

# SITC 2019

Gaylord National Hotel  
& Convention Center

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NATIONAL HARBOR, MARYLAND



Society for Immunotherapy of Cancer



# Selective induction of S100a8/a9 in pancreatic cancer in response to immune selection pressure

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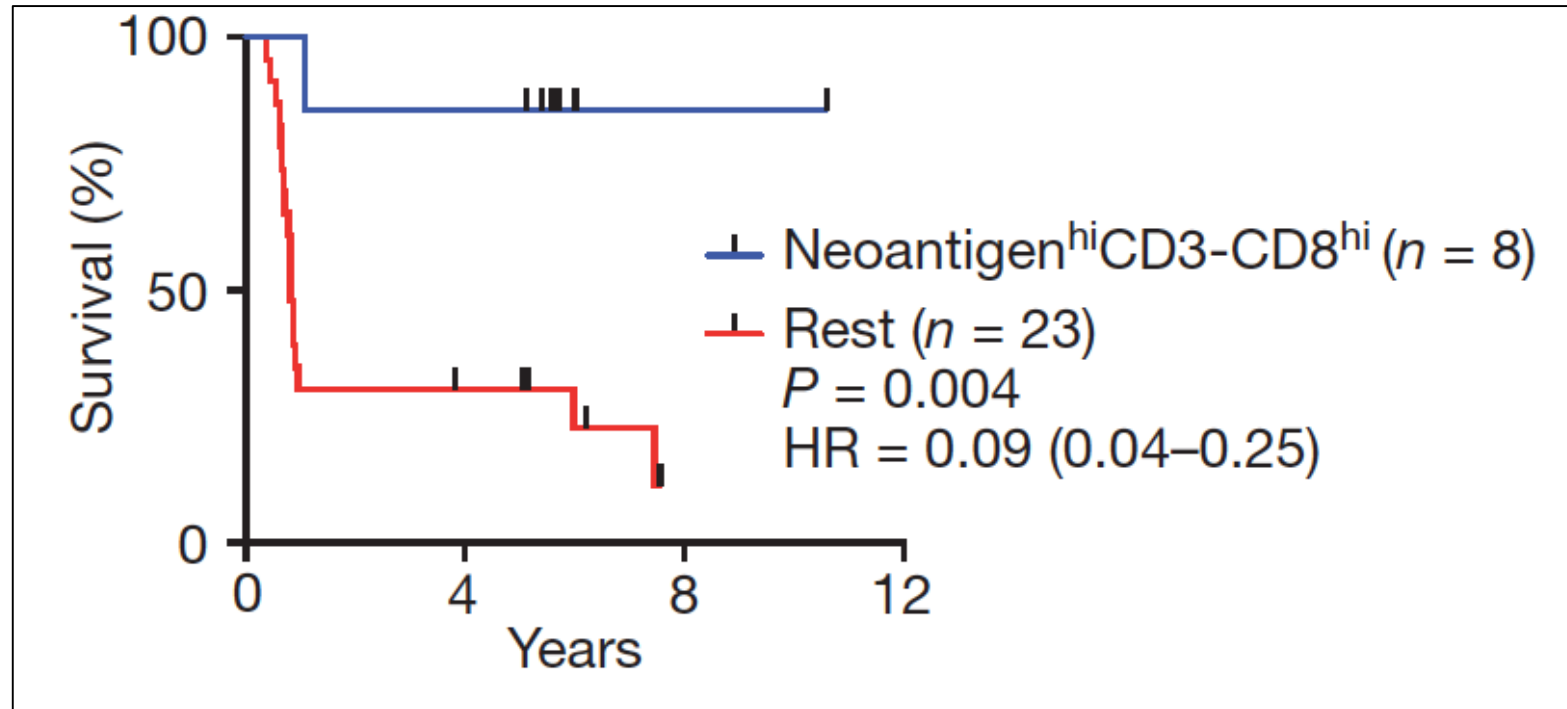
Society for Immunotherapy of Cancer

#SITC2019

# Disclosures

I have nothing to disclose

# T cell Immunity is Relevant to Pancreatic Cancer



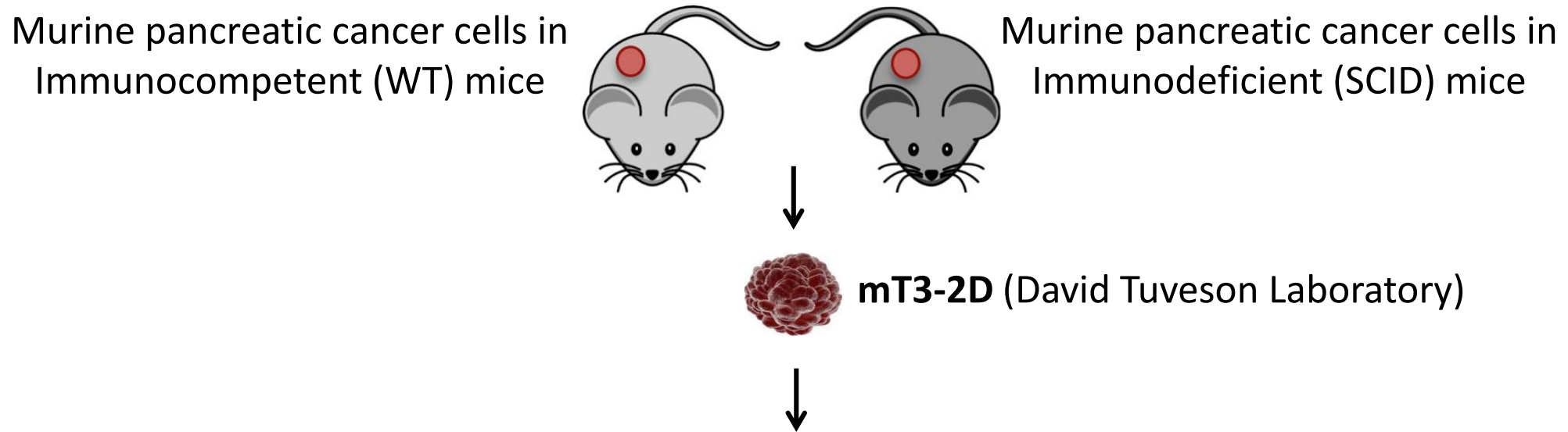
Long-term pancreatic cancer survivors display enhanced T cell immunity

Balachandran et al, Nature, 2017

# Hypothesis

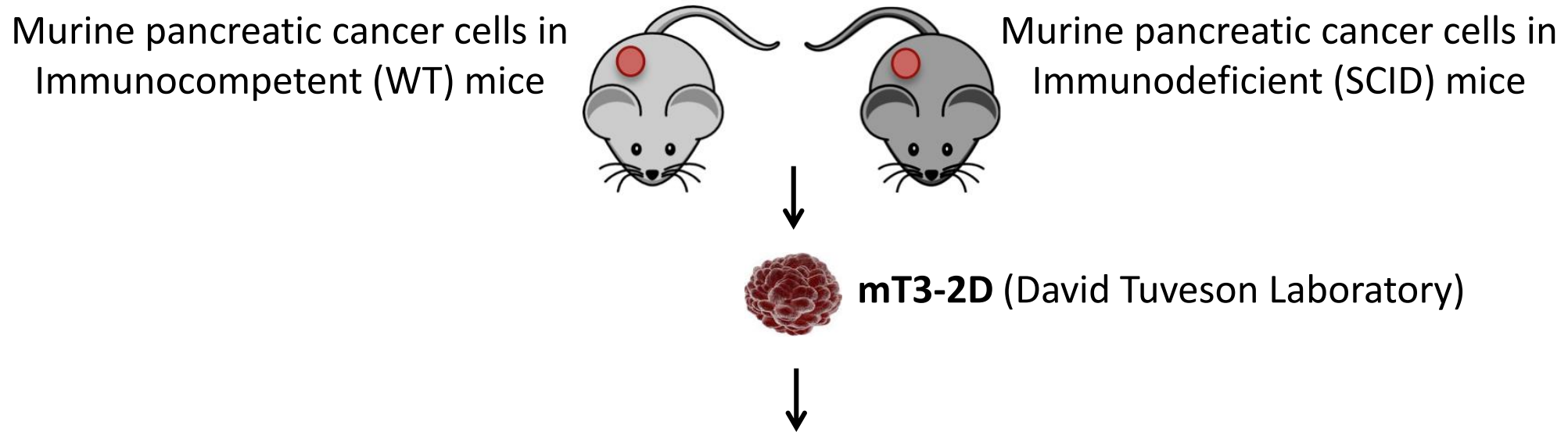
In response to immune selection pressure, pancreatic tumors employ immune escape mechanisms to evade anti-tumor T cell attack

# Does Immune Selection Pressure Induce PDAC Immune Escape Mechanisms?



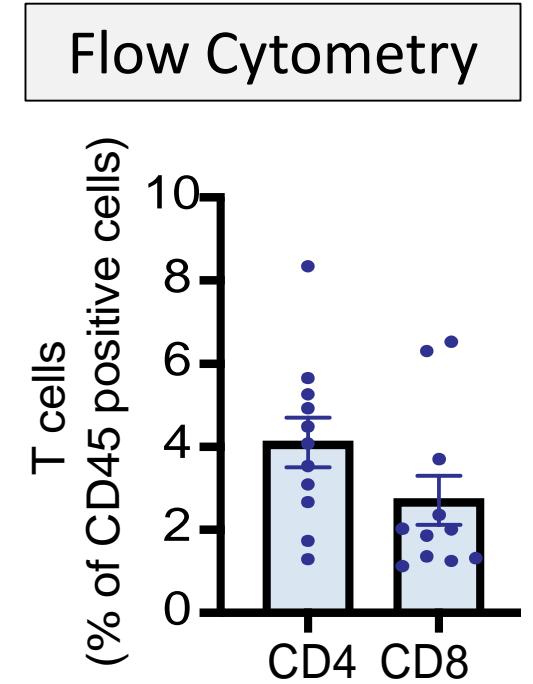
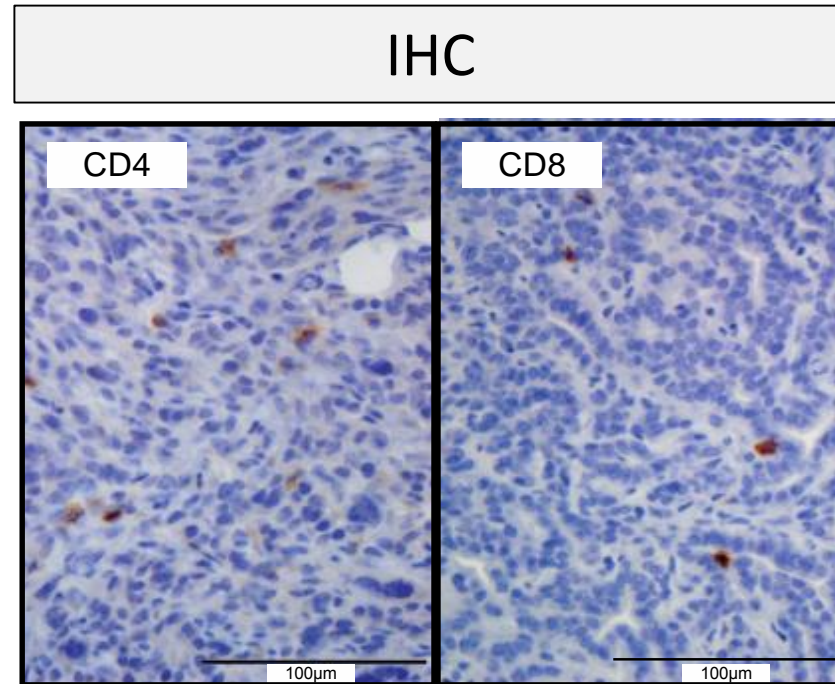
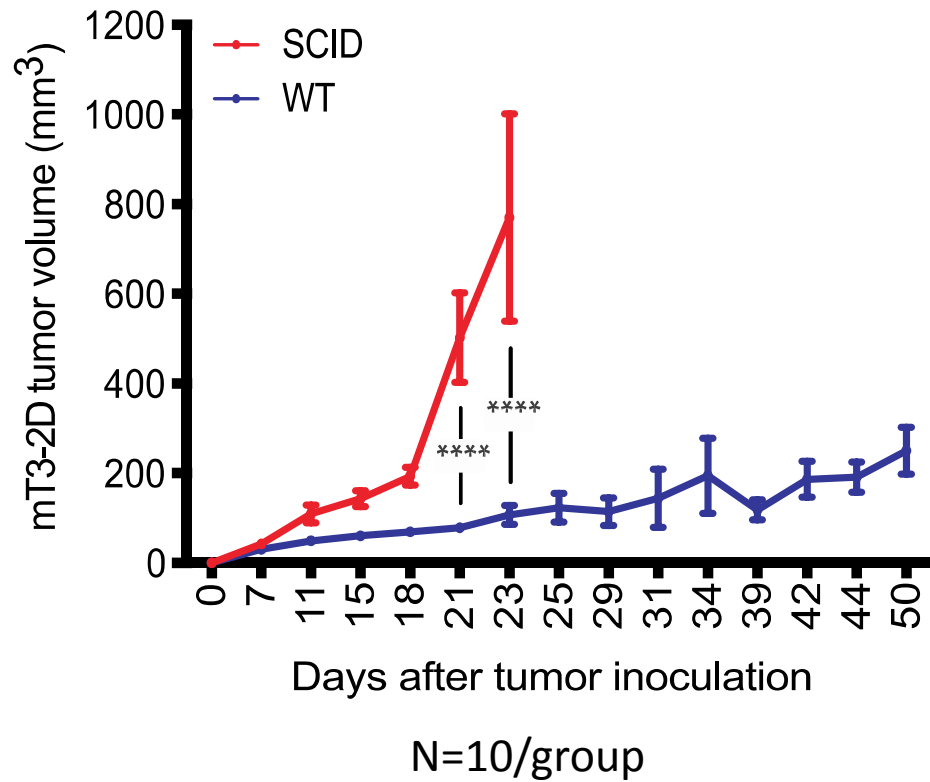
- **Genomics** (WES)
- **Transcriptomics** (RNAseq and NanoString nCounter)
- **Proteomics and Phosphoproteomics** (MS/MS)
- **Multiple Color Flow Cytometry**

# Does Immune Selection Pressure Induce PDAC Immune Escape Mechanisms?



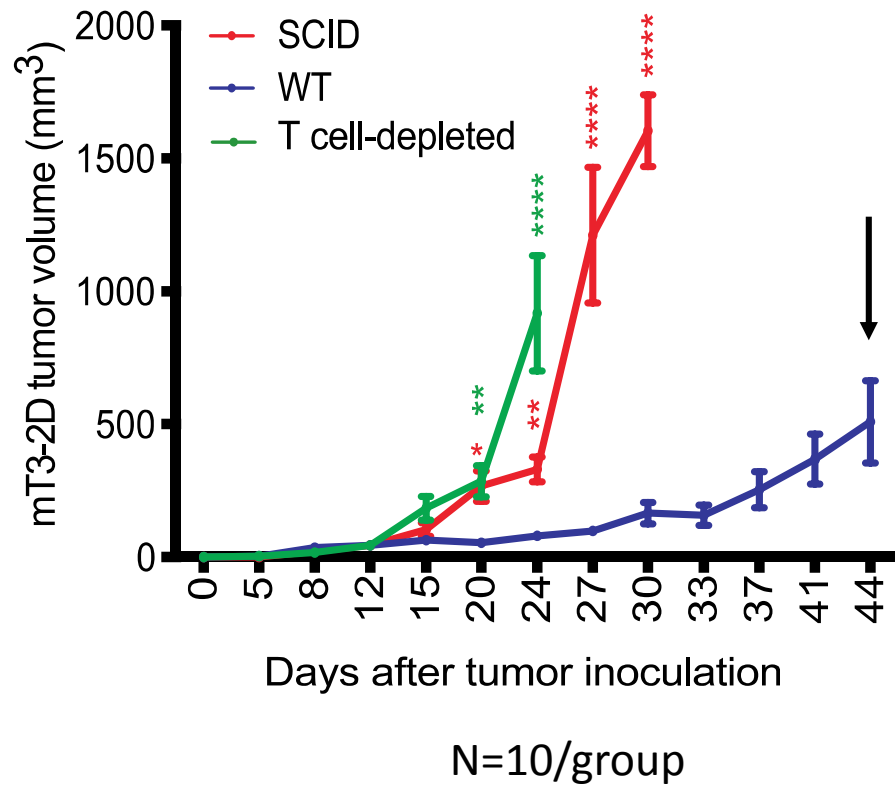
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# T cell Immunity Incompletely Regulates mT3-2D Tumor Growth



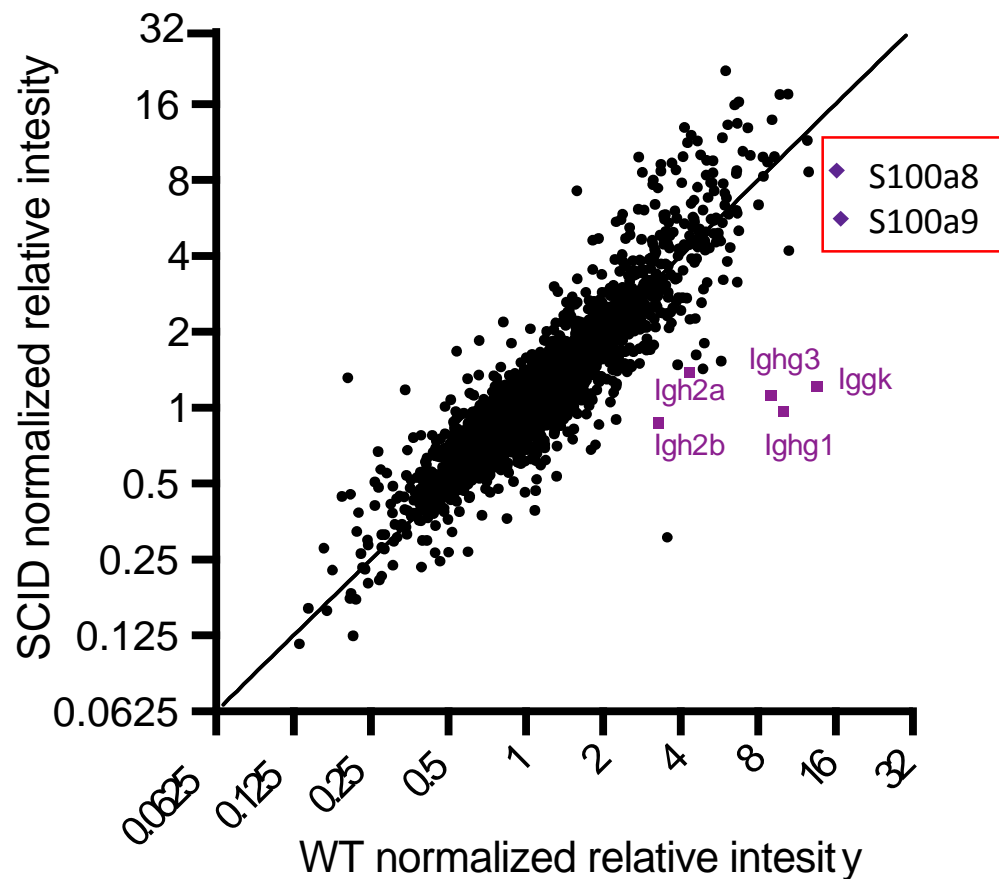


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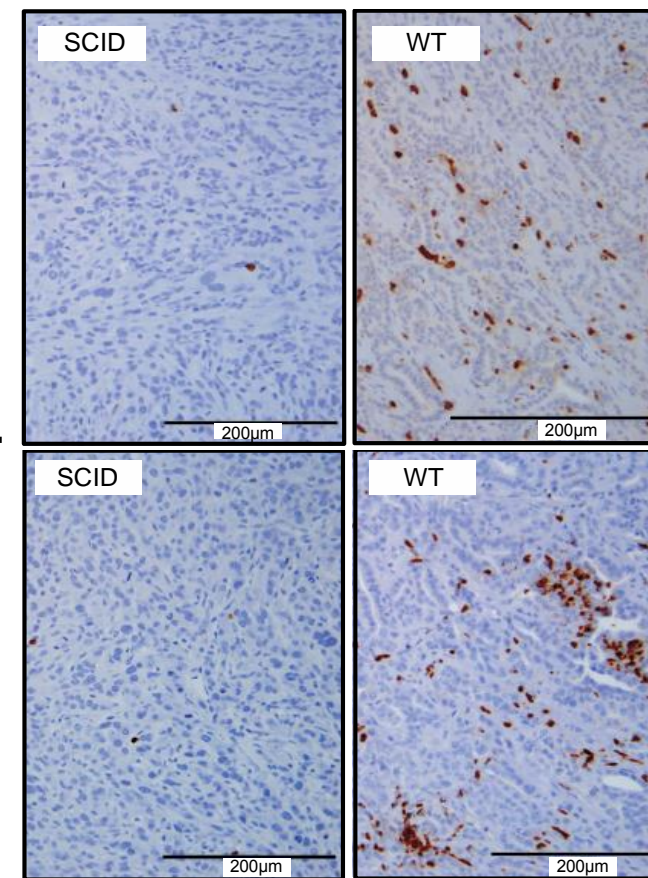
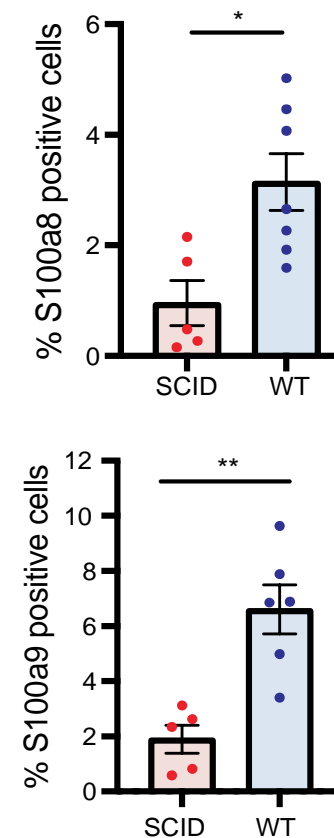


# Selective Induction of S100a8/a9 in WT Tumors

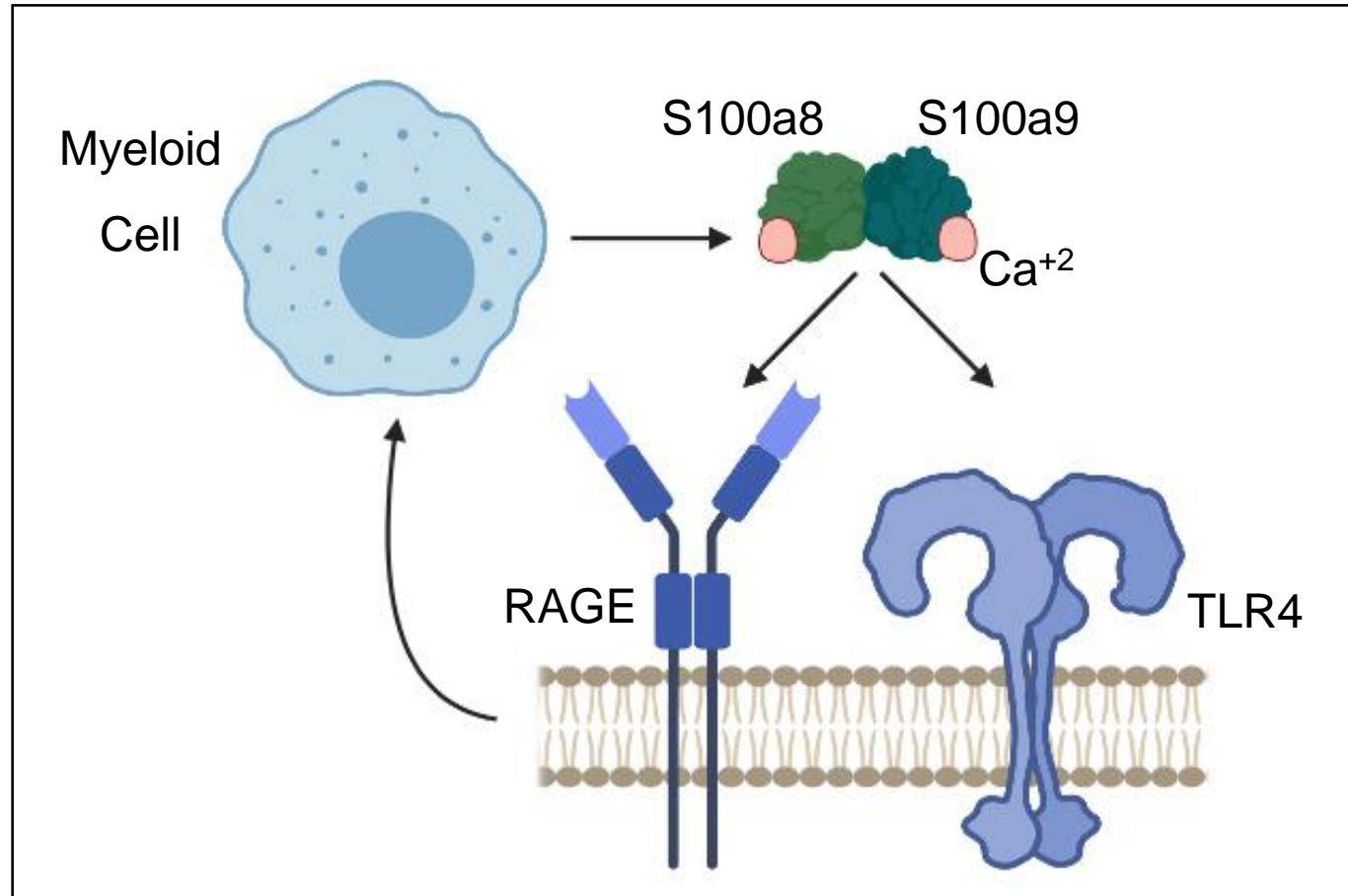
## Mass Spectrometry



## IHC

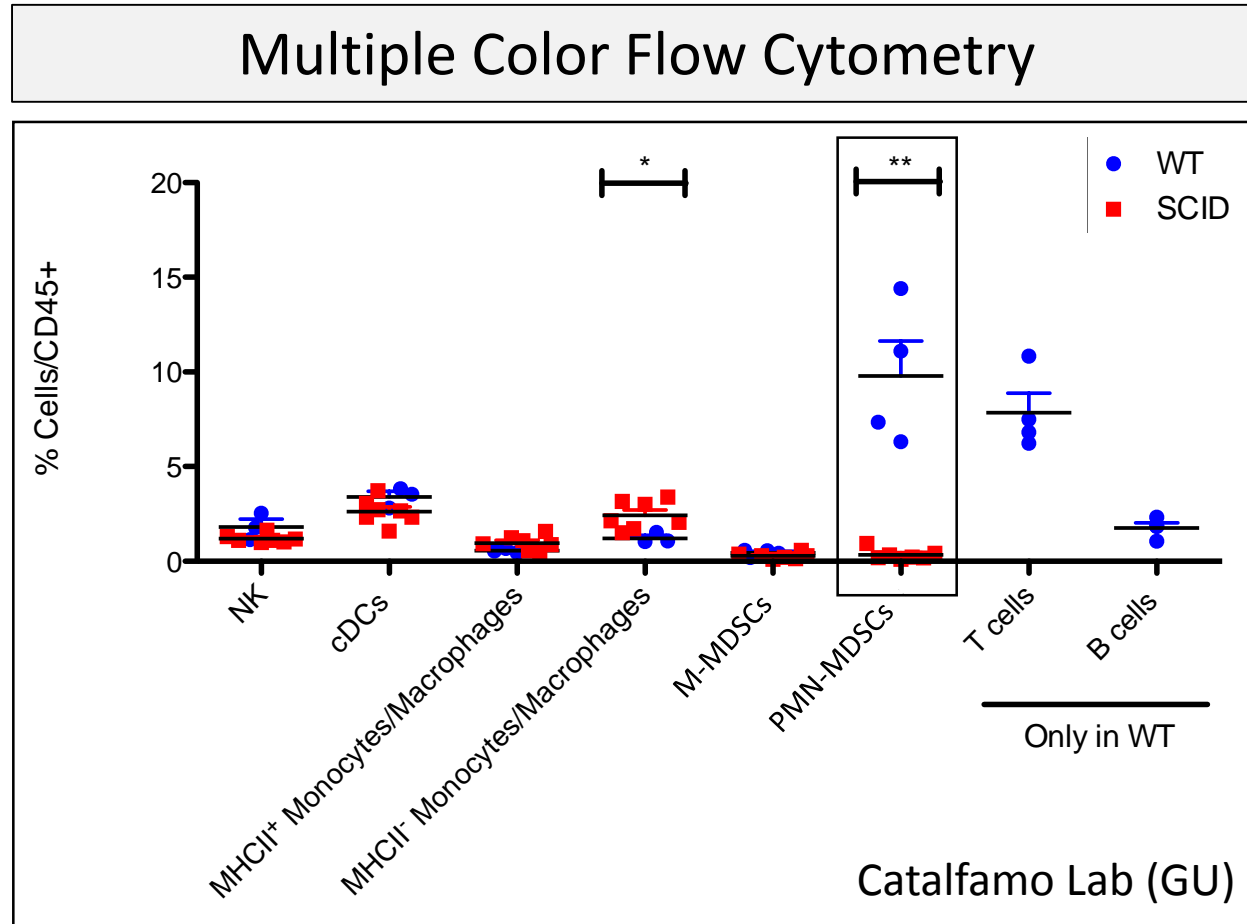


# What are S100a8 and S100a9?



S100A8/A9 serum levels are increased in PDAC patients

# Selective Infiltration of PMN-MDSCs in WT Tumors



# Conclusion

In response to immune selection pressure, S100a8/a9 and PMN-MDSCs are selectively induced in immunocompetent tumors

# Acknowledgments

- Weiner Lab
- LCCC Shared Resources
- Catalfamo Lab (GU)
- ORNL

