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Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, 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, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, 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, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, 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, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, 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, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

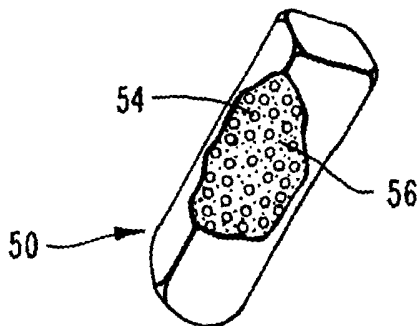
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(54) Title: COMPOSITIONS AND METHODS OF MANUFACTURE FOR ORAL DISSOLVABLE DOSAGE FORMS



(57) Abstract: Compositions and methods of manufacture for dissolvable and nondissolvable drug-containing dosage-forms for noninvasive administration of medicaments through mucosal tissues of the mouth, pharynx, and esophagus of a patient. The dosage-forms are particularly useful in the transmucosal delivery of central nervous system affecting drugs in a dose-to-effect manner such that a sufficient dose is administered to produce a desired effect. A dissolvable drug-containing dosage-form includes a binding agent that is formed into a solid matrix dissolvable in the mouth of the patient, and a pharmacologically effective dose of a central nervous system affecting drug dispersed throughout the matrix. A nondissolvable drug-containing dosage-form includes a drug containment matrix that is nondissolvable in the mouth of the patient, and a central nervous system affecting drug incorporated into the nondissolvable matrix. The dissolvable and nondissolvable drug-containing dosage-forms may include permeation enhancers capable of modifying the permeability of the mucosal tissues of the mouth, pharynx, and esophagus in order to facilitate transmucosal absorption of the drug.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, CHEM ABS Data, BIOSIS, MEDLINE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 630 647 A (UNIV UTAH RES FOUND) 28 December 1994 (1994-12-28) page 2, line 5 - line 9 page 9, line 23 - line 56 page 13 -page 15; tables 1-3 page 16 -page 17; examples 1,2 ---	1-40, 63-76
X	WO 91 03236 A (UNIV UTAH RES FOUND) 21 March 1991 (1991-03-21) page 1, line 6 - line 14 page 37, line 1 -page 41, line 11 claims 1-49 -----	41-62

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0630647	A	28-12-1994	US 5288497 A	22-02-1994
			EP 0630647 A1	28-12-1994
			AT 129148 T	15-11-1995
			AT 177007 T	15-03-1999
			AU 668004 B2	18-04-1996
			AU 5521894 A	28-04-1994
			AU 645265 B2	13-01-1994
			AU 6287790 A	08-04-1991
			CA 2066423 A1	06-03-1991
			DE 69023143 D1	23-11-1995
			DE 69023143 T2	28-03-1996
			DE 69032982 D1	08-04-1999
			DE 69032982 T2	26-08-1999
			DK 490916 T3	04-03-1996
			DK 630647 T3	04-10-1999
			EP 0490916 A1	24-06-1992
			ES 2077686 T3	01-12-1995
			ES 2133448 T3	16-09-1999
			JP 2717024 B2	18-02-1998
			JP 5503917 T	24-06-1993
			NO 920857 A	06-04-1992
			WO 9103237 A1	21-03-1991
			US 5824334 A	20-10-1998
			US 5783207 A	21-07-1998
			US 5785989 A	28-07-1998
			WO 9103236	A
AT 138562 T	15-06-1996			
AU 642664 B2	28-10-1993			
AU 6337190 A	08-04-1991			
CA 2066403 A1	06-03-1991			
DE 69027216 D1	04-07-1996			
DE 69027216 T2	17-10-1996			
DK 490944 T3	21-10-1996			
EP 0490944 A1	24-06-1992			
ES 2089027 T3	01-10-1996			
JP 2749198 B2	13-05-1998			
JP 5500058 T	14-01-1993			
NO 920858 A	04-03-1992			
WO 9103236 A1	21-03-1991			
US 5855908 A	05-01-1999			