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(71) Applicant: UNIVERSITY OF GEORGIA RESEARCH
FOUNDATION, INC.; 210 S. Jackson Street, 110 Terrell
Hall, Athens, GA 30602 (US).

(72) Inventors: SINGH, Uma, S.; 490 Classic Road, Athens,
GA 30606 (US). KOTHAPALLI, Yugandhar; 2091

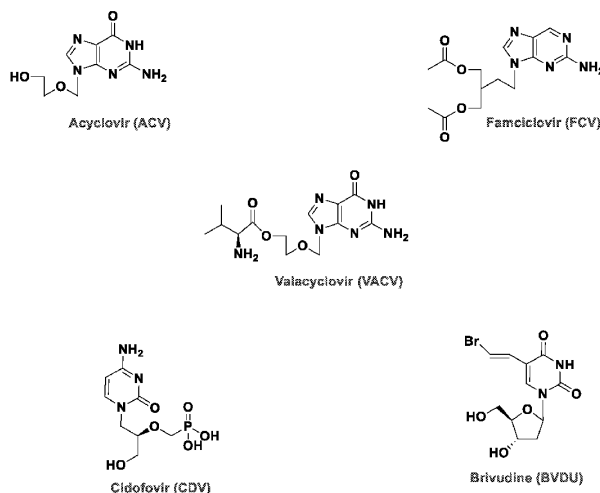
South Milledge Avenue, Apt. A-3, Athens, GA 30605 (US).
CHU, Chung, K.; 3116 Sproull Way, Duluth, GA 30097
(US).

(74) Agent: COLEMAN, Henry, D.; COSUD Intellectual
Property Solutions, P.C., 15 Chester Avenue, White Plains,
NY 10601 (US).

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(54) Title: AN EFFICIENT SYNTHESIS OF BETA-L-5-[(E)-2-BROMOVINYL]-1-((2S,4S)-2-(HYDROXYMETHYL)-1,3-(DIOXOLANE-4-YL) URACIL)] (L-BDHU) VIA CHIRAL PURE L-DIOXOLANE

FIGURE 1



(57) Abstract: The present invention relates to novel methods for synthesizing L-BDHU and related starting materials and intermediate compounds from (7?J-2,2-dimethyl-1,3-dioxolane-4- carboxylate (7) in as few as 7 steps. The present invention eliminates expensive chiral purification of L-di oxolane (11), resulting in enantiomerically enriched (ee > 99%) compound. The optically pure compound 11 was utilized to construct L-BDHU (15) and its monophosphate prodrug (POM-L-BDHU, 22). Novel methods of synthesis and novel intermediate compounds represent additional embodiments of the present invention.

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