



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

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| <b>(51) International Patent Classification <sup>7</sup>:</b><br><b>G01N 33/53, 33/574, 33/576, 33/577, 33/569</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>A1</b> | <b>(11) International Publication Number:</b> <b>WO 00/39580</b><br><b>(43) International Publication Date:</b> 6 July 2000 (06.07.00)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>(21) International Application Number:</b> PCT/AU99/01156<br><b>(22) International Filing Date:</b> 23 December 1999 (23.12.99)<br><br><b>(30) Priority Data:</b><br>PP 7916                      23 December 1998 (23.12.98)    AU<br>PQ 0425                      18 May 1999 (18.05.99)            AU<br><br><b>(71) Applicant (for all designated States except US):</b> UNIVERSITY OF SYDNEY [AU/AU]; Sydney, New South Wales 2000 (AU).<br><br><b>(72) Inventors; and</b><br><b>(75) Inventors/Applicants (for US only):</b> CHRISTOPHERSON, Richard, Ian [AU/AU]; University of Sydney, Dept. of Biochemistry, Sydney, New South Wales 2006 (AU). DOS REMEDIOS, Cristobal, Guillermo [AU/AU]; University of Sydney, Dept. of Anatomy and Histology, Sydney, New South Wales 2006 (AU).<br><br><b>(74) Agents:</b> HUGHES, E., John, L. et al.; Davies Collison Cave, Level 3, 303 Coronation Drive, Milton, Queensland 4064 (AU).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           | <b>(81) Designated States:</b> AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).<br><br><b>Published</b><br><i>With international search report.</i> |
| <b>(54) Title:</b> AN ASSAY TO DETECT A BINDING PARTNER<br><br><b>(57) Abstract</b><br><p>The present invention relates to an assay to detect a binding partner. The presence or absence of a binding partner can be used to indicate a normal condition or a disease condition or a propensity therefor to develop in an animal, avian or plant species or the presence of a particular chemical entity in a sample. In one embodiment, the present invention provides an array of molecules having a binding partner in a biological sample wherein the pattern of binding of the binding partners to the respective molecules on the array provides an indication of a normal condition or disease condition or a propensity therefor to develop in an animal, avian or plant species or the presence of a particular cell type or microbial, viral, parasitic or other pathogenic agent. In another embodiment, the binding partner is in a chemical, environmental or phage display library sample and the pattern of binding is indicative of the presence, type and/or concentration of a particular binding partner or family of binding partners. The assay of the present invention is useful <i>inter alia</i> for the detection of cancers, neoplasias and non-neoplastic disorders. The assay is also useful for detecting cell types, microbial, viral, parasitic or other pathogenic agents and chemical entities in chemical, environmental and phage display samples.</p> |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |