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MD Anderson
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Making Cancer History®

Cancer testis antigen and interleukin expression correlates with survival in small bowel neuroendocrine tumors

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Transcriptional immune characterization of the small bowel neuroendocrine tumor (SBNET) microenvironment

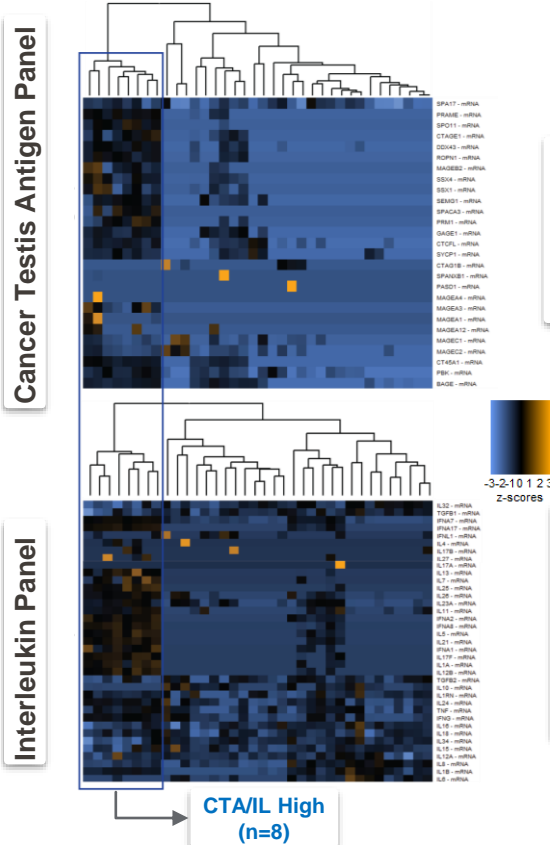
- SBNET patients often present with metastatic disease; besides palliative surgery, there are very few good systemic therapeutic options (including immunotherapy)
- Little is understood about the immune milieu of the SBNET tumor microenvironment and the potential signals that predict clinical outcomes and response

Study Aim

Determine the characteristics and transcriptional profiles of the SBNET tumor and immune microenvironment in order to identify predictive and potentially therapeutic targets for immunomodulation

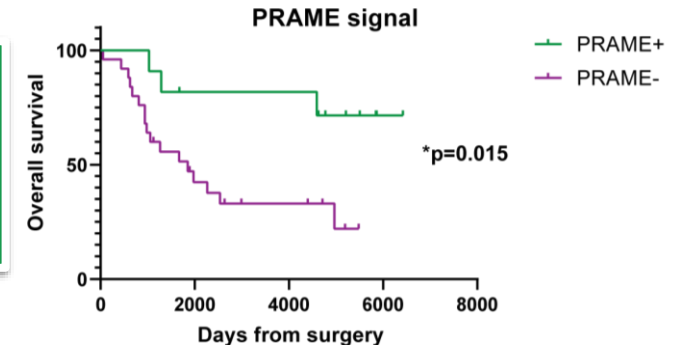
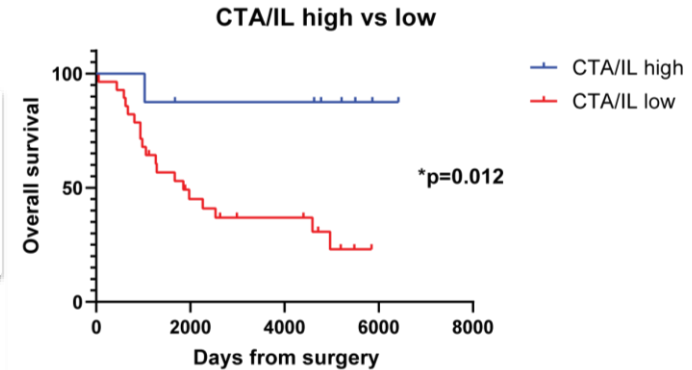
	n=36
Age, median, range	63 (45-75)
Sex	
Female	13 (36%)
Male	23 (64%)
T Stage at Operation	
T2	2 (5%)
T3	28 (78%)
T4	5 (14%)
Unknown	1 (3%)
N Stage at Operation	
N0	5 (14%)
N1	26 (72%)
N2	3 (8%)
Unknown	2 (5%)
M Stage at Operation	
M0	7 (19%)
M1	29 (81%)
Known History of Carcinoid Syndrome	
Yes	14 (39%)
No	22 (61%)

Transcriptional analysis revealed a distinct subset of patients who were high in cancer testis antigen and interleukin expression



Unsupervised clustering into CT Antigen^{hi} and interleukin^{hi} groups formed the same cohort of 8 patients (6 of 8 had metastatic disease)

PRAME (PReferentially expressed Antigen in MELanoma) is one of the most widely studied cancer testis antigens with tumor-specific expression across multiple tumor types



CTA/IL high patients have higher intratumoral CD8 T cells, which may indicate an immune-mediated impact on improved survival

