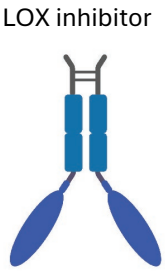
Anti-LOX Treatment for Duchenne, Fibrosis, and Cancer

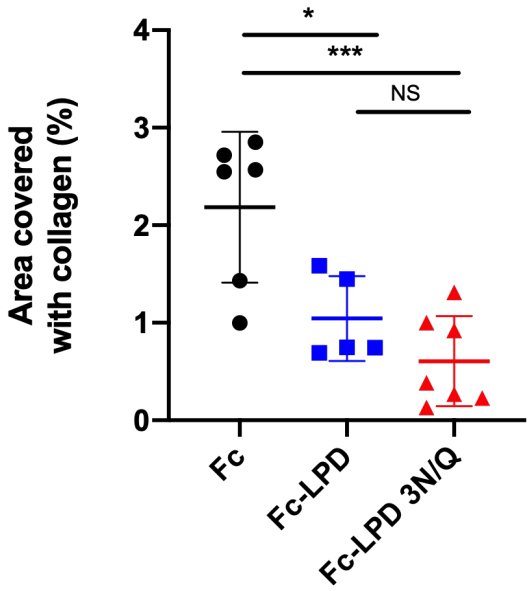
Therapeutics

Reference Number: **1913** \ Principal Investigator: **Prof. Irit Sagi** \ Patent Status: **US Publications: 20240398906 2022-0049236-A1**

LOX is a key driver of fibrosis and tumor progression through its role in extracellular matrix remodeling.

We developed a set of LOX inhibitors based on LOX's natural prodomain (LPD) to treat fibrosis, Duchenne Muscular Dystrophy (DMD), and cancer.





LOX inhibitors (LPD) reduced collagen deposits in the MDX Duchenne mouse model

APPLICATIONS

- Treatment of fibrotic diseases and metastatic cancer
- Mutation-independent treatment of DMD

DEVELOPMENT STAGE

- Fc- protein inhibitor purified, characterized for stability and high-affinity binding
- Showed significant reduction in fibrosis and improved muscle function in DMD mice
- Reduced lung metastases in a melanoma mouse model

DIFFERENTIATION

Selective: targets only extracellular LOX

Broad: applicable across a range of fibrotic diseases & cancer

Validated: *In vivo* efficacy in fibrosis and cancer mouse models

Antibody-like: durable and selective design

Stable: high-affinity Fc-fusion inhibitor