

## Keys to human regeneration in worms and bioelectricity?

[W]ith the advent of gene editing, the ability for humans to make replacement organs will only become more secure in the years to come.

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[S]cientists at Tufts University have been conducting tests again and again on...[p]lanarians, [which] have the remarkable capability to regrow their bodies even when cut in half. This alone makes them useful test subjects for [regeneration] research.

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The researchers had...been investigating the effects of bioelectricity. In the new and recent study, [they wanted] to directly find out how bioelectricity played a role in [having planarians regrow two heads instead of one]. By interfering with the body's electrical signals, the scientists disrupted the planarians' signals on how to regrow their missing body sections. What this resulted in was a fourth of them growing two heads and the rest growing back one head like normal.

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This added understanding of how bioelectric networks work side by side with genetics and other systems opens up a new avenue of research for regenerative medicine. A combined method using genetic alteration and bioelectric pattern manipulation may finally hold the key to regrowing human limbs and other body parts.

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**The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion, and analysis. Read full, original post: [Bioelectricity In Regrown Worm Heads Teaches Body Part Regeneration](#)**