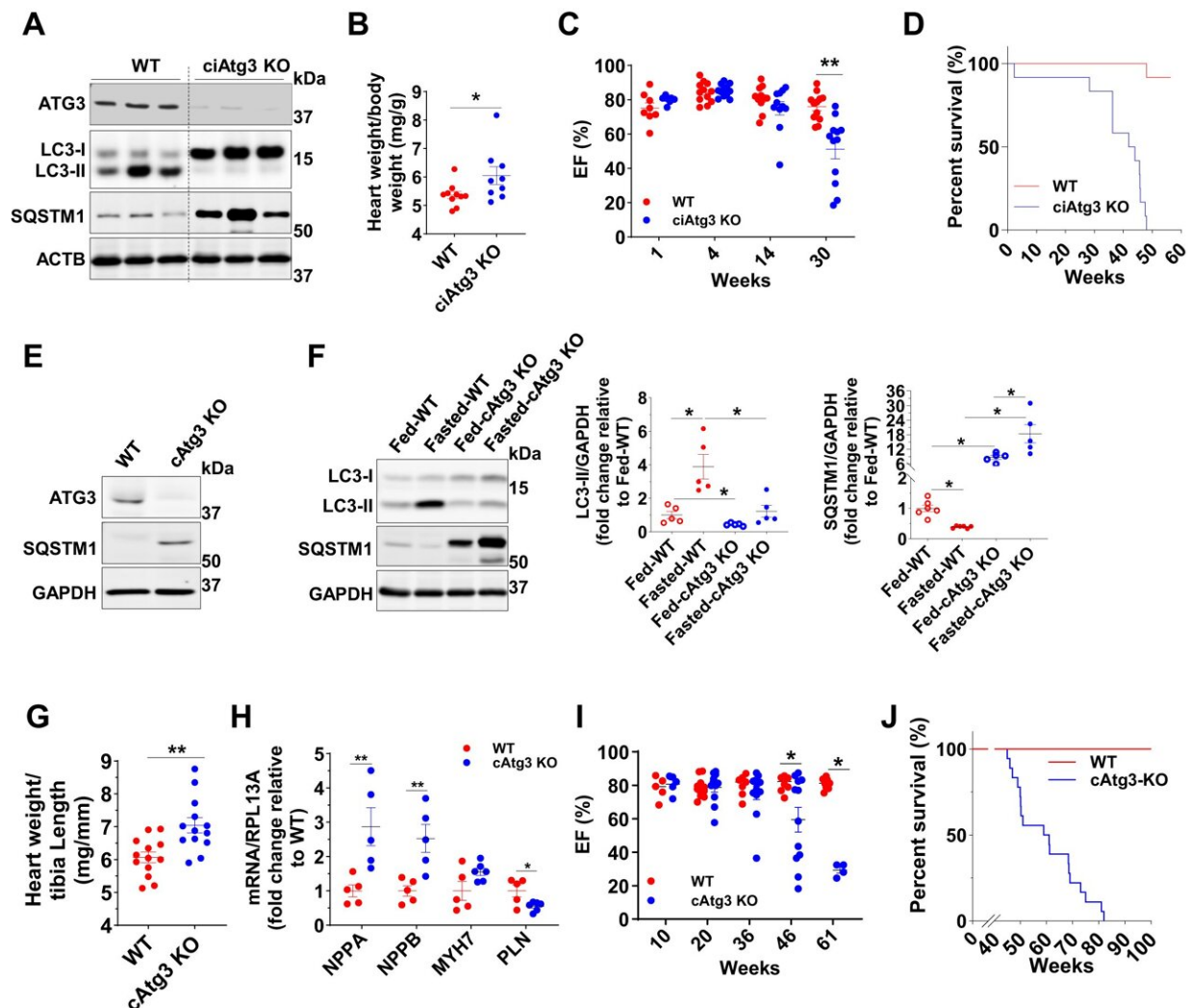


# Study reveals new connection between impaired autophagy and heart failure

January 11 2024



Cardiac-specific *ATG3* deletion blocks autophagy and precipitates cardiac contractile dysfunction(A) ATG3, LC3 (MAP1LC3A), SQSTM1, and beta-actin (ACTB) protein levels in WT and ciAtg3 KO mouse hearts 1 week after last

tamoxifen injection. Mice, at 6 weeks of age, were intraperitoneally injected with tamoxifen at a dose of 100 µg/g body weight/day for 5 consecutive days. One week after last tamoxifen injection, mice were euthanized and hearts were harvested for experiments. Age-matched *ATG3<sup>loxP/loxP</sup>* mice without Cre were injected with the same amount of tamoxifen as WT control. Representative blots are shown. *n* = 3 per group. **(B)** Heart weight of WT and ciAtg3 KO mice, 1 week after last tamoxifen injection. *n* = 7–8. Data are mean ± SEM. An unpaired *t* test was used to determine statistical significance between two groups. \**P*

Citation: Study reveals new connection between impaired autophagy and heart failure (2024, January 11) retrieved 8 May 2024 from <https://medicalxpress.com/news/2024-01-reveals-impaired-autophagy-heart-failure.html>

|  |
|--|
| <p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p> |
|--|