
<b>Mouse 1</b>		<b>mean±SD</b>	<b>13.07±1.40</b>
Mouse 2-1	200	42	21.0
Mouse 2-2	220	50	22.7
Mouse 2-3	226	47	20.8
Mouse 2-4	221	44	19.9
Mouse 2-5	225	36	16.0
Mouse 2-6	214	40	18.7
Mouse 2-7	238	45	18.9
Mouse 2-8	226	38	16.8
Mouse 2-9	228	43	18.9
Mouse 2-10	231	45	19.5
Mouse 2-11	234	44	18.8
Mouse 2-12	245	50	20.4
Mouse 2-13	232	45	19.4
Mouse 2-14	244	42	17.2
Mouse 2-15	240	45	18.8
<b>Mouse 2</b>		<b>mean±SD</b>	<b>19.19±1.71</b>

**Suppl. Table. 1: Quantification of ruptured BC in serial sections of NTS+Jedi T group.** 15 serial sections (in 6µm thickness) of PAS-stained kidneys of two mice from NTS+Jedi T group were scanned and analyzed for % of ruptured BC.

## Supplemental Table 2

		% of glomeruli with crescents		% of glomeruli with <i>ruptured</i> BC and with CD8 cells in the crescents		% of glomeruli with <i>intact</i> BC and with CD8 cells in the crescents		% of glomeruli with <i>ruptured</i> BC and with <i>no</i> CD8 cells in the crescents		% of glomeruli with <i>intact</i> BC and with <i>no</i> CD8 cells in the crescents	
	N	mean	SD	mean	SD	mean	SD	mean	SD	mean	SD
anti-GBM GN	7	83.84	8.57	53.98	24.88	6.50	8.93	4.98	8.04	18.38	18.65
ANCA-GN	7	80.86	19.10	59.66	14.87	2.88	5.12	5.67	7.46	12.65	10.08
IgA nephritis	6	41.93	13.77	9.17	8.86	4.17	2.74	6.99	7.09	21.60	20.95
APIGN	5	13.87	13.47	6.41	8.79	2.28	3.42	0.00	0.00	5.19	11.59
MGN	7	2.44	4.51	0.00	0.00	0.00	0.00	0.55	1.45	1.89	3.29