

**INPADOC Patent Family EP0287477**

Publication No.	Publication date	Filing No.	Priority	Links
AT 113611T	19941115	AT 88400928T 19880415	FR 8705457A 19870416	<a href="#">Espacenet</a>
<p><b>Applicant(s):</b> SANOFI SA (FR)  <b>Inventor(s):</b> LORMEAU JEAN-CLAUDE (FR);PETITOU MAURICE (FR);CHOAY JEAN (FR)  <b>Title:</b> HEPARINE MIT NIEDRIGEM MOLEKULARGEWICHT UND REGELMÄSSIGER STRUKTUR, IHRE HERSTELLUNG UND BIOLOGISCHE VERWENDUNGEN.  <b>IPC:</b> C08B37/10 ; A61K31/725</p>				
AU 1466388A	19881020	AU 1466388D 19880415	FR 8705457A 19870416	<a href="#">Espacenet</a>
<p><b>Applicant(s):</b> SANOFI SA  <b>Inventor(s):</b> LORMEAU JEAN-CLAUDE;PETITOU MAURICE;CHOAY JEAN  <b>Title:</b> LOW MOLECULAR WEIGHT HEPARINS OF REGULAR STRUCTURE, THEIR PREPARATION AND THEIR BIOLOGICAL USES  <b>IPC:</b> C07H11/00 ; A61K31/725 ; C08B37/10 ; C07H7/02</p>				
AU 601566B2	19900913	AU 1466388A 19880415	FR 8705457A 19870416	<a href="#">Espacenet</a>
<p><b>Applicant(s):</b> SANOFI SA  <b>Inventor(s):</b> LORMEAU JEAN-CLAUDE;PETITOU MAURICE;CHOAY JEAN  <b>Title:</b> LOW MOLECULAR WEIGHT HEPARINS OF REGULAR STRUCTURE, THEIR PREPARATION AND THEIR BIOLOGICAL USES  <b>IPC:</b> A61K31/725 ; C08B37/10</p>				
CA 1327968C	19940322	CA 564296A 19880415	FR 8705457A 19870416	<a href="#">Espacenet</a>
<p><b>Applicant(s):</b> SANOFI SA (FR)  <b>Inventor(s):</b> LORMEAU JEAN-CLAUDE (FR);CHOAY JEAN (FR);PETITOU MAURICE (FR)  <b>Title:</b> Low Molecular Weight Heparins, with Regular Structure, Preparation Thereof and Biological Applications Thereof  <b>Title:</b> Héparines de bas poids moléculaire, à structure régulière leur préparation et leurs applications biologiques  <b>IPC:</b> C08B37/10 ; A61K31/725</p>				
DE 3851973D1	19941208	DE 3851973A 19880415	FR 8705457A 19870416	<a href="#">National register</a>
<p><b>Applicant(s):</b> SANOFI SA (FR)  <b>Inventor(s):</b> LORMEAU JEAN-CLAUDE (FR);PETITOU MAURICE (FR);CHOAY JEAN (FR)  <b>Title:</b> Heparine mit niedrigem Molekulargewicht und regelmässiger Struktur, ihre Herstellung und biologische Verwendungen.  <b>IPC:</b> C08B37/10 ; A61K31/725</p>				
DE 3851973T2	19950608	DE 3851973T 19880415	FR 8705457A 19870416	<a href="#">National register</a>
<p><b>Applicant(s):</b> SANOFI SA (FR)  <b>Inventor(s):</b> LORMEAU JEAN-CLAUDE (FR);PETITOU MAURICE (FR);CHOAY JEAN (FR)  <b>Title:</b> Heparine mit niedrigem Molekulargewicht und regelmässiger Struktur, ihre Herstellung und biologische Verwendungen.  <b>IPC:</b> C08B37/10 ; A61K31/725</p>				
DK 210388D0	19880418	DK 210388A	FR 8705457A 19870416	<a href="#">Espacenet</a>

DK 210388A	19881017	DK 210388A 19880418	FR 8705457A 19870416	<a href="#">Espacenet</a>
<p><b>Applicant(s):</b> SANOFI SA (FR)  <b>Inventor(s):</b> LORMEAU JEAN-GLAUDE;CHOAY JEAN;PETITOU MAURICE  <b>Title:</b> HEPARINDERIVATER MED LAV MOLEKYLVAEGT  <b>IPC:</b> C08B37/10</p>				
DK 173982B1	20020325	DK 210388A 19880418	FR 8705457A 19870416	<a href="#">Espacenet</a>
<p><b>Applicant(s):</b> SANOFI SA (FR)  <b>Inventor(s):</b> LORMEAU JEAN-GLAUDE;CHOAY JEAN;PETITOU MAURICE  <b>Title:</b> HEPARINDERIVATER MED LAV MOLEKYLVAEGT  <b>IPC:</b> C08B37/10</p>				
EP 0287477A2	19881019	EP 88400928A 19880415	FR 8705457A 19870416	<a href="#">Register (Epoline)</a>
<p><b>Applicant(s):</b> SANOFI SA (FR)  <b>Inventor(s):</b> LORMEAU JEAN-CLAUDE;CHOAY JEAN;PETITOU MAURICE  <b>Title:</b> Low molecular weight heparins with a regular structure, their preparation and biological uses.  <b>Title:</b> Heparine mit niedrigem Molekulargewicht und regelmässiger Struktur, ihre Herstellung und biologische Verwendungen.  <b>EPC:</b> C08B37/00P2G2  <b>IPC:</b> A61K31/725 ; C08B37/10</p>				
EP 0287477A3	19890726	EP 88400928A 19880415	FR 8705457A 19870416	<a href="#">Register (Epoline)</a>
<p><b>Applicant(s):</b> SANOFI SA (FR)  <b>Inventor(s):</b> LORMEAU JEAN-CLAUDE;CHOAY JEAN;PETITOU MAURICE  <b>Title:</b> Low molecular weight heparins with a regular structure, their preparation and biological uses.  <b>Title:</b> Heparine mit niedrigem Molekulargewicht und regelmässiger Struktur, ihre Herstellung und biologische Verwendungen.  <b>EPC:</b> C08B37/00P2G2  <b>IPC:</b> A61K31/725 ; C08B37/10</p>				
EP 0287477B1	19941102	EP 88400928A 19880415	FR 8705457A 19870416	<a href="#">Register (Epoline)</a>
<p><b>Applicant(s):</b> SANOFI SA (FR)  <b>Inventor(s):</b> LORMEAU JEAN-CLAUDE;CHOAY JEAN;PETITOU MAURICE  <b>Title:</b> Low molecular weight heparins with a regular structure, their preparation and biological uses.  <b>Title:</b> Heparine mit niedrigem Molekulargewicht und regelmässiger Struktur, ihre Herstellung und biologische Verwendungen.  <b>EPC:</b> C08B37/00P2G2  <b>IPC:</b> A61K31/725 ; C08B37/10</p>				
FI 881783D0	19880415	FI 881783A	FR 8705457A 19870416	<a href="#">Espacenet</a>
<p><b>Applicant(s):</b> SANOFI SA (FR)  <b>Inventor(s):</b> LORMEAU JEAN-CLAUDE (FR);CHOAY JEAN (FR);PETITOU MAURICE (FR)  <b>Title:</b> HEPARINER.  <b>IPC:</b> C08B</p>				
FI 881783A	19881017	FI 881783A 19880415	FR 8705457A 19870416	<a href="#">Espacenet</a>

FI 88046B	19921215	FI 881783A 19880415	FR 8705457A 19870416	<a href="#">Espacenet</a>
<b>Applicant(s):</b> SANOFI SA (FR) <b>Inventor(s):</b> LORMEAU JEAN-CLAUDE (FR);CHOAY JEAN (FR);PETITOU MAURICE (FR) <b>Title:</b> HEPARINER. <b>IPC:</b> C08B				
FI 88046C	19930325	FI 881783A 19880415	FR 8705457A 19870416	<a href="#">Espacenet</a>
<b>Applicant(s):</b> SANOFI SA (FR) <b>Inventor(s):</b> LORMEAU JEAN-CLAUDE (FR);CHOAY JEAN (FR);PETITOU MAURICE (FR) <b>Title:</b> HEPARINER. <b>IPC:</b> C08B				
FR 2614026A1	19881021	FR 8705457A 19870416	FR 8705457A 19870416	<a href="#">Espacenet</a>
<b>Applicant(s):</b> SANOFI SA (FR) <b>Inventor(s):</b> LORMEAU JEAN-CLAUDE;CHOAY JEAN;PETITOU MAURICE <b>Title:</b> HEPARINES DE BAS POIDS MOLECULAIRE, A STRUCTURE REGULIERE, LEUR PREPARATION ET LEURS APPLICATIONS BIOLOGIQUES <b>EPC:</b> C08B37/00P2G2 (N) <b>IPC:</b> C08B37/10 ; A61K31/725				
FR 2614026B1	19920417	FR 8705457A 19870416	FR 8705457A 19870416	<a href="#">Espacenet</a>
<b>Applicant(s):</b> SANOFI SA (FR) <b>Inventor(s):</b> LORMEAU JEAN-CLAUDE;CHOAY JEAN;PETITOU MAURICE <b>Title:</b> HEPARINES DE BAS POIDS MOLECULAIRE, A STRUCTURE REGULIERE, LEUR PREPARATION ET LEURS APPLICATIONS BIOLOGIQUES <b>EPC:</b> C08B37/00P2G2 (N) <b>IPC:</b> C08B37/10 ; A61K31/725				
IE 881150L	19881016	IE 115088A 19880415	FR 8705457A 19870416	<a href="#">Espacenet</a>
<b>Applicant(s):</b> SYNTHETIC IND LTD <b>Title:</b> Low molecular weight heparins of regular structure, theirpreparation and their biological uses <b>IPC:</b> C08B37/10 ; C08L5/10				
IE 64884B1	19950920	IE 115088A 19880415	FR 8705457A 19870416	<a href="#">Espacenet</a>
<b>Applicant(s):</b> SANOFI SA (FR) <b>Inventor(s):</b> LORMEAU JEAN-CLAUDE;CHOAY JEAN;PETITOU MAURICE <b>Title:</b> Low molecular weight heparins of regular structure their preparation and their biological uses <b>IPC:</b> C08B37/10 ; C08L5/10				
IL 86091D0	19880930	IL 8609188A	FR 8705457A 19870416	<a href="#">Espacenet</a>
JP 63278901A	19881116	JP 9189188A 19880415	FR 8705457A 19870416	<a href="#">Espacenet</a>
<b>Applicant(s):</b> SANOFI SA <b>Inventor(s):</b> JIYANKUROODO RORUMIYUU;MOORISU PUTEITOUU;JIYAN SHIYOAI <b>Title:</b> NORMAL STRUCTURE LOW MOLECULAR WEIGHT HEPARIN, MANUFACTURE AND BIOLOGICAL APPLICATION <b>IPC:</b> A61L33/00 ; C08B37/10				

NO 881660D0	19880415	NO 881660A	FR 8705457A 19870416	<a href="#">Espacenet</a>
<p><b>Applicant(s):</b> SANOFI SA (FR)  <b>Inventor(s):</b> LORMEAU JEAN-CLAUDE;CHOAY JEAN;PETITOU MAURICE  <b>Title:</b> HEPARINER MED LAV MOLEKYLVEKT OG FREMGANGSMAATE FOR DERES FREMSTILLING.  <b>IPC:</b> C08B37/10</p>				
NO 881660A	19881017	NO 881660A 19880415	FR 8705457A 19870416	<a href="#">Espacenet</a>
<p><b>Applicant(s):</b> SANOFI SA (FR)  <b>Inventor(s):</b> LORMEAU JEAN-CLAUDE;CHOAY JEAN;PETITOU MAURICE  <b>Title:</b> HEPARINER MED LAV MOLEKYLVEKT OG FREMGANGSMAATE FOR DERES FREMSTILLING.  <b>IPC:</b> C08B37/10</p>				
NO 170940B	19920921	NO 881660A 19880415	FR 8705457A 19870416	<a href="#">Espacenet</a>
<p><b>Applicant(s):</b> SANOFI SA (FR)  <b>Inventor(s):</b> LORMEAU JEAN-CLAUDE;CHOAY JEAN;PETITOU MAURICE  <b>Title:</b> HEPARINER MED LAV MOLEKYLVEKT OG FREMGANGSMAATE FOR DERES FREMSTILLING.  <b>IPC:</b> C08B37/10</p>				
NO 170940C	19921230	NO 881660A 19880415	FR 8705457A 19870416	<a href="#">Espacenet</a>
<p><b>Applicant(s):</b> SANOFI SA (FR)  <b>Inventor(s):</b> LORMEAU JEAN-CLAUDE;CHOAY JEAN;PETITOU MAURICE  <b>Title:</b> HEPARINER MED LAV MOLEKYLVEKT OG FREMGANGSMAATE FOR DERES FREMSTILLING.  <b>IPC:</b> C08B37/10</p>				
NZ 224275A	19910226	NZ 22427588A 19880415	FR 8705457A 19870416	<a href="#">Espacenet</a>
<p><b>Applicant(s):</b> SANOFI SA  <b>Inventor(s):</b> LORMEAU JEAN-CLAUDE;CHOAY JEAN;PETITOU MAURICE  <b>Title:</b> LOW MOLECULAR WEIGHT HEPARIN DERIVATIVES; PHARMACEUTICAL COMPOSITIONS  <b>IPC:</b> C08B37/10 ; A61K31/725</p>				
PT 87261A	19880501	PT 8726188A 19880415	FR 8705457A 19870416	<a href="#">Espacenet</a>
<p><b>Applicant(s):</b> SANOFI SA (FR)  <b>Inventor(s):</b> LORMEAU JEAN-CLAUDE;CHOAY JEAN;PETITOU MAURICE  <b>Title:</b> PROCESSO DE PREPARACAO DE HEPARINAS DE BAIXO PESO MOLECULAR,COM ESTRUTURA REGULAR E DE COMPOSICOES FARMACEUTICAS QUE AS CONTEM  <b>IPC:</b> C08B37/10 ; A61K31/725</p>				
PT 87261B	19920831	PT 8726188A 19880415	FR 8705457A 19870416	<a href="#">Espacenet</a>
<p><b>Applicant(s):</b> SANOFI SA (FR)  <b>Inventor(s):</b> LORMEAU JEAN-CLAUDE;CHOAY JEAN;PETITOU MAURICE  <b>Title:</b> PROCESSO DE PREPARACAO DE HEPARINAS DE BAIXO PESO MOLECULAR,COM ESTRUTURA REGULAR E DE COMPOSICOES FARMACEUTICAS QUE AS CONTEM  <b>IPC:</b> C08B37/10 ; A61K31/725</p>				
US 4990502A	19910205	US 18196988A 19880415	FR 8705457A 19870416	<a href="#">National register (PAIR)</a>
<p><b>Applicant(s):</b> SANOFI SA (FR)  <b>Inventor(s):</b> LORMEAU JEAN-CLAUDE (FR);PETITOU MAURICE (FR);CHOAY JEAN (FR)</p>				

**Title:** Low molecular weight heparins of regular structure, their preparation and their biological uses.

**Abstract:**

The compositions of the invention are composed of fragments of heparin consisting essentially of repeated disaccharide sequences corresponding to the regular regions of heparin and possessing a MW between 4,800 and 9,000. These compositions can be used for the regulation of physiological systems.

EPC: C08B37/00P2G2 (N)

IPC: A61K31/725 ; C08B37/10

ZA 8802662A	19881014	ZA 8802662A 19880415	FR 8705457A 19870416	<a href="#">Espacenet</a>
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**Title:** DEPOLYMERISATION OF PERIODATE

**INPADOC Legal Status**

**AT113611T**

1995-05-15 RER -CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES

**DE3851973D**

1995-11-30 8364 +NO OPPOSITION DURING TERM OF OPPOSITION  
2002-02-14 8327 CHANGE IN THE PERSON/NAME/ADDRESS OF THE PATENT OWNER Owner Name SANOFI-SYNTHELABO, PARIS, FR

**EP0287477**

1988-10-19 AK +DESIGNATED CONTRACTING STATES: Kind Code of Ref Document A2  
+DESIGNATED CONTRACTING STATES: Designated State(s) AT BE CH DE ES FR GB GR IT LI LU NL SE

1989-07-26 AK +DESIGNATED CONTRACTING STATES: Kind Code of Ref Document A3  
+DESIGNATED CONTRACTING STATES: Designated State(s) AT BE CH DE ES FR GB GR IT LI LU NL SE

1990-02-21 17P +REQUEST FOR EXAMINATION FILED Effective DATE 19891220

1992-05-13 RAP1 APPLICANT REASSIGNMENT (CORRECTION) Owner Name ELF SANOFI

1992-08-19 17Q +FIRST EXAMINATION REPORT Effective DATE 19920701

1994-10-19 RAP1 APPLICANT REASSIGNMENT (CORRECTION) Owner Name SANOFI

1994-11-02 AK +DESIGNATED CONTRACTING STATES: Kind Code of Ref **Document B1**  
+DESIGNATED CONTRACTING STATES: Designated State(s) AT BE CH DE ES FR GB GR IT LI LU NL SE

1994-11-02 REF CORRESPONDS TO: Ref Document Number 113611  
CORRESPONDS TO: Country of Ref Document AT

1994-11-02 REF CORRESPONDS TO: Date of Ref Document 19941115  
CORRESPONDS TO: Kind Code of Ref Document T

1994-11-02 REF CORRESPONDS TO: Format of Ref Document F/P P

1994-11-21 ITF +IT: TRANSLATION FOR A EP PATENT FILED Owner Name JACOBACCI CASSETTA AND PERANI S.P.A.

1994-12-08 REF CORRESPONDS TO: Ref Document Number 3851973  
CORRESPONDS TO: Country of Ref Document DE

1994-12-08 REF CORRESPONDS TO: Date of Ref Document 19941208  
CORRESPONDS TO: Format of Ref Document F/P P

1995-03-08 GBT +GB: TRANSLATION OF EP PATENT FILED (GB SECTION 77(6)(A)/1977) Effective DATE 19950207

1995-04-18 NLV1 -NL: LAPSED OR ANNULED DUE TO FAILURE TO FULFILL THE REQUIREMENTS OF ART. 29P AND 29M OF THE PATENTS ACT; NO LEGAL EFFECT

FROM

1995-10-25 26N +NO OPPOSITION FILED

1995-10-31 BERE -BE: LAPSED Owner Name SANOFI  
-BE: LAPSED Effective DATE 19950430

2000-02-09 25 -LAPSED IN A CONTRACTING STATE Ref Country Code AT  
-LAPSED IN A CONTRACTING STATE Effective DATE 19941102

2000-02-09 25 -LAPSED IN A CONTRACTING STATE Ref Country Code BE  
-LAPSED IN A CONTRACTING STATE Effective DATE 19950430

2000-02-09 25 -LAPSED IN A CONTRACTING STATE Ref Country Code GR  
-LAPSED IN A CONTRACTING STATE Effective DATE 19941102

2000-02-09 25 -LAPSED IN A CONTRACTING STATE Ref Country Code LU  
-LAPSED IN A CONTRACTING STATE Effective DATE 19950430

2000-02-09 25 -LAPSED IN A CONTRACTING STATE Ref Country Code NL  
-LAPSED IN A CONTRACTING STATE Effective DATE 19941102

2000-02-09 25 -LAPSED IN A CONTRACTING STATE Ref Country Code SE

2001-06-22 REG -LAPSED IN A CONTRACTING STATE Effective DATE 19950202  
 REFERENCE TO A NATIONAL CODE Ref Country Code FR  
 REFERENCE TO A NATIONAL CODE Ref Legal Event Code TP  
 (TRANSMISSION OF PROPERTY)  
 2001-11-15 REG REFERENCE TO A NATIONAL CODE Ref Country Code CH  
 REFERENCE TO A NATIONAL CODE Ref Legal Event Code PFA  
 2001-11-15 REG REFERENCE TO A NATIONAL CODE Free Format Text SANOFI  
 TRANSFER- SANOFI-SYNTHELABO (NAME/FIRM CHANGED)  
 2002-01-01 REG REFERENCE TO A NATIONAL CODE Ref Country Code GB  
 REFERENCE TO A NATIONAL CODE Ref Legal Event Code IF02  
 (EUROPEAN PATENT IN FORCE AS OF 2002-01-01)  
 2002-06-12 25 -LAPSED IN A CONTRACTING STATE Ref Country Code AT  
 -LAPSED IN A CONTRACTING STATE Effective DATE 19941102  
 2002-06-12 25 -LAPSED IN A CONTRACTING STATE Ref Country Code BE  
 -LAPSED IN A CONTRACTING STATE Effective DATE 19950430  
 2002-06-12 25 -LAPSED IN A CONTRACTING STATE Ref Country Code ES  
 -LAPSED IN A CONTRACTING STATE Effective DATE 19941102  
 2002-06-12 25 -LAPSED IN A CONTRACTING STATE Ref Country Code GR  
 -LAPSED IN A CONTRACTING STATE Effective DATE 19941102  
 2002-06-12 25 -LAPSED IN A CONTRACTING STATE Ref Country Code LU  
 -LAPSED IN A CONTRACTING STATE Effective DATE 19950430  
 2002-06-12 25 -LAPSED IN A CONTRACTING STATE Ref Country Code NL  
 -LAPSED IN A CONTRACTING STATE Effective DATE 19941102  
 2002-06-12 25 -LAPSED IN A CONTRACTING STATE Ref Country Code SE  
 -LAPSED IN A CONTRACTING STATE Effective DATE 19950202  
 2003-09-03 REG REFERENCE TO A NATIONAL CODE Ref Country Code GB  
 REFERENCE TO A NATIONAL CODE Ref Legal Event Code 732E  
 (PROCEEDING UNDER SECTION 32 PATENTS ACT 1977)

**FR2614026**

2001-06-22 CD CHANGE OF NAME OF NOMINATION  
 2001-06-22 TP TRANSMISSION OF PROPERTY

**PT87261**

1992-08-31 FG3A +PATENT GRANTED, DATE OF GRANTING Effective DATE 19920203  
 2001-12-28 PC3A TRANSFER OR ASSIGNMENT Free Format Text 20011002  
 SANOFI-SYNTHELABO FR

**US4990502**

1988-04-15 AS02 ASSIGNMENT OF ASSIGNOR'S INTEREST Owner Name SANOFI, 40,  
 AVENUE GEORGE-V, 75008 PARIS (FRANCE)  
 ASSIGNMENT OF ASSIGNOR'S INTEREST Effective DATE 19880412  
 1988-04-15 AS02 ASSIGNMENT OF ASSIGNOR'S INTEREST Owner Name LORMEAU,  
 JEAN-CLAUDE  
 ASSIGNMENT OF ASSIGNOR'S INTEREST Effective DATE 19880412  
 1988-04-15 AS02 ASSIGNMENT OF ASSIGNOR'S INTEREST Owner Name PETITOU, MAURICE  
 ASSIGNMENT OF ASSIGNOR'S INTEREST Effective DATE 19880412  
 1988-04-15 AS02 ASSIGNMENT OF ASSIGNOR'S INTEREST Owner Name CHOAY, JEAN  
 ASSIGNMENT OF ASSIGNOR'S INTEREST Effective DATE 19880411  
 1992-10-06 CC CERTIFICATE OF CORRECTION

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