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Stem **cells** 'know' which gender they are  
  
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STEM **cells** that make up our **organs** have a "**sexual** **identity**", scientists have concluded.

It is commonly believed that non-reproductive **organs** are the same in both **sexes**, but the new study suggests that stem **cells** of these **organs** "know" whether they are **male** or **female**.

Researchers at Imperial College London discovered a set of genes in fruit flies that may be responsible for differences between **male** and **female** **organs**. They said the finding may shed light on why some diseases are more common in men or women.

"We wanted to ask a very basic question: whether it is just the **cells** of the **sex** **organs** of a fully developed organism that 'know' their **sexual** **identity**, or whether this is true of **cells** in other**organs** too - and whether that matters," said Dr Irene Miguel-Aliaga, lead author of the study. "We have found a new mechanism which potentially means that every **cell** in the fly has a **sexualidentity**." When the researchers examined stem **cells** in fruit flies' intestines, they used genetic tools that allowed them to turn genes "on" and "off " in these **cells**. This meant they could tailor the **cells**to be more masculine or feminine.

When the team masculinised or feminised the stem **cells**, it changed the extent to which the **cells**multiplied, according to the study, published in Nature.

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