SEM Characteristics of dendritic and mesangial cells in culture

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Dendritic cells (DC) form contiguous network throughout kidney tissue, similar to other nonlymphoid organs [1]. Mesangial cells (MC) form a tree branching network in the glomerulus, from the hilar site to glomerular capillary loops and connect with each other [2]. Intraglomerular dendritic cells population is closely related to intrising mesangiall cells.

The aim of this paper was to investigate morphological characteristics of cocultivated mesangial cells with nonactivated vs activated dendritic cells using SEM technolgy.

Mesangial cells and dendritic cells cocultured on cover plates showed presence of direct cell-cell contact between the two cell types. Results suggest that dendritic cells are able to influence mesangial cells with direct cell-cell contact, not only by soluble mediator production.

Our resultes of analysed SEM morphology of activated dendritic cells showed that they are almost always in direct contact with mesangial cells (Figure 1a, 1b).

Nonactivated dendritic cells cocultivated with mesangial cells shoved direct contacts in about 50% of analysed samples and in cases of apopototic or necrotic cells (Figure 2a, 2b).

1. T.J.Soos et al., Kidney Int. **70** (2006) p591–596.
2. J. Yao et al., Kidney Int. **57** (2000) p1915-1926.

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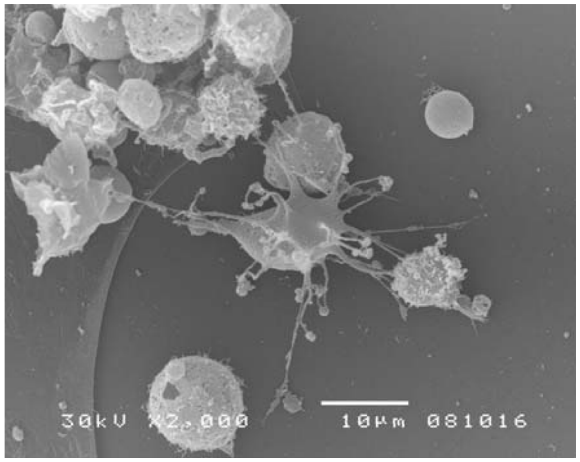

Figure 1a. SEM of stimulated DC cocultivated with MC.

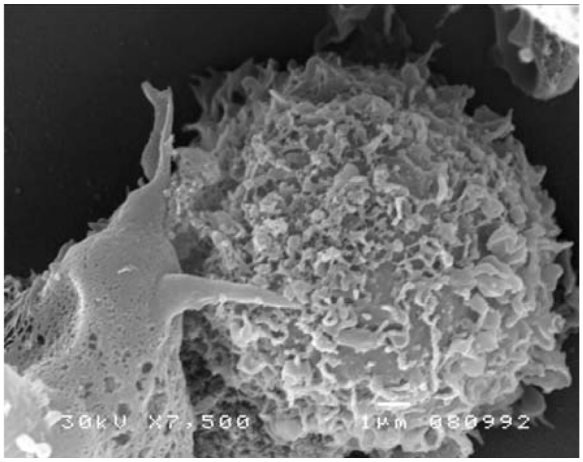

Figure 1b. SEM of stimulated DC cocultivated with MC. Figure showes direct cell to cell contact between activated DC and MC.

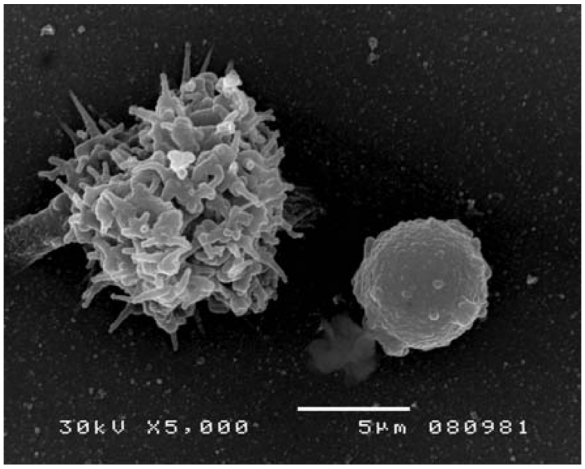

Figure 2a. SEM of nonstimulated DC cocultivated with MC.

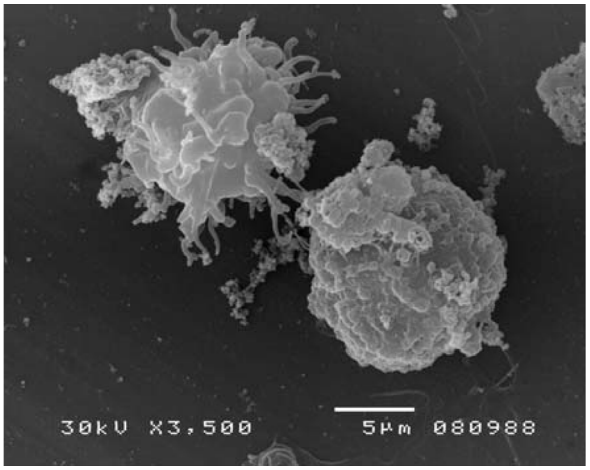

Figure 2b. SEM of nonstimulated DC cocultivated with MC. Nonstimulated DC seems to be in direct contact with MC.

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