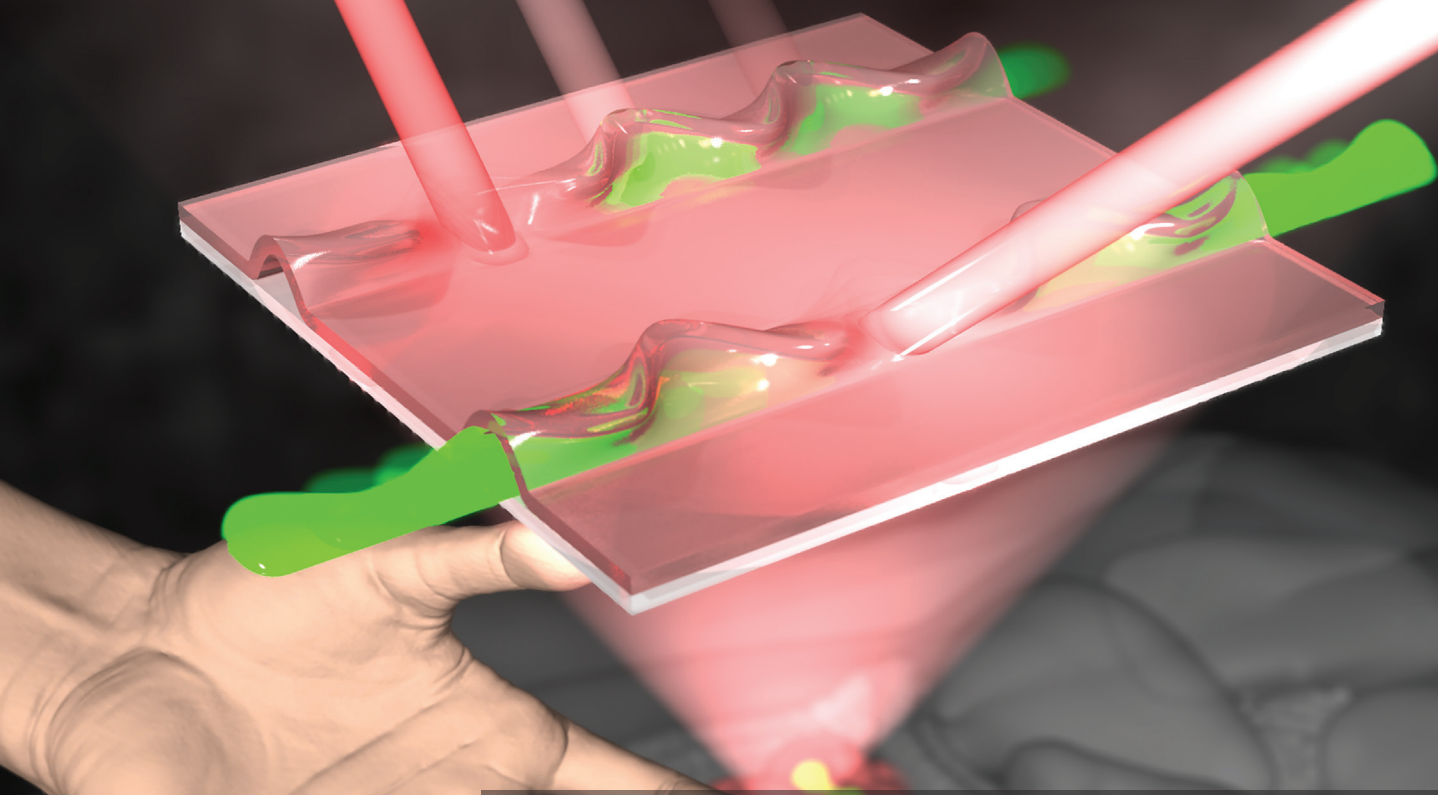


ADVANCED FUNCTIONAL MATERIALS



BIOMORPHIC ACTUATION

In article number 2300184, Riku Takahashi, Aya Tanaka, and Masumi Yamaguchi develop a light-driven hydrogel actuator via on-chip buckling that is capable of large deformation, rapid-cycle motion, and local manipulation. This actuator, with its biomorphic thin-film tube-like shape, enables the demonstration of complex biological motions such as intestinal peristalsis and segmentation through spatiotemporal control of light stimulation. The study provides guidance for designing biomimetic soft robots.