

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

(19) World Intellectual Property Organization
International Bureau



162162

(43) International Publication Date
26 June 2003 (26.06.2003)

PCT

(10) International Publication Number
WO 03/051371 A1

(51) International Patent Classification⁷: **A61K 31/565**,
31/715, 31/726, 31/737, 31/375, 31/401, 33/04, 33/34,
33/26, A61P 5/30, 5/24, A61K 31/569, 31/567 // (A61K
31/565, 31:375) (A61K 31/567, 31:375) (A61K 31/569,
31:375) (A61K 31/565, 31:401, 31:375) (A61K 31/565,
31:375) (A61K 31/737, 31:565, 31:375)

3815 Susan Drive, Evergreen Ridge Apt., J10, San Bruno,
CA 94066 (US). **IVANOV, Vadim**; 6535 Ridgewood
Drive, Castro Valley, CA 94552 (US).

(74) Agent: **FEDERHEN, Ludwig**; Kleiner Rechtsanwälte,
Silberburgstrasse 187, 70178 Stuttgart (DE).

(21) International Application Number: PCT/EP01/14726

(22) International Filing Date:
14 December 2001 (14.12.2001)

(81) Designated States (*national*): AU, BR, CA, CN, CZ, EE,
HR, HU, IL, IN, JP, KR, LT, LV, MX, NO, NZ, PL, RU,
SG, SI, ZA.

(25) Filing Language: English

(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).

(26) Publication Language: English

(71) Applicant and

Published:

(72) Inventor: **RATH, Matthias** [DE/US]; Stevens Creek Bld.
20350, Cupertino, CA 95014 (US).

— with international search report

(72) Inventors: **NIEDZWIECKI, Aleksandra**; 1394 Heck-
man Way, San Jose, CA 95129 (US). **NETKE, Shrirang**;

*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*



G00002

WO 03/051371 A1

(54) Title: COMPOSITION OF ESTROGEN AND OTHER HORMONES WITH ASCORBATE, LYSINE, PROLINE AND OTHER SUBSTANCES

(57) Abstract: This invention concerns compositions of estrogen and related hormones in combination with ascorbate, lysine, proline and other substances effecting connective tissues, their ability and their use in contraception, hormonal replacement therapy during menopause, and for other use in medicine, physiology, pharmacology, pharmaceuticals and cosmetic application.