

# 哺乳动物胚胎发育极性的研究进展

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哺乳动物胚胎的早期发育, 可依据环境变化进行自我调控。胚胎是何时具有自我调控能力的, 一直有两种说法: 其一, 胚胎刚形成时, 细胞质成分空间分布均衡, 胚胎具有发育全能性, 经几次卵裂后, 卵裂球间开始分化发育, 另外一种观点认为, 胚胎形成时就具有极性, 具备了分化发育的特异性, 随着不断卵裂、细胞质的分离, 这种发育差异表现得更加明显。近年的研究多倾向于第二种观点, 认为卵裂的顺序及方位, 对着床前胚胎的极性发育有影响。

## Progress in polarity of the mammalian embryo Development

Mammalian embryo development is regulative —— it is flexible and responsive to experimental intervention. This flexibility could be explained if embryogenesis were originally completely unbiased and disordered; order and determination of cells only arise later. Alternatively, regulative behaviour could be consistent with the embryo having some order or bias from the very beginning, with inflexibility and cell determination increasing steadily over time. Recent evidence supports the second view and indicates that the sequence and the orientations of cell divisions affect the polarity of Pre-implantation embryo development.

### 关键词

第二极体(Second polar body (2pb)); 精子进入位点(Sperm entry position); 内细胞团(Inner Cell Mass); 滋养外胚层(Trophoblast); 动植物轴(Animal-Vegetal axis); 胚胎-远胚轴(Embryonic-Abembryonic axis)