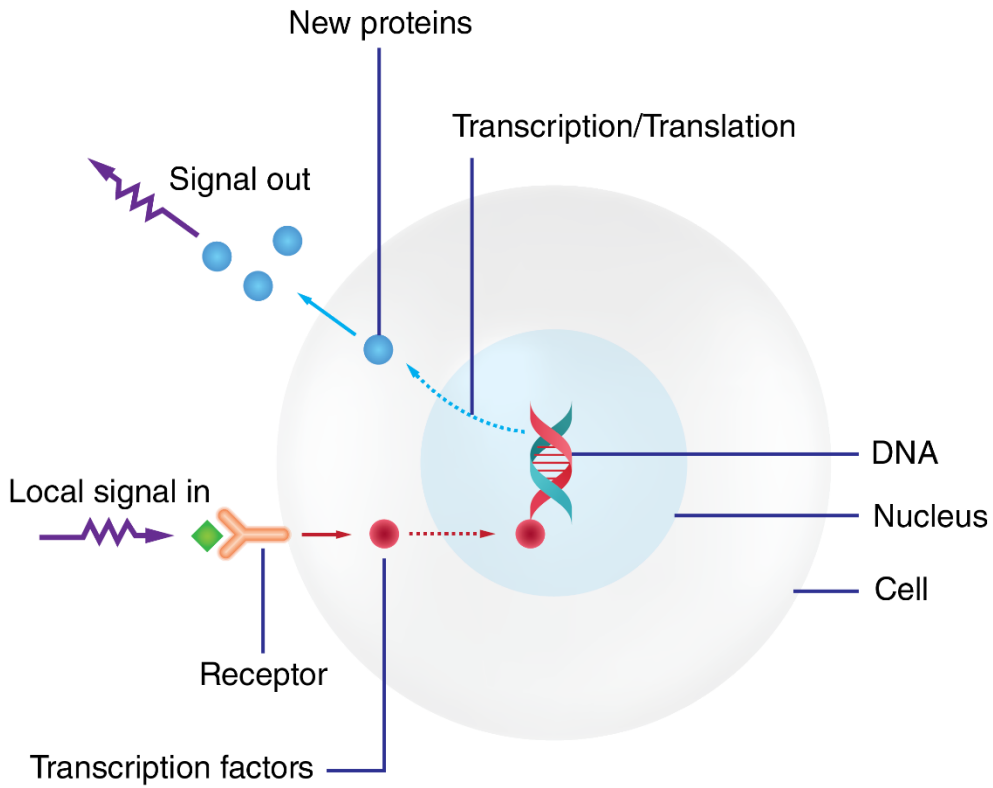

Figure 1. Cells adapt to their surrounding environment. Cells respond to environmental changes by continuously receiving signals through various cell surface receptors. These signals activate specific proteins inside the cells, called transcription factors. Activated transcription factors move to the nucleus, attach to the DNA, and unravel only a tiny segment of the DNA to start the process of RNA synthesis (transcription), followed by protein synthesis (translation) allowing cells to adapt. Some of those proteins may be released into the extracellular space and can, in turn, act as signals to neighboring cells.

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