

ANNOTATIONS

Node [N]
 $N_1 \rightarrow N_2$ = edge & direction
 $y = \text{yes} (= 100\%)$

$n = \text{no}$
 $\{\cdot\} = \text{together}$
 $(\text{additional process at}) [N]$
 $[\cdot] = \text{closed boundaries}$
 $[N_1, N_2] = \text{from the beginning of } N_1 \text{ until the end of } N_2$
 $(\cdot) = \text{open boundaries}$
 $(N_1, N_2) = \text{after the end of } N_1 \text{ and before the beginning of } N_2$
 $\&\& = \text{"and"}, \text{ both together}$
 $\text{process } [N_1, N_2 \dots N_n] = \text{process at all nodes}$

Comments/Explanations

ABC together
 $C \leftrightarrow B$
 $C \rightarrow AB$
 $AC \rightarrow B$
 $D \leftrightarrow C$

 $0_{\text{vessel}} \text{ infiltration}$
 $0_{\text{interactions with stroma}}$
 $0_{\text{events at primary}}$
 $A_{\text{EMT starts}}$
 $A_{\text{lymph- \& angio- genesis starts}}$
 $A_{\text{ECM remodelling}}$
 B_{EMT}
 $B/D_{\text{lymph- \& angio- genesis}}$
 $C/E/F/G_{\text{lymph- \& angio- genesis}}$
 $E_{\text{(progressive) growth}}$
 $E \rightarrow E_1, E_2, E_3, E_4\dots$
 $F_{\text{interactions with stroma}}$
 $G_{\text{interactions with stroma}}$
 $\text{something happens to cell}$
 go somewhere
 $\text{survival in circulation}$
 $\text{energy perturbations}$
 metastatic niche
 trigger
 angiogenesis
 oligometastasis

 $\text{interactions with stroma}$
 wide metastasis

 $\text{metastatic seeding (after A, before E)}$
 $\text{EMT starts (after primary)}$
 $\text{floating around (after A, before C)}$
 $\text{adhesion (after A, before E)}$
 $\text{angiogenesis (before B)}$
 MET (before E)

	PROPOSED	PhDs (15)	MDs (7)	MD/PhDs (6)	All (28)
Primary [P]	y		12	7	6 25
Detachment [A]	y		11	6.5	6 23.5
Invasion [I]	y		10	5	3 18
Breach ECM [R]	y		9	5	2.5 16.5
Intravasation [V]	y		10.5	4	4 18.5
$[B] = \{I, R, V\}$	y		9	4	2 15
Motility [O]	y		9	6	2.5 17.5
Migration [T]	y		9	6	4 19
$[C] = \{O, T\}$	y		9	6	2.5 17.5
Extravasation [D]	y		7.5	4	3.5 15
Colonization [L]	y		13	8	6 27
Proliferation [X]	y		13	6	5 24
Angiogenesis [S]	y		12.5	6	4 22.5
$[E] = \{L, X, S\}$	y		12	6	4 22
Micrometastasis [F]	y		13	6	6 25
Macrometastasis [G]	y		12	6	5 23
$P \rightarrow A$	y				
$A \rightarrow B$	y				
$B \rightarrow C$	y				
$C \rightarrow D$	y				
$D \rightarrow E$	y				
$E \rightarrow F$	y				
$F \rightarrow G$	y				
$\{A, B, C\}$	n		3	2	0 5
$A \rightarrow C \rightarrow B \rightarrow E$	n		3	1	1 5
$C \rightarrow \{A, B\} \rightarrow D$	n		1	1	0 2
$\{A, C\} \rightarrow B \rightarrow D$	n		1	0	0 1
$B \rightarrow D \rightarrow C \rightarrow E$	n		0.5	0	0 0.5
(vessel infiltration) [P]	n		0	1	0 1
(interaction with stroma) [P]	n		1	1	0 2
(events at primary) [P]	n		1	0	0 1
(EMT starts) [A]	n		0.5	0	0 0.5
(lymph- & angio- genesis starts) [A]	n		0.5	0	0 0.5
(ECM remodelling) [A]	n		2	0	0 2
(EMT) [B]	n		0.5	0	0 0.5
(lymph- & angio- genesis) [B, D]	n		0.5	0	0 0.5
(lymph- & angio- genesis) [C, E, F, G]	n		1	0	0 1
(progressive growth) [E]	n		2	0	0 2
$\{E_1, E_2, E_3 \dots E_n\} = [E]$	n		1	0	0 1
(interactions with stroma) [F]	n		1	0	0 1
(interactions with stroma) [G]	n		2	0	0 2
(something happens to cell) (P, A)	n		0	0	2 2
go somewhere (P, A)	n		1	0	0 1
survival in circulation (C, D)	n		2	1	1 4
energy perturbations (C, D)	n		1	0	0 1
metastatic niche (D, E)	n		1	1	0 2
trigger (D, E)	n		0	1	0 1
angiogenesis (F, G)	n		0.5	0	1 1.5
oligometastasis [X] $\&&$ G $\rightarrow\rightarrow$ X	n		1	0	0 1
oligometastasis [X] $\&&$ G $\rightarrow\rightarrow$ X $\&&$ (interactions with stroma) [X]	n		1	0	0 1
oligometastasis [X] $\&&$ wide metastasis [Z] $\&&$ G $\rightarrow\rightarrow$ X $\rightarrow\rightarrow$ Z	n		1	0	0 1
metastatic seeding (A, E)	n		0	1	0 1
EMT starts (P,)	n		1.5	0	0 1.5
floating around (A, before C)	n		0	0	1 1
adhesion (A, E)	n		1	0	0 1
angiogenesis (before B)	n		1	0	0 1
MET (before E)	n		1	0	0 1

These were not explicitly commented, therefore no values.