

NOVEL HEART FAILURE TREATMENTS

“CHRONIC ORAL FINERENONE TREATMENT DOES NOT IMPROVE LEFT VENTRICULAR DIASTOLIC COMPLIANCE IN PRE-CLINICAL MODEL OF REPETITIVE PRESSURE OVERLOAD-INDUCED HFPEF”

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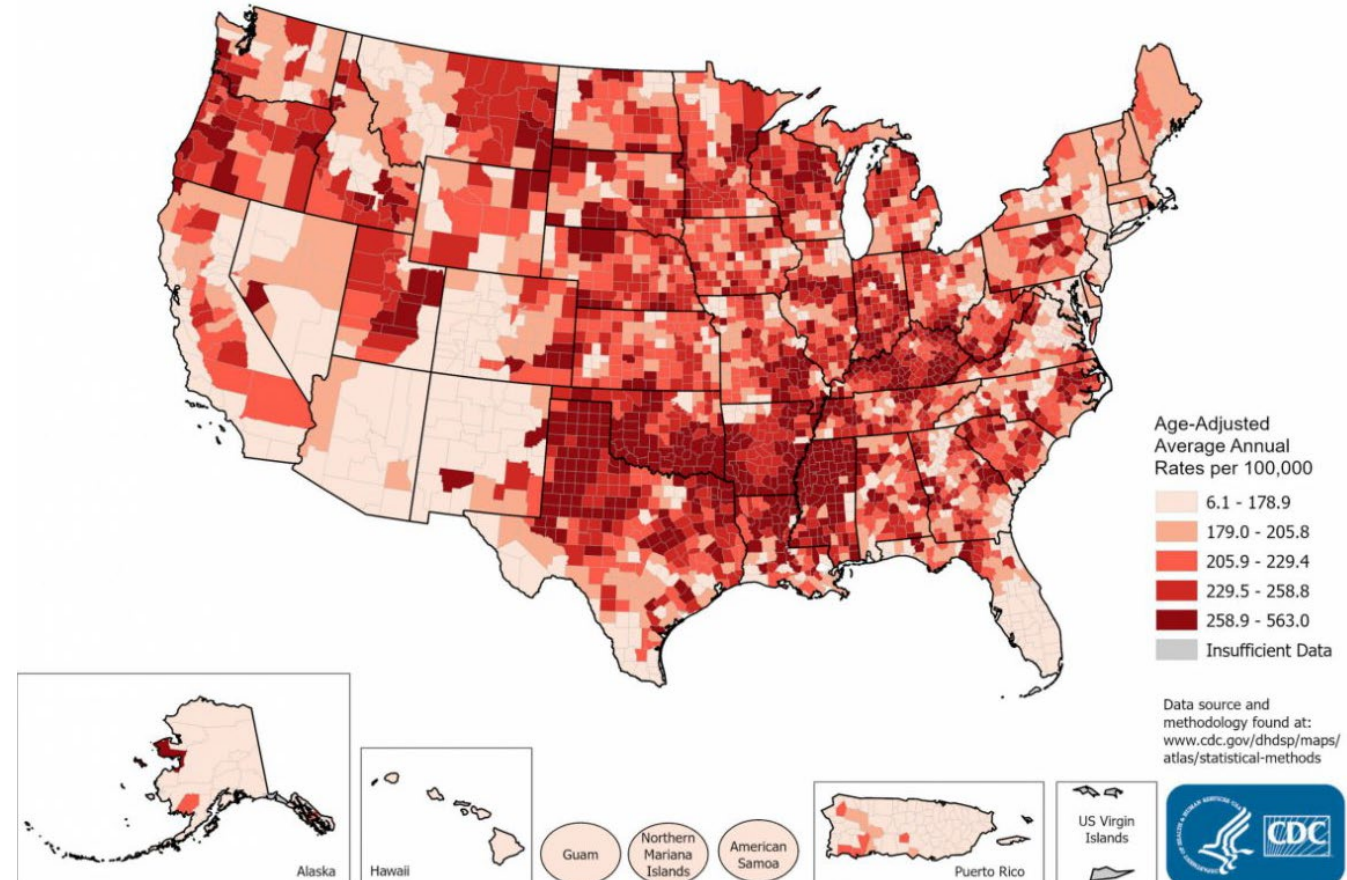
 Jacobs School of Medicine and Biomedical Sciences
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Heart Failure

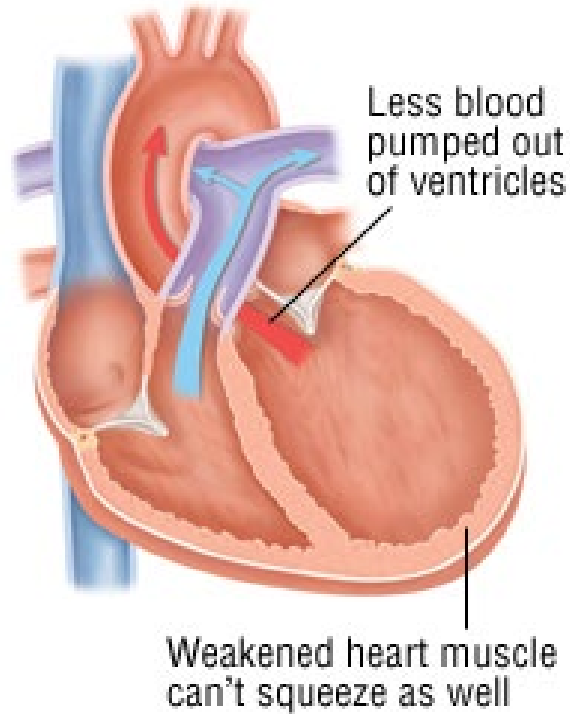
- Affects 6.5 Million Americans
- Globally 65 Million people diagnosed with heart failure
- Annual 33% Mortality rate

Heart Failure Death Rates, 2018 - 2020
Adults, Ages 35+, by County



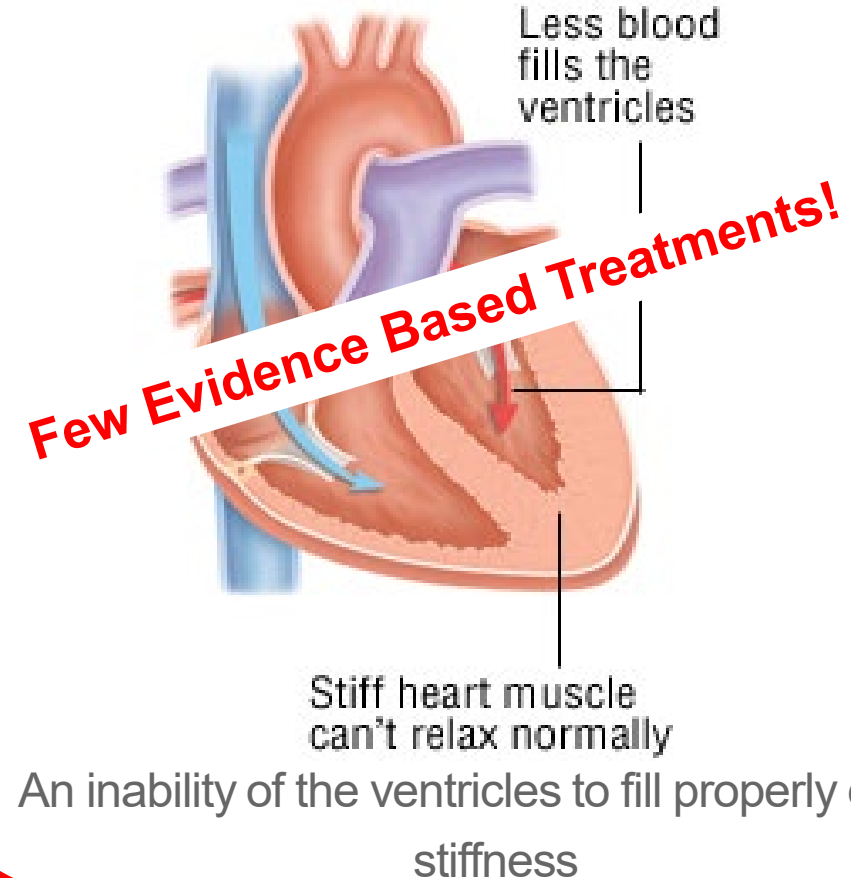
Two Major Forms of Heart Failure

Heart Failure with Reduced Ejection Fraction (HFrEF)



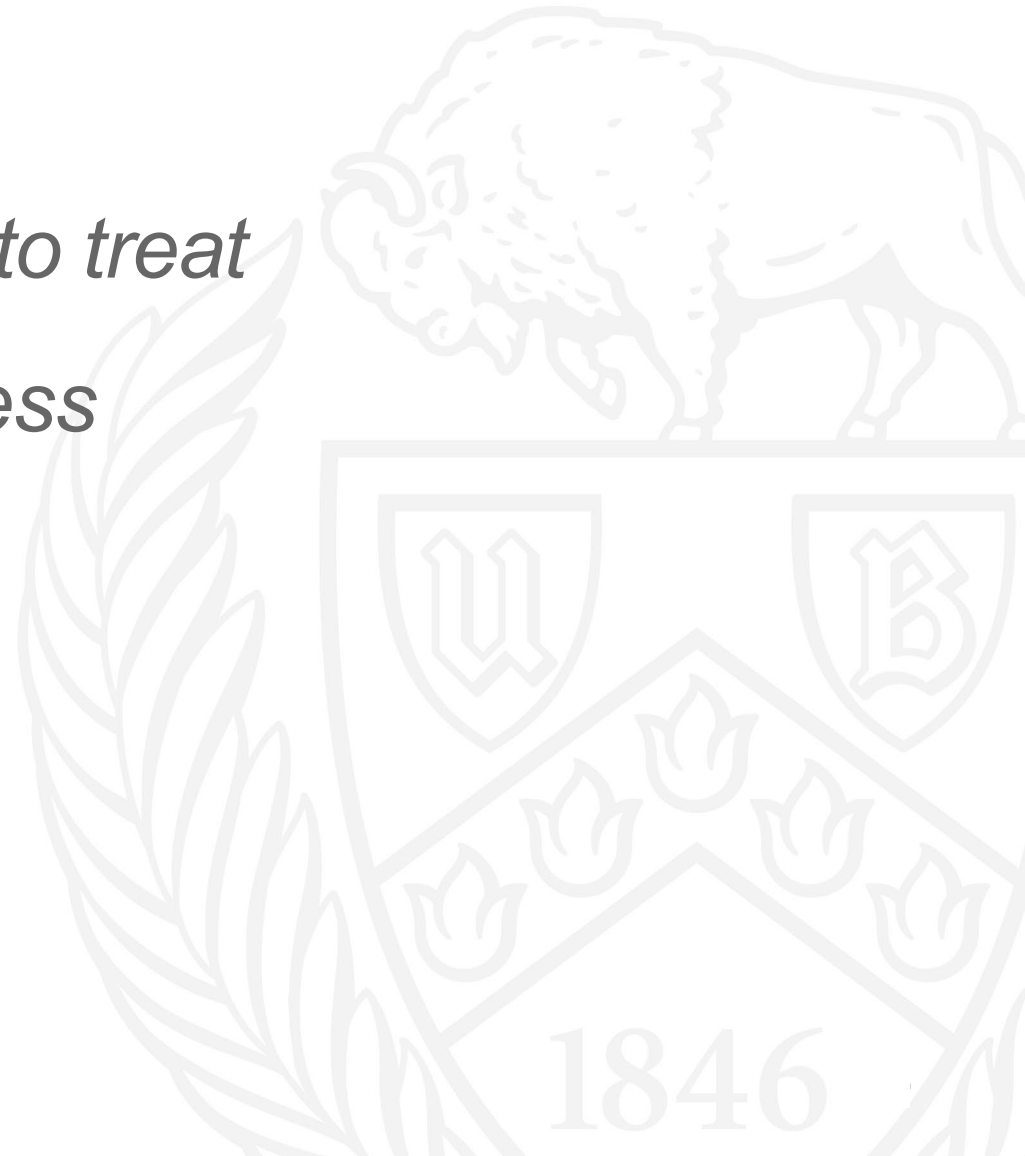
An inability to pump enough blood out of the heart into circulation

Heart Failure with Preserved Ejection Fraction (HFpEF)

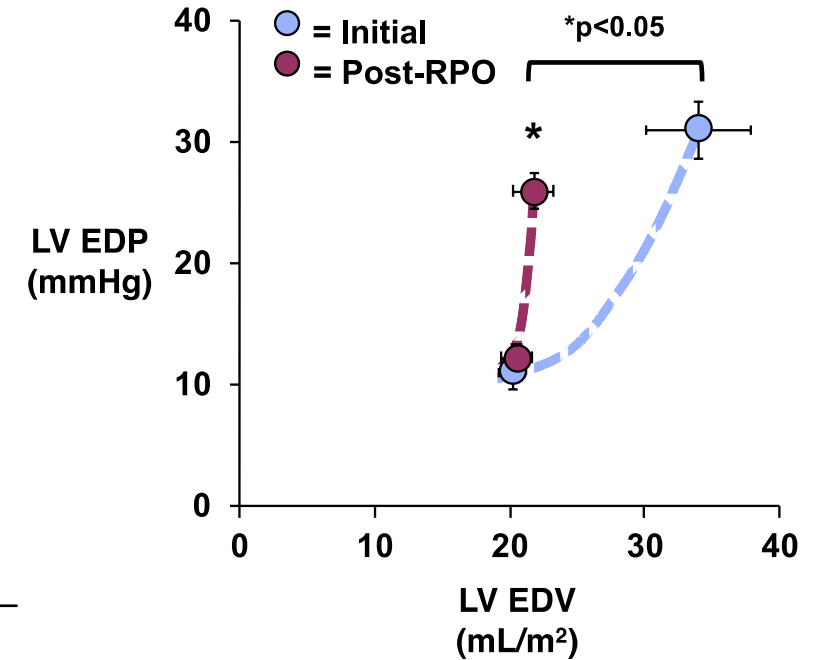
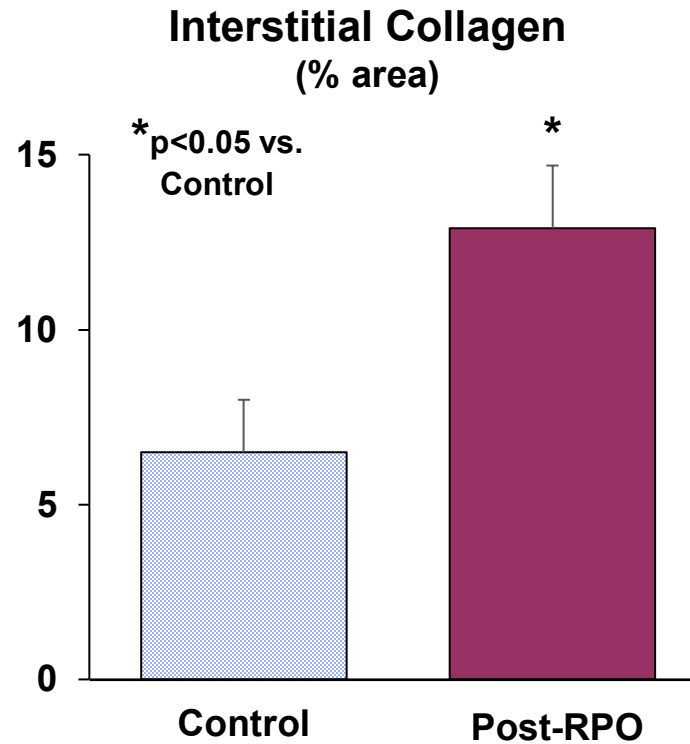


Research Objective

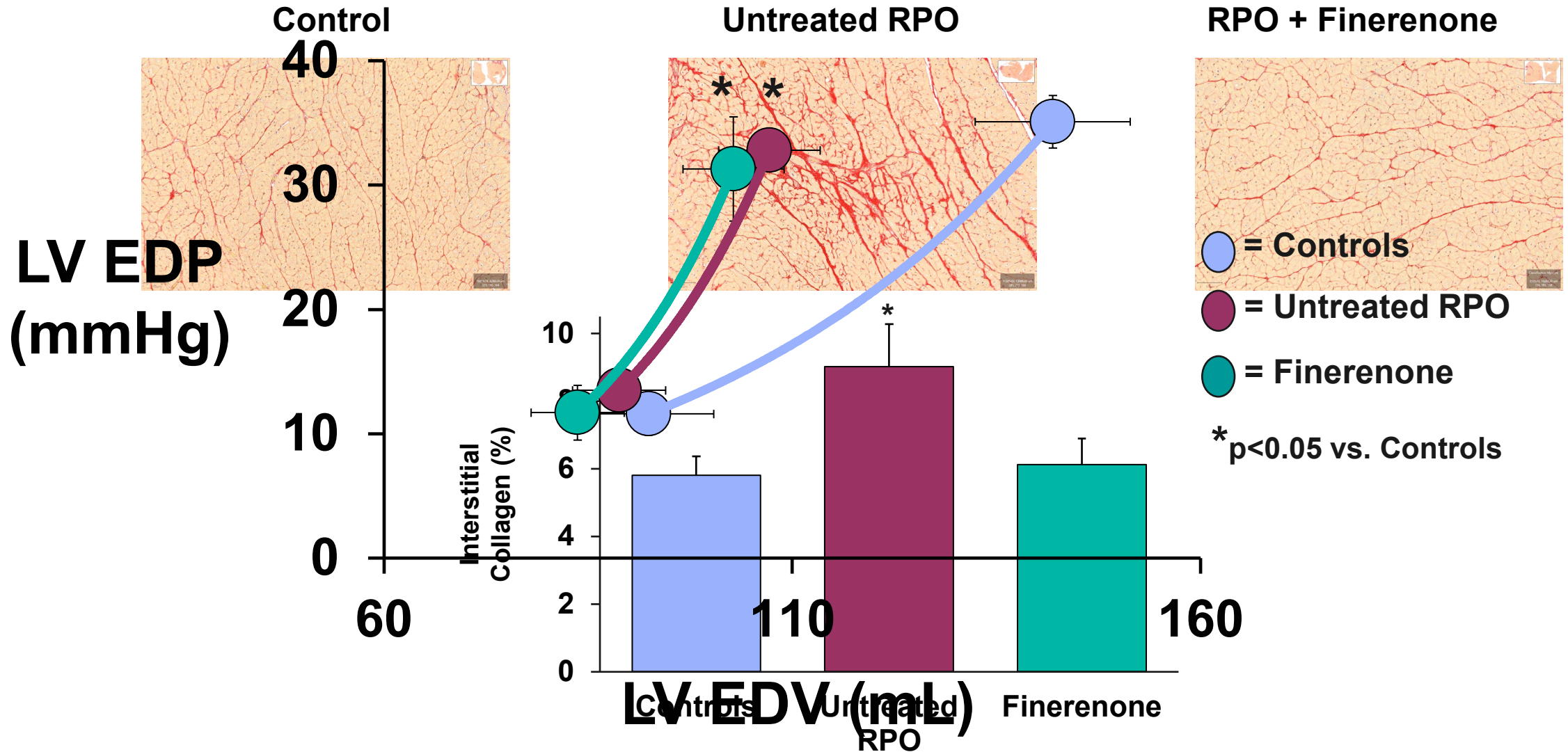
Identify novel therapeutic approaches to treat heart failure by reducing cardiac stiffness



Repetitive Pressure Overload (RPO) Creates HFpEF-like Phenotype



Finerenone Therapeutic Intervention



Fibrosis Reduction does Not Decrease Ventricular Stiffness in Pre-Clinical Model

Results/conclusions

- Fibrosis may not be the largest contributing factor resulting in increases ventricular stiffness

Future Directions

- Other factors in the heart may be affecting the stiffness of the hearts ventricles – Cytoskeleton properties

Implications

- Novel model to test treatments to improve heart failure outcomes and quality of life

THANK YOU

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