



Generating Patterns

It may go against an old saying, but leopards' spots can change as the leopards mature. How animal patterns develop from the cellular level is an important question for biologists and mathematicians. Differential equations governing how the pattern-related chemicals inside cells interact with one another explain how a collection of identical cells—which is how living things begin—can evolve into an animal with spots or stripes (and sometimes both). In fact, scientists used the equations to make the surprising prediction that stripes on adults of a certain species of angelfish move along the body, which was later confirmed by observation.



For More Information: “A living mesoscopic cellular automaton made of skin scales.”
Liana Manukyan et al., *Nature*, April 13, 2017.

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