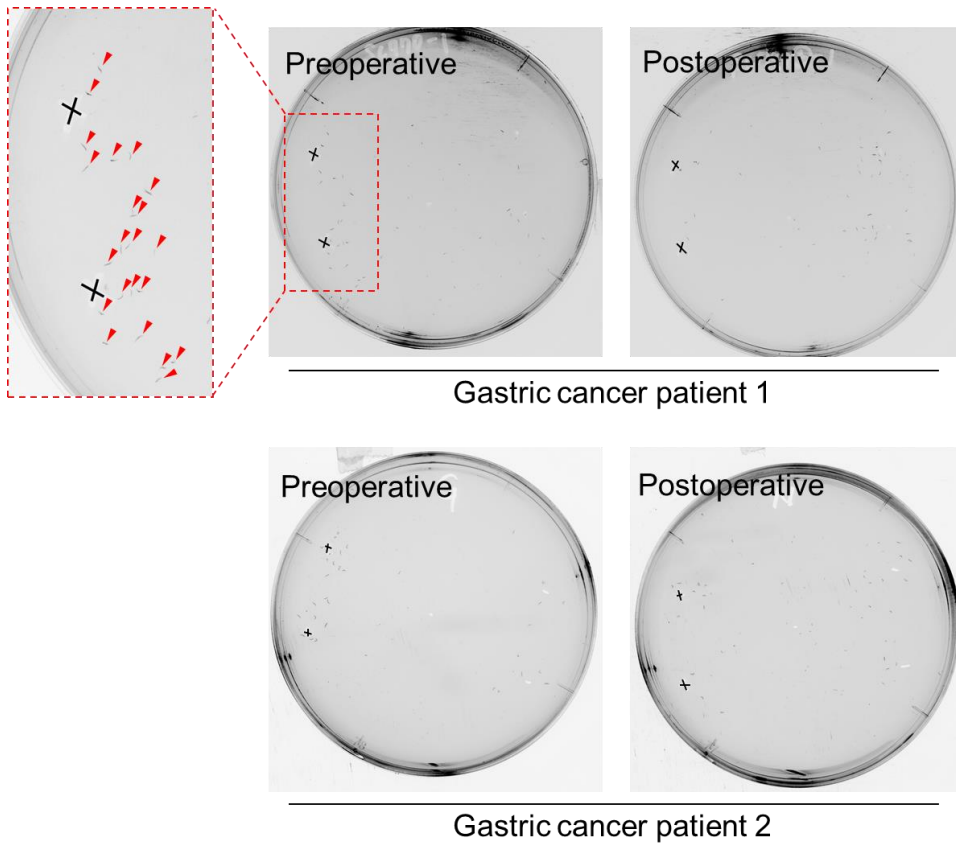
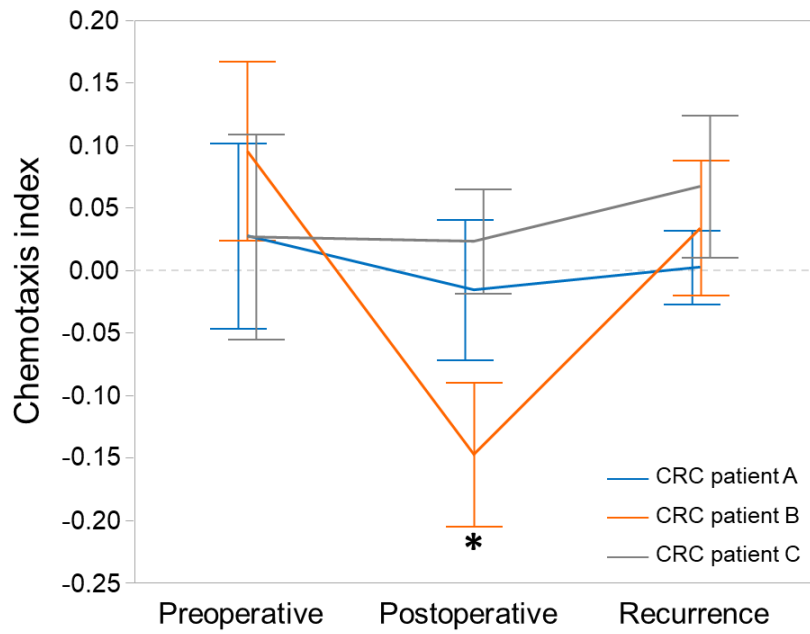


Supplemental Figures & Tables



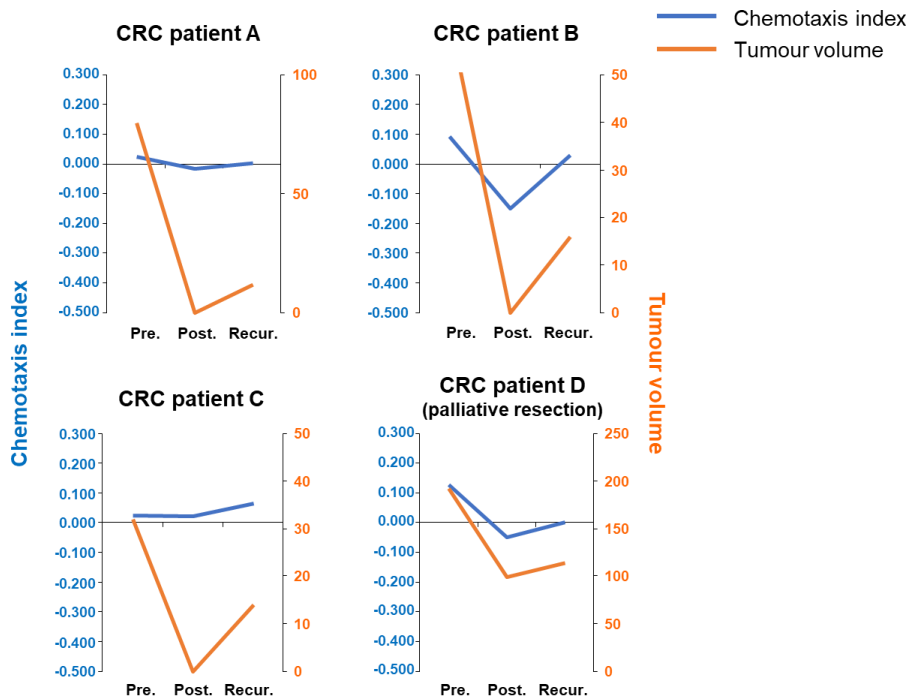
Supplementary Figure S1. Images of chemotaxis assay plates. For clarification of the images and individual animals, the colour was inverted. On the black crosses, the urine sample was spotted. In the enlarged area of the preoperative gastric cancer patient 1, red arrow-heads indicate individual animals. On the yellow crosses, the urine sample was spotted.

Commented [HBS1]: (Replace figure)
Reviewer 1's 7th comment



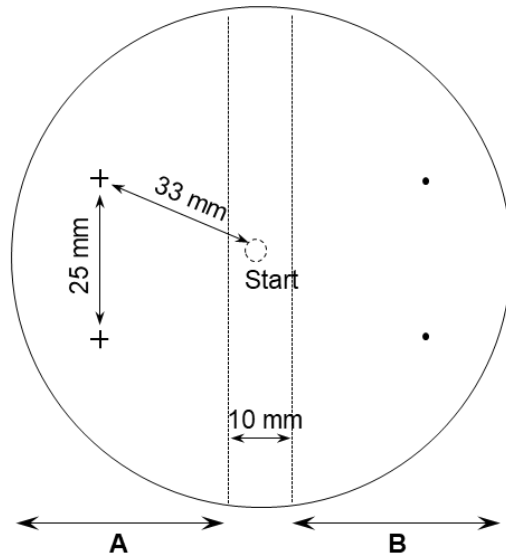
Supplementary Figure S2. Trace of cancer removal and recurrence by N-NOSE. Error bar indicates standard error of the mean. In CRC patient B, an asterisk indicates that the postoperative index was significantly different from the preoperative index (Dunnnett's test, $p = 0.0163$).

Commented [HBS2]: (Modified figure)
Reviewer 2's 7th comment



Supplementary Figure S3. The alteration of tumour volumes. In the 4 patients in which recurrence was found, the alteration of chemotaxis index and the volume of tumour is described. The volume of tumour was measured according to revised RECIST guideline (version 1.1).

Commented [HBS3]: (Added figure)
Reviewer 2's 8th comment



Supplementary Figure S4 Plate format for counting animals. In the cross marks, urine sample was spotted. The dotted circle indicates the start point that animals were put and started to run. The numbers of animals placed in the area of A and B respectively was used to calculate chemotaxis index as described in Method.

Commented [HBS4]: (Added figure)
Reviewer 1's 5th comment

Supplementary Table S1. Values obtained for N-NOSE, CEA, and CA19-9

	Preoperative	Postoperative
<u>N-NOSE (chemotaxis index)</u>		
<u>All cancer</u>	<u>0.066 (0.036–0.079)</u>	<u>-0.004 (-0.023–0.020)</u>
<u>Colorectal cancer</u>	<u>0.061 (0.027–0.078)</u>	<u>-0.001 (-0.038–0.023)</u>
<u>Gastric cancer</u>	<u>0.070 (0.030–0.107)</u>	<u>-0.019 (-0.039–0.038)</u>
<u>CEA</u>		
<u>All cancer</u>	<u>3.0 (2.2–3.8)</u>	<u>2.0 (1.6–2.4)</u>
<u>Colorectal cancer</u>	<u>3.0 (2.3–5.0)</u>	<u>1.9 (1.4–2.4)</u>

Commented [HBS5]: (modified table)
Reviewer 2's 6th comment

<u>Gastric cancer</u>	<u>2.7 (2.0–3.8)</u>	<u>2.3 (1.6–3.4)</u>
<u>CA19-9</u>		
<u>All cancer</u>	<u>14.0 (9.8–19.8)</u>	<u>10.2 (8.1–15.3)</u>
<u>Colorectal cancer</u>	<u>14.0 (9.8–26.4)</u>	<u>10.1 (7.7–15.7)</u>
<u>Gastric cancer</u>	<u>13.9 (7.8–21.1)</u>	<u>10.3 (7.8–19.9)</u>

The median and 95% confidence interval were determined for N-NOSE, CEA, and CA19-9 (N = 78 samples).

Supplementary Table S2. Preoperative and postoperative chemotaxis index of each patient

Sample	Preoperative	Postoperative
SC-1	0.229	0.022
SC-2	0.022	-0.019
SC-3	0.107	0.105
SC-4	0.065	-0.106
SC-5	0.133	-0.075
SC-6	0.089	-0.099
SC-7	0.005	0.040
SC-8	0.118	-0.106
SC-9	0.144	0.054
SC-10	0.023	0.038
SC-11	0.186	0.459
SC-12	0.199	-0.066
SC-13	0.030	-0.050
SC-14	-0.082	-0.059
SC-15	-0.054	-0.027
SC-16	0.051	-0.023
SC-17	0.135	-0.019
SC-18	0.076	0.049
SC-19	0.050	-0.198
SC-20	0.034	0.034
SC-21	0.080	0.061
SC-22	-0.032	0.052

Commented [HBS6]: (added table)
Reviewer 1's 2nd comment

SC-23	0.049	0.060
SC-24	0.080	0.021
SC-25	0.105	0.004
SC-26	0.230	-0.039
SC-27	0.025	0.024
SC-28	0.016	-0.023
SC-29	0.097	0.058
SC-30	0.009	-0.045
SC-31	-0.053	-0.020
SC-32	0.112	-0.061
CC-1	0.083	-0.048
CC-2	0.135	0.002
CC-3	0.091	-0.023
CC-4	0.027	-0.016
CC-5	0.016	0.187
CC-6	0.070	0.070
CC-7	-0.015	0.042
CC-8	0.146	0.000
CC-9	0.069	0.002
CC-10	0.068	-0.131
CC-11	0.115	0.009
CC-12	-0.065	-0.094
CC-13	-0.034	0.084
CC-14	0.039	-0.022
CC-15	0.079	-0.005
CC-16	0.088	-0.055
CC-17	0.095	-0.148
CC-18	0.106	-0.014
CC-19	-0.003	-0.214
CC-20	0.042	-0.064
CC-21	-0.126	0.124
CC-22	0.005	0.002
CC-23	0.120	-0.109
CC-24	0.018	-0.189
CC-25	0.076	0.117
CC-26	-0.027	-0.038
CC-27	0.030	-0.068
CC-28	0.000	-0.130

CC-29	0.130	-0.047
CC-30	0.132	0.079
CC-31	0.002	-0.104
CC-32	0.085	-0.082
CC-33	0.036	-0.238
CC-34	0.113	0.010
CC-35	-0.142	0.045
CC-36	0.072	0.057
CC-37	0.027	0.023
CC-38	0.252	0.050
CC-39	0.068	0.035
CC-40	-0.006	0.046
CC-41	-0.076	-0.003
CC-42	0.070	0.049
CC-43	0.078	0.096
CC-44	0.054	0.033
CC-45	0.042	-0.046
CC-46	-0.001	0.003

In the column of "Sample", "SC-" indicates gastric cancer samples, and "CC-" indicates colorectal cancer samples.