

Addition file 1 ; Correlation between blood chemistries and biomarkers

Significant $p < 0.05$

Control		Total Bilirubin	Albumin	Globulin	AST	ALT	ALP	LOG CA19-9	LOG CEA	MMP-9	MMP-7
LOG CA19-9	Pearson Correlation	-0.18	0.03	-0.33	-0.13	-0.21	-0.42	1.00	0.30	-0.07	-0.25
	Sig. (2-tailed)	0.34	0.89	0.07	0.49	0.28	0.02		0.14	0.70	0.22
LOG CEA	Pearson Correlation	0.11	-0.54	-0.11	0.02	-0.04	0.34	0.30	1.00	-0.02	0.27
	Sig. (2-tailed)	0.61	0.01	0.62	0.92	0.86	0.10	0.14		0.93	0.24
MMP-9	Pearson Correlation	-0.08	0.10	0.11	-0.10	0.03	0.00	-0.07	-0.02	1.00	-0.23
	Sig. (2-tailed)	0.66	0.61	0.57	0.62	0.88	0.99	0.70	0.93		0.26
MMP-7	Pearson Correlation	0.10	-0.34	0.06	0.27	0.26	0.53	-0.25	0.27	-0.23	1.00
	Sig. (2-tailed)	0.64	0.10	0.77	0.19	0.22	0.01	0.22	0.24	0.26	
Cholangiocarcinoma		Total Bilirubin	Albumin	Globulin	AST	ALT	ALP	LOG CA19-9	LOG CEA	MMP-9	MMP-7
LOG CA19-9	Pearson Correlation	0.03	-0.14	0.20	-0.01	-0.09	-0.02	1.00	0.14	-0.11	0.31
	Sig. (2-tailed)	0.86	0.36	0.20	0.94	0.57	0.90		0.44	0.46	0.07
LOG CEA	Pearson Correlation	0.17	0.04	-0.05	-0.35	0.02	-0.04	0.14	1.00	-0.08	-0.07
	Sig. (2-tailed)	0.34	0.82	0.79	0.05	0.90	0.81	0.44		0.66	0.75
MMP-9	Pearson Correlation	-0.19	0.00	0.25	-0.10	-0.09	0.10	-0.11	-0.08	1.00	-0.17
	Sig. (2-tailed)	0.23	0.99	0.11	0.51	0.57	0.51	0.46	0.66		0.33
MMP-7	Pearson Correlation	0.20	-0.04	0.15	0.24	-0.04	0.02	0.31	-0.07	-0.17	1.00
	Sig. (2-tailed)	0.28	0.84	0.42	0.19	0.82	0.91	0.07	0.75	0.33	