





DOUBLE TAKE

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To ensure all body parts end up where they belong, body axes are formed very early in embryonic development. These axes determine the orientation of the embryo – where its top and bottom, its front and back, and its left and right will be. One of them specifies the position of the two body openings, the mouth and the anus. Various genes are activated along this axis, enabling the formation of different tissues.

Using several-day-old mouse stem cells, researchers have developed cell clusters resembling a mouse embryo (right). This allows them to study the role of signaling molecules (not visible in the image) in axis formation. Specific dyes can make the location of different cell types visible (gray: cell nuclei).

47