PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 :
C12Q 1/00, 1/68, G01N 33/53

A1

(11) International Publication Number: WO 98/38329

(43) International Publication Date: 3 September 1998 (03.09.98)

(21) International Application Number: PCT/US98/03856

(22) International Filing Date: 27 February 1998 (27.02.98)

(30) Priority Data:

60/039,134	28 February 1997 (28.02.97)	US
60/056,109	20 August 1997 (20.08.97)	US

(63) Related by Continuation (CON) or Continuation-in-Part (CIP) to Earlier Applications

US	60/039,134 (CIP)
Filed on	28 February 1997 (28.02.97)
US	60/056,109 (CIP)
Filed on	20 August 1997 (20.08.97)

(71) Applicant *(for all designated States except US)*: FRED HUTCHINSON CANCER RESEARCH CENTER [US/US]; 1100 Fairview Avenue North, Seattle, WA 98109 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: FRIEND, Stephen, H. [US/US]; 2653 Cascadea Avenue South, Seattle, WA 98144 (US). HARTWELL, Leland [US/US]; 6206 17th Street, Seattle, WA 08115 (US).

(74) Agents: ANTLER, Adriane, M. et al.; Pennie & Edmonds LLP, 1155 Avenue of the Americas, New York, NY 10036 (US).

(81) Designated States: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, GH, GW, HU, ID, IL, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, US, UZ, VN, YU, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).

Published

With international search report.

Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: METHODS FOR DRUG TARGET SCREENING

(57) Abstract

The present invention provides methods for identifying targets of a drug in a cell by comparing (i) the effects of the drug on a wild–type cell, (ii) the effects on a wild–type cell of modifications to a putative target of the drug, and (iii) the effects of the drug on a wild–type cell which has had the putative target modified of the drug. In various embodiments, the effects on the cell can be determined by measuring gene expression, protein abundances, protein activities, or a combination of such measurements. In various embodiments, modifications to a putative target in the cell can be made by modifications to the genes encoding the target, modifications to abundances of RNAs encoding the target, modifications to abundances of target proteins, or modifications to activities of the target proteins. The present invention also provides methods for drug development based on the methods for identifying drug targets.