Supplemental Materials

Molecular Biology of the Cell

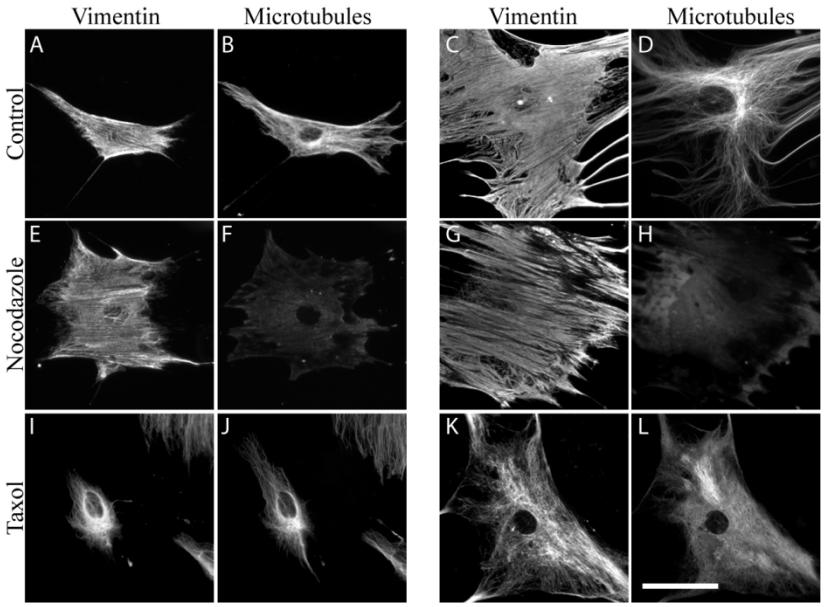
Murray et al.

SUPPLEMENTAL FIGURE LEGENDS

Supplemental Figure 1. Methanol-fixed immunostains of hMSCs after microtubule-altering treatments. Control cells (5 kPa: A, B; 30 kPa: C, D) show microtubules and actin networks. The vimentin network on the 5 kPa cells do not extend to the edge of the cell. In nocodazole-treated cells, the microtubule network depolymerizes and the vimentin network remains similar (F, H). In taxol treated cells, the microtubule networks appear intact (J, L) and the vimentin network appears similar as the other conditions. In all cases on the 5 kPa gel, the vimentin network (A, E, I) does not extend to the edge of the cell. Bar = 50 μm.

Supplemental Figure 2. hMSCs fixed in 4% paraformaldehyde and stained for vimentin and polymerized actin (phalloidin) on after treatment. In the control cells, the vimentin network does not extend to the edges of the cell on the 5 kPa gel (A, B), and on the 30 kPa gels, the vimentin network (C) fills in the area around the actin stress fibers (D). Bar = 50 μm. Blebbistatin treatent causes actin stress fibers to disappear and retraction fibers to form (F, H) with little change in the vimentin network (E, G). Cytochalaisin D treatment causes the actin network to disassemble (J, L) and little change in the vimentin network (I, K). Combined blebbistatin and nocodazole treatment (M-P) causes depolymerization of the actin network and cells to lose their shape, but a polymerized vimentin network is still present. Cells grown in a confluent monolayer contain actin stress fibers (R, T) and the vimentin network does not extend to the cell edge (Q, S). Serum starved cells (U-X) show their vimentin networks extending to the edge of the cell.

SUPPLEMENTAL FIGURES



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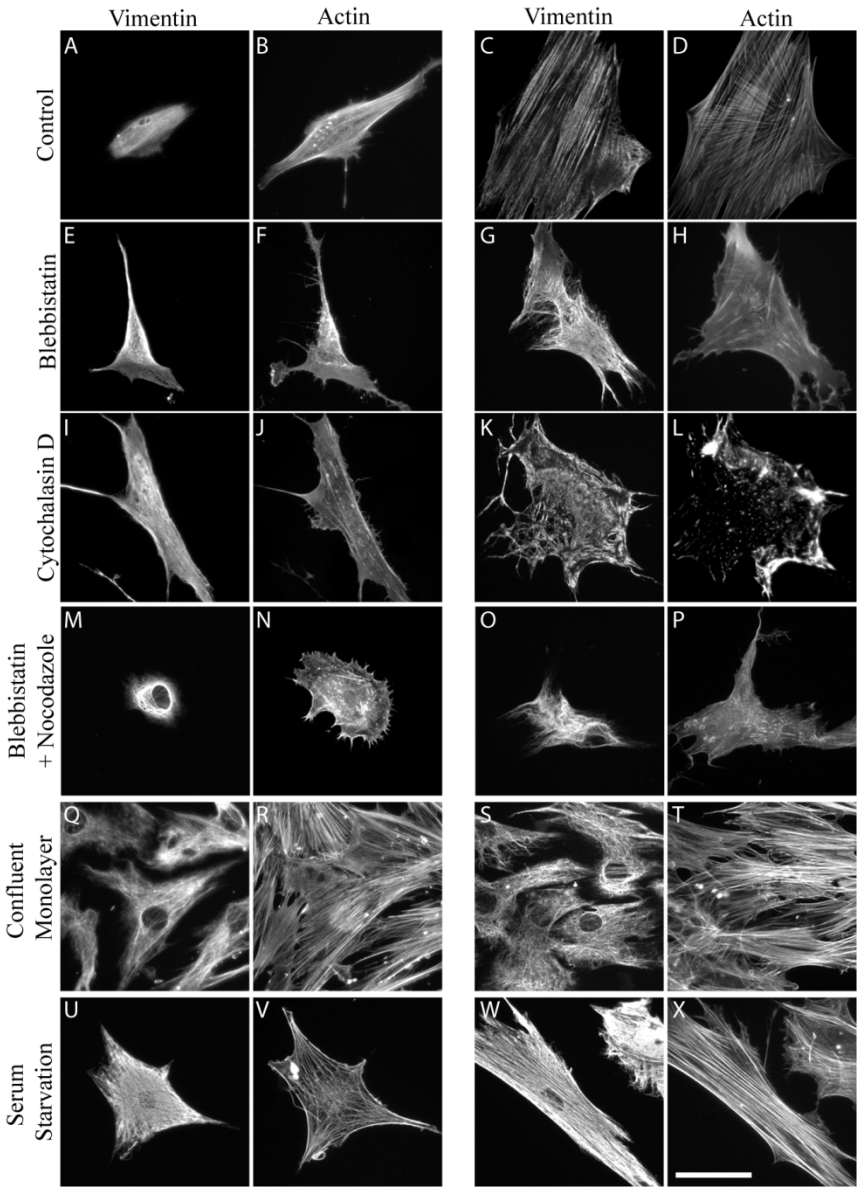

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