New Nodes Suggested:

EMT | energy perturbations | adhesion | survival in circulation | MET | metastatic niche | lymphangiogenesis

changes in metastatic cell events - interactions | bloodstream (in leukemia) | metastatic seeding | oligometastasis | widely disseminated metastasis | ECM remodeling | ? unknown/undiscovered stage(s) | ... implicit agreement

Diagram Shown:

primary —trigger?→ detachment —trigger?→ invasion breachECM intravasation —trigger?→ motility migration —trigger?→ extravasation —trigger?→ colonization proliferation angiogenesis —trigger?→ micrometastasis —trigger?→ macrometastasis

primary → detachment → invasion (locally and in vessels) → colonization proliferation angiogenesis → ...

primary → ? → growing → ...

primary → detachment → motility migration → intravasation → survival in circulation → extravasation → ...

primary → vessel invasion lymphangiogenesis → detachment → ...

primary → interactions with non-cancerous adjacent cells → detachment → invasion breachECM intravasation → motility migration → ...

... → detachment → invasion → motility → ...

primary → motility migration → detachment → invasion breachECM intravasation → ...

primary → detachment → motility migration → invasion breachECM intravasation → ...

primary → detachment → adhesion → colonization proliferation angiogenesis → ...

primary → motility migration → detachment → invasion breachECM intravasation → extravasation → metastatic niche → colonization proliferation angiogenesis → ...

primary → detachment → motility migration → invasion breachECM intravasation → colonization proliferation angiogenesis? → micrometastasis → angiogenesis? → macrometastasis

events at primary tumor → EMT → ? → MET → colonization proliferation angiogenesis? → ...

primary → detachment → floating around → migration → colonization → micrometastasis → macrometastasis

bloodstream (in leukemia) → colonization → ...

primary → metastatic seeding → colonization → ...

primary → go somewhere → progressive growth → ...

... → detachment → ECM remodeling → motility migration → intravasation → ...

primary → interactions with stromal cells → detachment → ECM remodeling → motility migration → intravasation → survival in circulation → energy perturbations → extravasation → colonization proliferation angiogenesis → micrometastasis → interactions with non-cancerous adjacent cells → macrometastasis → interactions with non-cancerous adjacent cells → oligometastasis → interactions with non-cancerous adjacent cells → widely disseminated metastasis → interactions with non-cancerous adjacent cells

primary → detachment? → invasion breachECM intravasation → motility migration → survival in circulation → extravasation → formation of metastatic niche → colonization proliferation angiogenesis → micrometastasis → macrometastasis

... → detachment → invasion breachECM intravasation → motility migration → extravasation → colonization proliferation angiogenesis → ...

primary → detachment → invasion breachECM intravasation → motility migration → extravasation? → motility migration? → colonization proliferation angiogenesis → micrometastasis → macrometastasis

primary → detachment → motility migration → invasion → intravasation? → extravasation? → colonization proliferation angiogenesis → micrometastasis → macrometastasis

primary → detachment → migration → invasion → migration? → extravasation? → ...

primary → detachment → invasion breachECM intravasation → passive: survival in bloodstream or lymph system → extravasation → colonization proliferation angiogenesis → ...

primary → something happens to cell? → detachment → ? → colonization proliferation angiogenesis → ...

primary → something happens to cell? → detachment → invasion breachECM? intravasation → motility migration? → extravasation? → colonization proliferation angiogenesis → ...

... → lymphangiogenesis → invasion breachECM intravasation → ...

primary → detachment → ? → colonization proliferation angiogenesis → ...

primary → EMT? → detachment → EMT? → lymphangiogenesis? → invasion breachECM intravasation → EMT? → lymphangiogenesis? → motility migration → lymphangiogenesis? → extravasation? → lymphangiogenesis? → colonization proliferation angiogenesis → lymphangiogenesis? → micrometastasis → lymphangiogenesis? → macrometastasis → lymphangiogenesis?

primary → detachment → invasion breachECM intravasation → motility migration → extravasation → colonization proliferation → micrometastasis → lymphangiogenesis? → macrometastasis

primary → detachment → invasion breachECM intravasation → motility migration → extravasation → part1 → part2 → part3 → ...