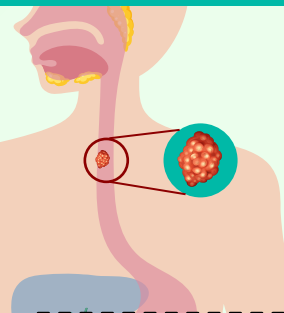



Extracellular Matrix-Related Genes as Prognostic Markers and Therapeutic Targets in Esophageal Cancer



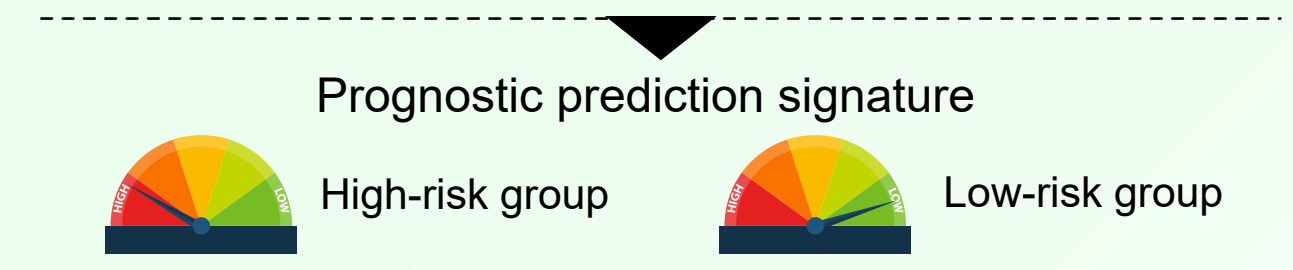
Analysis of genomic and clinical data of patients with esophageal cancer (EC)



Extracellular matrix-related genes associated with patient survival

- *IBSP*
- *LINGO4*
- *COL26A1*
- *RTBDN*
- *GDF15*
- *RUNX1*
- *TENM1*
- *MMP12*
- *KLK4*

Prognostic prediction signature



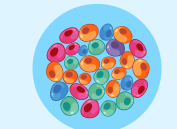



High-risk group Low-risk group



Nomogram for improved predictive accuracy

TENM1 gene: downregulated in EC tissues

Pathways upregulated in:



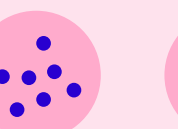

-  Pancreatic beta cells
-  Spermato-genesis
-  Apical surface
-  Myo-genesis

- ✓ Positively correlated
 - T helper, NK, and CD8+ T cells
- ✗ Negatively correlated
 - Neutrophils and Th17 cells

↓ Immunosuppressive microenvironment

High-risk group: lower *TENM1* expression



Pathways upregulated in:

-  Pancreatic beta cells
-  MYC targets
-  Interferon alpha response
-  Oxidative phosphorylation

- ✓ Positively correlated
 - Regulatory T cells and resting mast cells
- ✗ Negatively correlated
 - Neutrophils and Th17 cells

• **Decreased genomic stability** • **Poorer clinical outcomes**

Low-risk group

-  Increased genomic stability
-  Improved sensitivity to AKT inhibitors VIII and erlotinib

