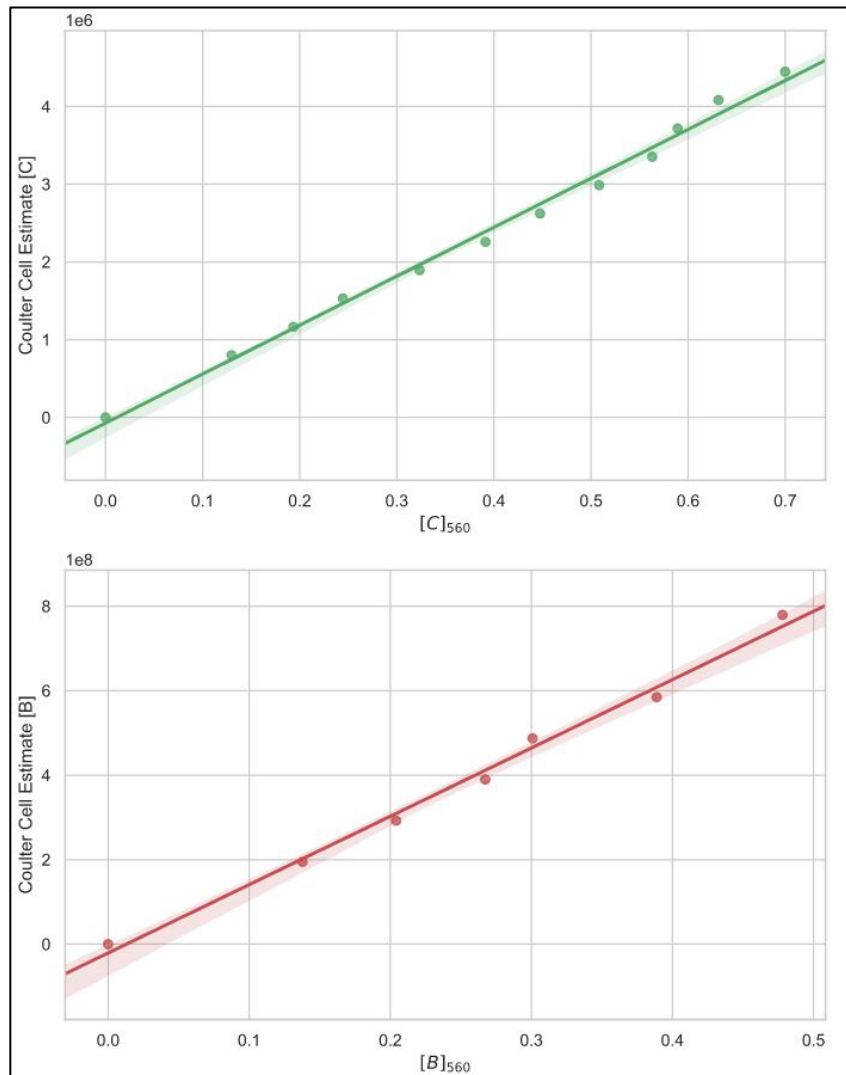


Appendix



0.0	Theoretical Cell Counts	3.18E+07	6.35E+07	9.53E+07	1.27E+08	1.59E+08	1.91E+08	2.22E+08	2.54E+08	2.86E+08	3.18E+08	3.49E+08	3.81E+08	4.13E+08	4.45E+08	4.76E+08	5.08E+08	5.40E+08	5.72E+08	6.03E+08	6.35E+08	6.67E+08	6.99E+08	7.30E+08	7.62E+08	7.94E+08	8.26E+08	8.57E+08
0.020	1.26E+05	250	200	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0	27.0
0.041	2.51E+05	0.50	250	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5
0.061	3.77E+05	0.33	0.67	250	1.33	1.67	2.00	2.33	2.67	3.00	3.33	3.67	4.00	4.33	4.67	5.00	5.33	5.67	6.00	6.33	6.67	7.00	7.33	7.67	8.00	8.33	8.67	9.00
0.082	5.02E+05	0.25	0.50	0.75	250	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	5.25	5.50	5.75	6.00	6.25	6.50	6.75
0.102	6.28E+05	0.20	0.40	0.60	0.80	250	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00	5.20	5.40
0.122	7.53E+05	0.17	0.33	0.50	0.67	0.83	250	1.17	1.33	1.50	1.67	1.83	2.00	2.17	2.33	2.50	2.67	2.83	3.00	3.17	3.33	3.50	3.67	3.83	4.00	4.17	4.33	4.50
0.143	8.79E+05	0.14	0.29	0.43	0.57	0.71	0.86	250	1.14	1.29	1.43	1.57	1.71	1.86	2.00	2.14	2.29	2.43	2.57	2.71	2.86	3.00	3.14	3.29	3.43	3.57	3.71	3.86
0.163	1.00E+06	0.13	0.25	0.38	0.50	0.63	0.75	0.88	250	1.13	1.25	1.38	1.50	1.63	1.75	1.87	2.00	2.13	2.25	2.38	2.50	2.63	2.75	2.88	3.00	3.13	3.25	3.38
0.184	1.13E+06	0.11	0.22	0.33	0.44	0.56	0.67	0.78	0.89	250	1.11	1.22	1.33	1.44	1.56	1.67	1.78	1.89	2.00	2.11	2.22	2.33	2.44	2.56	2.67	2.78	2.89	3.00
0.204	1.26E+06	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	250	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.70
0.224	1.38E+06	0.09	0.18	0.27	0.36	0.45	0.55	0.64	0.73	0.82	0.91	250	1.09	1.18	1.27	1.36	1.45	1.55	1.64	1.73	1.82	1.91	2.00	2.09	2.18	2.27	2.36	2.45
0.245	1.51E+06	0.08	0.17	0.25	0.33	0.42	0.50	0.58	0.67	0.75	0.83	0.92	250	1.08	1.17	1.25	1.33	1.42	1.50	1.58	1.67	1.75	1.83	1.92	2.00	2.08	2.17	2.25
0.265	1.63E+06	0.08	0.15	0.23	0.31	0.38	0.46	0.54	0.62	0.69	0.77	0.85	0.92	250	1.08	1.15	1.23	1.31	1.38	1.46	1.54	1.62	1.69	1.77	1.85	1.92	2.00	2.08
0.286	1.76E+06	0.07	0.14	0.21	0.29	0.36	0.43	0.50	0.57	0.64	0.71	0.79	0.86	0.93	250	1.07	1.14	1.21	1.29	1.36	1.43	1.50	1.57	1.64	1.71	1.79	1.86	1.93
0.306	1.88E+06	0.07	0.13	0.20	0.27	0.33	0.40	0.47	0.53	0.60	0.67	0.73	0.80	0.87	0.93	250	1.07	1.13	1.20	1.27	1.33	1.40	1.47	1.53	1.60	1.67	1.73	1.80
0.327	2.01E+06	0.06	0.13	0.19	0.25	0.31	0.38	0.44	0.50	0.56	0.63	0.69	0.75	0.81	0.88	0.94	250	1.06	1.13	1.19	1.25	1.31	1.38	1.44	1.50	1.56	1.63	1.69
0.347	2.13E+06	0.06	0.12	0.18	0.24	0.29	0.35	0.41	0.47	0.53	0.59	0.65	0.71	0.76	0.82	0.88	0.94	250	1.06	1.12	1.18	1.24	1.29	1.35	1.41	1.47	1.53	1.59
0.367	2.26E+06	0.06	0.11	0.17	0.22	0.28	0.33	0.39	0.44	0.50	0.56	0.61	0.67	0.72	0.78	0.83	0.89	0.94	250	1.06	1.11	1.17	1.22	1.28	1.33	1.39	1.44	1.50
0.388	2.39E+06	0.05	0.11	0.16	0.21	0.26	0.32	0.37	0.42	0.47	0.53	0.58	0.63	0.68	0.74	0.79	0.84	0.89	0.95	250	1.05	1.11	1.16	1.21	1.26	1.32	1.37	1.42
0.408	2.51E+06	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90	0.95	250	1.05	1.10	1.15	1.20	1.25	1.30	1.35
0.429	2.64E+06	0.05	0.10	0.14	0.19	0.24	0.29	0.33	0.38	0.43	0.48	0.52	0.57	0.62	0.67	0.71	0.76	0.81	0.86	0.90	0.95	250	1.05	1.10	1.14	1.19	1.24	1.29
0.449	2.76E+06	0.05	0.09	0.14	0.18	0.23	0.27	0.32	0.36	0.41	0.45	0.50	0.55	0.59	0.64	0.68	0.73	0.77	0.82	0.86	0.91	0.95	250	1.05	1.09	1.14	1.18	1.23
0.469	2.89E+06	0.04	0.09	0.13	0.17	0.22	0.26	0.30	0.35	0.39	0.43	0.48	0.52	0.57	0.61	0.65	0.70	0.74	0.78	0.83	0.87	0.91	0.96	250	1.04	1.09	1.13	1.17
0.490	3.01E+06	0.04	0.08	0.13	0.17	0.21	0.25	0.29	0.33	0.37	0.42	0.46	0.50	0.54	0.58	0.62	0.67	0.71	0.75	0.79	0.83	0.88	0.92	0.96	250	1.04	1.08	1.13
0.510	3.14E+06	0.04	0.08	0.12	0.16	0.20	0.24	0.28	0.32	0.36	0.40	0.44	0.48	0.52	0.56	0.60	0.64	0.68	0.72	0.76	0.80	0.84	0.88	0.92	0.96	250	1.04	1.08
0.531	3.26E+06	0.04	0.08	0.12	0.15	0.19	0.23	0.27	0.31	0.35	0.38	0.42	0.46	0.50	0.54	0.58	0.62	0.65	0.69	0.73	0.77	0.81	0.85	0.88	0.92	0.96	250	1.04
0.551	3.39E+06	0.04	0.07	0.11	0.15	0.19	0.22	0.26	0.30	0.33	0.37	0.41	0.44	0.48	0.52	0.56	0.59	0.63	0.67	0.70	0.74	0.78	0.81	0.85	0.89	0.93	0.96	250

Appendix 2: Regression Table The table is to be read as follows: predicted absorbances are in black, values in green and red correspond to cell-count estimates, *Chlamydomonas* and Strain respectively, from the regression in FigureX. The blue 250 diagonal represents 1:1 absorbance ratios with roughly 250 times as many bacterial cells as *Chlamydomonas* cells (B:C). Green and red-boxed values are fractions or multiples of this value. Note, however, that the regressions show a large gap in the ranges of 0 to 0.1; this is because absorbance measurements at these wavelengths are in the limit of detection for the Tecan.