



Figure 6: Gradients created by diffusion of proteins modulate cell activity. As soon as soluble proteins are released into the extracellular space, they diffuse. This diffusion produces areas with different concentrations of proteins or gradients (A). The response of cells to different concentrations of the same proteins is distinct, which causes their differentiation and activity to change affecting the final macro-state. At the same time, many proteins are produced at different locations creating overlapping gradients that interact with each other (B). These proteins may have synergistic or antagonistic effects on signaling, further modulating the activity of the cells and their differentiation.