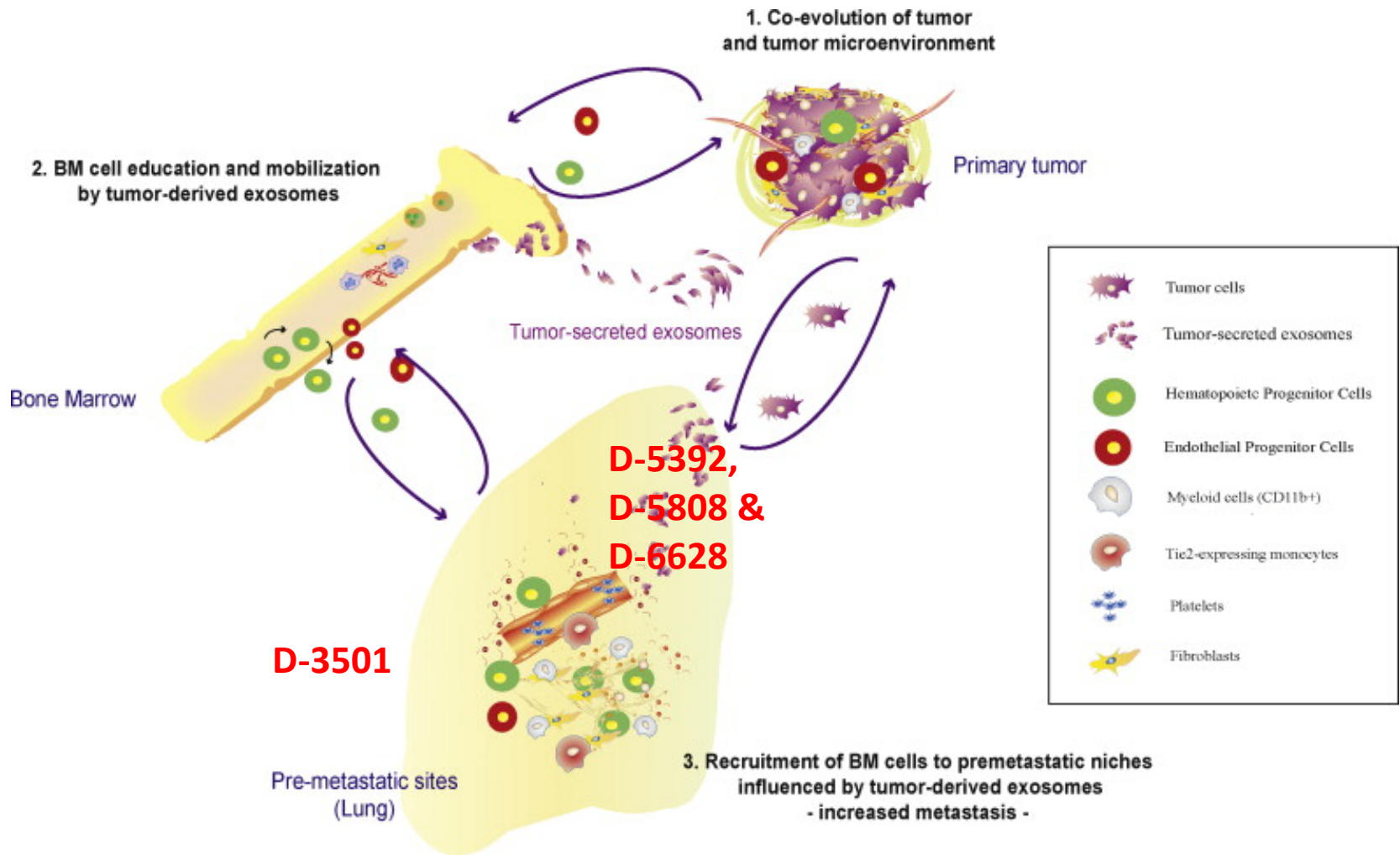




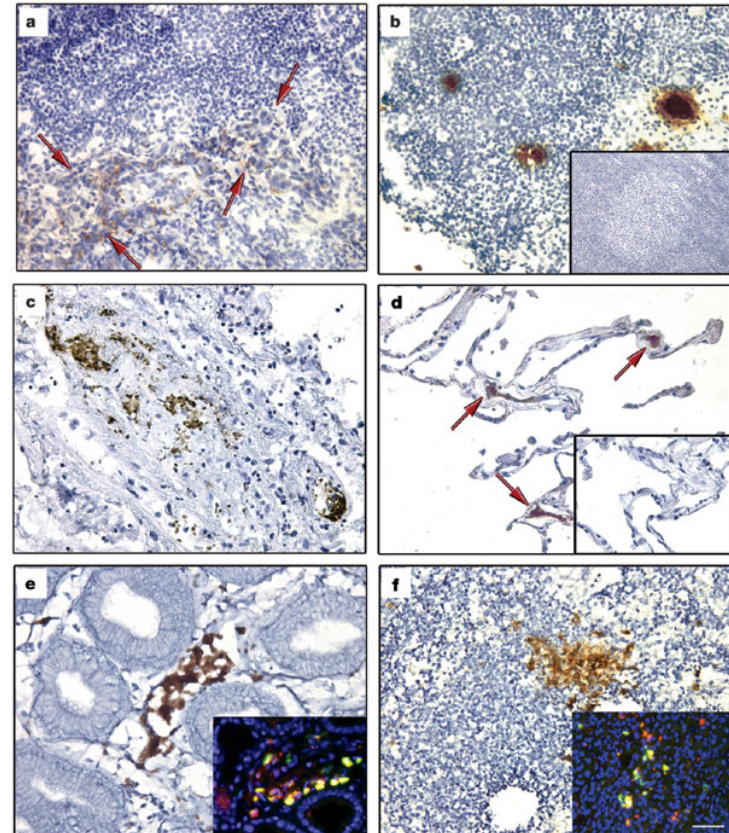
Biomarkers for Predicting and Diagnosing Cancer/Cancer Metastasis



D-3501: Predicting and Treating Cancer Metastasis Before the Formation of Pre-metastatic Clusters

Invention Summary

This invention provides a method of predicting cancer metastases by monitoring VEGFR1⁺ bone marrow derived cells (BMDCs) in cancer patients and a method of inhibiting and treating tumor metastasis by preventing the formation of pre-metastatic clusters of VEGFR1⁺ BMDCs at the site distant from the primary site.



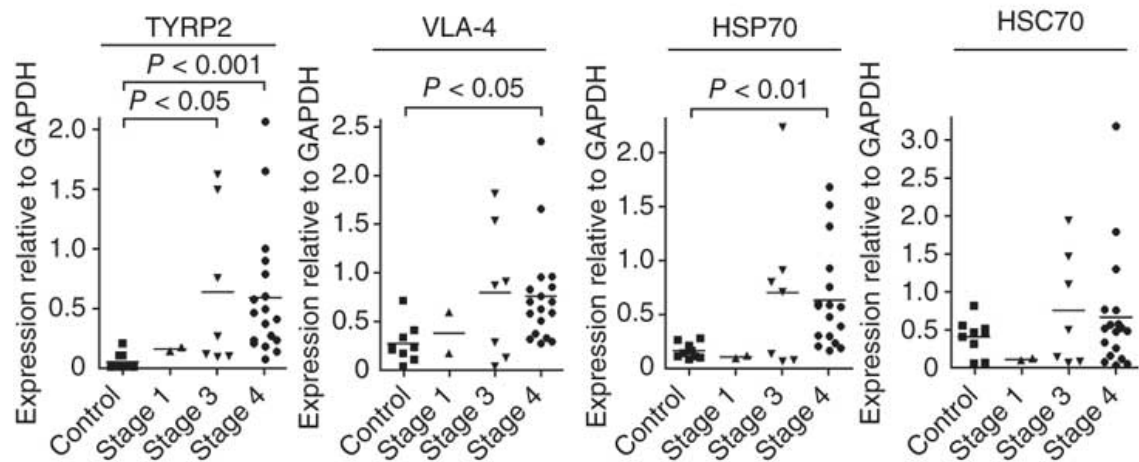
Expression of VEGFR1 in pre- metastatic human tissue

For more technology information: <http://cornell.flintbox.com/public/project/20501/>

D-5392: Circulating Exosomes as Diagnostic/Prognostic Indicators and Therapeutic Targets of Tumor Metastasis

Invention Summary

This invention describes methods to predict, prevent and treat tumor metastasis by using circulating exosomes as diagnostic / prognostic indicators and therapeutic targets.

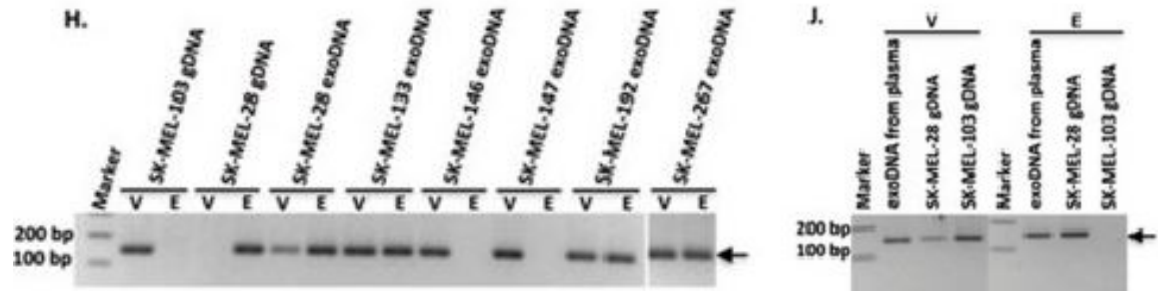


For more technology information: <http://cornell.flintbox.com/public/project/21955/>

D-5808 & D6628: Exosome DNA as a Biomarker for Cancer Diagnosis and Prognosis

Invention Summary

This invention discloses methods of using exosome DNA as a diagnostic and prognostic biomarker for monitoring cancer progression and developing personalized therapeutic regimes.



Mutational analysis of exoDNA. BRAF(V600E) mutation in exoDNA isolated from either cultured melanoma cell lines (H) or circulating exoDNA isolated from SK-MEL-28 melanoma-bearing mice (J) was detected by AS-PCR. gDNA from SK-MEL-28gDNA and SK-MEL-103 serves as a positive and negative control. V – wild type; E - mutant

For more technology information: <http://cornell.flintbox.com/public/project/26498/>

Technology Applications

- Cell markers for predicting tumor metastasis before the formation of pre-metastatic niche
- Markers for diagnose and predicting outcome of cancer patients by measuring the circulating levels of exosomes and levels of their signature proteins
- DNA mutations in circulating exosomes derived from patient plasma, urine or lymphatic fluids as an alternative to tumor biopsies
- Therapeutic targets for the treatment and prevention of cancer and cancer metastasis

Licensing Contact

Brian Kelly, bjk44@cornell.edu, 212-746-6186