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61/909,822 27 November 2013 (27.11.2013) US(71) Applicants: **ENDOCYTE, INC.** [US/US]; 3000 Kent Avenue, West Lafayette, Indiana 47906 (US). **PURDUE RESEARCH FOUNDATION** [US/US]; 1281 Win Hentschel Blvd, West Lafayette, Indiana 47906 (US).(72) Inventors: **VLAHOV, Iontcho R.**; 1041 Shootingstar Court, West Lafayette, Indiana 47906 (US). **LEAMON, Christopher P.**; 5830 Farm Ridge Road, West Lafayette, Indiana 47906 (US). **LOW, Philip S.**; 5850 Farm Ridge Road, West Lafayette, Indiana 47906 (US). **PARHAM, Garth L.**; 9105 Jakes Path, Largo, Florida 33771 (US). **CHEN, Qingshou**; 227 Arnold Dr. Apt 9, West Lafayette, Indiana 47906 (US).(74) Agent: **O'CONNOR, Steven, P.**; Finnegan, Henderson, Farabow, Garrett & Dunner, LLP, 901 New York Avenue, NW, Washington, D.C. 20001-4413 (US).

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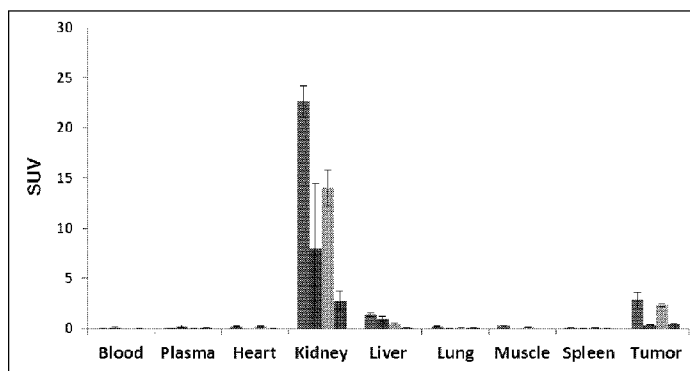


FIG. 1A

(57) Abstract: Described herein are compounds, compositions, and methods for diagnosing and/or monitoring pathogenic disease using positron emission tomography. Also described are conjugates of the formula B-L-P, wherein B is a radical of a targeting agent selected from vitamin receptor binding ligands (such as folate), PSMA binding ligands, or PSMA inhibitors; L is a divalent linker comprising aspartic acid, lysine, or arginine, and P is a radical of an imaging agent or radiotherapy agent, such as a radionuclide or radionuclide containing group, or a radical of a compound capable of binding a radionuclide, such as a metal chelating group.