

(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2003/0235909 A1****Hariri et al.**(43) **Pub. Date: Dec. 25, 2003**(54) **MODULATION OF STEM AND PROGENITOR CELL DIFFERENTIATION, ASSAYS, AND USES THEREOF****Publication Classification**(51) **Int. Cl.<sup>7</sup>** ..... **C12N 5/08; A61K 31/454**  
(52) **U.S. Cl.** ..... **435/372; 514/323; 435/366**(76) Inventors: **Robert J. Hariri**, Florham Park, NJ (US); **David I. Stirling**, Warren, NJ (US); **Laure A. Moutouh-De Parseval**, San Diego, CA (US); **Kyle W.H. Chan**, San Diego, CA (US)(57) **ABSTRACT**Correspondence Address:  
**PENNIE AND EDMONDS**  
**1155 AVENUE OF THE AMERICAS**  
**NEW YORK, NY 100362711**

The present invention relates to methods of modulating mammalian stem cell and progenitor cell differentiation. The methods of the invention can be employed to regulate and control the differentiation and maturation of mammalian, particularly human stem cells along specific cell and tissue lineages. The methods of the invention relate to the use of certain small organic molecules to modulate the differentiation of stem or progenitor cell populations along specific cell and tissue lineages, and in particular, to the differentiation of embryonic-like stem cells originating from a postpartum placenta or for the differentiation of early progenitor cells to a granulocytic lineage. Finally, the invention relates to the use of such differentiated stem or progenitor cells in transplantation and other medical treatments.

(21) Appl. No.: **10/411,655**(22) Filed: **Apr. 11, 2003****Related U.S. Application Data**

(60) Provisional application No. 60/372,348, filed on Apr. 12, 2002. Provisional application No. 60/437,348, filed on Dec. 31, 2002. Provisional application No. 60/437,350, filed on Dec. 31, 2002.

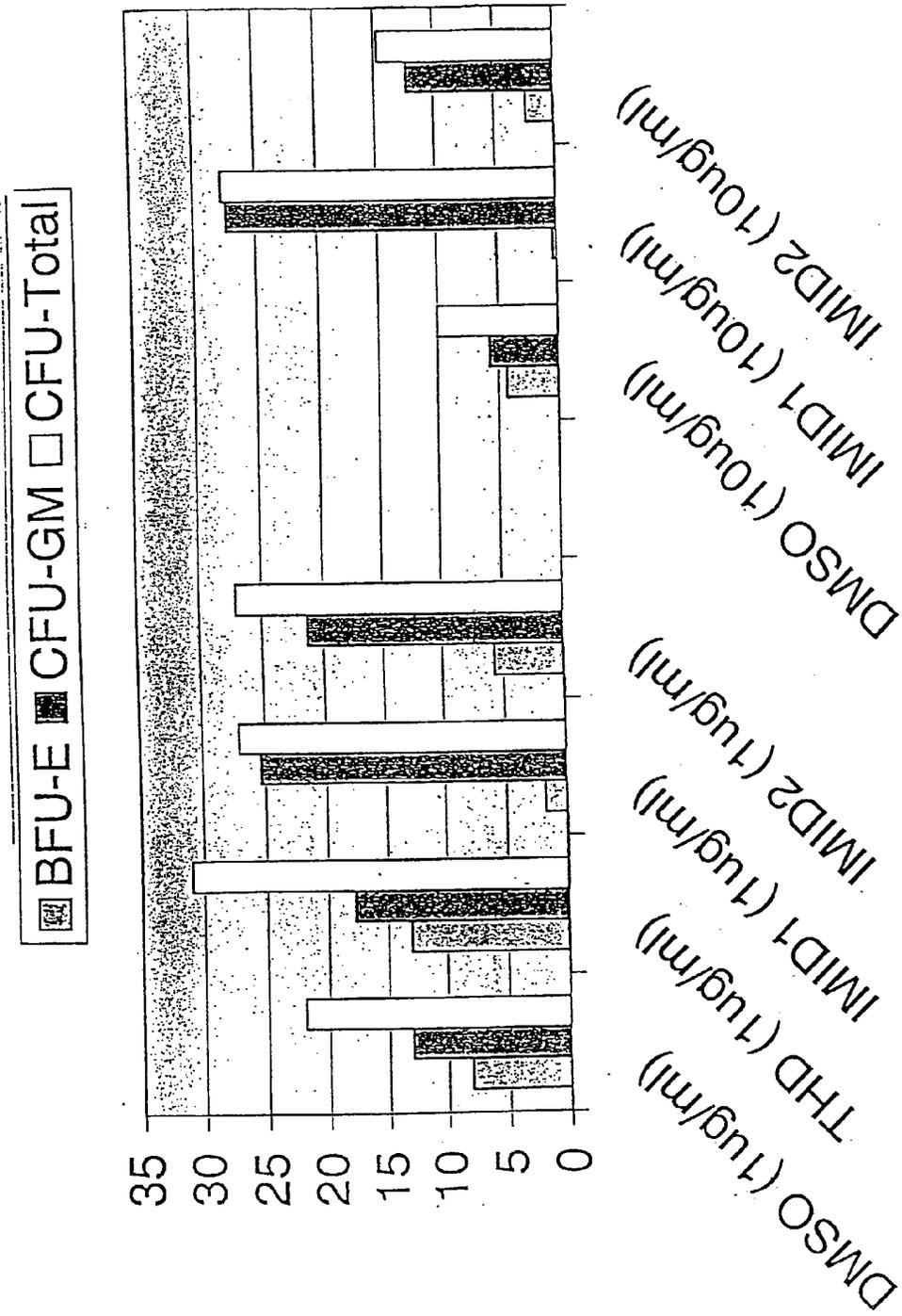


FIG. 1

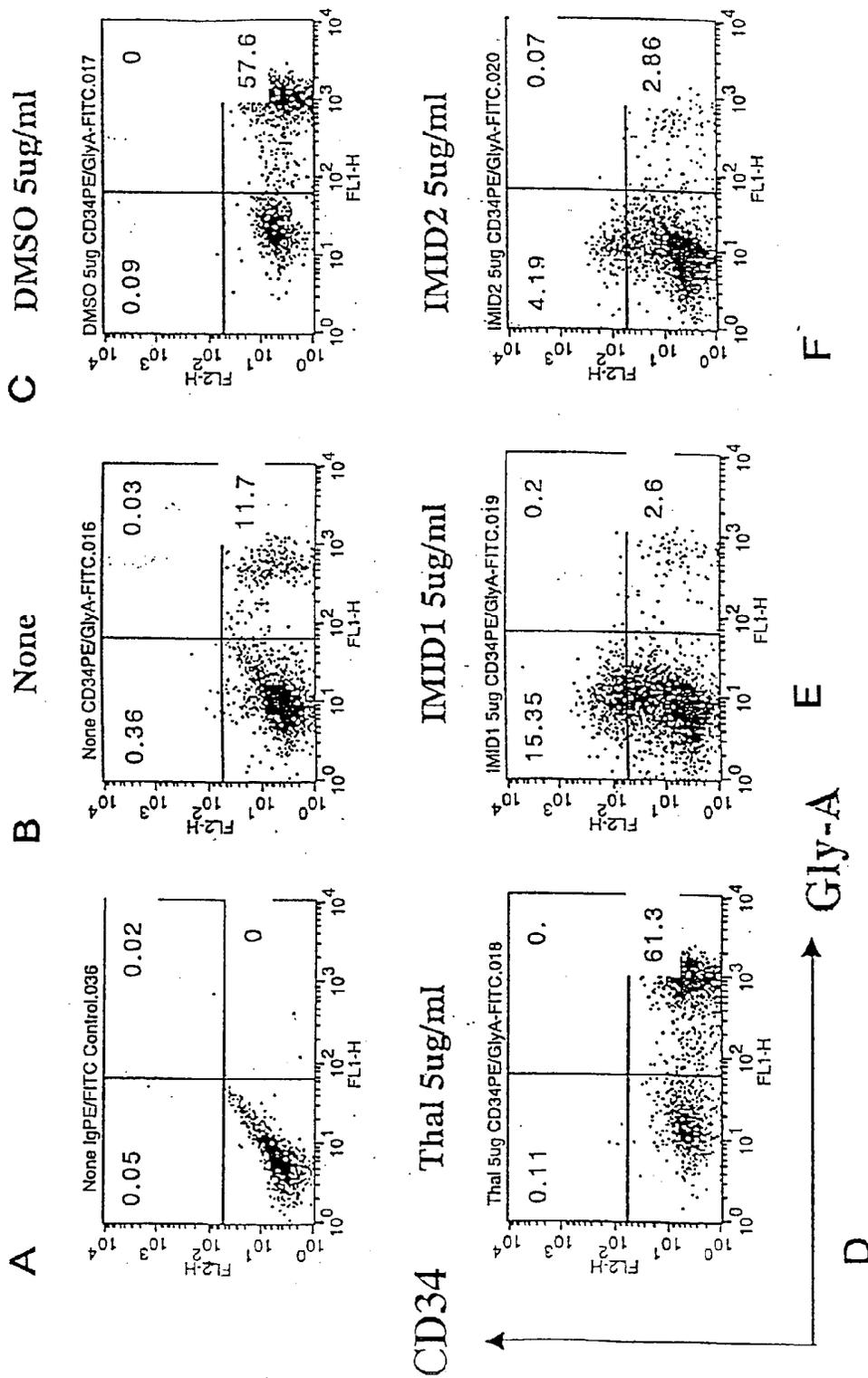


FIG. 2

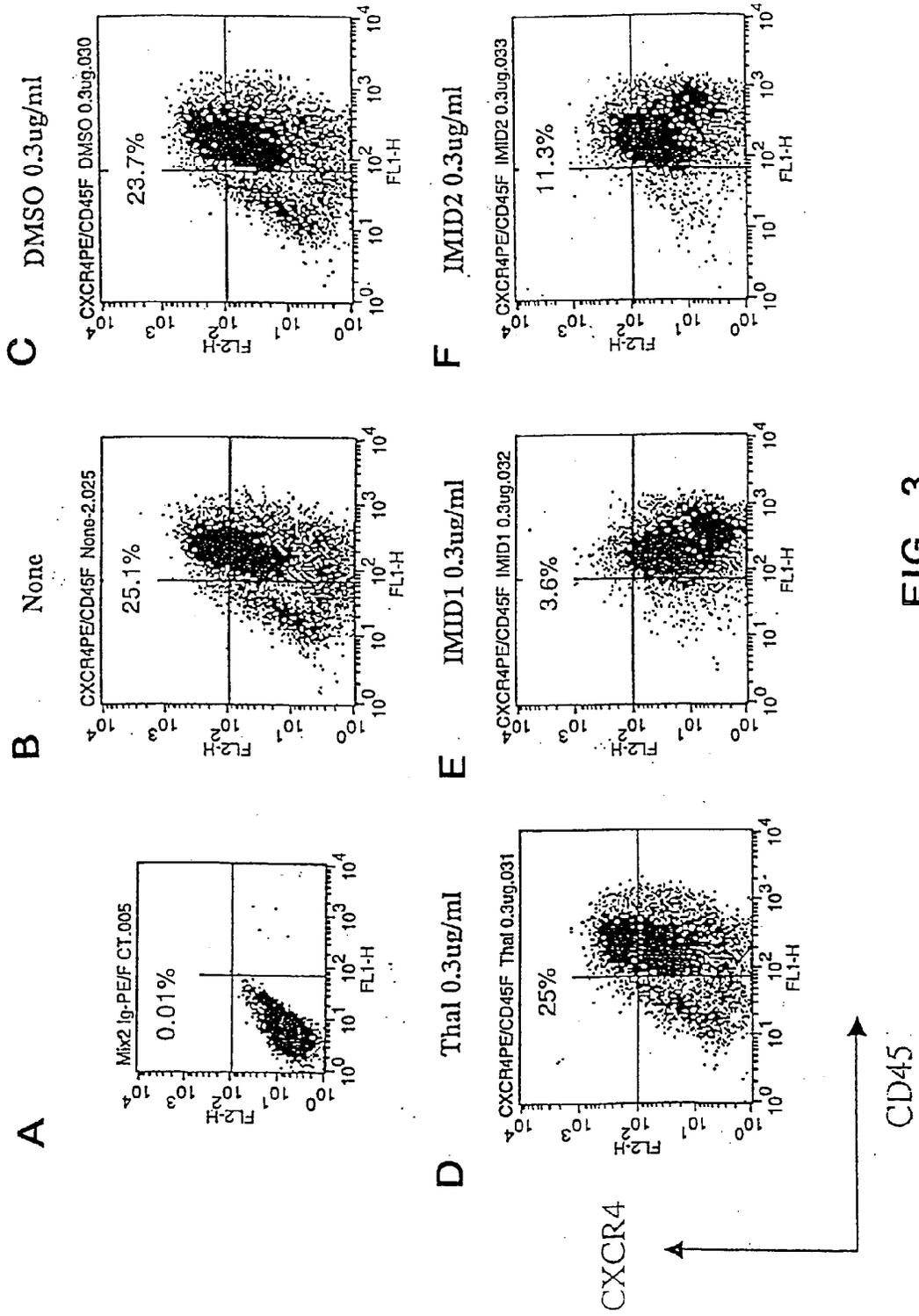


FIG. 3

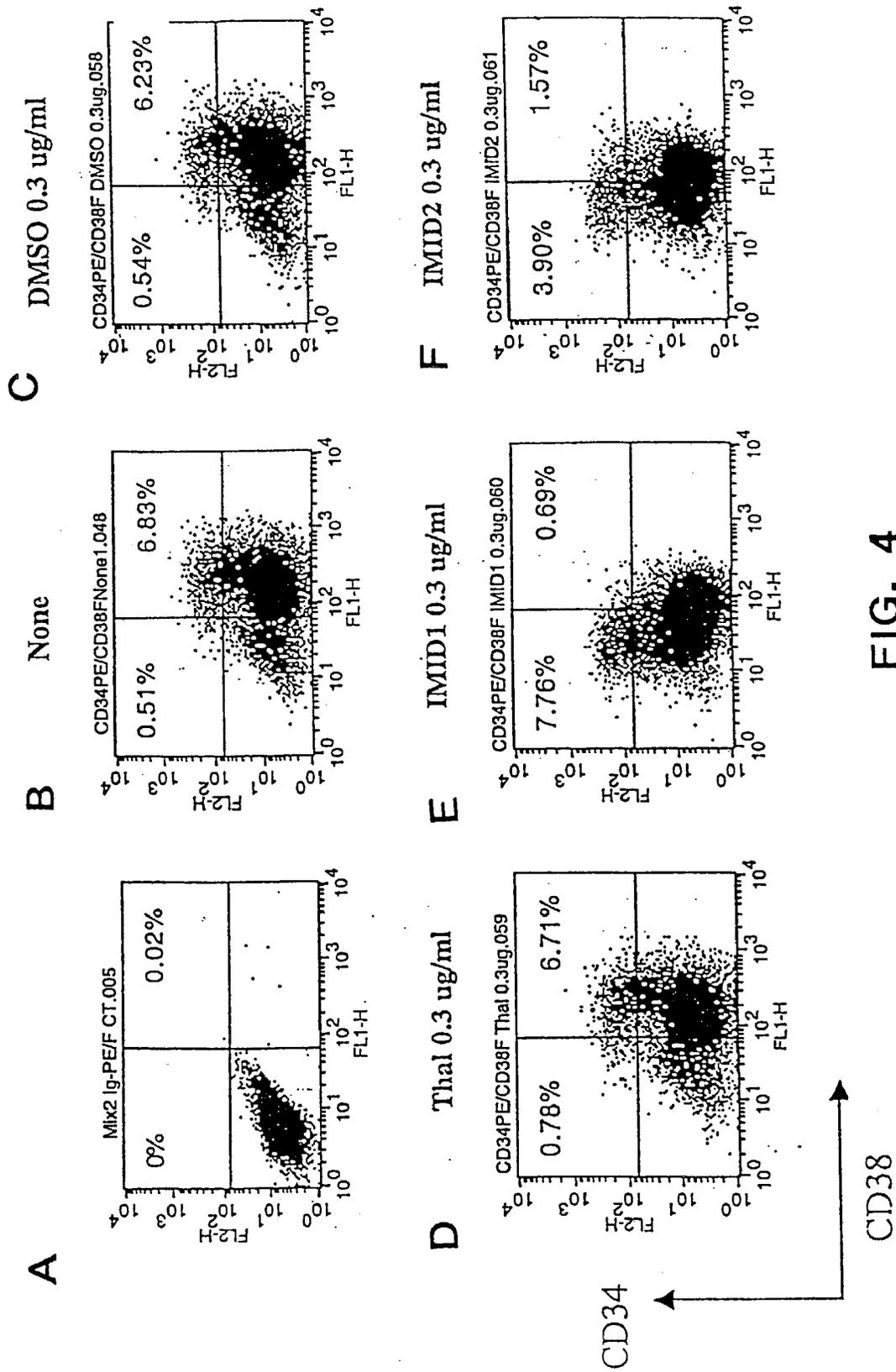


FIG. 4

# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.