A
Event tree for multiple outgrowth events coming from one bead

## 1st outgrowth event

## Single

## Collective

## 2d outgrowth event

Single
Collective
Single
Collective

3d outgrowth event

Single Collective Single Collective Single Collective Single Collective

B

| Total number of events per bead | Number of consecutive events of the same mode | Expected frequencies (random model) | Observed frequencies (LEC) |  | Observed frequencies (HUVEC) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | \% of beads with consecutive events | $p$ value <br> (chi^2 obs vs. exp) | \% of beads with consecutive events | $p$ value <br> (chi^2 obs vs. exp) |
| 2 | 2 | 50 | 70 | 0.0039 | 74 | 0.0017 |
| 3 | 2 | 75 | 100 | 0.033 | 100 | 0.0001 |
|  | 3 | 25 | 50 | 0.24 | 37 | 0.20 |
| 4 | 2 | 88 | - | - | 100 | 0.021 |
|  | 3 | 75 | - | - | 89 | 0.086 |
|  | 4 | 12 | - | - | 26 | <0.00001 |

