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Walter E. Washington
Convention Center



Society for Immunotherapy of Cancer

Interleukin-6 Highly Upregulated in Immune Checkpoint Mediated Enterocolitis

Daniel Johnson, M.D.



Society for Immunotherapy of Cancer

#SITC2018

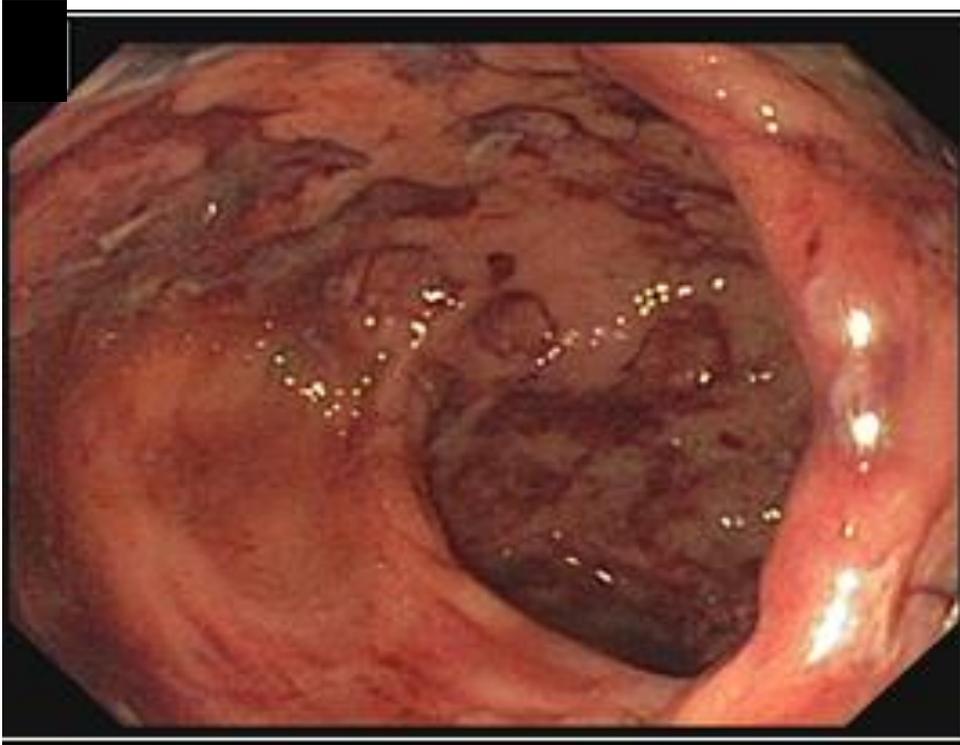
Presenter Disclosure Information

Daniel Johnson, M.D.

The following relationships exist related to this presentation:

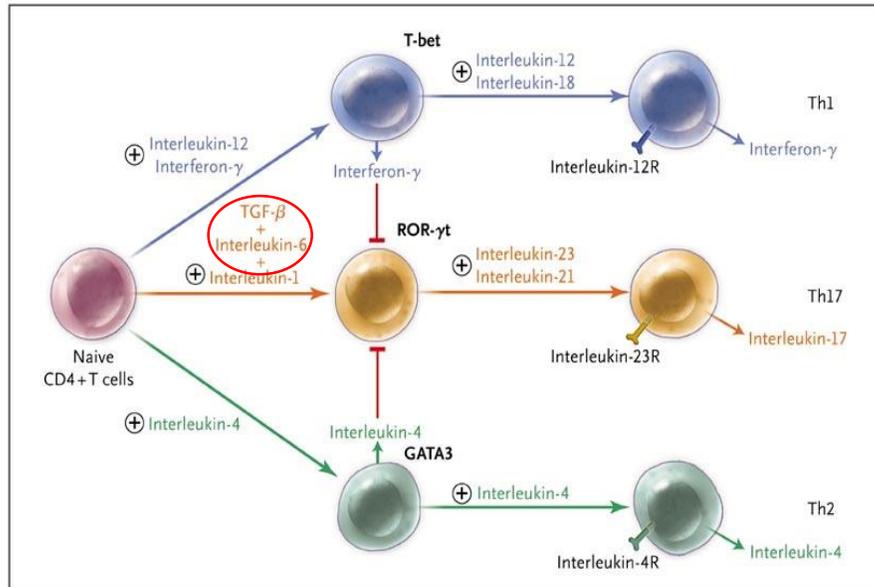
No Relationships to Disclose

Background

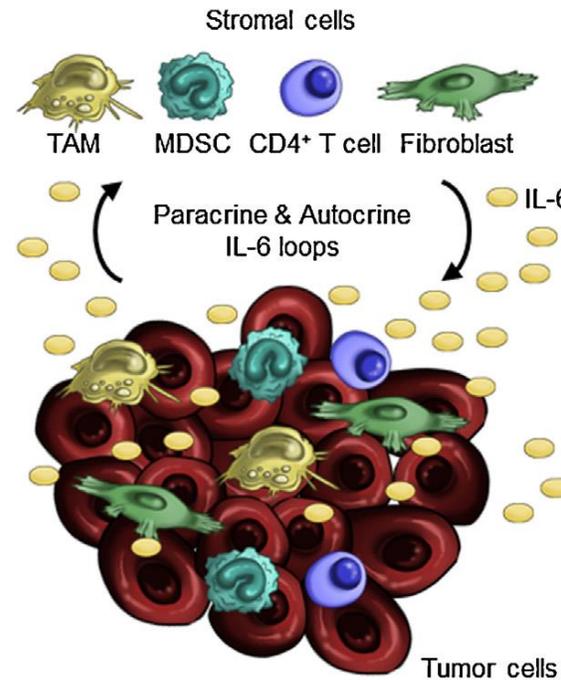


- irEC most common high grade irAE
- Often leads to permanent CPI discontinuation
- Steroids mainstay of treatment.
- TNF-alpha blockade recommended 2nd line.

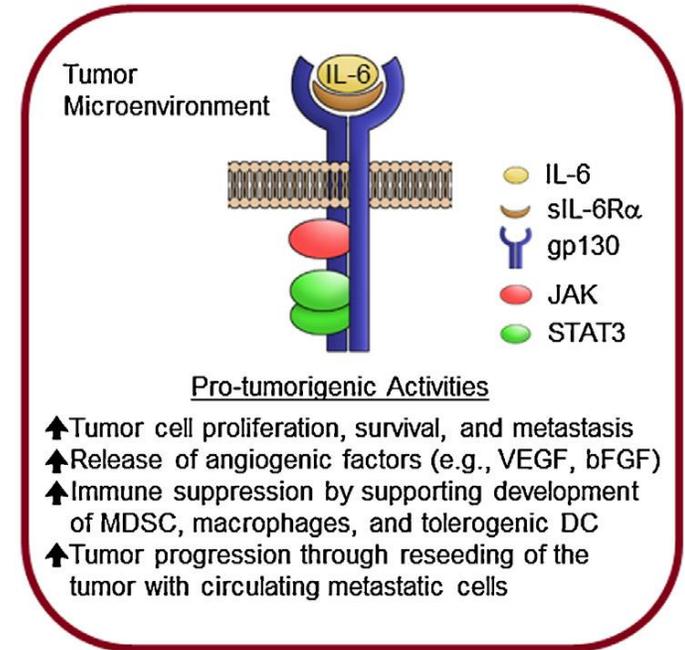
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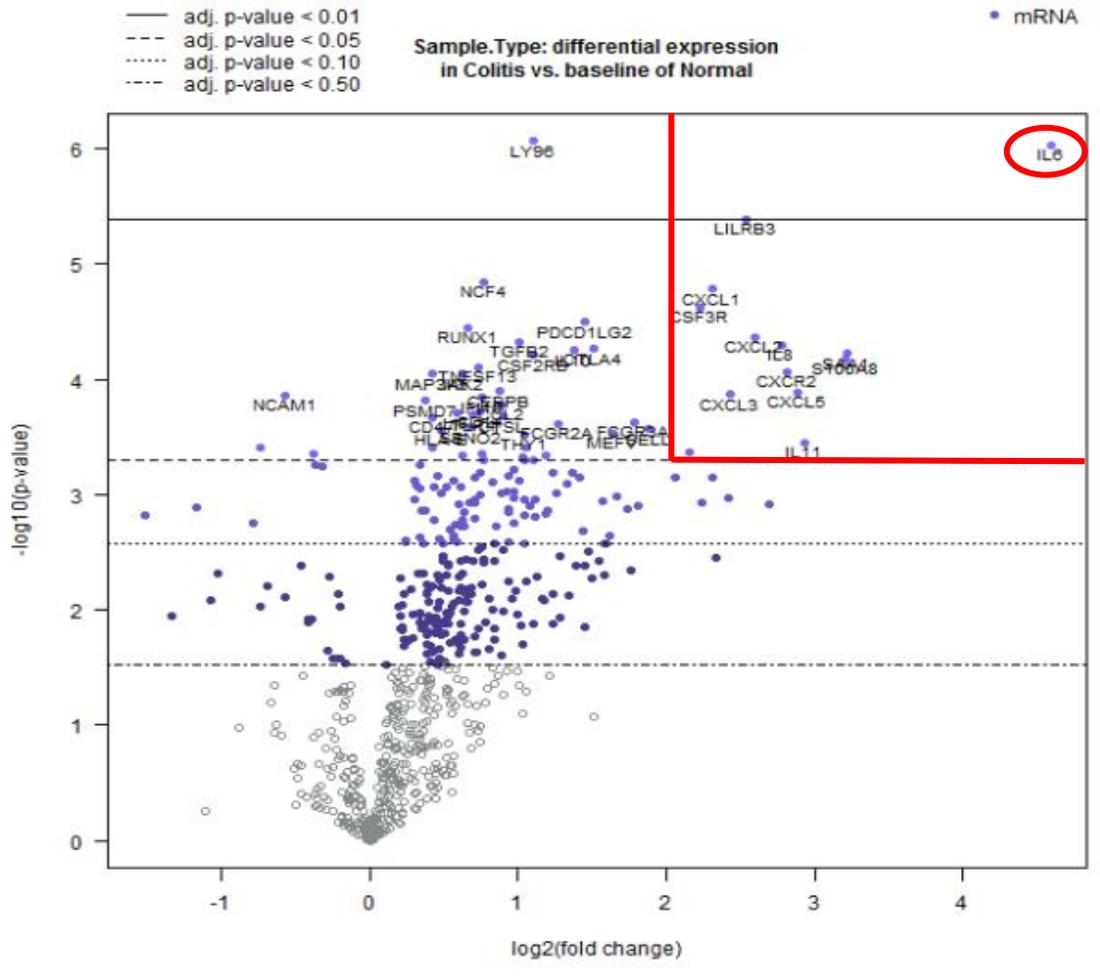
Miossec P et al. N Engl J Med 2009;361:888-898.



Kryczek, I, (2009) Blood, 114(6), 1141-1149.



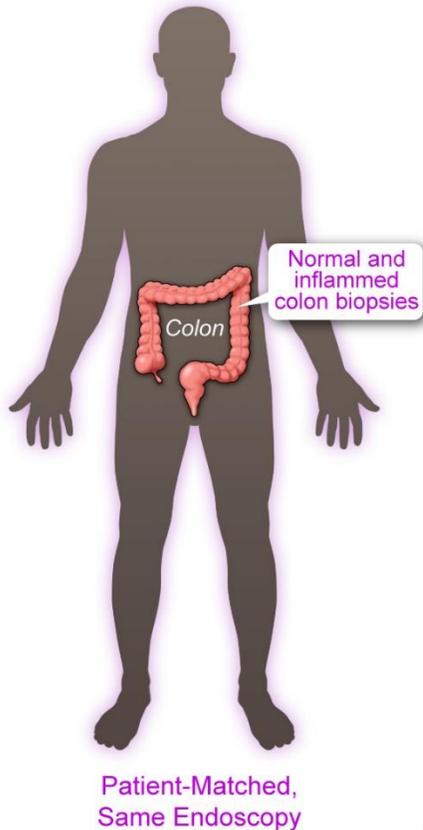
Colitis vs. Normal Colon



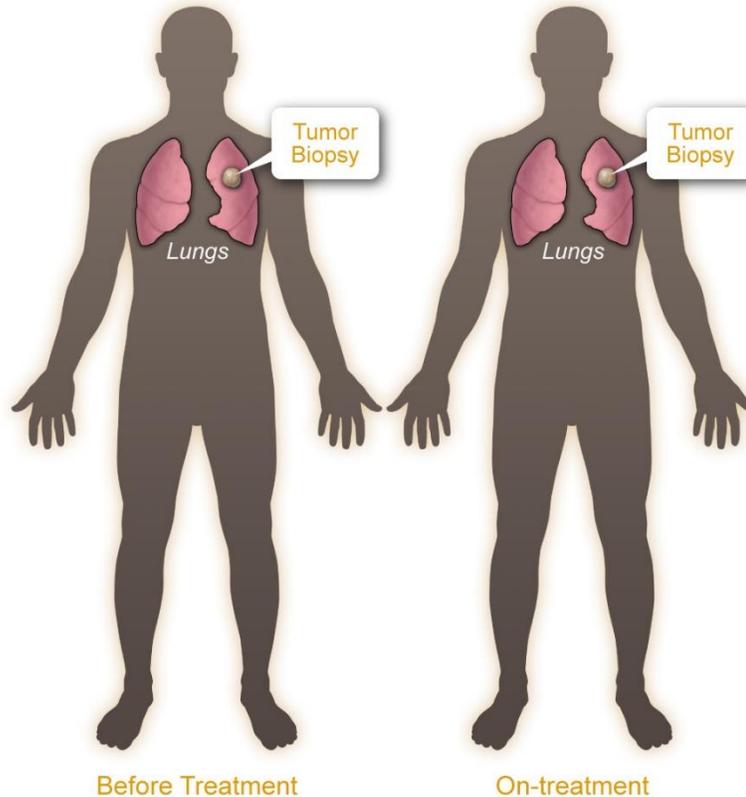
- Nanostring nCounter™ RNA gene expression profiling PanCancer Immune panel – 770 genes.
- 12 patients (aPD-1 = 3, aCTLA-4= 7, aCTLA-4 + aPD-1 = 2)
- FFPE from patient-matched colitis vs. normal colon biopsies
- Fold change in gene expression (positive log₂ – upregulated in colitis).

Colitis vs. Responding Tumor

Patients with Colitis

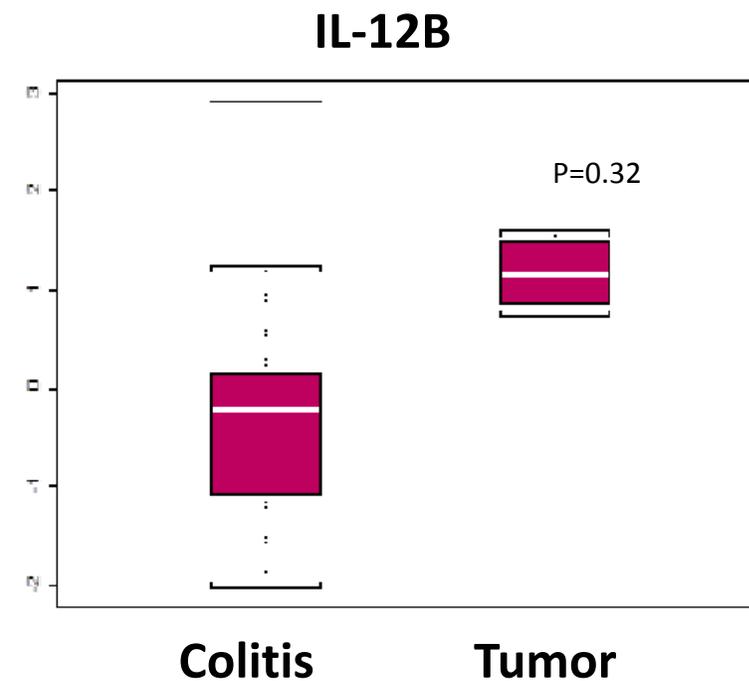
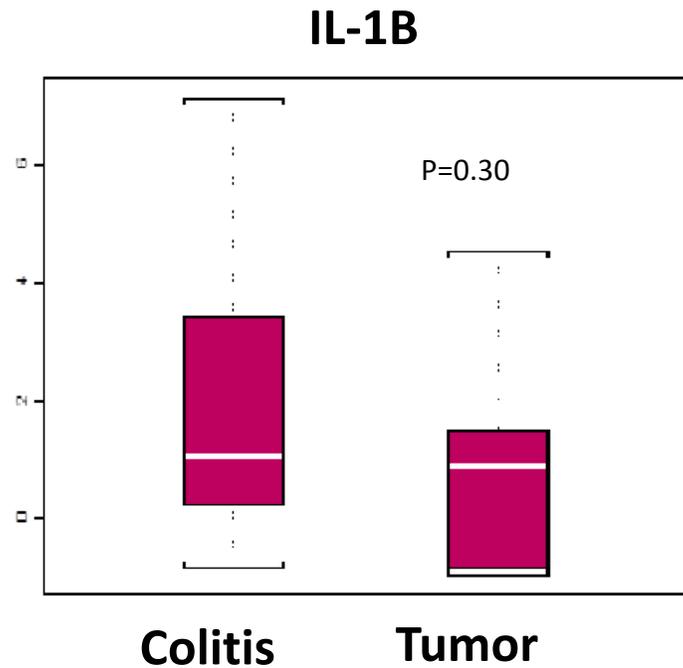
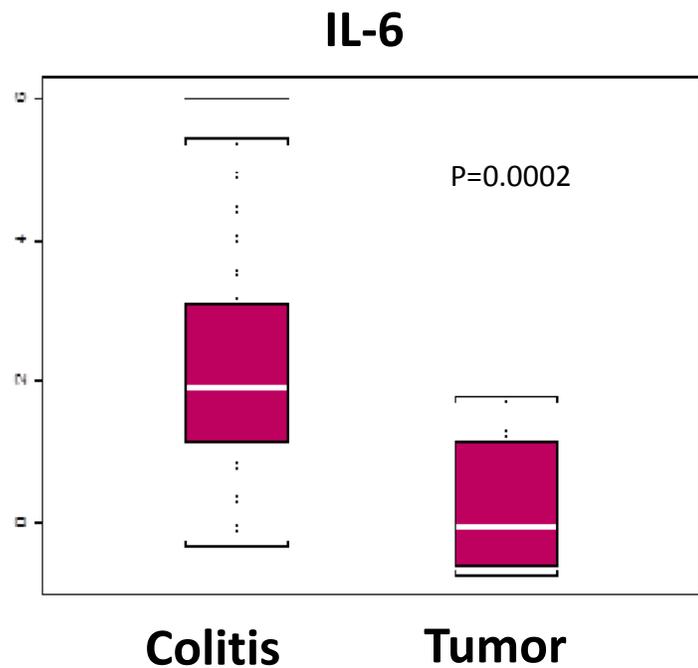


Melanoma Biopsies from Responders to Ipilimumab



- Identified patients with melanoma responding to aCTLA-4 with baseline and on-treatment (week 8) tumor samples (n=7).
- Direct comparison of colitis and on-treatment tumor samples confounded – tissue type un-controlled and not patient-matched.
- Compared fold change in gene expression from normal colon vs. irEC to fold change from baseline vs. on-treatment responding tumor.

Colitis vs. Responding Tumor



Lessons and Take Home Messages

- IL-6 highly upregulated in irEC 2/2 CPI.
- Not significantly upregulated in tumor responding to anti-CTLA-4.
- IL-6 pathway blockade potential strategy to de-couple anti-tumor immunity from autoimmunity
- Questions: Poster Number P564

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