

Batch Effects Table

| | Cancer | Outcome | 1 | 2 | 3 | 4 | 5 |
|----|--------|----------|----|----|---|---|----|
| 1 | Biopsy | Biopsy | 0 | 0 | 0 | 5 | 4 |
| 2 | Cancer | Biopsy | 0 | 0 | 0 | 0 | 0 |
| 3 | Normal | Biopsy | 0 | 0 | 0 | 0 | 0 |
| 4 | Biopsy | mTCC | 0 | 0 | 0 | 0 | 0 |
| 5 | Cancer | mTCC | 11 | 1 | 0 | 0 | 0 |
| 6 | Normal | mTCC | 0 | 0 | 0 | 0 | 0 |
| 7 | Biopsy | Normal | 0 | 0 | 0 | 0 | 0 |
| 8 | Cancer | Normal | 0 | 0 | 0 | 0 | 0 |
| 9 | Normal | Normal | 0 | 4 | 4 | 0 | 0 |
| 10 | Biopsy | sTCC–CIS | 0 | 0 | 0 | 0 | 0 |
| 11 | Cancer | sTCC–CIS | 0 | 13 | 0 | 0 | 3 |
| 12 | Normal | sTCC–CIS | 0 | 0 | 0 | 0 | 0 |
| 13 | Biopsy | sTCC+CIS | 0 | 0 | 0 | 0 | 0 |
| 14 | Cancer | sTCC+CIS | 0 | 0 | 0 | 0 | 12 |
| 15 | Normal | sTCC+CIS | 0 | 0 | 0 | 0 | 0 |