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(54) **USE OF BIOMARKERS FOR DETECTING OVARIAN CANCER**

VERWENDUNG VON BIOMARKERN ZUM NACHWEIS VON EIERSTOCKKREBS

UTILISATION DE BIOMARQUEURS POUR DETECTER UN CANCER DE L'OVAIRE

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(56) References cited:
WO-A-02/37112

- **BERGMAN A C ET AL: "IDENTIFICATION OF GEL-SEPARATED TUMOR MARKER PROTEINS BY MASS SPECTROMETRY" ELECTROPHORESIS, WILEY-VCH VERLAG, WEINHEIM, DE, vol. 21, no. 3, February 2000 (2000-02), pages 679-686, XP000923086 ISSN: 0173-0835**
- **KUESEL ANNETTE C ET AL: "Lipoprotein (a) and CA125 levels in the plasma of patients with benign and malignant ovarian disease" INTERNATIONAL JOURNAL OF CANCER, vol. 52, no. 3, 1992, pages 341-346, XP008067703 ISSN: 0020-7136**

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EP 1 540 010 B8

- VLAHOU ANTONIA ET AL: "SELDI protein profiling in ovarian cancer diagnosis" PROCEEDINGS OF THE AMERICAN ASSOCIATION FOR CANCER RESEARCH ANNUAL MEETING, vol. 43, March 2002 (2002-03), page 36, XP002394798 & 93RD ANNUAL MEETING OF THE AMERICAN ASSOCIATION FOR CANCER RESEARCH; SAN FRANCISCO, CALIFORNIA, USA; APRIL 06-10, 2002 ISSN: 0197-016X
- ZHANG Z ET AL: "COMPARISON OF PROTEIN PROFILES IN PLASMA BETWEEN EARLY AND LATE STAGE OVARIAN CANCER PATIENTS USING SELDI PROTEIN CHIP/MASS SPECTROMETRY" PROCEEDINGS OF THE ANNUAL MEETING OF THE AMERICAN ASSOCIATION FOR CANCER RESEARCH, NEW YORK, NY, US, vol. 43, March 2002 (2002-03), pages 36-37, XP001204210 ISSN: 0197-016X
- RAI A J ET AL: "SELDI (Surface Enhanced Laser Desorption/Ionization) based identification of tumor markers for ovarian cancer-combination of CA125 and multiple markers improves detection performance" CLINICAL CHEMISTRY, vol. 48, no. 6 Supplement, June 2002 (2002-06), pages A21-A22, XP008067682 & 54TH ANNUAL MEETING OF THE AMERICAN ASSOCIATION FOR CLINICAL CHEMISTRY (AACC); ORLANDO, FLORIDA, USA; JULY 28-AUGUST 01, 2002 ISSN: 0009-9147
- MEYER T ET AL: "Role of tumour markers in monitoring epithelial ovarian cancer" BRITISH JOURNAL OF CANCER, vol. 82, no. 9, May 2000 (2000-05), pages 1535-1538, XP002394797 ISSN: 0007-0920
- ZHANG ZHEN ET AL: "Combination of multiple serum markers using an artificial neural network to improve specificity in discriminating malignant from benign pelvic masses" GYNECOLOGIC ONCOLOGY, vol. 73, no. 1, April 1999 (1999-04), pages 56-61, XP002394799 ISSN: 0090-8258
- SIGMA DIAGNOSTICS: "2001 Catalogue" 2001, , XP002394808 * page 2, paragraph APOLIPOPROTEIN A-1 * * page 3, paragraph STANDARD:CHEMISTRY, row 4 * Idem
- MERCHANT M ET AL: "RECENT ADVANCEMENTS IN SURFACE-ENHANCED LASER DESORPTION/IONIZATION-TIME OF FLIGHT-MASS SPECTROMETRY" ELECTROPHORESIS, WILEY-VCH VERLAG, WEINHEIM, DE, vol. 21, 2000, pages 1164-1177, XP001079059 ISSN: 0173-0835
- ZHANG Z ET AL: "THREE BIOMARKERS IDENTIFIED FROM SERUM PROTEOMIC ANALYSIS FOR THE DETECTION OF EARLY STAGE OVARIAN CANCER" CANCER RESEARCH, AMERICAN ASSOCIATION FOR CANCER RESEARCH, BALTIMORE, MD, US, vol. 64, no. 16, 15 August 2004 (2004-08-15), pages 5882-5890, XP001199859 ISSN: 0008-5472
- WELSH J.B. ET AL.: 'Analysis of gene expression profiles in normal and neoplastic ovarian tissue samples identifies candidate molecular markers of epithelial ovarian cancer' PNAS vol. 98, January 2001, pages 1176 - 1181, XP002975970
- DE SOUSA M.M. ET AL: "Apolipoprotein AI and transthyretin as components of amyloid fibrils in a kindred with apoAI Leu178His amyloidosis." THE AMERICAN JOURNAL OF PATHOLOGY, vol. 156, no. 6, June 2000 (2000-06), US