



Animal Model Workshop

SFPQ-TFE3 reciprocally regulates mTORC1 and induces lineage plasticity in a mouse model of renal tumorigenesis

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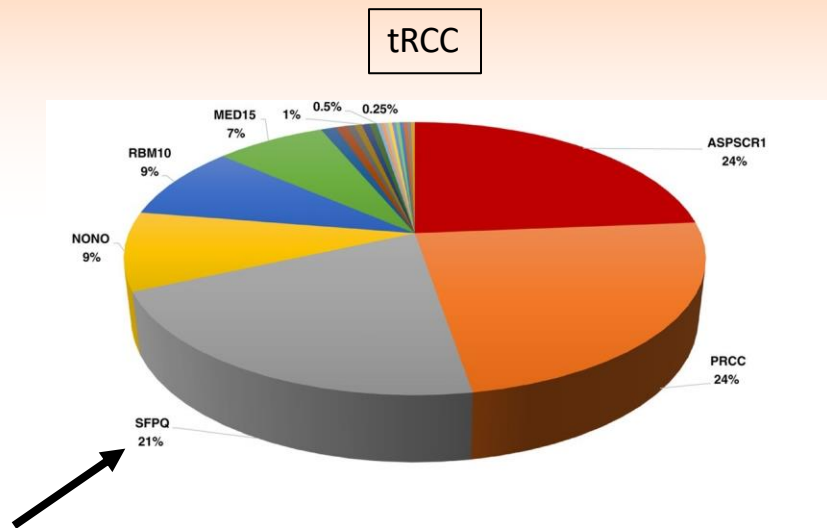


Kaushal Asrani, MBBS, PhD

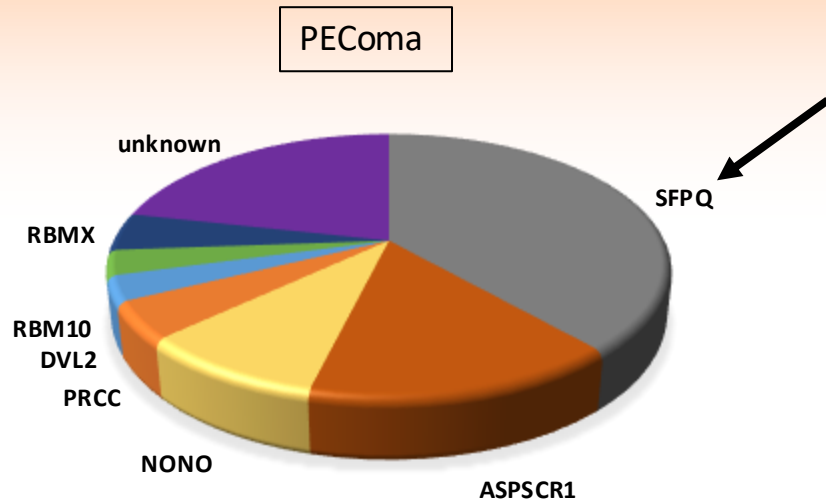
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SFPQ-TFE3-mediated tumorigenesis has not been previously modeled in mice



Tretiakova, *Adv Anat Pathol*, 2022

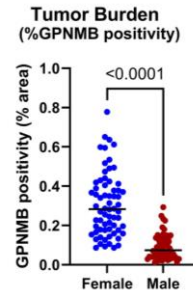
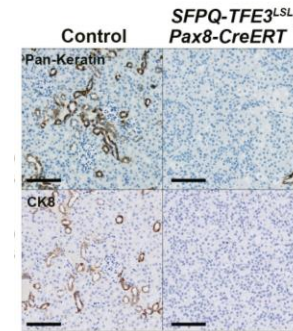
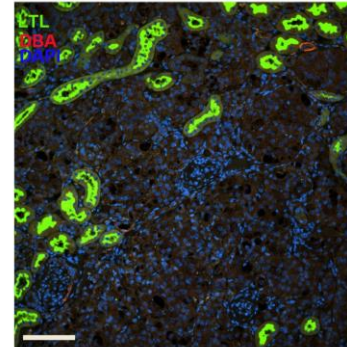
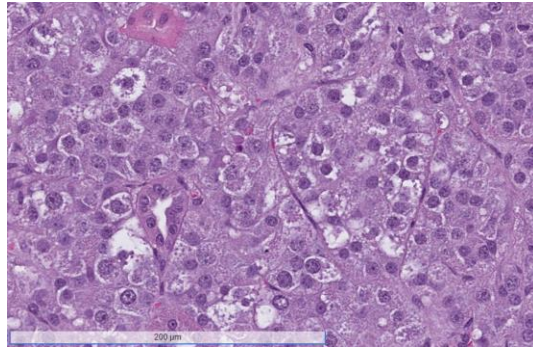
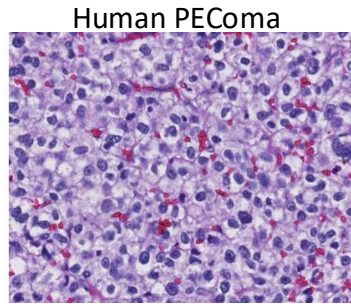
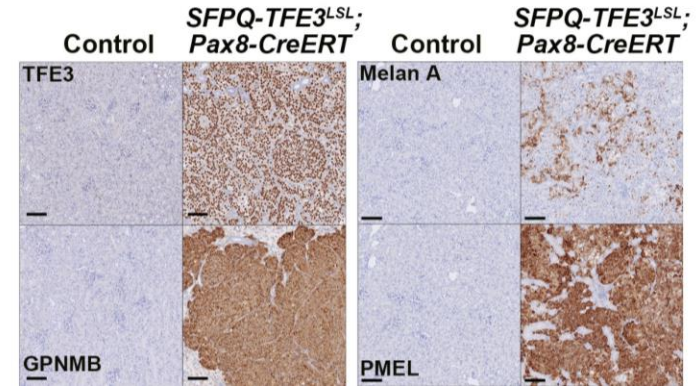
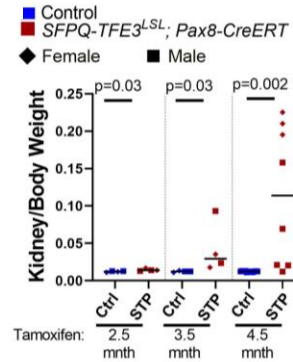
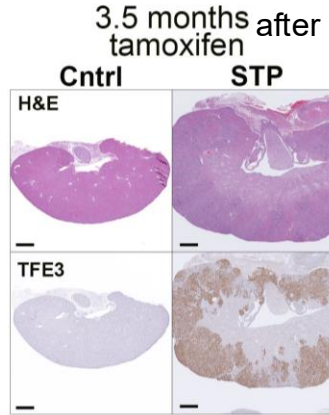
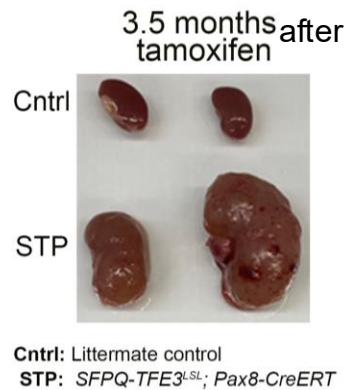


Data from Argani, *Am J Surg Pathol*, 2024

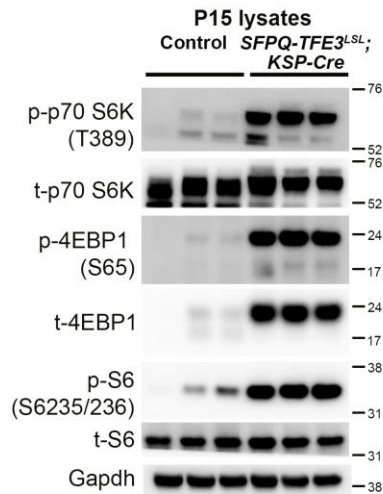
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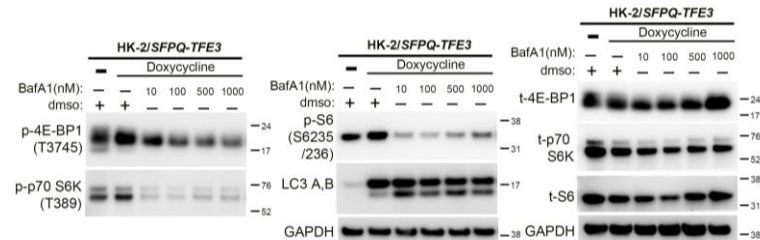
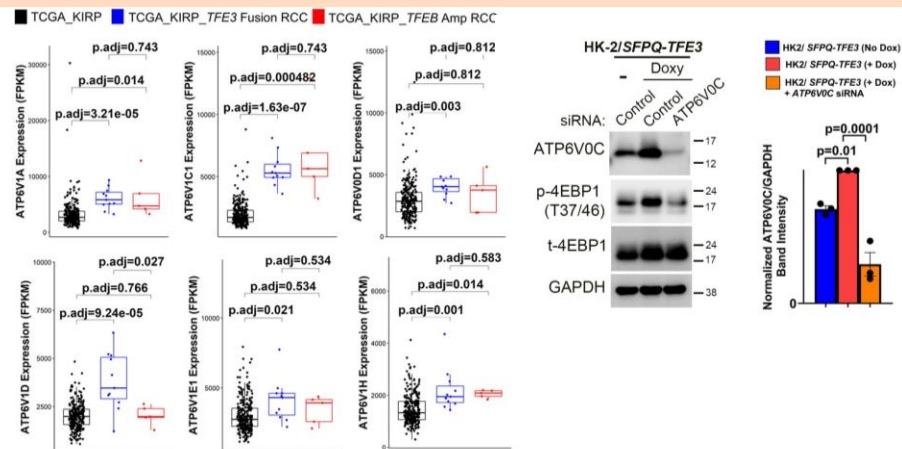
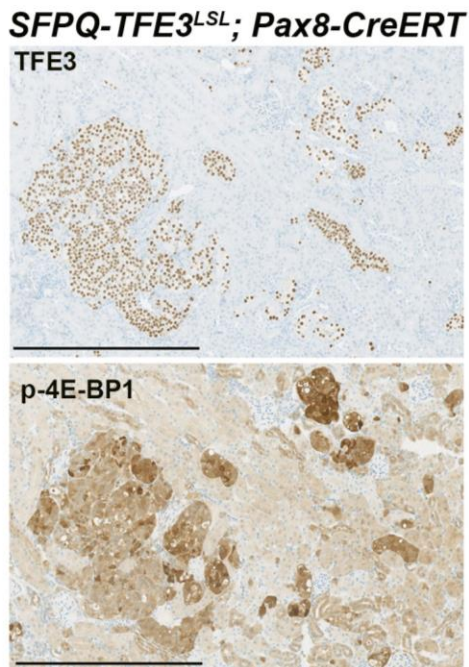
SFPQ-TFE3^{LSL}; Pax8-CreERT (STP) Model



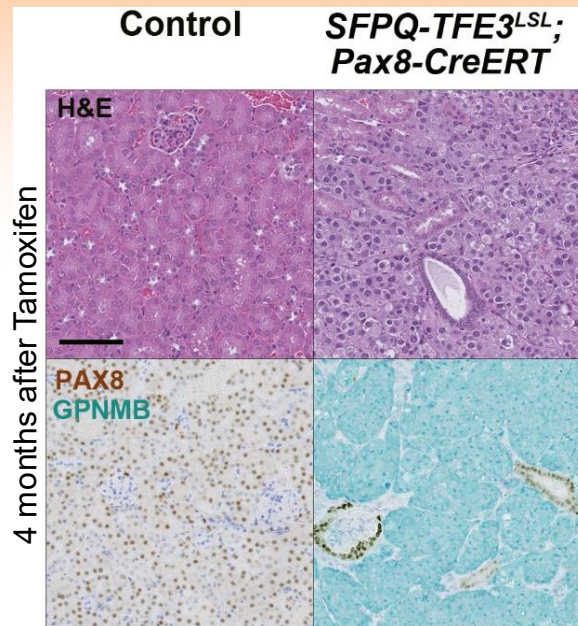
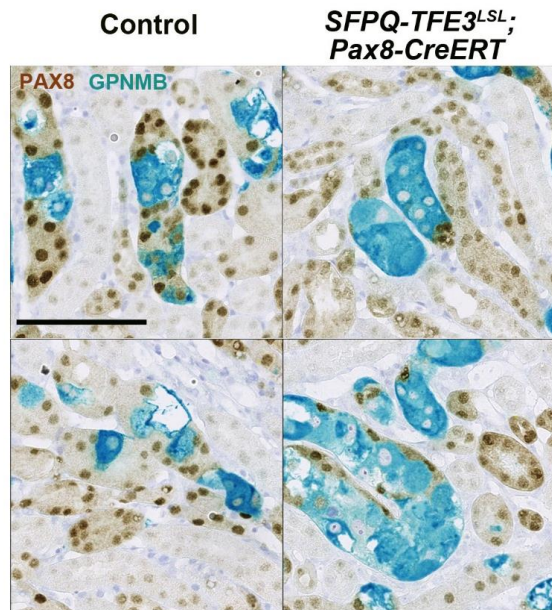
mTOR activation in STP models



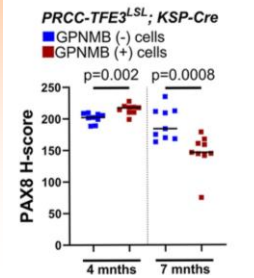
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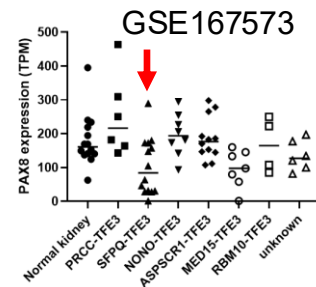
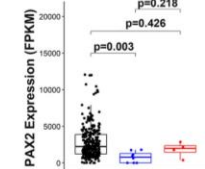
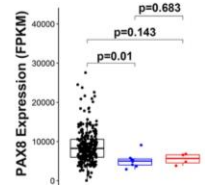
SFPQ-TFE3 drives lineage plasticity



4 months after Tamoxifen



TCGA_KIRP
TCGA_KIRP_TFE3 Fusion RCC
TCGA_KIRP_TFE3 Amp RCC



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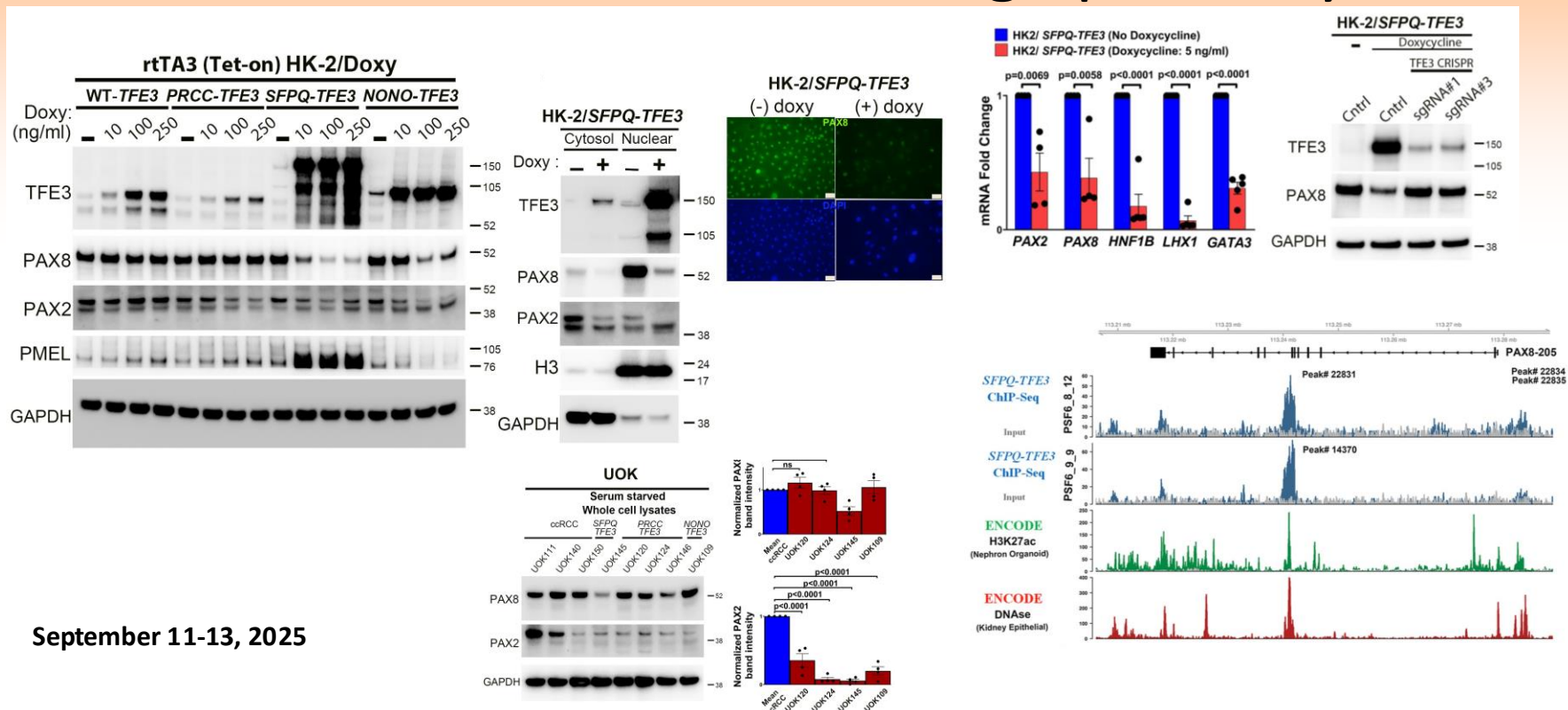


Kidney Cancer Association® IN PARTNERSHIP WITH

Asrani and Amaral, *Nat Commun*, in press

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SFPQ-TFE3 drives lineage plasticity



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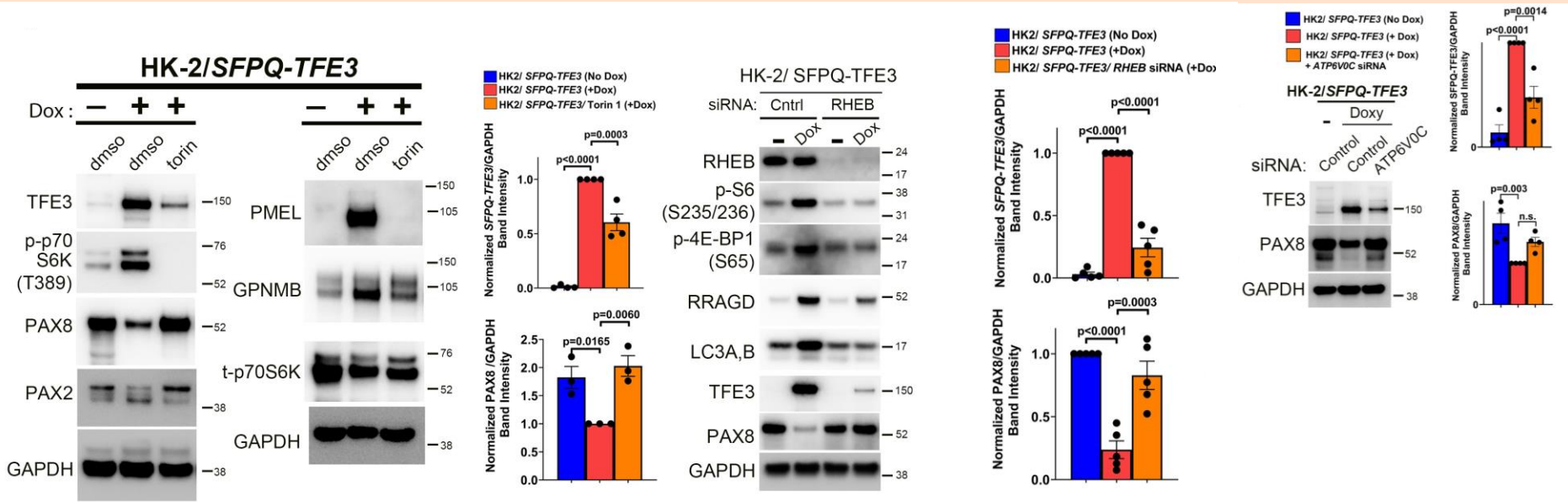


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Lineage plasticity driven by SFPQ-TFE3 expression is mTOR-dependent



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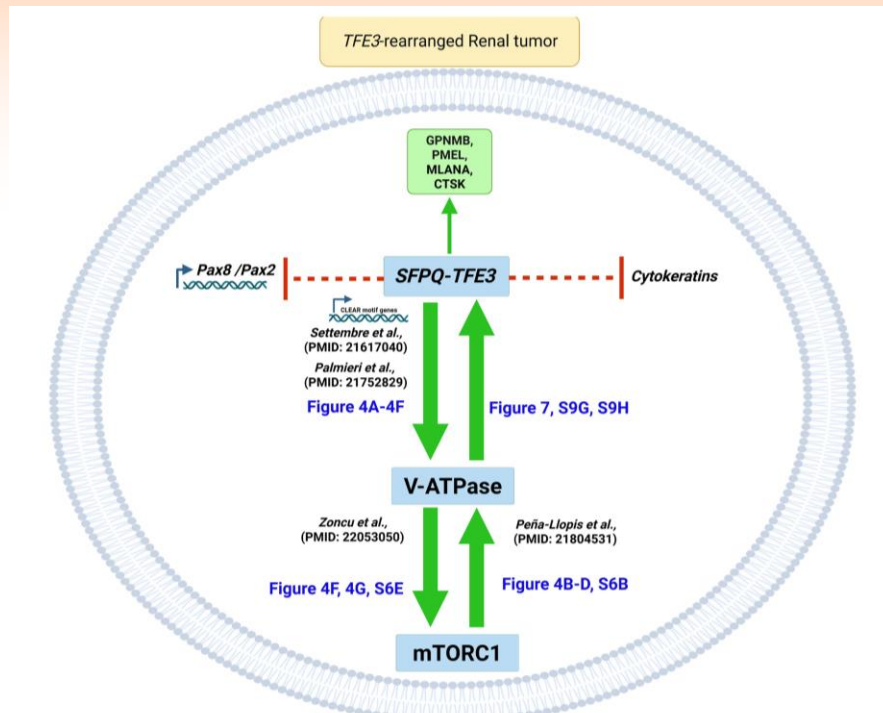


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SFPQ-TFE3 reciprocally regulates mTORC1 and induces lineage plasticity in tRCC



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