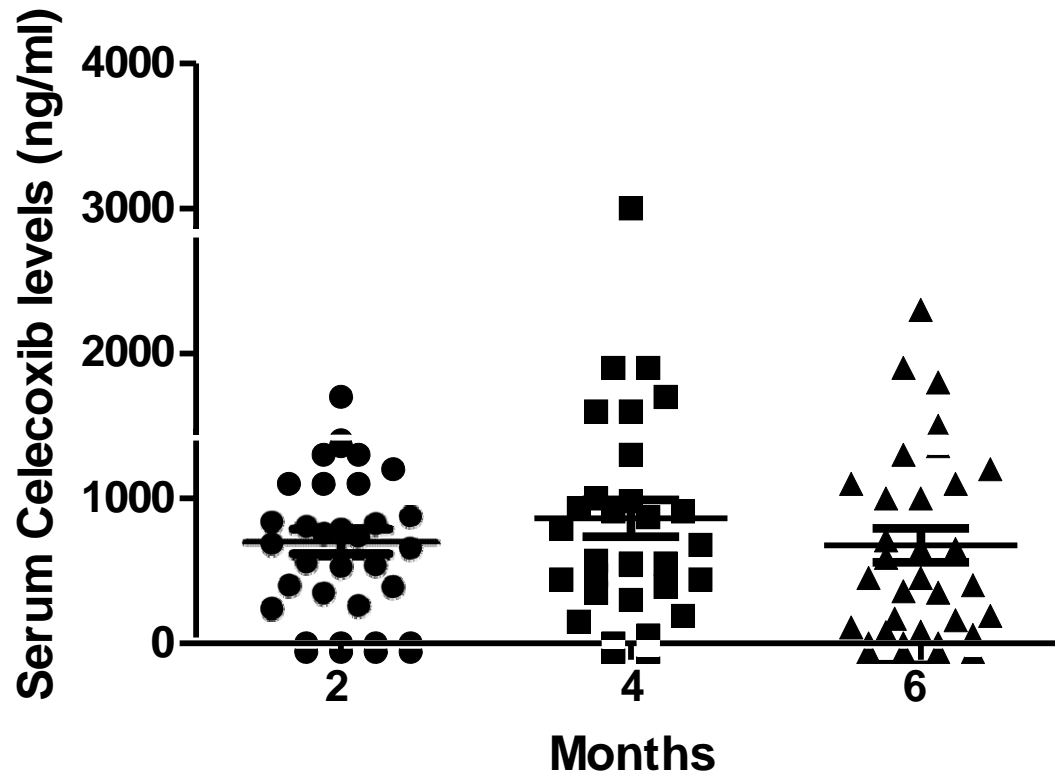


Supplementary Figure 1



Supplementary Figure 1: Celecoxib serum levels in familial adenomatous polyposis patients treated with celecoxib 400 mg oral twice daily. Celecoxib serum levels were measured in each patient before initiation of celecoxib treatment and then 2, 4, and 6 months after initiation of celecoxib treatment. Levels for each subject for each time point are shown. Lines represent means \pm standard errors of the means.

Supplementary Table 1. Patients' demographic and clinical characteristics

Characteristic	
Age, mean (SD)	32 (13.5) years
Gender, no. (%)	
Male	17 (60)
Female	12 (40)
Race or ethnic group, no. (%)	
Black	0
White	26 (90)
Hispanic	3 (10)
Weight, mean (SD)	80.3 (19) kg
Height, mean (SD)	170 (11.2) cm
BMI, mean (SD)	27.9 (6.5) kg/m ²
Treatment duration, mean (SD)	181.4 (5.9) days

BMI, body mass index; SD, standard deviation.

Supplementary Table 2: Inter-reviewer reliability*

<i>Polyp Burden Measure</i> [†]	<i>R</i> [‡] <i>1</i>	<i>R</i> <i>2</i>	<i>R</i> <i>3</i>	
ES	1.000	0.736	0.797	<i>R1</i>
		1.000	0.927	<i>R2</i>
			1.000	<i>R3</i>
MR	1.000	0.754	0.827	<i>R1</i>
		1.000	0.931	<i>R2</i>
			1.000	<i>R3</i>
BR	1.000	0.738	0.817	<i>R1</i>
		1.000	0.920	<i>R2</i>
			1.000	<i>R3</i>
TC	1.000	0.730	0.800	<i>R1</i>
		1.000	0.931	<i>R2</i>
			1.000	<i>R3</i>
TC2	1.000	0.798	0.812	<i>R1</i>
	0.807	1.000	0.904	<i>R2</i>
	0.826	0.881	1.000	<i>R3</i>

*Spearman correlations between reviewers with respect to the (square root transform of) total polyp burden estimates, combined over regions within each patient and time period.

† See method section for the formulas for calculating the following polyp burden measures: Equally-spaced weighted counts (ES), Mid-range Weighted Counts (MR), and Bottom-range Weighted Counts (BR).

‡ R: reviewer

Supplementary Table 3: Inter-reviewer reliability for colon ascending polyp burden scoring (Spearman correlations)*

<i>Polyp Burden Measure</i> [†]	<i>R</i> [‡] <i>1</i>	<i>R2</i>	<i>R3</i>	
ES	1.000	0.766	0.861	<i>R1</i>
		1.000	0.895	<i>R2</i>
			1.000	<i>R3</i>
MR	1.000	0.777	0.851	<i>R1</i>
		1.000	0.900	<i>R2</i>
			1.000	<i>R3</i>
BR	1.000	0.769	0.858	<i>R1</i>
		1.000	0.894	<i>R2</i>
			1.000	<i>R3</i>
TC	1.000	0.731	0.804	<i>R1</i>
		1.000	0.873	<i>R2</i>
			1.000	<i>R3</i>
TC2	1.000	0.711	0.707	<i>R1</i>
		1.000	0.873	<i>R2</i>
			1.000	<i>R3</i>

*Spearman correlations computed between reviewers with respect to the total polyp burden estimates for ascending colon (CA) Region.

† See method section for the formulas for calculating the following polyp burden measures: Equally-spaced weighted counts (ES), Mid-range Weighted Counts (MR), and Bottom-range Weighted Counts (BR).

‡ R: reviewer

Supplementary Table 4: Inter-reviewer reliability for colon ascending polyp burden scoring (Pearson correlations)*

<i>Polyp Burden Measure</i> [†]	<i>R</i> [‡] <i>1</i>	<i>R</i> <i>2</i>	<i>R</i> <i>3</i>	
ES	1.000	0.782	0.859	<i>R1</i>
		1.000	0.933	<i>R2</i>
			1.000	<i>R3</i>
MR	1.000	0.791	0.860	<i>R1</i>
		1.000	0.941	<i>R2</i>
			1.000	<i>R3</i>
BR	1.000	0.790	0.868	<i>R1</i>
		1.000	0.930	<i>R2</i>
			1.000	<i>R3</i>
TC	1.000	0.739	0.827	<i>R1</i>
		1.000	0.903	<i>R2</i>
			1.000	<i>R3</i>
TC2	1.000	0.762	0.758	<i>R1</i>
		1.000	0.904	<i>R2</i>
			1.000	<i>R3</i>

* Pearson correlations computed between reviewers with respect to the (square root transform of) total polyp burden estimates for ascending colon (CA) Region.

† See method section for the formulas for calculating the following polyp burden measures: Equally-spaced weighted counts (ES), Mid-range Weighted Counts (MR), and Bottom-range Weighted Counts (BR).

‡ R: reviewer

Supplementary Table 5: Inter-reviewer reliability for descending colon polyp burden scoring (Spearman correlations)*

<i>Polyp Burden Measure</i> [†]	<i>R</i> [‡] <i>1</i>	<i>R</i> <i>2</i>	<i>R</i> <i>3</i>	
ES	1.000	0.884	0.881	<i>R1</i>
		1.000	0.934	<i>R2</i>
			1.000	<i>R3</i>
MR	1.000	0.874	0.874	<i>R1</i>
		1.000	0.916	<i>R2</i>
			1.000	<i>R3</i>
BR	1.000	0.870	0.864	<i>R1</i>
		1.000	0.922	<i>R2</i>
			1.000	<i>R3</i>
TC	1.000	0.900	0.887	<i>R1</i>
		1.000	0.931	<i>R2</i>
			1.000	<i>R3</i>
TC2	1.000	0.857	0.815	<i>R1</i>
		1.000	0.869	<i>R2</i>
			1.000	<i>R3</i>

* Spearman correlations computed between reviewers with respect to the total polyp burden estimates for descending colon (DS) Region.

† See method section for the formulas for calculating the following polyp burden measures: Equally-spaced weighted counts (ES), Mid-range Weighted Counts (MR), and Bottom-range Weighted Counts (BR).

‡ R: reviewer

Supplementary Table 6: Inter-reviewer reliability for descending colon polyp burden scoring (Pearson correlations)*

<i>Polyp Burden Measure</i> [†]	<i>R</i> [‡] <i>1</i>	<i>R</i> <i>2</i>	<i>R</i> <i>3</i>	
ES	1.000	0.877	0.900	<i>R1</i>
		1.000	0.950	<i>R2</i>
			1.000	<i>R3</i>
MR	1.000	0.872	0.891	<i>R1</i>
		1.000	0.950	<i>R2</i>
			1.000	<i>R3</i>
BR	1.000	0.877	0.903	<i>R1</i>
		1.000	0.950	<i>R2</i>
			1.000	<i>R3</i>
TC	1.000	0.879	0.905	<i>R1</i>
		1.000	0.937	<i>R2</i>
			1.000	<i>R3</i>
TC2	1.000	0.851	0.824	<i>R1</i>
		1.000	0.930	<i>R2</i>
			1.000	<i>R3</i>

* Pearson correlations computed between reviewers with respect to the (square root transform of) total polyp burden estimates for descending colon (DS) region.

† See method section for the formulas for calculating the following polyp burden measures: Equally-spaced weighted counts (ES), Mid-range Weighted Counts (MR), and Bottom-range Weighted Counts (BR).

‡ R: reviewer

Supplementary Table 7: Inter-reviewer reliability for rectal polyp burden scoring (Spearman correlations)*

<i>Polyp Burden Measure</i> [†]	<i>R</i> [‡] <i>1</i>	<i>R</i> <i>2</i>	<i>R</i> <i>3</i>	
ES	1.000	0.868	0.918	<i>R1</i>
		1.000	0.948	<i>R2</i>
			1.000	<i>R3</i>
MR	1.000	0.869	0.911	<i>R1</i>
		1.000	0.934	<i>R2</i>
			1.000	<i>R3</i>
BR	1.000	0.872	0.911	<i>R1</i>
		1.000	0.947	<i>R2</i>
			1.000	<i>R3</i>
TC	1.000	0.856	0.913	<i>R1</i>
		1.000	0.952	<i>R2</i>
			1.000	<i>R3</i>
TC2	1.000	0.887	0.871	<i>R1</i>
		1.000	0.864	<i>R2</i>
			1.000	<i>R3</i>

* Spearman correlations computed between reviewers with respect to the total polyp burden estimates for R Region.

† See method section for the formulas for calculating the following polyp burden measures: Equally-spaced weighted counts (ES), Mid-range Weighted Counts (MR), and Bottom-range Weighted Counts (BR).

‡ R: reviewer

Supplementary Table 8: Inter-reviewer reliability for rectal polyp burden scoring (Pearson correlations)*

<i>Polyp Burden Measure</i> [†]	<i>R</i> ^{‡1}	<i>R</i> ²	<i>R</i> ³	
ES	1.000	0.872	0.910	<i>R1</i>
		1.000	0.949	<i>R2</i>
			1.000	<i>R3</i>
MR	1.000	0.880	0.902	<i>R1</i>
		1.000	0.945	<i>R2</i>
			1.000	<i>R3</i>
BR	1.000	0.872	0.904	<i>R1</i>
		1.000	0.950	<i>R2</i>
			1.000	<i>R3</i>
TC	1.000	0.846	0.902	<i>R1</i>
		1.000	0.949	<i>R2</i>
			1.000	<i>R3</i>
TC2	1.000	0.897	0.838	<i>R1</i>
		1.000	0.866	<i>R2</i>
			1.000	<i>R3</i>

*Pearson correlations computed between reviewers with respect to the (square root transform of) total polyp burden estimates for rectal (R) region.

[†] See method section for the formulas for calculating the following polyp burden measures: Equally-spaced weighted counts (ES), Mid-range Weighted Counts (MR), and Bottom-range Weighted Counts (BR).

[‡] R: reviewer

Supplementary Table 9. Inter-reviewer reliability for transverse colon polyp burden scoring (Spearman correlations)*

<i>Polyp Burden Measure</i> [†]	<i>R</i> [‡] <i>1</i>	<i>R</i> <i>2</i>	<i>R</i> <i>3</i>	
ES	1.000	0.882	0.912	<i>R1</i>
		1.000	0.909	<i>R2</i>
			1.000	<i>R3</i>
MR	1.000	0.863	0.906	<i>R1</i>
		1.000	0.898	<i>R2</i>
			1.000	<i>R3</i>
BR	1.000	0.883	0.910	<i>R1</i>
		1.000	0.909	<i>R2</i>
			1.000	<i>R3</i>
TC	1.000	0.901	0.907	<i>R1</i>
		1.000	0.923	<i>R2</i>
			1.000	<i>R3</i>
TC2	1.000	0.785	0.780	<i>R1</i>
		1.000	0.853	<i>R2</i>
			1.000	<i>R3</i>

*Spearman correlations computed between reviewers with respect to the total polyp burden estimates for transverse colon (TV Region).

[†] See method section for the formulas for calculating the following polyp burden measures: Equally-spaced weighted counts (ES), Mid-range Weighted Counts (MR), and Bottom-range Weighted Counts (BR).

[‡] R: reviewer

Table 10: Inter-reviewer reliability for transverse colon polyp burden scoring (Pearson correlations)*

<i>Polyp Burden Measure</i> [†]	<i>R</i> ^{‡1}	<i>R</i> ²	<i>R</i> ³	
ES	1.000	0.794	0.795	<i>R1</i>
		1.000	0.927	<i>R2</i>
			1.000	<i>R3</i>
MR	1.000	0.765	0.766	<i>R1</i>
		1.000	0.920	<i>R2</i>
			1.000	<i>R3</i>
BR	1.000	0.773	0.775	<i>R1</i>
		1.000	0.926	<i>R2</i>
			1.000	<i>R3</i>
TC	1.000	0.866	0.854	<i>R1</i>
		1.000	0.930	<i>R2</i>
			1.000	<i>R3</i>
TC2	1.000	0.730	0.663	<i>R1</i>
		1.000	0.872	<i>R2</i>
			1.000	<i>R3</i>

*Pearson correlations computed between reviewers with respect to the (square root transform of) total Polyp burden estimates for (transverse colon) TV region.

† See method section for the formulas for calculating the following polyp burden measures: Equally-spaced weighted counts (ES), Mid-range Weighted Counts (MR), and Bottom-range Weighted Counts (BR).

‡ R: reviewer

Supplementary Table 11. Perc Cent of patients with reduction of total polyp burden between baseline and end of 6 months of treatment with celecoxib

	Polyp Burden Measure[†]				
	ES	MR	BR	TC	TC2
R1[‡]	78% p<0.001*	81% p<0.001	78% p<0.001	70% p=0.01	74% p=0.003
R2	85% p<0.001	85% p<0.001	78% p<0.001	78% p<0.001	78% p<0.001
R3	85% p<0.001	85% p<0.001	85% p<0.001	78% p<0.001	89% p<0.001
Mean[§]	81% p<0.001	81% p<0.001	81% p<0.001	74% p=0.003	80% p<0.001
Median^{**}	85% p<0.001	85% p<0.001	85% p<0.001	78% p<0.001	81% p<0.001

*p values are from sign test.

[†]See Methods section for formulas for calculating the following polyp burden measures: equally spaced weighted counts (ES), mid-range weighted counts (MR), and bottom-range weighted counts (BR). TC = sum of polyp counts in all size categories; TC2 = sum of polyp counts in the 2-4 mm and >4 mm categories.

[‡]R: reviewer.

[§]Mean score over all reviewers.

^{**}Median score over all reviewers.

Supplementary Table 12. Perc Cent of patients with 25% or greater reduction in total polyp burden between baseline and end of 6 months of treatment with celecoxib

Polyp Burden Measure*	R1[†]	R2	R3
ES	56%	82%	65%
MR	59%	83%	68%
BR	53%	82%	63%
TC	56%	68%	63%
TC2	63%	85%	78%

*See Methods section for formulas for the following polyp burden measures: equally spaced weighted counts (ES), mid-range weighted counts (MR), and bottom-range weighted counts (BR). TC = sum of polyp counts in all size categories; TC2 = sum of polyp counts in the 2-4 mm and >4 mm categories.

[†]R: reviewer.