The tiny genes that control heartbeats

The regular heartbeats of humans and fruit flies both depend on tiny genes that have gone unnoticed because of their small size. They encode proteins with just 30 amino acids or fewer, and belong to an enigmatic group of sequences called small open reading frames (smORFs).

The human genome contains thousands of smORFs but their size makes them hard to identify and characterize. With a few exceptions, no one knows what they do. But by showing that the homologous smORFs control human and fly hearts—a role retained over 550 million years of evolution—Juan Pablo Couso from the University of Sussex has made a compelling case that these tiny genes are important players that deserve more attention. His study was published August 22 in *Science*.

Read the full, original story here: <u>Hidden Treasures: Tiny genes that control fly and human</u> heartbeats hint at a trove of ignored but important sequences.