



METHODS OF INDUCING CARDIAC CELL PROLIFERATION AND INDUCING HEART REGENERATION

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Inventors: Ahmed Mahmoud, Timothy Kamp, Youngsook Lee

The Invention

UW-Madison researchers have discovered that inducing expression of the protein LRRC10 in mouse hearts promotes heart regeneration. Neonatal mice have hearts that naturally regenerate for the first week or so of life, but after that time, heart damage doesn't stimulate regeneration. *Lrrc10*^{-/-} knockout mice exhibit a loss of the neonatal mouse regenerative response marked by reduced cardiomyocyte cytokinesis and increased cardiomyocyte nucleation, and the deletion disrupts the regenerative transcriptional landscape of the regenerating neonatal mouse heart. Remarkably, cardiac overexpression of LRRC10 restores the cardiac regenerative capacity of *Lrrc10*^{-/-} mice.

Additional Information

For More Information About the Inventors

- [Ahmed Mahmoud](#)
- [Timothy Kamp](#)

Tech Fields

- [Therapeutics & Vaccines : Biologics](#)
- [Therapeutics & Vaccines : Cardiovascular](#)

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