1   **Supplementary material for:**
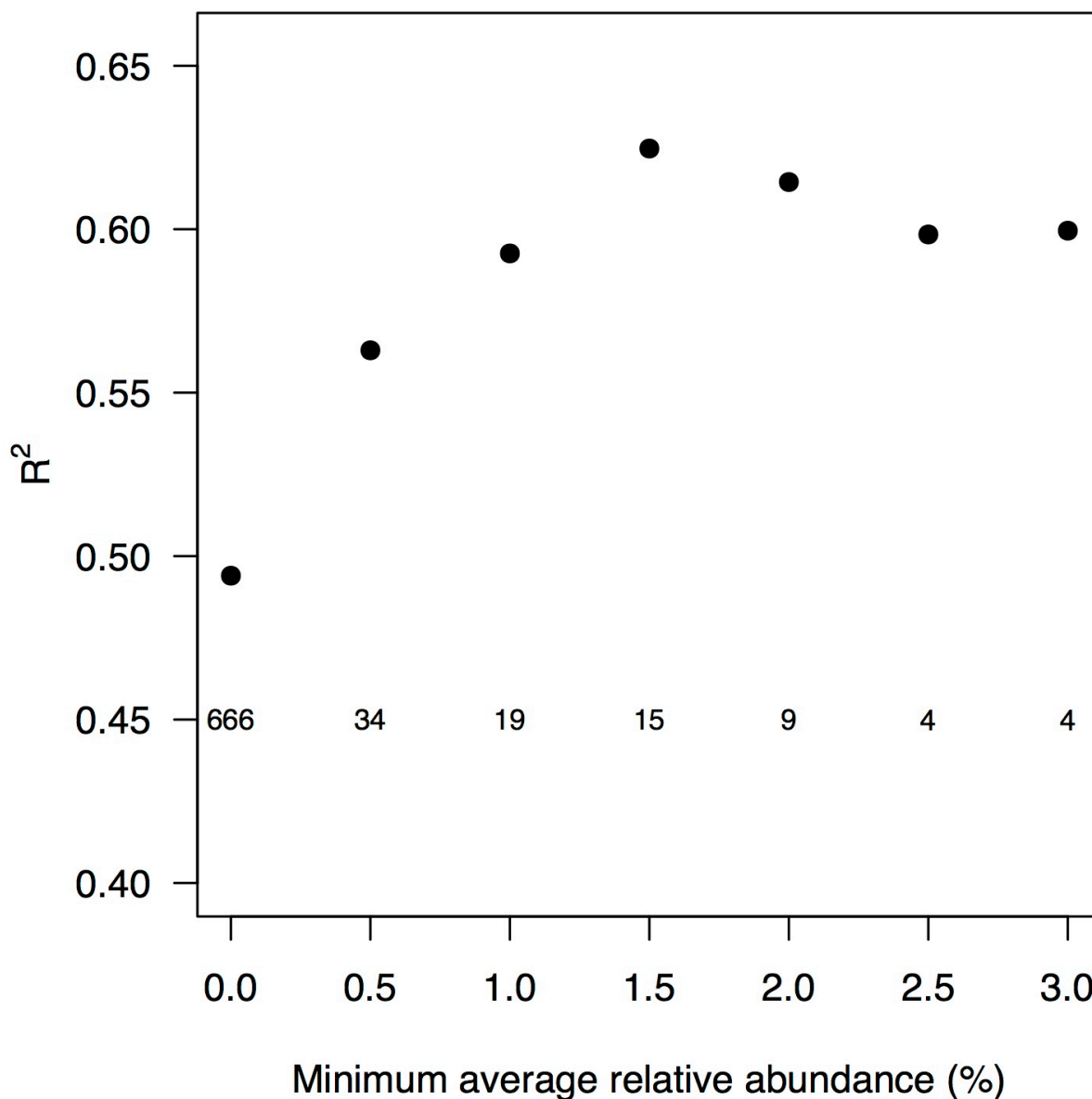
2

3   **Manipulation of the Gut Microbiota Reveals Role of Gut Microbiota in Colon**

4   **Tumorigenesis**
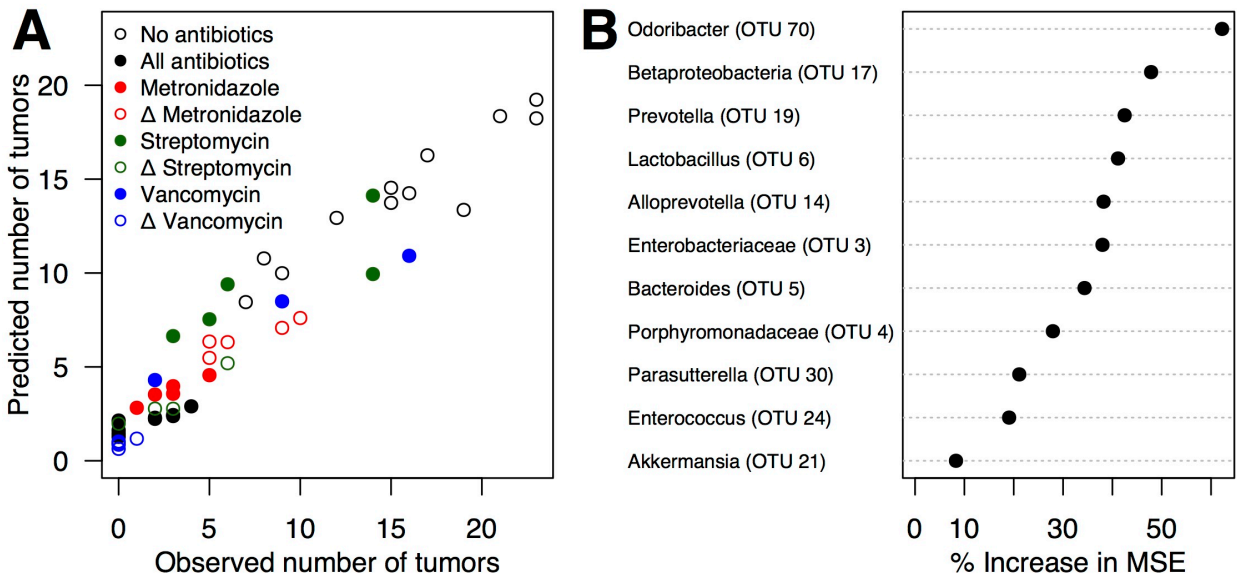
5

6   Joseph P. Zackular[1], Nielson T. Baxter[1], Grace Y. Chen[2*], and Patrick D. Schloss[1*]

7   **Supplementary Figure 1. Quality of random forest regression fit as a function of the**

8   **minimum average relative abundance an OTU must have to be included in the model.** The

9   integers displayed across the plot indicate the number of OTUs that were included in the model.

10   Because a minimum average relative abundance of 1.5% yielded the best R2, it was used for

11   the remainder of the analysis.

12

Supplemental Figure 2. A random forest model successfully predicted the number of tumors in the mice at the end of the model (A) based on their microbiota composition at the start end of the model (B). The OTUs in B are ranked in decreasing order of their mean decrease in the MSE. The relationships between the first 6 OTUs and the number of tumors found in those mice are shown in Supplemental Figure 3.

Supplemental Figure 3. Relationship between the initial relative abundance of the most

informative OTUs from the random forest model with the number of tumors found in the

mice at the end of the model. The vertical gray line indicates the limit of detection.

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