

# EXHIBIT 1

As filed with the Securities and Exchange Commission on April 8, 2002

**SECURITIES AND EXCHANGE COMMISSION**  
WASHINGTON, D.C. 20549

**FORM 20-F**

- REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934  
OR
- ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the fiscal year ended December 31, 2001  
OR
- TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the transition period from \_\_\_\_\_ to \_\_\_\_\_  
Commission file number: 1-10378

**Aventis**

*(Exact name of Registrant as specified in its charter)*

**Not applicable**  
*(Translation of Registrant's name into English)*

**Republic of France**  
*(Jurisdiction of incorporation or organization)*

**67917 Strasbourg cedex 9**

**France**

*(Address of principal executive offices)*

Securities registered or to be registered pursuant to Section 12(b) of the Act:

<u>Title of each class:</u>	<u>Name of each exchange on which registered</u>
American Depositary Shares, each representing one Ordinary Share nominal value € 3.82 per share .....	New York Stock Exchange
Ordinary Shares, nominal value € 3.82 per share* .....	New York Stock Exchange
Guarantee of 8 1/8% Cumulative Preference Shares of Aventis Overseas Ltd. ...	New York Stock Exchange

Securities registered or to be registered pursuant to Section 12(g) of the Act:

American Depositary Shares, each representing one quarter of a Participating Share Series A par value € 70.89 per share.\*\*

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act: None

(\*) Listed not for trading or quotation purposes, but only in connection with the registration of the American Depositary Shares pursuant to the requirements of the Securities and Exchange Commission.

(\*\*) The American Depositary Shares representing Participating Shares Series A were removed from listing and registration on the New York Stock Exchange effective July 31, 1995.

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report:

**Ordinary Shares, nominal value € 3.82 per Share: 795,621,603**

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period for which the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes  No

Indicate by check mark which financial statement item the registrant has elected to follow.

Item 17  Item 18

### **Diabetes**

**Lantus** (insulin glargine) is the first true once-daily long-acting basal insulin for treatment of type 1 and type 2 diabetes. After one daily injection before bedtime, *Lantus* is released into the body steadily and continuously with little variation in the amount of insulin in the body and provides patients with 24-hour basal glucose (blood sugar) control. First launched in Germany in June 2000, *Lantus* was launched in the United States in May 2001.

**Amaryl** (glimepiride) is a once-daily sulfonylurea for the oral treatment of type 2 diabetes, which accounts for more than 90% of the people diagnosed with diabetes worldwide, as an adjunct to diet and exercise. *Amaryl* reduces the body's blood glucose (blood sugar) level primarily by helping the body produce more insulin. *Amaryl* is the first oral diabetes drug in its class to receive three indications: either as a monotherapy or in combination with insulin or metformin, another oral diabetes treatment. First launched in 1996, *Amaryl* is now available in more than 50 countries worldwide.

**Insuman** (human insulin) is a biosynthetic insulin identical to that produced by the human body and is used for treatment of type 1 and type 2 diabetes. It was launched in Germany in 1999, followed by other European countries. *Insuman* is currently available in more than 13 countries, led by Germany and Austria. Aventis does not sell this product in the United States.

### **Arthritis/Osteoporosis**

**Actonel** (risedronate sodium) is a novel bisphosphonate approved for treatment and prevention of osteoporosis, a disease that causes bones to become weaker, in postmenopausal women and for the treatment of corticosteroid-induced osteoporosis. It is also approved for treatment of Paget's disease, which leads to excessive formation of abnormal bone that is weak and at risk of fracturing. *Actonel* is the only bisphosphonate that has shown rapid clinical vertebral fracture reduction in as early as six months and has shown sustained fracture reduction over up to five years. *Actonel* is being co-developed and co-marketed in partnership with Procter & Gamble Pharmaceuticals. It was approved and launched in Sweden in 1999, received U.S. and EU approval in 2000 and is currently approved in more than 65 countries worldwide.

**Arava** (leflunomide) is a novel disease-modifying anti-rheumatic drug ("DMARD") for first-line treatment of rheumatoid arthritis, a debilitating disease that leads to inflammation in the lining of the joints. It is the first drug to be indicated to reduce the signs and symptoms of rheumatoid arthritis and to retard structural damage, such as erosions and joint-space narrowing, as evidenced by X-ray. *Arava* offers once-daily dosing and can be used in both early and late stages of the disease. This brand was launched in the United States in 1998 and is available in 37 countries, including the EU and areas of Latin America.

### **Anti-Infectives**

**Ketek** (telithromycin) is the world's first ketolide antibiotic to be marketed and has been developed specifically to treat community-acquired respiratory tract infections, including those caused by bacteria resistant to commonly used antibiotics. The unique mode of action of *Ketek* results from dual-binding sites for bacteria as opposed to single-binding sites for currently available antibiotics. The pharmacokinetic profile of this drug allows for a convenient, once-daily regimen, short-course treatment option for most indications that is expected to encourage better patient adherence to treatment.

*Ketek* received EU marketing approval in July 2001 for the treatment of community-acquired respiratory tract infections, including those caused by bacteria resistant to commonly used antibiotics. The first market launch was Germany in October 2001, followed by other EU countries. *Ketek* has received an approvable letter from the U.S. Food and Drug Administration ("FDA") for the treatment of community-acquired pneumonia ("CAP") as well as for acute bacterial exacerbation of chronic bronchitis ("ABECB") and acute bacterial sinusitis ("ABS"), although non-approvable for tonsillitis/pharyngitis without additional data. Aventis is working closely with the FDA to gain approval for *Ketek*.

# EXHIBIT 2

## United States Patent [19]

Dörschug

[11] Patent Number: 5,656,722

[45] Date of Patent: Aug. 12, 1997

[54] A<sup>21</sup>-, B<sup>30</sup> - MODIFIED INSULIN  
DERIVATIVES HAVING AN ALTERED  
ACTION PROFILE

[75] Inventor: Michael Dörschug, Bochum, Germany

[73] Assignee: Hoechst Aktiengesellschaft, Frankfurt  
am Main, Germany

[21] Appl. No.: 304,593

[22] Filed: Sep. 12, 1994

## Related U.S. Application Data

[63] Continuation of Ser. No. 46,481, Apr. 9, 1993, abandoned,  
which is a continuation of Ser. No. 929,510, Aug. 19, 1992,  
abandoned, which is a continuation of Ser. No. 431,844,  
Nov. 6, 1989, abandoned.

## [30] Foreign Application Priority Data

Nov. 8, 1988 [DE] Germany ..... 38 37 825.6

[51] Int. CL<sup>6</sup> ..... A61K 38/28

[52] U.S. CL ..... 530/303; 530/304

[58] Field of Search ..... 530/303, 304;  
514/3, 12

## [56] References Cited

## U.S. PATENT DOCUMENTS

4,701,440 10/1987 Grau ..... 514/3

## FOREIGN PATENT DOCUMENTS

62066/86 5/1986 Australia .  
75916/87 1/1988 Australia .  
13976/88 9/1988 Australia .  
0046979 8/1981 European Pat. Off. .  
0133285 2/1985 European Pat. Off. .... 495/351  
0214826 3/1987 European Pat. Off. .  
0254516 6/1987 European Pat. Off. .

## OTHER PUBLICATIONS

Schome et al. Diabetes vol. 27 (1978) 8-15.  
Geigee, Chem-Zeitung vol. 100 No. 3 pp. 54-56 (Jan.  
1976).  
Thompson et al Int'l J. Pept. Prot. Res. vol. 23 (1984)  
394-401.  
Schwartz et al PNAS vol. 84 pp. 6408-6411 (Sep. 1987).  
Volund Diabetic Medicine 8, 839, 1991.  
Neubauer, "The Immunogenicity of Different Insulins in  
Several Animal Species", Diabetes, vol. 27, No. 1 (1977).  
"Galénics Of Insulin, The Physico-chemical and Pharma-  
ceutical Aspects of Insulin and Insulin Preparations", J.  
BRANGE: Springer-Verlag Berlin Heidelberg 1987, pp.  
35-36.  
Markussen et al., Soluble, prolonged-acting insulin deriva-  
tives, II. Degree of protraction and crystallizability of insu-  
lins substituted in positions A17, B8, B13, B27 and B30,  
Protein Engineering 1(3):215-223 (1987).

Markussen et al., Soluble, prolonged-acting insulin deriva-  
tives, III. Degree of protraction, crystallizability and chemi-  
cal stability of insulins substituted in positions A21, B13,  
B23, B27, and B30, Protein Engineering 2(2):157-166  
(1988).

Zinman, Bernard, The Physiologic Replacement of Insulin,  
Medical Intelligence, vol. 32, No. 6, pp. 363-370 (1989).  
Sundby, F., Separation and Characterization of Acid-indu-  
ced Insulin Transformation Products by Paper Electro-  
phoresis in 7 M Urea, The Journal of Biological Chemistry,  
vol. 237, No. 11, pp. 3406-3411 (1962).  
Burgermeister, W., et al., The Isolation of Insulin from the  
Pancreas, Reprint from the Handbook of Experimental Phar-  
macology, pp. 715-727 (1975) Insulin Humanum, European  
Pharmacopeia 838 (1993).

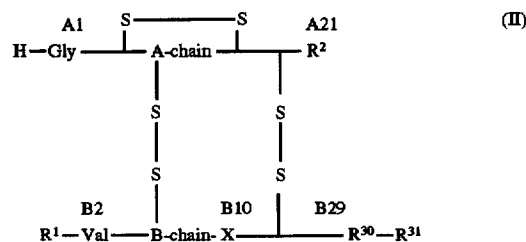
Primary Examiner—David Lukton

Attorney, Agent, or Firm—Finnegan, Henderson, Farabow,  
Garrett & Dunner, L.L.P.

## [57] ABSTRACT

New insulin derivatives, the use thereof, and a pharmaceu-  
tical composition containing them

Insulin derivatives having an isoelectric point between 5 and  
8.5, or physiologically tolerated salts thereof, of the Formula  
II



in which:

R<sup>1</sup> at position B1 denotes H or H-Phe;

R<sup>2</sup> at position A21 denotes a genetically encodable L-amino  
acid selected from the group consisting of Gly, Ala, Val,  
Leu, Ile, Pro, Phe, Trp, Met, Ser, Thr, Cys, Tyr, Asp, and  
Glu;

R<sup>30</sup> represents the residue of a neutral genetically encodable  
L-amino acid selected from the group consisting of Ala,  
Thr, and Ser;

R<sup>31</sup> represents 1, 2, or 3 neutral or basic alpha amino acids,  
wherein at least one of the alpha amino acids is selected  
from the group consisting of Arg, Lys, Hyl, Orn, Cit, and  
His;

X represents His at position B10; and  
the sequences A1 to A20 and B1 to B29 in Formula II  
correspond to a mammalian insulin;

excluding those insulin derivatives in which simultaneously:

R<sup>1</sup> at position B1 denotes Phe; and

R<sup>3</sup> is one alpha amino acid having a terminal carboxyl  
group.

15 Claims, No Drawings

# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.