RNA expression/drug prediction report

(sample)

Patient : **Thomas Menino**
Physician: **Derek Shepherd, MD**
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1. Tissue assessment

A colonoscopy tissue sample (identified as L357922) was collected on April 23, 2016 at Cincinnati Children's Hospital from Dr. Shepherd. It was preserved at room temperature in RNAlater tube for no longer than 4 days before RNA microarray scanning.

RNA was scanned using Affymetrix Human Gene ST and Human Genome U133 Plus 2.0 Arrays.

2. Genes & Pathways

Gene expression of the sampled tissue was compared against a reference database of comparable healthy tissue.

The following genes are overexpressed in the sampled tissue: **ABC, ABH, KGD, MNO**

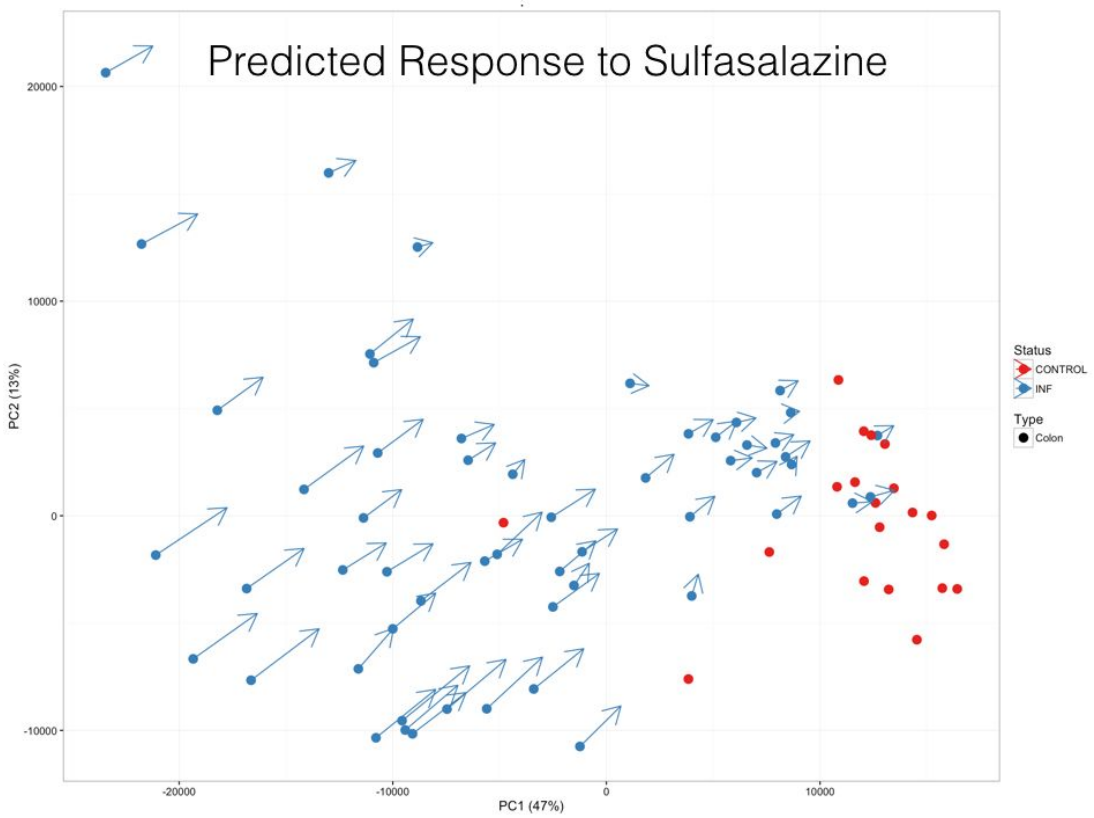
Overexpression of the KGD gene is consistent with a diagnosis of IBD

The following genes are underexpressed in the sampled tissue: **DEF, GHI, QUUX**

Underexpression of the GHI gene is consistent with a diagnosis of IBD

3. Molecular pathology report

comparison to healthy patients
comparison to others with diseases



4. Drug recommendations

List of drugs with lower toxicity that may shift patient's transcriptome closer to that of healthier patients.

A. Use of Sulfasalazine is known to regulate these genes: **ABH, KGD**
   Use of Sulfasalazine is known to express these genes: **GHI, QUUX**

B. Use of Adipiodone is known to regulate these genes: **ABH**
   Use of Adipodone is known to express these genes: **DEF, GHI**

C. Use of Atenolol is known to regulate these genes: **KGD**
   Use of Atenolol is known to express these genes: **DEF, QUUX**

5. Molecular information about the drugs

How we figure out which drugs are included in the list.

A. Sulfasalazine
B. Adipiodone

C. Atenolol

6. Review by Consulting Physician

I have reviewed this document and I find the recommendations to be consistent with the data.

Signed,

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