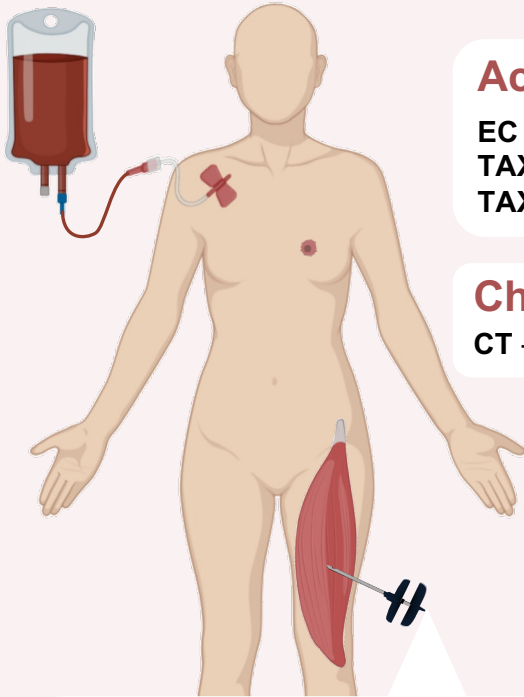


NF-κB drives muscle atrophy in breast cancer

Clinical studies: Patients with breast cancer



Acute effects (4 days)

EC - Epirubicin-cyclophosphamide (N=10)

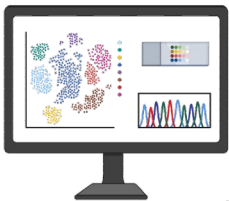
TAX - Paclitaxel after EC (N=10)

TAX first - Paclitaxel without EC (N=5)

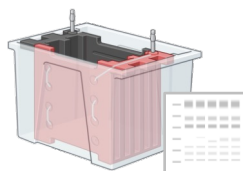
Chronic effects (18 weeks)

CT - Chemotherapy (EC + TAX) (N=11)

RNAseq



Western Blots

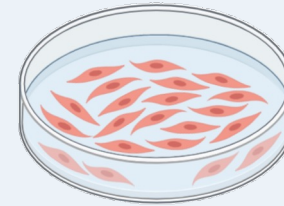


Histology

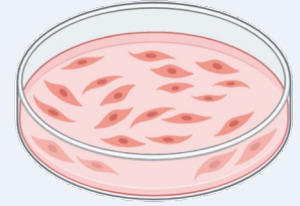


Cell culture: LHCN-M2 myotubes

EC or TAX + SFZ

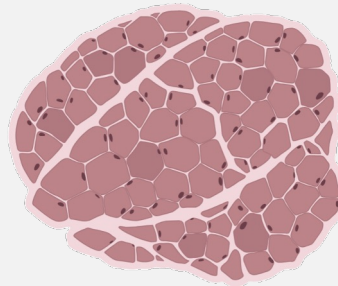


EC or TAX

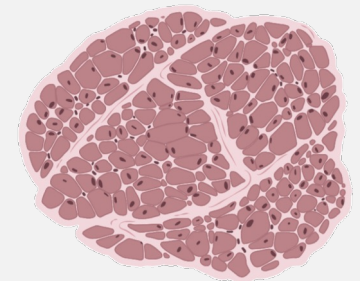
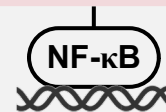


Muscle atrophy

Results & Conclusion



Muscle atrophy



Breast cancer chemotherapy triggers a rapid skeletal muscle atrophy driven by NF-κB activation. Sulfasalazine (SFZ) fully prevented muscle atrophy by mitigating the imbalance in protein turnover.