

**Supplementary Table S12. Ovarian cancer patient characteristics, median survival, and Multivariate Cox Regression Modeling.**

| Patient Characteristics: Ovary      |                | LOR          | ALP         | No Benzo     | Overall      | P-value |
|-------------------------------------|----------------|--------------|-------------|--------------|--------------|---------|
|                                     | N              | 179 (31.4)   | 41 (7.2)    | 350 (61.4)   | 570 (100%)   |         |
| Sex                                 | Female         | 179 (100.0%) | 41 (100.0%) | 350 (100.0%) | 570 (100.0%) |         |
| Grade (Clinical)                    | I              | 8 (4.5%)     | 2 (4.9%)    | 27 (7.8%)    | 37 (6.6%)    | 0.010   |
|                                     | II             | 25 (14.1%)   | 3 (7.3%)    | 43 (12.5%)   | 71 (12.6%)   |         |
|                                     | III            | 77 (43.5%)   | 12 (29.3%)  | 103 (29.9%)  | 192 (34.2%)  |         |
|                                     | IV             | 15 (8.5%)    | 8 (19.5%)   | 28 (8.1%)    | 51 (9.1%)    |         |
|                                     | Not Reported   | 52 (29.4%)   | 16 (39.0%)  | 143 (41.6%)  | 211 (37.5%)  |         |
| Grade (Pathological)                | I              | 8 (4.5%)     | 2 (4.9%)    | 29 (8.5%)    | 39 (7.0%)    | 0.021   |
|                                     | II             | 25 (14.0%)   | 3 (7.3%)    | 44 (12.9%)   | 72 (12.9%)   |         |
|                                     | III            | 77 (43.3%)   | 12 (29.3%)  | 105 (30.9%)  | 194 (34.7%)  |         |
|                                     | IV             | 15 (8.4%)    | 8 (19.5%)   | 28 (8.2%)    | 51 (9.1%)    |         |
|                                     | Not Reported   | 53 (29.8%)   | 16 (39.0%)  | 134 (39.4%)  | 203 (36.3%)  |         |
| Stage (Clinical)                    | I              | 12 (6.8%)    | 5 (12.2%)   | 30 (8.6%)    | 47 (8.3%)    | 0.339   |
|                                     | II             | 4 (2.3%)     | 2 (4.9%)    | 11 (3.1%)    | 17 (3.0%)    |         |
|                                     | III            | 16 (9.1%)    | 4 (9.8%)    | 29 (8.3%)    | 49 (8.6%)    |         |
|                                     | IV             | 9 (5.1%)     |             | 33 (9.4%)    | 42 (7.4%)    |         |
|                                     | Not Reported   | 135 (76.7%)  | 30 (73.2%)  | 247 (70.6%)  | 412 (72.7%)  |         |
| Stage (Pathological)                | I              | 20 (11.4%)   | 6 (14.6%)   | 70 (20.2%)   | 96 (17.0%)   | <.001   |
|                                     | II             | 5 (2.8%)     | 3 (7.3%)    | 26 (7.5%)    | 34 (6.0%)    |         |
|                                     | III            | 70 (39.8%)   | 11 (26.8%)  | 75 (21.6%)   | 156 (27.7%)  |         |
|                                     | IV             | 22 (12.5%)   | 1 (2.4%)    | 39 (11.2%)   | 62 (11.0%)   |         |
|                                     | Not Reported   | 59 (33.5%)   | 20 (48.8%)  | 137 (39.5%)  | 216 (38.3%)  |         |
| Overall Survival Indicator          | Alive          | 47 (26.3%)   | 12 (29.3%)  | 161 (46.0%)  | 220 (38.6%)  | <.001   |
|                                     | Dead           | 132 (73.7%)  | 29 (70.7%)  | 189 (54.0%)  | 350 (61.4%)  |         |
| Progression-Free Survival Indicator | No Progression | 43 (24.0%)   | 11 (26.8%)  | 145 (41.4%)  | 199 (34.9%)  | <.001   |
|                                     | Progression    | 136 (76.0%)  | 30 (73.2%)  | 205 (58.6%)  | 371 (65.1%)  |         |

| Overall Survival (OS) | Median Surv. (95% CI) | Sample: Ovary     | Log Rank P-value |
|-----------------------|-----------------------|-------------------|------------------|
| Total                 | 56.3 (47.3, 66.8)     | E=350 C=220 T=570 | p= <.001         |
| ALP                   | 64.2 (27.8, 97.2)     | E=29 C=12 T=41    |                  |
| LOR                   | 40.5 (32.9, 47.9)     | E=132 C=47 T=179  |                  |
| No Benzo              | 70.5 (54.7, 88.8)     | E=189 C=161 T=350 |                  |

| Progression-Free Survival (PFS) | Median Surv. (95% CI) | Sample: Ovary     | Log Rank P-value |
|---------------------------------|-----------------------|-------------------|------------------|
| Total                           | 33.7 (28.5, 41.8)     | E=370 C=199 T=569 | p= 0.001         |
| ALP                             | 27.8 (18.5, 97.2)     | E=30 C=11 T=41    |                  |
| LOR                             | 26.4 (22.6, 31.1)     | E=135 C=43 T=178  |                  |
| No Benzo                        | 42.2 (33.3, 54.7)     | E=205 C=145 T=350 |                  |

| Overall Survival (OS)                                  |                       |         |
|--|-----------------------|---------|
| Predictors: Cohort, Clinical Grade, and Clinical Stage |                       |         |
| Cohort   | HR (95% CI)           | P-value |
| No Benzo   | Ref.                  | 0.0011  |
| ALP  | 1.343 (0.901 – 2.002) | 0.1481  |
| LOR  | 1.521 (1.212 – 1.907) | 0.0003  |
| Progression-Free Survival (PFS)                        |                       |         |
| No Benzo   | Ref.                  | 0.0025  |
| ALP  | 1.358 (0.918 – 2.010) | 0.1257  |
| LOR  | 1.464 (1.174 – 1.826) | 0.0007  |

**E= event, C= censored, T= Total**