Supporting Materials for

Phase I/II Adaptive Design for Drug Combination Oncology Trials

by Nolan A. Wages and Mark R. Conaway

Table 1: *(1) ODC selection and (2) patient allocation in scenarios 1–6 for design specifications A from Section 4.1. Combinations with acceptable toxicity (i.e. $\leq \phi_T = 30\%$) and high efficacy (i.e. $\geq \phi_E = 30\%$) are defined as "target combinations" and are indicated in boldface type.*

			Doses of B					
		1	2	3	1	2	3
	Doses of		Percent of			Percent of	
Scenario	A		ODC selection			patient allocation	
1	3	0.018	0.123	**0.685**	0.075	0.158	**0.389**
	2	0.000	0.001	0.112	0.049	0.066	0.148
	1	0.000	0.000	0.012	0.009	0.030	0.077
2	3	0.126	**0.210**	0.078	0.141	**0.152**	0.071
	2	0.004	0.068	**0.324**	0.077	0.121	**0.201**
	1	0.000	0.003	0.132	0.022	0.059	0.155
3	3	**0.236**	0.056	0.005	**0.175**	0.060	0.011
	2	0.059	**0.166**	0.085	0.138	**0.136**	0.069
	1	0.000	0.066	**0.302**	0.062	0.124	**0.226**
4	3	0.187	0.013	0.000	0.158	0.029	0.004
	2	**0.223**	**0.114**	0.017	**0.218**	**0.096**	0.023
	1	0.013	**0.240**	0.180	0.117	**0.207**	0.148
5	3	0.056	0.001	0.000	0.084	0.014	0.001
	2	**0.275**	0.078	0.011	**0.238**	0.082	0.022
	1	0.041	**0.208**	**0.313**	0.155	**0.197**	**0.208**
6	3	0.000	0.000	0.000	0.010	0.003	0.000
	2	0.000	0.000	0.000	0.065	0.006	0.000
	1	0.278	0.001	0.000	0.870	0.036	0.010

Table 2: *Operating characteristics of the proposed design and Yuan and Yin (2011). The table reports the proportion of times that each method recommended target combination(s) as the ODC at the conlucion of a simulated Phase I/II trial with a maximum sample size of $N = 80$ patients. Combinations with acceptable toxicity (i.e. $\leq \phi_T = 30\%$) and high efficacy (i.e. $\geq \phi_E = 20\%$) are defined as "target combinations" and are indicated in boldface type.*

| | | Doses of B | | | | | |
| | | 1 | 2 | 3 | 1 | 2 | 3 |
Scenario	Doses of A	Proposed Method			Yuan and Yin		
1	2	0.003	0.219	0.213	0.010	0.252	0.183
	1	0.000	0.006	**0.559**	0.000	0.107	**0.428**
2	2	0.009	**0.561**	0.025	0.040	**0.445**	0.028
	1	0.000	0.035	0.370	0.003	0.240	0.192
3	2	0.001	0.035	**0.873**	0.017	0.070	**0.671**
	1	0.000	0.000	0.090	0.000	0.019	0.198
4	2	0.153	0.319	0.000	0.163	0.254	0.002
	1	0.000	**0.428**	0.100	0.039	**0.462**	0.031
5	2	0.008	**0.454**	0.116	0.042	**0.418**	0.093
	1	0.000	0.003	**0.419**	0.005	0.107	**0.298**
6	2	0.188	0.000	0.000	0.005	0.000	0.000
	1	**0.553**	0.252	0.001	**0.239**	0.037	0.000
7	2	0.268	0.016	0.000	0.108	0.025	0.000
	1	0.009	**0.610**	0.097	0.190	**0.416**	0.033
8	2	0.089	**0.524**	0.162	0.171	**0.354**	0.172
	1	0.000	0.012	0.211	0.016	0.073	0.113
9	2	0.008	0.134	**0.624**	0.016	0.101	**0.541**
	1	0.000	0.012	0.220	0.003	0.042	0.179