5 Mar 03

2003010683

162162

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
14 March 2002 (14.03.2002)

PCT

(10) International Publication Number
WO 02/020849 A3

(51) International Patent Classification[7]: C12Q 1/68

(21) International Application Number: PCT/US01/28214

(22) International Filing Date:
7 September 2001 (07.09.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/231,061 8 September 2000 (08.09.2000) US

(71) Applicant: NEW YORK UNIVERSITY SCHOOL OF MEDICINE [US/US]; 550 First Avenue, New York, NY 10016 (US).

(72) Inventor: BLUMENBERG, Miroslav; 100 Bleeker Street, #24B, New York, NY 10012 (US).

(74) Agents: MCISAAC, Robert, Ph.D. et al.; Hale and Dorr LLP, 60 State Street, Boston, MA 02109 (US).

(81) Designated States *(national)*: AU, CA, JP, SG.

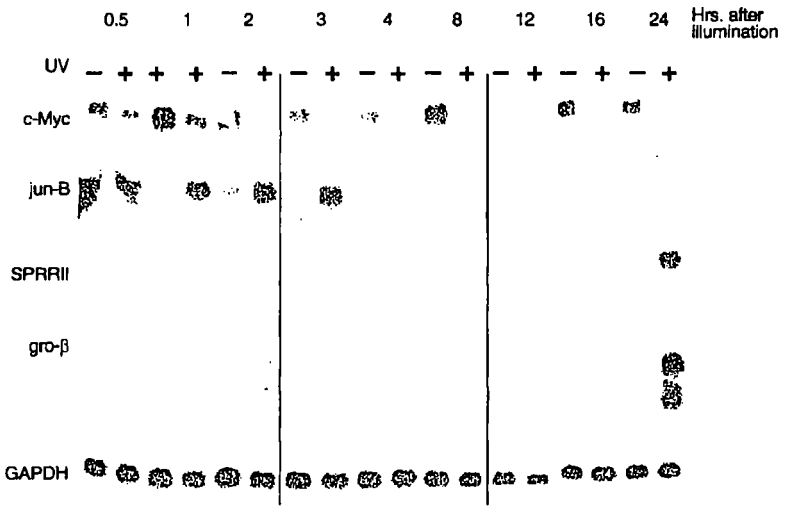
(84) Designated States *(regional)*: European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR).

Published:
— *with international search report*

(88) Date of publication of the international search report:
3 July 2003

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: GENE MARKERS USEFUL FOR DETECTING SKIN DAMAGE IN RESPONSE TO ULTRAVIOLET RADIATION



(57) Abstract: The cellular response to ultraviolet radiation exposure has been characterized on the molecular level through the use of high density gene array technology. Nucleic acid molecules and protein molecules, the expression of which are repressed or induced in response to ultraviolet radiation exposure, are identified according to a temporal pattern of altered expression post ultraviolet radiation exposure. Methods are disclosed that utilized these ultraviolet radiation-regulated molecules as markers for ultraviolet radiation exposure. Other screening methods of the invention are designed for the identification of compounds that modulate the response of a cell to ultraviolet radiation exposure. The invention also provides compositions useful for drug screening or pharmaceuticals purposes.

WO 02/020849 A3

ACTION