

MAR 27 1990

For Six Month Period Ending \_\_\_\_\_  
(Insert date)

Name of Registrant *Judee Simon*

Registration No. *1481 dji*

Business Address of Registrant *301 East 57th Street  
New York, N.Y. 10022*  
I-REGISTRANT

1. Has there been a change in the information previously furnished in connection with the following:

(a) If an individual:

- (1) Residence address Yes  No
- (2) Citizenship Yes  No
- (3) Occupation Yes  No

(b) If an organization:

- (1) Name Yes  No
- (2) Ownership or control Yes  No
- (3) Branch offices Yes  No

2. Explain fully all changes, if any, indicated in item 1.

IF THE REGISTRANT IS AN INDIVIDUAL, OMIT RESPONSE TO ITEMS 3, 4, and 5.

3. Have any persons ceased acting as partners, officers, directors or similar officials of the registrant during this 6 month reporting period? Yes  No

If yes, furnish the following information:

Name

Position

Date Connection Ended

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CRIMINAL DIVISION  
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INTERNAL SECURITY  
COMMUNICATIONS SECTION

4. Have any persons become partners, officers, directors or similar officials during this 6 month reporting period?  
 Yes  No

If yes, furnish the following information:

<i>Name</i>	<i>Residence Address</i>	<i>Citizenship</i>	<i>Position</i>	<i>Date Assumed</i>
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5. Has any person named in Item 4 rendered services directly in furtherance of the interests of any foreign principal?  
 Yes  No

If yes, identify each such person and describe his services.

**Not applicable**

6. Have any employees or individuals other than officials, who have filed a short form registration statement, terminated their employment or connection with the registrant during this 6 month reporting period? Yes  No

If yes, furnish the following information:

<i>Name</i>	<i>Position or connection</i>	<i>Date terminated</i>
<b>Peter Boston Paris</b>	<b>Economist</b>	<b>1/31/90</b>
<b>Marcl S. Blaze</b>	<b>Economist</b>	<b>12/12/89</b>

7. During this 6 month reporting period, have any persons been hired as employees or in any other capacity by the registrant who rendered services to the registrant directly in furtherance of the interests of any foreign principal in other than a clerical or secretarial, or in a related or similar capacity? Yes  No

If yes, furnish the following information:

<i>Name</i>	<i>Residence Address</i>	<i>Position or connection</i>	<i>Date connection began</i>
<b>Roselyn Hirsch</b>	<b>417 E 87 St, NY, NY 10128</b>	<b>Economist</b>	<b>3/90</b>
<b>Erica Kaplan</b>	<b>108 W 15 St, NY 10011</b>	<b>Economist</b>	<b>3/90</b>
<b>David H. Katzlve</b>	<b>198 Columbia Heights Brooklyn, NY</b>	<b>Economist</b>	<b>3/90</b>
<b>Sandra Stahl</b>	<b>435 E 65 St, NY 10021</b>	<b>Economist</b>	<b>3/90</b>
<b>Peter D. Steinberg</b>	<b>101 W 79 St, NY 10024</b>	<b>Economist</b>	<b>3/90</b>
<b>Ava Stern</b>	<b>329 E 63 St, NY 10021</b>	<b>Economist</b>	<b>3/12/90</b>
<b>Stephen Wechselblatt</b>	<b>2 Hawthorn Street Crawford, NJ</b>	<b>Economist</b>	<b>3/12/90</b>
<b>Franklin J. Walton</b>	<b>42 Montgomery Place Brooklyn, NY 11215</b>	<b>Economist</b>	<b>10/89</b>

II—FOREIGN PRINCIPAL

(PAGE 3)

8. Has your connection with any foreign principal ended during this 6 month reporting period? Yes  No

If yes, furnish the following information:

*Name of foreign principal*

*Date of Termination*

**Mitsubishi Motors  
Italian Trade Commission**

**3/31/90  
11/89**

9. Have you acquired any new foreign principal<sup>1</sup> during this 6 month reporting period? Yes  No

If yes, furnish following information:

*Name and address of foreign principal*

*Date acquired*

**Bell Trust Co., Kanda Iwamoto-cho, Chiyoda-ku, Tokyo 101, Japan  
Laboratorios BioPur, S.A., 8/0 Legal Works, 950 S. Miami Ave, Miami, FL  
KABI, Lindhagensgatan #133, S112 87 Stockholm, Sweden**

**3/12/90  
3/90  
3/90**

10. In addition to those named in Items 8 and 9, if any, list the foreign principals<sup>1</sup> whom you continued to represent during the 6 month reporting period.

**Novo Nordisk A/S  
Boehringer Ingelheim GmbH  
Sedgwick Group**

III—ACTIVITIES

11. During this 6 month reporting period, have you engaged in any activities for or rendered any services to any foreign principal named in Items 8, 9, and 10 of this statement? Yes  No

If yes, identify each such foreign principal and describe in full detail your activities and services:

**Please see attached**

<sup>1</sup>The term "foreign principal" includes, in addition to those defined in section 1(b) of the Act, an individual or organization any of whose activities are directly or indirectly supervised, directed, controlled, financed, or subsidized in whole or in major part by a foreign government, foreign political party, foreign organization or foreign individual. (See Rule 100(a)(9)).

A registrant who represents more than one foreign principal is required to list in the statements he files under the Act only those foreign principals for whom he is not entitled to claim exemption under Section 3 of the Act. (See Rule 208.)

12. During this 6 month reporting period, have you on behalf of any foreign principal engaged in political activity<sup>2</sup> as defined below?  
Yes  No

If yes, identify each such foreign principal and describe in full detail all such political activity, indicating, among other things, the relations, interests and policies sought to be influenced and the means employed to achieve this purpose. If the registrant arranged, sponsored or delivered speeches, lectures or radio and TV broadcasts, give details as to dates, places of delivery, names of speakers and subject matter.

13. In addition to the above described activities, if any, have you engaged in activity on your own behalf which benefits any or all of your foreign principals? Yes  No

If yes, describe fully.

<sup>2</sup>The term "political activities" means the dissemination of political propaganda and any other activity which the person engaging therein believes will, or which he intends to, prevail upon, indoctrinate, convert, induce, persuade, or in any other way influence any agency or official of the Government of the United States or any section of the public within the United States with reference to formulating, adopting, or changing the domestic or foreign policy of the United States or with reference to the political or public interests, policies, or relations of a government of any foreign country or a foreign political party.

IV--FINANCIAL INFORMATION

14. (a) RECEIPTS--MONIES

During this 6 month reporting period, have you received from any foreign principal named in Items 8, 9 and 10 of this statement, or from any other source, for or in the interests of any such foreign principal, any contributions, income or money either as compensation or otherwise? Yes  No

If yes, set forth below in the required detail and separately for each foreign principal an account of such monies.<sup>3</sup>

<i>Date</i>	<i>From Whom</i>	<i>Purpose</i>	<i>Amount</i>
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**Please see attached**

\_\_\_\_\_  
Total

(b) RECEIPTS--THINGS OF VALUE

During this 6 month reporting period, have you received any thing of value<sup>4</sup> other than money from any foreign principal named in Items 8, 9 and 10 of this statement, or from any other source, for or in the interests of any such foreign principal? Yes  No

If yes, furnish the following information:

<i>Name of foreign principal</i>	<i>Date received</i>	<i>Description of thing of value</i>	<i>Purpose</i>
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<sup>3</sup>A registrant is required to file an Exhibit D if he collects or receives contributions, loans, money, or other things of value for a foreign principal, as part of a fund raising campaign. See Rule 201(e).  
<sup>4</sup>Things of value include but are not limited to gifts, interest free loans, expense free travel, favored stock purchases, exclusive rights, favored treatment over competitors, "kickbacks," and the like.

15. (a) **DISBURSEMENTS—MONIES**

During this 6 month reporting period, have you

(1) disbursed or expended monies in connection with activity on behalf of any foreign principal named in Items 8, 9 and 10 of this statement?      Yes       No

(2) transmitted monies to any such foreign principal?      Yes       No

If yes, set forth below in the required detail and separately for each foreign principal an account of such monies, including monies transmitted, if any, to each foreign principal.

<i>Date</i>	<i>To Whom</i>	<i>Purpose</i>	<i>Amount</i>
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**Please see attached**

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Total

15. (b) DISBURSEMENTS—THINGS OF VALUE

During this 6 month reporting period, have you disposed of anything of value<sup>5</sup> other than money in furtherance of or in connection with activities on behalf of any foreign principal named in items 8, 9 and 10 of this statement?

Yes  No

If yes, furnish the following information:

<i>Date disposed</i>	<i>Name of person to whom given</i>	<i>On behalf of what foreign principal</i>	<i>Description of thing of value</i>	<i>Purpose</i>
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(c) DISBURSEMENTS—POLITICAL CONTRIBUTIONS

During this 6 month reporting period, have you from your own funds and on your own behalf either directly or through any other person, made any contributions of money or other things of value<sup>5</sup> in connection with an election to any political office, or in connection with any primary election, convention, or caucus held to select candidates for political office?

Yes  No

If yes, furnish the following information:

<i>Date</i>	<i>Amount or thing of value</i>	<i>Name of political organization</i>	<i>Name of candidate</i>
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V—POLITICAL PROPAGANDA

(Section 1(j) of the Act defines "political propaganda" as including any oral, visual, graphic, written, pictorial, or other communication or expression by any person (1) which is reasonably adapted to, or which the person disseminating the same believes will, or which he intends to, prevail upon, indoctrinate, convert, induce, or in any other way influence a recipient or any section of the public within the United States with reference to the political or public interests, policies, or relations of a government of a foreign country or a foreign political party or with reference to the foreign policies of the United States or promote in the United States racial, religious, or social dissensions, or (2) which advocates, advises, instigates, or promotes any racial, social, political, or religious disorder, civil riot, or other conflict involving the use of force or violence in any other American republic or the overthrow of any government or political subdivision of any other American republic by any means involving the use of force or violence.)

16. During this 6 month reporting period, did you prepare, disseminate or cause to be disseminated any political propaganda as defined above? Yes  No

IF YES, RESPOND TO THE REMAINING ITEMS IN THIS SECTION V.

17. Identify each such foreign principal.

<sup>5</sup>Things of value include but are not limited to gifts, interest free loans, expense free travel, favored stock purchases, exclusive rights, favored treatment over competitors, "kickbacks," and the like.

18. During this 6 month reporting period, has any foreign principal established a budget or allocated a specified sum of money to finance your activities in preparing or disseminating political propaganda? Yes  No

If yes, identify each such foreign principal, specify amount, and indicate for what period of time.

**Not applicable**

19. During this 6 month reporting period, did your activities in preparing, disseminating or causing the dissemination of political propaganda include the use of any of the following:

- Radio or TV broadcasts       Magazine or newspaper articles       Motion picture films       Letters or telegrams  
 Advertising campaigns       Press releases       Pamphlets or other publications       Lectures or speeches

Other (specify) **Not applicable**

20. During this 6 month reporting period, did you disseminate or cause to be disseminated political propaganda among any of the following groups:

- Public Officials       Newspapers       Libraries  
 Legislators       Editors       Educational institutions  
 Government agencies       Civic groups or associations       Nationality groups  
 Other (specify)

**Not applicable**

21. What language was used in this political propaganda:

- English       Other (specify) **Not applicable**

22. Did you file with the Registration Section, U.S. Department of Justice, two copies of each item of political propaganda material disseminated or caused to be disseminated during this 6 month reporting period? Yes  No

**Not applicable**

23. Did you label each item of such political propaganda material with the statement required by Section 4(b) of the Act? Yes  No

**Not applicable**

24. Did you file with the Registration Section, U.S. Department of Justice, a Dissemination Report for each item of such political propaganda material as required by Rule 401 under the Act? Yes  No

**Not applicable**

**VI—EXHIBITS AND ATTACHMENTS**

**25. EXHIBITS A AND B**

- (a) Have you filed for each of the newly acquired foreign principals in Item 9 the following:

- Exhibit A<sup>6</sup>      Yes       No   
 Exhibit B<sup>7</sup>      Yes       No

**We have attached exhibits A and B for the principals listed in Item 9.**

If no, please attach the required exhibit.

- (b) Have there been any changes in the Exhibits A and B previously filed for any foreign principal whom you represented during this six month period? Yes  No

If yes, have you filed an amendment to these exhibits? Yes  No

If no, please attach the required amendment.

<sup>6</sup>The Exhibit A, which is filed on Form CRM-157 (Formerly OBD-67) sets forth the information required to be disclosed concerning each foreign principal.

<sup>7</sup>The Exhibit B, which is filed on Form CRM-155 (Formerly OBD-65) sets forth the information concerning the agreement or understanding between the registrant and the foreign principal.

26. EXHIBIT C

If you have previously filed an Exhibit C<sup>8</sup>, state whether any changes therein have occurred during this 6 month reporting period. Yes  No

If yes, have you filed an amendment to the Exhibit C? Yes  No

If no, please attach the required amendment.

27. SHORT FORM REGISTRATION STATEMENT

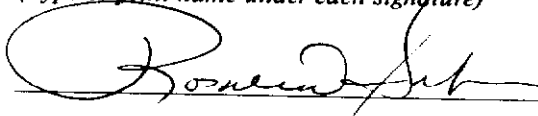
Have short form registration statements been filed by all of the persons named in Items 5 and 7 of the supplemental statement? Yes  No

If no, list names of persons who have not filed the required statement.

The undersigned swear(s) or affirm(s) that he has (they have) read the information set forth in this registration statement and the attached exhibits and that he is (they are) familiar with the contents thereof and that such contents are in their entirety true and accurate to the best of his (their) knowledge and belief, except that the undersigned make(s) no representation as to the truth or accuracy of the information contained in attached Short Form Registration Statement, if any, insofar as such information is not within his (their) personal knowledge.

(Type or print name under each signature)

(Both copies of this statement shall be signed and sworn to before a notary public or other person authorized to administer oaths by the agent, if the registrant is an individual, or by a majority of those partners, officers, directors or persons performing similar functions who are in the United States, if the registrant is an organization.)

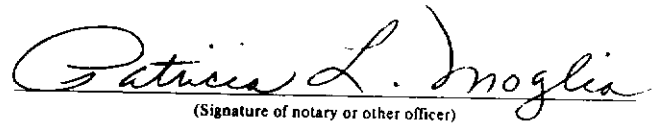


Rosalind Safrin, Executive Vice President

Subscribed and sworn to before me at New York, New York

this 26<sup>th</sup> day of April, 19 90

PATRICIA L. MOGLIA  
Notary Public, State of New York  
No. 41-4848212  
Qualified in Queens County  
Commission Expires Feb. 17, 1992

  
(Signature of notary or other officer)

<sup>8</sup>The Exhibit C, for which no printed form is provided, consists of a true copy of the charter, articles of incorporation, association, constitution, and bylaws of a registrant that is an organization. (A waiver of the requirement to file an Exhibit C may be obtained for good cause upon written application to the Assistant Attorney General, Criminal Division, Internal Security Section, U.S. Department of Justice, Washington, D.C. 20530.)

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CERTIFICATE OF AMENDMENT  
OF THE  
CERTIFICATE OF INCORPORATION  
OF  
RUDER FINN, INC.

PH

(Under Section 805 of the Business Corporation Law)

We, the undersigned, Kathy Bloomgarden and Peter Finn, being respectively the President and Secretary of Ruder Finn, Inc. hereby certify:

FIRST: The name of the Corporation is Ruder Finn, Inc. The name under which the Corporation was formed is Ruder & Finn, Incorporated.

SECOND: The Certificate of Incorporation was filed by the

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State of New York }  
Department of State }<sup>ss.</sup>

026955

*I hereby certify that I have compared the annexed copy with the original document filed by the Department of State and that the same is a correct transcript of said original.*

Witness my hand and seal of the Department of State on

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Secretary of State

APR 27 1989

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CERTIFICATE OF AMENDMENT  
OF THE  
CERTIFICATE OF INCORPORATION  
OF  
RUDER FINN, INC.

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(Under Section 805 of the Business Corporation Law)

We, the undersigned, Kathy Bloomgarden and Peter Finn, being respectively the President and Secretary of Ruder Finn, Inc. hereby certify:

FIRST: The name of the Corporation is Ruder Finn, Inc. The name under which the Corporation was formed is Ruder & Finn, Incorporated.

SECOND: The Certificate of Incorporation was filed by the Department of State of the State of New York on January 31, 1956.

THIRD: The amendment of the Certificate of Incorporation effected by this Certificate of Amendment is to add a provision stating the number, designation, relative rights, preferences, and limitations of the shares of Series A Third Preferred Stock as fixed by the Board of Directors of the Corporation contained in the Certificate of Incorporation of the Corporation.

FOURTH: To accomplish the foregoing amendment, Subsection (B)(3) of Paragraph FOURTH of the Certificate of Incorporation is hereby amended by the addition of the following provision:

"The corporation shall be authorized to issue Four Thousand (4,000) shares of Third Preferred Stock, without par value, none of which has been issued, shall be issued in and as a series to be designated 'Series A Third Preferred Stock.'

The designation, relative rights, preferences, and limitations of the Series A Third Preferred Stock insofar as not already fixed by the Certificate of Incorporation,

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shall, as fixed by the Corporation's Board of Directors in the exercise of authority conferred by the Certificate of Incorporation, and as permitted by Section 502 of the Business Corporation Law, be as follows:

(a) The Series A Third Preferred Stock shall be deemed the successor to the Preferred Stock and the Second Preferred Stock (referred to in Subsections B(1) and B(2) of Paragraph Fourth of the Certificate of Incorporation), and the holders of the Series A Third Preferred Stock shall be entitled to receive out of the net profits or net assets of the Corporation applicable to dividends a cumulative dividend at the rate of \$5.00 per share per annum payable annually on such date as the Board of Directors may determine. Dividends on the Series A Third Preferred Stock shall be payable in cash or, at the option of the Board of Directors, in additional shares of Series A Third Preferred Stock. Dividends payable in additional shares shall be paid at the rate of 1/20 share for each \$5.00 of such dividends not paid in cash. Dividends on the Series A Third Preferred Stock shall accrue from the date of issue and shall be payable to and including the date of redemption of such stock or the date of the liquidation, dissolution or winding up of the Corporation, as the case may be. Accumulations of dividends on the Series A Third Preferred Stock shall not bear interest. No dividend or other distribution shall be made with respect to any other series of Third Preferred Stock, or with respect to the Common Stock, unless full cumulative dividends on the Series A Third Preferred Stock for all previous and current dividend periods shall have been paid.

(b) The Series A Third Preferred Stock may be called for redemption and redeemed only upon the adoption of a resolution by the affirmative vote or consent of at least a majority of the directors, and then only upon such terms and conditions as are specified in the resolution so adopted.

(c) Upon any liquidation, dissolution or winding up of the Corporation, whether voluntary or involuntary, the holders of the Series A Third Preferred Stock shall be entitled, before any amount shall be paid to the holders of any other series of Third Preferred Stock or the holders of the Common Stock, to be paid \$100 in cash per share plus any dividends accumulated and unpaid thereon to the date of such liquidation, dissolution or winding up, but shall not participate in any further distribution of the assets of the Corporation. If the assets so distributable to the

holders of the Series A Third Preferred Stock shall be insufficient to permit the payment to such holders of the aforesaid preferential amounts, then such assets shall be distributed ratably among such holders according to the respective numbers of shares owned by them.

(d) Except as otherwise expressly provided by law, the Series A Third Preferred Stock shall have no right to vote for the election of directors or for any other purpose and shall not be entitled to notice of any meeting of shareholders.

(e) Shares of Series A Third Preferred Stock shall not be transferable by a holder thereof except to another holder of the Corporation's Series A Third Preferred Stock."

FIFTH: The foregoing amendment of the Certificate of Incorporation of the Corporation was authorized by the Board of Directors of the Corporation under the authority vested in said Board under the provisions of the Certificate of Incorporation and of Section 502 of the Business Corporation Law.

IN WITNESS WHEREOF, we have subscribed the document on the date set forth below, and do hereby affirm, under the penalties of perjury, that the statements contained therein have been examined by us and are true and correct.

Dated: 4/10, 1989

Kathy Bloomgarden  
Kathy Bloomgarden, President

Peter Finn  
Peter Finn, Secretary

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CERTIFICATE OF AMENDMENT  
OF THE  
CERTIFICATE OF INCORPORATION

OF  
RUDER FINN, INC.

2008 1/19/89  
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1020 PV 50.00

560,000 PV 104

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DM: Ruder & Finn, Inc

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STATE OF NEW YORK  
DEPARTMENT OF STATE  
FILED APR 18 1989

AMT. OF CHECK \$ 100  
FILING FEE \$ 10  
TAX \$ 20  
CORRECT FEE \$ 20  
CERTIFICATE RETURN SPEC FEE \$ 10

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**FILED**

BRESSLER, AMERY & HENBERG  
90 BROAD STREET  
NEW YORK, N. Y. 10004

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RUDER FINN, INCORPORATED  
Schedule of Publications on Behalf of  
Laboratorios BioPur, S.A.  
For Six Month Period Ending March 27, 1990

<u>Description of Publications</u>	<u>By Whom Written, Edited or Prepared</u>	<u>By Whom Printed, Produced or Published</u>	<u>By Whom Distributed</u>
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NONE

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Describe fully all activities of Registrant during the period for or in the interest of each foreign principal.

During the six months, Ruder Finn Incorporated was engaged in the following activities on behalf of BioPur, S.A.:

1. Video taping (no materials disseminated).
2. General public relations counseling.

RUDER FINN INCORPORATED  
Schedule of Publications on Behalf of  
Sedgwick Group plc  
For Six Months Period Ended March 27, 1990

<u>Description of Publication</u>	<u>By Whom Written, Edited or Prepared</u>	<u>By Whom Printed, Produced or Published</u>	<u>by Whom Distributed</u>
1) 1989 Annual Report	Sedgwick Group	Sedgwick Group	Ruder Finn

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Describe fully all activities of Registrant during the period for or in the interest of each foreign principal.

During the six months, Ruder Finn was engaged in the following activities on behalf of Sedgwick Group plc.

1. Monitored opinions among professional investors and media regarding the insurance broking industry.
2. Targeted influential investors with whom Sedgwick management should meet in the future.
3. Disseminated Sedgwick's 1989 Annual Report to professional investors in the U.S.
4. Counseled Sedgwick management on communications strategy in the U.S.

RUDER·FINN, INCORPORATED  
Schedule of Publications on Behalf of  
KABI  
For Six Month Period Ending March 27, 1990

<u>Description of Publications</u>	<u>By Whom Written, Edited or Prepared</u>	<u>By Whom Printed, Produced or Published</u>	<u>By Whom Distributed</u>
<u>Releases</u> Kabikinase proved as effective as t-PA in multinational study.	Paul Hoover Peter Steinberg Erica Kaplan	Ruder·Finn	Ruder·Finn
Background on KABI	Peter Steinberg Susan Smirnoff	Ruder·Finn	Ruder·Finn
Kabikinase is as effective for heart attack as expensive t-PA, major international trial shows.	Paul Hoover Peter Steinberg Erica Kaplan	Ruder·Finn	Ruder·Finn

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Describe fully all activities of Registrant during the period for or in the interest of each foreign principal.

During the six months, Ruder Finn, Incorporated was engaged in the following activities on behalf of KABI:

1. Preparation of public relations materials for one pharmaceutical product of KABI.
2. Media contact.
3. General public relations counseling.



RUDER • FINN

**MEDIA ADVISORY**

**MEDIA ADVISORY**

**MEDIA ADVISORY**

Contact:	In New York:	Erica Kaplan/Peter Steinberg (212) 593-6363/(212) 715-1574
	In New Orleans:	Paul Hoover (504) 586-0300
	In London:	Mark Baxter/Ruth Williams (01) 351-5777
	In Amsterdam:	Ms. M. Dewis (020) 664-4611

**KABIKINASE PROVED AS EFFECTIVE AS t-PA IN MULTINATIONAL STUDY**

A new international study of more than 20,000 patients has shown that Kabikinase (streptokinase) is as effective as t-PA (tissue plasminogen activator) in reducing deaths from heart attacks. Kabikinase, a clot-dissolving agent, was the only brand of streptokinase used in the Italian arm of the GISSI-2 study and was used in about half of the streptokinase patients in the international branch of the trial.

These findings are expected to have a major impact on the treatment of heart attack because of a significant difference in cost between the two agents. In the U.S., for example, a dose of t-PA costs about \$2,200, whereas the cost of Kabikinase is about \$200. In the U.K., a dose of t-PA costs £900, versus £84 for Kabikinase.

Details of this study, by far the largest trial comparing clot-dissolving agents, will be presented at the American College of Cardiology conference in New Orleans. GISSI-2 is expected to be the most widely discussed development at the meeting.

The first highly purified streptokinase, Kabikinase was originally developed by Kabi of Stockholm, Sweden. It was introduced in 1961 for the treatment of blood clots in leg veins, and was approved in 1987 in the U.S. and many European countries for treatment of heart attack.

Physicians are available for interviews on the study.



RUDER • FINN

Contact: Peter Steinberg  
212-715-1574

### Background on KABI

Kabi is the world's leading manufacturer of growth hormones and products used in clinical nutrition and one of the leading companies in the development of products for the treatment of urinary incontinence and diseases related to coagulation and thrombosis. The company also produces and sells standard prescription drugs and clinical diagnostic agents.

Kabi is owned by the Swedish holding company Procordia AB. Kabi sales amounted to SEK 4.1 billion in 1989, a 28 percent increase over 1988 sales. Foreign sales account for 74 percent of the total sales volume.

Kabi's growth is based on a strong research and development program with well established expertise in modern biotechnology and biochemistry. Headquartered in Stockholm, the company has subsidiaries in 15 countries, including the UK, France, Japan, Spain, the US, and West Germany. Approximately 4,500 are currently employed by Kabi, including 2,100 outside of Sweden.

Kabikinase the first highly purified streptokinase was developed by Kabi and introduced in 1961 for the treatment of blood clots in leg veins (deep venous thrombosis). It was approved in 1987 in the US for IV use in acute myocardial infarction patients and in many European countries for the treatment of heart attack.

The recent findings of the International t-PA/SK Mortality Trial, which compares the efficacy of Kabikinase directly with that of t-PA (tissue plasminogen activator, or alteplase)

in reducing deaths from heart attacks clearly shows the advantages of using Kabikinase over t-PA. According to Kabi Vice President Hakan Astrom there are two reasons why Kabikinase is the first choice for acute MI therapy: efficacy and cost.

"The results of the International t-PA/SK Mortality Trial show an advantage for Kabikinase patients who were also given heparin as part of the treatment regimen," notes Mr. Astrom. "Among patients who received t-PA and heparin, 9.2% died during their hospital stay, while only 7.9% of the streptokinase and heparin patients died.

"The cost effectiveness of Kabikinase must also play an important role for all future decisions of therapy," he continues. "In Europe, where t-PA has never reached any strong position, we expect that the Kabikinase type of thrombolytics will remain the drugs of choice. Kabikinase costs about one-tenth as much per dose as t-PA. In the US, we expect to see an increased use of Kabikinase in light of these new findings."



example, treatment with t-PA costs about \$2,200, while a dose of Kabikinase costs about \$200.

In the study, patients were admitted to the hospital within six hours of the start of symptoms of heart attack, or myocardial infarction (MI), and randomly assigned to receive either streptokinase or t-PA. Kabikinase was the brand given to about 75% of the streptokinase patients. Half the patients in each treatment group received heparin subcutaneously. Most patients also received aspirin to help prevent the formation of new clots, and many got a heart drug known as a beta-blocker to help prevent another MI.

By the end of their hospital stay, 8.5% of those treated with streptokinase (with or without heparin) and 8.9% of those given t-PA (again, with or without heparin) had died, not a statistically significant difference. The combined death rate represents a reduction in deaths of more than 27% from the rate--about 12%--among patients who do not receive the benefit of thrombolytic therapy.

"This is very good news for patients," Dr. White remarked. "It's the advance of the decade in cardiology. Thrombolysis has substantially reduced deaths from MI, particularly among patients less than 60 years old. And this landmark study represents the real world of the community hospital, not the academic center."

The overall incidence of bleeding, the most common side effect of thrombolytic therapy, was significantly greater in the t-PA group (4.2%) than in the streptokinase group (3.3%). Stroke, the most dangerous risk associated with these agents, also occurred in significantly more t-PA patients--1.3%, versus 1.0% in streptokinase patients. The incidence of bleeding episodes requiring transfusion of more than two units was very low in both

### Kabikinase/3

groups--0.9% for streptokinase and 0.6% for t-PA--a significant difference. In contrast to stroke, such episodes usually are easily managed and have no residual effects.

Kabikinase, the first highly purified streptokinase, was developed by Kabi of Stockholm, Sweden, which markets the drug. It was introduced in 1961 for the treatment of blood clots in leg veins (deep venous thrombosis), and was approved in 1987 in the U.S. for IV use in acute myocardial infarction patients and in many European countries for the treatment of heart attack. Please see the package insert for complete prescribing information.

Kabi is the world's leading manufacturer of growth hormones and products used in clinical nutrition and one of the leading companies in the development of products for the treatment of urinary incontinence and diseases related to coagulation and thrombosis. The company also produces and sells standard prescription drugs and clinical diagnostic agents. Kabi is owned by the Swedish holding company Procordia.

March 21, 1990

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RUDER·FINN, INCORPORATED  
 Schedule of Publications on Behalf of  
 Boehringer Ingelheim GmbH  
 For Six Month Period Ending March 27, 1990

<u>Description of Publications</u>	<u>By Whom Written, Edited or Prepared</u>	<u>By Whom Printed, Produced or Published</u>	<u>By Whom Distributed</u>
<u>Releases</u>			
Persantin in diabetic retinopathy	Erica Kaplan	Ruder·Finn	Ruder·Finn
Inhalation therapy is best for treating asthma.	Erica Kaplan Roselyn Hirsch	Ruder·Finn	Ruder·Finn
Atrovent is drug of choice for chronic bronchitis, emphysema, expert says / Agent also improves treatment of asthma attacks	Erica Kaplan Roselyn Hirsch	Ruder·Finn	Ruder·Finn
Experts debate the role of anticholinergic agents for asthma, chronic obstructive pulmonary disease	Erica Kaplan Peter Steinberg	Ruder·Finn	Ruder·Finn
Respiratory specialist assesses use of anticholinergic agents for airway disease in children	Erica Kaplan Peter Steinberg	Ruder·Finn	Ruder·Finn

(continued)

Ruder Finn, Incorporated / Boehringer Ingelheim GmbH (continued)

Question # 11  
Schedule #  
Page # 2

<u>Description of Publications</u>	<u>By Whom Written, Edited or Prepared</u>	<u>By Whom Printed, Produced or Published</u>	<u>By Whom Distributed</u>
Articles for publication in <u>Lung &amp; Respiration</u>	Roselyn Hirsch Erica Kaplan	pml Verlag GmbH Frankfurt West Germany	pml Verlag GmbH Frankfurt West Germany

Describe fully all activities of Registrant during the period for or in the interest of each foreign principal.

During the six months, Ruder Finn Incorporated was engaged in the following activities on behalf of Boehringer Ingelheim GmbH:

1. Preparation of public relations material for pharmaceutical products of Boehringer Ingelheim GmbH.
2. Preparation of copy for Lung & Respiration.
3. Media contact.
4. General public relations counseling.



RUDER·FINN

**PERSANTIN IN DIABETIC RETINOPATHY**

One of the most common--and serious--complications of diabetes is the degenerative eye disease known as diabetic retinopathy. The condition often leads to visual impairment; in many cases, it results in total blindness. Although careful control of blood sugar levels may postpone its onset, retinopathy almost always develops, usually after 10 years. Virtually all persons who have had diabetes for 20 years have some degree of diabetic retinopathy.

In its most serious stage, the effects of diabetic retinopathy may be irreversible, and only drastic measures offer the chance of preserving remaining vision. Recently, however, increased understanding of the condition has opened up the possibility of preventing it or slowing its progress with drug therapy.

Because diabetic retinopathy is thought to involve altered functioning of the blood elements called platelets, one drug undergoing clinical trials is Persantin, or dipyridamole. A platelet inhibitor, Persantin is used for a variety of cardiovascular and other conditions. It is manufactured and distributed by Boehringer Ingelheim. This backgrounder reviews the results of the latest studies of Persantin in diabetic retinopathy.

### **The course of diabetic retinopathy**

As its name indicates, this condition affects the retina, the part of the eye on which images are focused. Initially, diabetic retinopathy is characterized by weak areas (microaneurysms) in the walls of the smallest retinal blood vessels, the capillaries. Other features include tiny hemorrhages, swelling, and opaque areas known as cotton-wool spots.

With time, the condition deteriorates, and these abnormalities worsen. In the most serious stage, there is abnormal growth of fragile new capillaries. This leads to hemorrhages into the vitreous, the jelly-like fluid behind the lens; scarring; and, frequently, retinal detachment, causing blindness. It is at this stage that photocoagulation--burning away some of the damaged retina with a xenon arc, argon laser, or krypton laser--may be attempted, to reduce the formation of new vessels.

### **Rationale for Persantin trials**

Although it is not yet known exactly how diabetic retinopathy develops, research indicates that an important role is played by adhesion (sticking) of platelets to blood vessel walls and subsequent accumulation (aggregation) of additional platelets. Two substances produced naturally by the body, prostacyclin and thromboxane, are probably also important.

Persantin inhibits platelet aggregation and also promotes the synthesis of prostacyclin, which, in turn, inhibits platelet adhesion. The drug also indirectly reduces the formation of thromboxane, further inhibiting platelet aggregation.

**Experimental study shows protection of vessels**

Clear evidence of the protective effects of antiplatelet treatment on the retinal vessels has recently been demonstrated in a study of rats (De la Cruz et al, 1988). Rats are excellent animals in which to study diabetic retinopathy because the retinal vessels of rats and humans are very similar in their pattern and function.

The animals in this trial were divided into four groups: normal, or control, rats; diabetic rats treated only with insulin; diabetic rats given insulin and aspirin, 6 milligrams per kilogram (mg/kg) of body weight orally per day; and diabetic animals given insulin and the same dose of aspirin, plus dipyridamole, 12 mg/kg per day orally.\*

At the end of the three-month study, the researchers found that, in contrast to the normal animals' retinal vessels (Fig. 1), those of the diabetic rats that received no

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\*Aspirin, which also has antiplatelet effects, is often tested alone and in combination with Persantin in studies of platelet inhibition, because many researchers feel that the effect of the two drugs given together is greater than the sum of their effects if they were given separately.

antiplatelet treatment showed filling defects, multiple twists and turns (tortuosities), loss of continuity, and narrowing (Fig. 2). In the diabetic rats receiving aspirin, the damage was less severe: there were fewer filling defects than in the untreated group, but some tortuosity and narrowing of vessels (Fig. 3). With the addition of Persantin, the picture closely approached that of the normal rats (Fig. 4).

The investigators also found statistically significant decreases in protective prostacyclin-like activity in the diabetic rats without antiplatelet treatment, compared with the nondiabetic control group. The aspirin-treated animals showed inhibition of aggregation-promoting thromboxane--but also of prostacyclin. Rats receiving both aspirin and dipyridamole showed favorable changes in both substances--inhibition of thromboxane and an increase in prostacyclin to levels nearly those of the normal rats.

#### **Diabetic patients benefit from Persantin**

A three-year, double-blind, randomized trial of 31 insulin-dependent diabetic patients with early signs of retinopathy provides additional evidence of the value of dipyridamole therapy (Pagani et al, 1989). In this study, the investigators measured the effects of dipyridamole on the progression of retinopathy, as judged by the presence of microaneurysms, cotton-wool spots, and areas deprived of blood because of narrowed vessels. To make these

assessments, they used fluorangiograms, photographs of the retinal vessels taken after injection of fluorescent dye.

At the outset of the study, there were no significant differences in the retinopathy scores between the 16 patients assigned to receive 375 mg of Persantin daily and the 15 control patients, who were assigned to receive a placebo. During the course of the trial, retinopathy remained stable among the Persantin group. In contrast, the number of microaneurysms increased in the control patients, leading to a highly statistically significant difference at 30 and 36 months.

Further, the physicians found that initially, platelet aggregability was nearly identical in the two groups. At each of the six-monthly evaluations, however, aggregability in the dipyridamole group was lower by a very significant margin, dropping almost continually throughout the study.

In the absence of differences in any other factors that might result in differences in retinopathy, the researchers attribute the benefit in the Persantin-treated group to this reduced platelet aggregation.

#### **DAMAD trial adds support**

In a large, multicenter investigation, the DAMAD study (1989), the progression of microaneurysms was similarly evaluated in 420 diabetic patients with early retinopathy.

The double-blind study randomly assigned patients to groups receiving dipyridamole, 75 mg, plus aspirin, 330 mg, three times daily; the same dosage of aspirin alone; or placebo. Patients were followed up for at least three years, with clinic visits at four-month intervals and annual eye examinations that included angiography with fluorescent dye.

The placebo patients had a significantly greater increase in the number of microaneurysms developing each year, as compared with the two treatment groups. In actual numbers, the average annual increases in "definite" microaneurysms (defined as those with a diameter greater than 33 micrometers on the angiogram) were 1.44 for the placebo group, 0.69 for the aspirin-treated patients, and 0.34 for those receiving Persantin and aspirin. Although the increase was 30% to 50% less among patients receiving the combination than among those receiving aspirin alone, the difference did not reach statistical significance.

The DAMAD investigators conclude that, along with "other evidence of a beneficial effect of antiplatelet agents in diabetic patients with macrovascular disease, these results are an additional argument for the use of such drugs."

#### **Conclusion**

Today the existence of platelet and blood vessel abnormalities in diabetic patients is well known, although the exact relationship between these phenomena remains

unclear. As the DAMAD Study Group and other investigators point out, antiplatelet agents such as dipyridamole have shown benefit in other vascular complications of diabetes in addition to retinopathy. If further research confirms the results of studies to date, Persantin may one day find a valuable role in the prevention and treatment of diabetic retinopathy.

# # #

#### References

- The DAMAD Study Group: Effect of aspirin alone and aspirin plus dipyridamole in early diabetic retinopathy: a multicenter randomized controlled clinical trial. *Diabetes* 38:491, 1989.
- De la Cruz J et al: Effect of dipyridamole and aspirin on the retinal vascular pattern of streptozotocin-diabetic rats. Presented at the XXII Congress of the International Society of Hematology, Milan, Italy, 28 August - 2 September 1988.
- Pagani A et al: Dipyridamole administration in insulin-dependent diabetics with background retinopathy: a 36-month follow-up. *Current Therapeutic Research* 45:469, 1989.



RUDER • FINN

## **INHALATION THERAPY IS BEST FOR TREATING ASTHMA**

BANGKOK, THAILAND, 20 November 1989--Drug therapy for asthma is more efficient and safer when it is given via inhalation, speakers at an international medical symposium held here today agreed.

"Using the airway to deliver the drug spares the rest of the body from side effects," observed Prof. Michael T. Newhouse, McMaster University Medical School, Hamilton, Ontario, Canada. In addition, he remarked, to get the same effect in their lungs, asthma patients who take drugs orally require about 50 times more medication in their bodies than those who inhale their drugs. This is because oral medication must be distributed throughout the body, whereas inhaled medication goes directly to the lungs, where it can take effect.

Metered-dose (aerosol) inhalers, or MDIs, are commonly used to deliver asthma drugs by inhalation. Besides being safe and effective, MDIs are convenient to use and inexpensive, Dr. Newhouse pointed out. Moreover, add-on devices are available to help infants and children, the elderly, and handicapped individuals, who may have trouble handling their MDIs. These devices also greatly improve drug targeting to the lungs, thereby decreasing side effects in the mouth and throat and throughout the body.

Most drugs used to treat asthma can be given via inhalation. To help physicians design an appropriate treatment regimen, Prof. Roger C. Bone, Rush Medical College, Chicago, outlined a stepped-care approach that emphasizes inhalation therapy.

Step 1 is for patients with mild, intermittent asthma. Prof. Bone starts with a beta-adrenergic drug. Ipratropium bromide (Atrovent), an anticholinergic agent, is used

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## Inhalation Therapy/2

if a patient needs more bronchodilation, or widening of the airways, which are narrowed during an asthma attack. Studies have shown such drug combinations to be much more effective in easing patients' breathing than a beta-adrenergic drug given alone, and ipratropium causes no additional side effects.

Step 2 therapy is for patients who have frequent attacks of asthma and must regularly use bronchodilators to control their disease. Prof. Bone adds to these patients' drug regimens an aerosol corticosteroid and/or cromolyn sodium. He suggested that physicians can enhance patient compliance by explaining that corticosteroids and cromolyn treat the inflammation that underlies asthma and are not intended to relieve acute symptoms.

Asthma patients who have severe disease that is not controlled by step 1 or step 2 drugs are candidates for step 3 agents: oral corticosteroids. Prof. Bone told physicians attending the symposium that once the disease is under control, he tapers the dosage of the oral drug and prescribes a step 2 agent for patients not already taking one. The symposium, *New Concepts in Bronchodilator Therapy*, was held during the 11th Asia-Pacific Congress on Diseases of the Chest.

Atrovent is marketed by the West German pharmaceutical company Boehringer Ingelheim.

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For additional information, please call Roselyn Hirsch or Erica Kaplan collect in New York at 001-212-593-6359.



RUDER • FINN

**ATROVENT IS DRUG OF CHOICE FOR CHRONIC BRONCHITIS, EMPHYSEMA,  
EXPERT SAYS**

**~~Agent also improves treatment of asthma attacks~~**

BANGKOK, THAILAND, 20 November 1989--Drugs such as ipratropium bromide (Atrovent) should be first-line treatment for chronic bronchitis and emphysema, two very common lung conditions, according to speakers at a medical symposium held here today.

Ipratropium bromide is a bronchodilator, a drug used to widen narrowed air passages in the lungs, making breathing easier. It belongs to a class of bronchodilators called anticholinergic agents. "For patients with chronic bronchitis and emphysema--known collectively as chronic obstructive pulmonary disease (COPD)--an anticholinergic agent should be given first, and other drugs should be added only if necessary," stated Prof. Nicholas J. Gross, Stritch-Loyola School of Medicine, Chicago, USA.

Prof. Gross discussed the three major groups of bronchodilators used to treat COPD in the United States: anticholinergics, beta-adrenergics (such as salbutamol), and methylxanthines (such as theophylline). After reviewing many clinical trials, he concluded that ipratropium, given via inhalation, is "at least as potent a bronchodilator as these other drugs," and that, unlike them, "it has no important side effects."

"I start my patients on Atrovent via a metered-dose inhaler, 2 to 4 puffs 3 or 4 times daily," Prof. Gross told doctors attending the symposium, New Concepts in Bronchodilator Therapy, which was held during the 11th Asia-Pacific Congress on

- more -

Diseases of the Chest. If that is not sufficient, he adds a beta-adrenergic agent, also via inhaler, and, if necessary, a long-acting theophylline product.

The safety of ipratropium has added to its value in treating acute, severe asthma. In this condition, remarked Prof. A. S. Rebuck, "it is better to give moderate doses of two drugs that work in entirely different ways than to increase the dose of a single drug." This approach maximizes effectiveness and reduces the risk of side effects, explained the physician, who is professor of medicine at the University of Toronto, Canada.

For example, Prof. Rebuck cited a study of 148 asthma patients with acute attacks, in which he and his colleagues found that 0.5 mg of Atrovent plus 1.25 mg of Berotec (fenoterol, a beta-agonist), given via inhalation, provided significantly more bronchodilation than did either of these drugs alone. The combination was especially beneficial to patients who needed the most help--those with severe asthma. Moreover, the two-drug regimen did not cause additional side effects.

"Aggressive treatment with a combination of drugs, patient education, and good doctor-patient communication are necessary for the management of difficult asthma," Prof. Rebuck concluded.

Atrovent and Berotec are marketed by the West German pharmaceutical company Boehringer Ingelheim.

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\*American Journal of Medicine 1987:82:59-64.

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For additional information, please call Roselyn Hirsch or Erica Kaplan collect in New York at 001-212-593-6359.



RUDER·FINN

FOR IMMEDIATE RELEASE

EXPERTS DEBATE THE ROLE OF ANTICHOLINERGIC AGENTS FOR  
ASTHMA, CHRONIC OBSTRUCTIVE PULMONARY DISEASE

FREIBURG, WEST GERMANY--In an international debate here, pulmonary experts examined the value of anticholinergic agents for patients with two very common respiratory disorders, asthma and chronic obstructive pulmonary disease (COPD). Anticholinergic agents, which include ipratropium bromide (Atrovent), are used as bronchodilators to widen constricted air passages in the lungs.

For COPD--which includes chronic bronchitis and emphysema--"ipratropium bromide is the most effective single bronchodilator available today," declared Kenneth R. Chapman, M.D., of Toronto, Canada. Given via inhalation, anticholinergics offer bronchodilation at least as good as that provided by another group of drugs, beta-2 agonists, he added, "and they have virtually no side effects."

Dr. Chapman cited a long list of clinical trials to support his view and noted that other anticholinergic bronchodilators, such as oxitropium bromide, are currently under development. The physician, who is assistant professor of medicine at the University of Toronto, made his remarks at a debate held during the 8th Congress of the European Society of Pneumology here.

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## Anticholinergics in adult airway disease/2

Arguing further that anticholinergic agents are useful in all adult obstructive airway disease, Dr. Chapman observed, "For asthma, the results are unequivocal: The combination of an anticholinergic and a beta-2 agonist is better than a beta-2 alone." In studies in which beta agonists were given repeatedly until they produced maximal effects, he explained, adding an anticholinergic drug further widened the airways.

This is especially important during acute asthma attacks, particularly in the emergency room, where the physician must provide maximal benefit.

"When the patient has been started on beta agonists and corticosteroids, anticholinergic agents provide additional bronchodilation and should always be included in the regimen," Dr. Chapman remarked.

Dr. Gerhard Schultze-Werninghaus, of the Wolfgang Goethe University Clinic, Frankfurt, West Germany, agreed that for acute asthma, anticholinergic agents may be valuable when combined with beta-2 agonists. However, he pointed out that these drugs are not antiinflammatory agents, nor do they reduce airway hyperresponsiveness, an important feature of asthma. He does not recommend anticholinergics for the long-term treatment of mild or moderate asthma, maintaining that their additional effects beyond those of beta-2 agonists are not clinically relevant.

Regarding COPD, Dr. Schultze-Werninghaus accepted Dr. Chapman's view, although he holds that anticholinergic drugs have about the same bronchodilator effect as beta-2 agonists. "I would argue that these agents may be used in combination with beta agonists, where they may have some additional effect, rather than as monotherapy," he said.

Anticholinergics in adult airway disease/3

Ipratropium bromide (Atrovent) is manufactured and marketed by Boehringer  
Ingelheim of West Germany.

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For additional information, please call (collect) Erica Kaplan,  
001-212-593-6363, or Peter Steinberg, 001-212-715-1574, at Ruder Finn  
International, New York City.



RUDER·FINN

FOR IMMEDIATE RELEASE

RESPIRATORY SPECIALIST ASSESSES USE OF ANTICHOLINERGIC AGENTS  
FOR AIRWAY DISEASE IN CHILDREN

FREIBURG, WEST GERMANY--For school-age children with acute severe asthma, the combination of a drug such as ipratropium bromide (Atrovent) with a beta-2 agonist widens narrowed air passages in the lungs better, and is effective longer, than either one of these bronchodilators used alone, according to Michael Silverman, M.D.

There is also "very good evidence" that infantile asthma, or wheezing in young children, responds better to anticholinergic agents--particularly ipratropium--than to any other bronchodilator, Dr. Silverman remarked.

Moreover, in infants, beta agonists may have adverse effects, whereas this is not the case with ipratropium given as inhalation therapy, added the physician, who is with the Royal Postgraduate Medical School in London. He addressed an audience of physicians attending a symposium at the 8th Congress of the European Society of Pneumology here.

Treating reversible airway disease in children can nonetheless be complicated, Dr. Silverman continued. "Many doctors assume that this is a

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Anticholinergics in childhood airway disease/2

single disorder," he observed. "But in children, as in adults, there may be different forms of reversible airway disease, all called 'asthma.'"

As a result, there may be an important role for anticholinergic bronchodilators in some types of childhood airway disease but not in others, the London physician observed.

Another difficulty is that the therapeutic techniques currently used with young children are probably not satisfactory, according to Dr. Silverman. He referred to studies in which anticholinergic agents, when combined with beta-2 agonists, speeded recovery among older children with acute severe asthma. However, studies of children 2 to 5 years old generally have not produced similar results.

For this age group, he explained, it is difficult to measure the response to inhalation therapy. "When we give an infant or a young child a drug via nebulizer or metered-dose inhaler, we cannot perform lung function tests, and we don't know how much drug actually goes down the airway."

Dr. Silverman mentioned that laboratory measurements have shown anticholinergic agents to improve lung function in babies less than 1 year old, but so far, these results have not been replicated in clinical practice. "The reason may be that we still are not able to provide optimum delivery of inhaled drugs on a regular basis in the home," he explained.

Anticholinergics in childhood airway disease/3

Nevertheless, Dr. Silverman remains encouraged. He went on to cite studies of premature babies with chronic airway disease following intensive care and mechanical ventilation. "Atrovent may be useful not only in ventilated babies, but also in those with airway obstruction. In contrast, atropine [an older anticholinergic agent] appears to have a very limited therapeutic role because of side effects and short duration of action."

Turning to children with exercise-induced asthma, Dr. Silverman noted that while beta agonists given alone provide effective protection against attacks, "the duration of bronchodilation has been shown to be prolonged by the addition of ipratropium."

Ipratropium bromide (Atrovent) is manufactured and marketed by Boehringer Ingelheim of West Germany.

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For additional information, please telephone Dr. Silverman in London at 44-1-740-3270, or call (collect) Erica Kaplan, 001-212-593-6363, or Peter Steinberg, 001-212-715-1574, at Ruder Finn International, New York City.

RUDER FINN INCORPORATED  
 Schedule of Publications on Behalf of  
 Novo Nordisk A/S

For Six Months Period Ended March 27, 1990

Description of Publication	By Whom Written Edited or Prepared	By Whom Printed Produced or Published	By Whom Distributed
Releases:			
1. Novo Nordisk Comments on Human Insulin	RF	RF	RF
2. Management Changes Announced at NLI	RF	RF	RF
3. Novo Yakuhin K.K. and Nordisk Japan Ltd. Activities to Be Consolidated into Novo Nordisk Pharma Ltd.	RF	RF	RF
4. Third Quarter 1989 Results	RF	RF	RF
5. 1990 Novo Nordisk Prize	RF	RF	RF
6. Dr. Niels W. Holm to Leave Novo Nordisk	RF	RF	RF
7. Jan Leschly to Be Asked to Join Board	RF	RF	RF
8. New Compound May Block Brain Damage After Stroke	RF	RF	RF
9. Golf Pro Sherri Turner to Continue as Spokesperson for Novo Nordisk Pharmaceuticals Inc.	RF	RF	RF

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10. Year-End  
Statement 1989

RF

RF

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11. September 1989 Novo  
Nordisk Magazine

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NNAS

RF

12. December 1989 Novo  
Nordisk Magazine

NNAS

NNAS

RF

During the six months, Ruder Finn was engaged in the following activities on behalf of Novo Nordisk A/S.

1. Ruder Finn continued to fill requests from U.S. media for information on Novo Nordisk.
2. Financial community and media lists were updated and maintained on an ongoing basis to include new names and new publications and broadcast outlets following the company's progress.
3. Editorial service for The Novo Nordisk Magazine, the corporate newsletter, was provided and the issue was distributed through Ruder Finn to the U.S. media and financial communities in December 1989.
4. Third quarter and year-end financial results and releases announcing other major corporate developments were distributed for Novo Nordisk in the U.S. to the media, shareholders and financial analysts.
5. Monitored major issues in the media that relate to Novo Nordisk's businesses.

**FOR IMMEDIATE RELEASE**

October 13, 1989

**Novo-Nordisk  
Press Release**

**NOVO NORDISK COMMENTS ON HUMAN INSULIN**

Bagsvaerd, Denmark -- Following recent reports in British media linking human insulin with unawareness of hypoglycemia (inability to recognize that the blood sugar level is too low) Novo Nordisk wishes to clarify the situation as follows:

Insulin is a lifesaving drug for diabetics. All forms of insulin, both animal and human, may cause hypoglycemia. Unawareness of hypoglycemia is a known phenomenon particularly among well controlled diabetics, regardless of the type of insulin they use.

There are no substantial data linking unawareness of hypoglycemia with human insulin. Quoting from a statement issued by the CSM (Committee for the Safety of Medicines), the highest public authority in the U.K. concerning drug safety, on October 12: "It must be emphasized that it is by no means clear that loss of warning symptoms of hypoglycemia is a problem peculiar to human insulin".

Immediately after the first reports of hypoglycemic unawareness and in accordance with recommendations by the CSM, Novo Nordisk introduced the following warning on the packet inserts: "A few patients have reported that after being transferred to human insulin the early warning symptoms for hypoglycemia were less pronounced than they were with animal source insulin". Furthermore, Novo Nordisk in cooperation with the BDA (British Diabetes Association) has initiated clinical studies designed to clarify the situation conclusively.

It is Novo Nordisk's opinion that human insulin is a safe and effective drug for the treatment of diabetes and Novo Nordisk therefore supports the following statement issued by the CSM: "The CSM would like strongly to urge all diabetics not to make any change in the type of insulin they use, or the dose they take, without consulting their medical practitioner."

Novo Nordisk a/s is one of the world's leading biotechnology companies. It is a major force in insulin manufacture and diabetes treatment and is the largest producer of industrial enzymes. The company also manufactures and markets a variety of other pharmaceutical and bioindustrial products. Headquartered in Denmark, Novo Nordisk employs more than 7,300 people in 30 countries and markets its products in 120 countries. Its B shares are listed on the stock exchanges in Copenhagen, London, Basel, Zurich and Geneva. Its ADSs are listed on the New York Stock Exchange under the symbol "NVO".

For additional information, please contact:

Denis J. Peters  
Novo Nordisk Information Center  
(212) 715-1544

Sarah Kendall Bayles  
Novo Nordisk of North America, Inc.  
(212) 867-0131

Novo-Nordisk  
Information Center  
301 East 57th Street  
Third Floor  
New York,  
New York 10022  
Tel. 212.593-6355

FOR IMMEDIATE RELEASE

Novo-Nordisk  
Press Release

October 25, 1989

**MANAGEMENT CHANGES ANNOUNCED AT  
NOVO LABORATORIES, INC.**

Bagsvaerd, Denmark -- Effective December 15, 1989, Lars Rebien Soerensen has been appointed Vice President of Novo Nordisk's Bioindustrial Group's International Operations. Mr. Soerensen will be responsible for the Bioindustrial Group's subsidiaries and information offices worldwide.

Mr. Soerensen joined Novo Nordisk in 1982. He holds a Cand.silv. (Master of Forestry) and a HD (Master of Commerce - Foreign Trade). His latest position was Acting President of the Bioindustrial Group's subsidiary in the U.S., Novo Laboratories, Inc.

Effective November 1, 1989 Charles A. Brunell has been appointed Managing Director of Novo Laboratories, Inc. and will assume full responsibility for sales, marketing and technical service activities for the Bioindustrial Group in North America.

Mr. Brunell, who joined the company in 1983 as Vice President of Sales and Marketing, will report to Mr. Soerensen.

Novo Laboratories, Inc. is a division of Novo Nordisk A/S, one of the world's leading biotechnology companies. It is a major force in insulin manufacture and diabetes treatment and is the largest producer of industrial enzymes. The company also manufactures and markets a variety of other pharmaceutical and bioindustrial products. Headquartered in Denmark, Novo Nordisk employs more than 7,300 people in 30 countries and markets its products in 120 countries.

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Contact: Scott A. Clark  
Novo Nordisk Information Center  
(212) 715-1609

Novo-Nordisk  
Information Center  
301 East 57th Street  
Third Floor  
New York,  
New York 10022  
Tel. 212.593-6355

FOR IMMEDIATE RELEASE

November 1, 1989

**Novo-Nordisk  
Press Release**

**NOVO YAKUHIN K. K. AND NORDISK JAPAN LTD. ACTIVITIES TO BE CONSOLIDATED INTO NOVO NORDISK PHARMA LTD.**

*Yamanouchi Will Be Appointed Distributor of Novo Nordisk's Full Range of Insulin and Glucagon*

Bagsvaerd, Denmark -- Novo Nordisk A/S today announced its intention to consolidate the activities of its two Japanese pharmaceutical subsidiaries, Novo Yakuhiin K.K. and Nordisk Japan Ltd., under the name of Novo Nordisk Pharma Ltd., now known as Novo Yakuhiin K.K. The company will be managed by Mr. Roger Moore, Novo Yakuhiin K.K., who will serve as President, and Mr. Roger Dains, Nordisk Japan Ltd., as Executive Vice President. The consolidation of the two firms' activities is part of Novo Nordisk's world-wide strategy to fully utilize their expertise and resources to create a considerably higher level of activity within existing therapy areas and enhance the possibility of expansion into new areas.

Novo Nordisk A/S further announced that a marketing and distribution agreement has been entered into with the Yamanouchi Pharmaceutical Co., who has been distributing Nordisk's line of insulin and human growth hormone.

The agreement with Yamanouchi Pharmaceutical Co., which will commence in the beginning of December 1989, will comprise Novo Nordisk's full range of insulin preparations, human growth hormone and glucagon.

The appointment of Yamanouchi Pharmaceutical Co., is expected to enable Novo Nordisk to substantially expand its distribution network and subsequently provide even better service.

The company and Sumitomo Pharmaceutical Co. have agreed to an amicable dissolution of their agreements as of December 31, 1989, due to the strategic reorganization of Novo Nordisk's marketing channels and based on the fact that Sumitomo and Novo Nordisk would otherwise have conflicting interests in the human growth hormone area.

The company's collaboration with Kodama Ltd. in the promotion and distribution of insulin, glucagon and heparin continues today, as it has in the past, utilizing their relationships and distribution network.

Commenting on the restructuring of Novo Nordisk's pharmaceutical business in Japan, Mr. Moore said: "Novo Nordisk A/S is strongly committed to research and development with approximately 13 per cent of the corporation's annual turnover being spent on R&D. By bringing the expertise of our two Japanese companies together in partnership with Yamanouchi, I believe that we shall strengthen our position to continuously bring new

and improved products to the Japanese market. This will be beneficial to doctors as well as patients and further strengthen Novo Nordisk's overall presence in the Japanese pharmaceutical market via Novo Nordisk Pharma Ltd."

Novo Nordisk A/S also engages in bioindustrial businesses in Japan through Novo Industri Japan Ltd. as well as Novo Biochemical Industry Japan Ltd., which produces enzymes.

Novo Nordisk A/S is one of the world's leading biotechnology companies. It is a major force in insulin manufacture and diabetes treatment and is the world's largest producer of industrial enzymes. The company also manufactures and markets a variety of pharmaceutical and bioindustrial products. Headquartered in Denmark, Novo Nordisk A/S employs more than 7,500 people in 30 countries and markets its products in 120 countries. The Company's B Shares are quoted on the stock exchanges in Copenhagen, London, Zurich, Basel and Geneva. Its ADSs are listed on the New York Stock Exchange under the symbol "NVO".

For additional information, please contact:

Denis J. Peters  
Novo Nordisk Information Center  
(212) 715-1544

FOR IMMEDIATE RELEASE

November 15, 1989

Nine Months and Third Quarter Results

Novo Nordisk's net turnover and earnings in the first nine months and third quarter of 1989 were:

(Amounts in millions, except per share)

Novo-Nordisk  
Press Release

Nine Months Ended Sept. 30.

	<u>1989</u>		<u>1988**</u>		<u>% Change Year-Over-Year</u>
	<u>Dkr.</u>	<u>US\$*</u>	<u>Dkr.</u>	<u>US\$*</u>	
Net turnover	5,499	754.3	4,818	660.9	14
Income before tax	858	117.7	809	111.0	6
Tax	240	32.9	249	34.2	-
Net income	618	84.8	560	76.8	10
Earnings per share (ADS)	19.53	2.68	17.72	2.43	10
Average number of ADSs and shares outstanding	31.6	31.6	31.6	31.6	-

Third Quarter Ended Sept. 30.

	<u>1989</u>		<u>1988**</u>		<u>% Change Year-Over-Year</u>
	<u>Dkr.</u>	<u>US\$*</u>	<u>Dkr.</u>	<u>US\$*</u>	
Net turnover	1,756	240.9	1,607	220.4	9
Income before tax	269	36.9	225	30.9	20
Tax	69	9.5	69	9.5	-
Net income	200	27.4	156	21.4	28
Earnings per share (ADS)	6.30	0.86	4.94	0.68	28
Average number of ADSs and shares outstanding	31.6	31.6	31.6	31.6	-

\* Translated for convenience at the September 29, 1989 exchange rate of U.S. \$1.00 = Dkr. 7.2900.

\*\* 1988 figures for the merged company are included in this statement for purposes of comparison and were calculated on a pro forma basis.

Novo-Nordisk  
Information Center  
301 East 57th Street  
Third Floor  
New York,  
New York 10022  
Tel. 212.593-6355

## Summary Statement

### Sales Analysis

Net turnover and pretax income in the first nine months of 1989 were Dkr. 5,499 million, and Dkr. 858 million, an increase of 14 per cent and 6 per cent, respectively, compared with the pro forma figures for the first nine months of 1988.

Sales for the 1989 nine month period increased more than the 7-9 per cent rate initially anticipated for the year, due to volume growth in major product areas and the development in currency. This increase occurred despite the repurchase in the third quarter of diabetes care product inventories amounting to nearly Dkr. 90 million in connection with the restructuring of the U.S. pharmaceutical operation.

### Outlook

The merger of Novo and Nordisk Gentofte is progressing according to plan, and the pretax income growth for the full year of 1989 is expected to be approximately 10 per cent compared with the pro forma result for 1988.

Factors of special importance for Novo Nordisk's results in 1990 are the company's position in the worldwide insulin market, the price development for Bioindustrial Group's products, currency developments and the degree to which Novo Nordisk improves its production economy and capacity utilization.

Going forward into 1990, management's objective is to improve earnings and achieve a 12-15 per cent pretax income growth.

### Currency

In the first nine months of 1989 Novo Nordisk's turnover was positively affected by currency developments. Compared to the same period in 1988 the average value of the Danish krone depreciated close to 5 per cent against the Novo Nordisk "basket" of invoicing currencies.

### Pretax Income Analysis

Pretax income for the first nine months of 1989 grew 6 per cent to Dkr. 858 million from Dkr. 809 million in 1988. This result was achieved in spite of the costs in connection with the restructuring of the U.S. pharmaceutical business and Novo Nordisk's termination of production agreements outside Denmark prompted by the merger.

The 15.6 per cent pretax margin was 1.2 percentage points lower than the pretax margin for the corresponding nine months of 1988, due to higher raw material costs and the planned increases in marketing and research activities in 1989. However, the 15.6 per cent pretax margin was higher than expected, mainly due to fewer additions to staff and better production yields.

### Health Care Group

Sales increased approximately 16 per cent in the first nine months of 1989 to Dkr. 3,570 million from Dkr. 3,088 million in the same period of 1988. The Health Care Group realized sales increases in all of its divisions mainly due to volume increases.

Bioindustrial Group

Sales increased approximately 20 per cent in the first nine months of 1989 to Dkr. 1,676 million from Dkr. 1,401 million in the same period of 1988. The Bioindustrial Group realized sales increases in all of its divisions primarily due to increases in volume, of which part is due to non-recurring sales.

Ferrosan

Sales of OTC products and disinfectants were Dkr. 134 million in the first nine months of 1989, level with the same 1988 period.

Novo Nordisk is one of the world's leading biotechnology companies. It is a major force in insulin manufacture and diabetes treatment and is the world's largest producer of industrial enzymes. The company also manufactures and markets a number of other pharmaceutical and bioindustrial products. Headquartered in Denmark, Novo Nordisk employs more than 7,500 people in 30 countries and markets its products in 120 countries. Its B shares are listed on the stock exchanges in Copenhagen, London, Basel, Zurich and Geneva. Its ADSs are listed on the New York Stock Exchange under the symbol "NVO".

For additional information, please contact:

Denis J. Peters  
Novo Nordisk Information Center  
(212) 715-1544

Mogens Vang Rasmussen  
Investor Relations Officer-  
North America  
(212) 867-0131

# Novo-Nordisk Backgrounder

## PRO FORMA 1988 NOVO NORDISK QUARTERLY RESULTS

The following pro forma statements of 1988 quarterly results for Novo Nordisk is presented for review and was prepared using the new corporate accounting policies. However, this has not resulted in any significant changes in the 1988 results previously published. The statement includes the Hagedorn Research Laboratory and the Sterno Memorial Hospital, which were not included in Nordisk Gentofte A/S' 1988 accounts.

	1 9 8 8				
	1st Qtr. DKr.	2nd Qtr. DKr.	3rd Qtr. DKr.	4th Qtr. DKr.	Total DKr.
Net turnover	1,611	1,600	1,607	1,478	6,296
Income before tax	291	293	225	144	953
Tax	94	86	69	43	292
Net income	197	207	156	101	661
Earnings per share (ADS)	6.23	6.55	4.94	3.20	20.92
Average number of ADSs and shares outstanding	31.6	31.6	31.6	31.6	31.6

## DIVISIONAL SALES: QUARTERLY PRO FORMA

	1 9 8 8						1 9 8 9					
	1Q	2Q	1H	3Q	4Q	2H	1988	1Q	2Q	1H	3Q	
Health Care Group	1,014	1,029	2,043	1,045	979	2,024	4,067	1,388	1,085	2,473	1,097	
Bioindustrial Group	455	462	917	484	427	911	1,828	517	581	1,098	578	
Ferrosan	133	96	229	68	64	132	361	54	38	92	42	
Other-incl. adjustments	10	13	23	10	8	18	40	27	53	80	39	
<b>TOTAL</b>	<b>1,612</b>	<b>1,600</b>	<b>3,212</b>	<b>1,607</b>	<b>1,478</b>	<b>3,085</b>	<b>6,296</b>	<b>1,986</b>	<b>1,757</b>	<b>3,743</b>	<b>1,756</b>	

Novo-Nordisk  
Information Center  
301 East 57th Street  
Third Floor  
New York,  
New York 10022  
Tel 212.593-6355

FOR IMMEDIATE RELEASE

November 27, 1989

**The 1990 Novo Nordisk Prize**

**Novo-Nordisk  
Press Release**

Bagsvaerd, Denmark -- Every year since 1963, the Novo Foundation has awarded the Novo Prize to a Danish scientist in recognition of a major achievement - medical or otherwise - which may benefit medical science.

In 1989, the Novo Foundation and Nordisk Insulin Laboratorium merged under the name of The Novo Nordisk Foundation. Consequently, the Novo Prize will henceforth be awarded under the new name of the Novo Nordisk Prize.

The 1990 Novo Nordisk Prize will be awarded to Professor Morten Simonsen, Dr. Med. of the Institute of Experimental Immunology, University of Copenhagen, Denmark.

The Novo Nordisk Prize of Dkr. 100,000 after tax will be presented on Saturday, February 24, 1990, at Novo Nordisk's headquarters in Bagsvaerd, Denmark.

Dr. Simonsen receives the Novo Nordisk Prize in recognition of his momentous research achievements which have been of fundamental significance for our understanding of the mechanisms of action of the immune system of the vertebrate organism - an understanding which is essential for state-of-the-art organ and tissue transplantation.

The human immune system is a defense system which functions by reacting against molecules which are recognized as "non-self" (eg. molecules of bacteria, viruses or parasites), whereas molecules of the human organism are recognized as "self".

The highly sensitive identification system which is capable of distinguishing between native and foreign elements is located on the surface of white blood cells called lymphocytes. When exposed to a foreign substance or molecule, some lymphocytes react by developing into cells that produce antibodies which bind to the foreign molecule, thus rendering it harmless; other lymphocytes cause the development of cells which attack the foreign substance and, in the case of a bacterium, destroy it.

When tissue or an organ is transplanted from one individual to another, the recipient's lymphocytes will identify the transplanted tissue as foreign and react against it, and the transplant may consequently be rejected by the recipient organism.

Medical science is indebted to Morten Simonsen for his original observation that certain types of transplantations may cause lymphocytes of the transplant to react against the recipient - in other words, that the transplant tries to "reject the host". This graft-versus-host reaction is a serious complication in transplantation of blood-forming bone marrow since lymphocytes are produced in the bone marrow.

The discovery that the lymphocyte is the central cell type in the immune system's distinguishing between "self" and "non-self" naturally raised the question of the molecular basis for this registration. This is the area around which Dr. Simonsen has centered his research activity in recent years.

Dr. Simonsen received his medical degree in 1947 and obtained his doctorate in medicine in 1953. In 1961, having served as a scientific assistant at the Institute of Pathological Anatomy, University of Copenhagen, he was appointed Research Director of the McIndoe Memorial Research Unit, Queen Victoria Memorial Hospital, East Grinstead, Sussex, U.K. In 1967, he was nominated to a professorship in immunology at the University of Copenhagen and has since been head of the Institute of Experimental Immunology.

Dr. Simonsen is a member of the Royal Danish Academy of Sciences and Letters (since 1968) and an honorary member of the American Association of Immunologists (since 1973). He was a member of the Danish Research Council from 1982 to 1986. He received the Paul Ehrlich Award in 1975 and the Anders Jahre Award in 1986.

The Prize Jury appointed by the Board of Governors of The Novo Nordisk Foundation is comprised of the following: Professor Olav Behnke, Dr. med. (Chairman); Professor Niels A. Lassen, Dr. Med.; Professor Sten Olsen, Dr. med.; Professor Jens F. Rehfeld, Dr. med. et scient; Professor Niels Tygstrup, Dr. med.; and Mads Oevlisen, Managing Director, Novo Nordisk A/S.

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For additional information, please contact:

Ellen Di Geronimo  
Ruder Finn  
(212) 715-1502

Margaret Jo Ringsted  
Novo Nordisk A/S  
011-45-44-490555

**FOR IMMEDIATE RELEASE**

December 20, 1989

**Novo-Nordisk  
Press Release**

**Dr. Niels W. Holm to Leave Novo Nordisk**

Novo Nordisk A/S announced today that Dr. Niels W. Holm, Senior Executive Vice President, has decided to resign from the company on March 1, 1990.

Niels W. Holm joined Novo's corporate management in 1985 as Chief Operating Officer. Prior to 1985, Niels W. Holm served for 5 years as a member of the Board of Novo while being Managing Director of Risoe National Laboratory and later of the Danish Steel Works, Ltd. During his tenure as COO, he has been a Board member in a number of Novo Nordisk's international companies, and he holds Board memberships in several Danish companies as well.

Subsequent to the Novo Nordisk merger earlier this year, a new management structure was implemented and the position as Chief Operating Officer was abandoned. Niels W. Holm retained responsibility for Corporate Engineering and Services and was further assigned responsibility for Novo Nordisk's "Other Businesses" (which comprises acquired and start-up businesses, such as Ferrosan A/S, Alfred Joergensen A/S and Novo BioLabs Ltd.) and for the management of physical asset planning.

Commenting on his decision, Niels W. Holm states:

"As COO I had broad international operating responsibilities, which kept me very busy. It was eventful and most challenging years where the business expanded and profits began to grow again. We made substantial changes in the way we organized our businesses. The Enzymes Division was restructured into several independent business units in the new Bioindustrial Group. At one point I was in direct charge of our Pharmaceuticals Division, where we worked on the preparatory steps for a divisionalized structure. Technical support to our production units was largely decentralized and we accelerated our efforts to improve - across the board - cost efficiency. I guess I may be remembered particularly for that effort!

I certainly found my new post merger assignment challenging as well. There was a clear need to readjust strategies and business portfolios of our "smaller" businesses in the light of the merger and the subsequent natural changes in corporate focus.

Many of these new activities, however, have been of an interim nature, and I feel that the objectives associated with them have been largely accomplished. It is now time to realize that this job cannot keep me busy in the longer term, and I have therefore decided to resign."

Mads Oevlisen, Co-Managing Director of Novo Nordisk, says:

"I am very sorry that Niels is leaving; however, I understand him and hold him in great respect for his decision. Niels joined Novo's management because we in Novo's management team needed his experience. This led to an effort which has left its mark on the company, and to a close cooperation in the management team, especially between Niels and myself, which I've highly appreciated.

Niels W. Holm's area of responsibility comprises three main areas: Other Businesses, Engineering & Services including Site Management Bagsvaerd, and the overall management of the Bioindustrial Group.

Sonnich Fryland, Executive Vice President, Corporate Development, will assume overall responsibility for "Other Businesses", i.e., BioLabs, Ferrosan including the OTC and Fine Chemicals businesses, and Alfred Joergensen Laboratory. In the future, these companies will thus report to Sonnich Fryland instead of Niels W. Holm.

Engineering & Services and Site Management Bagsvaerd will be transferred to Kurt Anker Nielsen, Executive Vice President, Bioindustrial Group, under the continued management of Steen Riisgaard, Executive Vice President, will report to Corporate Management through me."

Novo Nordisk is one of the world's leading biotechnology companies. It is a major force in insulin manufacture and diabetes treatment and is the world's largest producer of industrial enzymes. The company also manufactures and markets a number of other pharmaceutical and bioindustrial products. Headquartered in Denmark, Novo Nordisk employs more than 7,500 people in 30 countries and markets its products in 120 countries. Its B shares are listed on the stock exchanges in Copenhagen, London, Basel, Zurich and Geneva. Its ADSs are listed on the New York Stock Exchange under the symbol "NVO".

For additional information, please contact:

Denis J. Peters  
Ruder Finn  
(212) 715-1544

Novo Nordisk



Corporate PR  
& Press Relations

**FOR IMMEDIATE RELEASE**

January 4, 1990

Bagsvaerd, Denmark -- Novo Nordisk A/S today said that it will ask Jan Leschly, former President and Chief Operating Officer of Squibb Corporation to join its Board of Directors as an outside non-executive member. The plan is subject to approval by shareholders at the company's Annual Shareholders' Meeting in April 1990.

Novo Nordisk is one of the world's leading biotechnology companies. It is a major force in insulin manufacture and diabetes treatment and is the world's largest producer of industrial enzymes. The company also manufactures and markets a number of other pharmaceutical and bioindustrial products. Headquartered in Denmark, Novo Nordisk employs more than 7,500 people in 30 countries and markets its products in 120 countries. Its B shares are listed on the stock exchanges in Copenhagen, London, Basel, Zurich and Geneva. Its ADSs are listed on the New York Stock Exchange under the symbol "NVO".

For additional information, please contact:

Denis J. Peters  
Ruder Finn, Inc.  
(212) 715-1544

**Press Release**

FOR IMMEDIATE RELEASE

February 5, 1990

## NEW COMPOUND MAY BLOCK BRAIN DAMAGE AFTER STROKE

Bagsvaerd, Denmark--Development of a drug to prevent the devastating effects of stroke may be one step nearer. According to a study published in the current issue of *Science*, a new substance, called NBQX,\* can limit the brain cell death resulting from an interruption in cerebral blood flow. It is this cell death that leads to such clinical signs as paralysis and loss of speech.

"NBQX is the first compound to show this benefit even when the lack of cerebral blood supply [ischemia] is severe, and when animals receive no treatment until two hours after the event," said Dr. Tage Honoré, one of the authors of the *Science* paper. Dr. Honoré is Director of Drug Discovery at the CNS Division of Novo Nordisk Corporate Research.

Dr. Honoré and his colleagues tested NBQX in gerbils, stopping blood flow to the brain by blocking the carotid arteries for five minutes. NBQX was given intraperitoneally at various doses and at various intervals both before and after blood flow was stopped. In each case, the researchers assessed the brain for cell death four days later.

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\*2,3-dihydroxy-6-nitro-7-sulfamoyl-benzo(F)quinoxaline; *Science*, 2 February 1990



Novo Nordisk

Corporate PR  
& Press Relations

# Press Release

NBQX inhibited cell damage, in a dose-dependent manner, whether given before ischemia or up to two hours afterward. A dose of 30 mg per kilogram of body weight given at 60, 70, and 85 minutes after the onset of ischemia completely protected the brain cells in 14 of 15 animals.

Explaining how NBQX may work, Dr. Honoré said that when the brain is deprived of blood and therefore of oxygen, as in ischemic stroke, neurons lose their normal electrical charge (depolarize), releasing excessive amounts of glutamate, a chemical that sends messages from cell to cell. This sets off a chain reaction in which the process of cell destruction is repeated and millions of neurons are killed.

Because NBQX is a potent antagonist of a certain group of glutamate receptors on brain cells, it inhibits glutamate activity and prevents cell destruction from spreading. This study marks the first time that a so-called non-NMDA\* glutamate receptor antagonist has been shown to have this effect, said Dr. Honoré.

The use of glutamate receptor antagonists such as NBQX is a new approach to treating cerebral ischemia. "Chemicals other than glutamate transmit messages in the brain," said Dr. Honoré, "but glutamate appears to be the most important one in stroke injury."

A drug based on NBQX would signal a major change in the treatment of stroke. Today, efforts are aimed at stroke prevention in people known to be at increased risk. "But you really never know when or in whom a stroke will occur, so

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\*Non-N-methyl-D-aspartate

being able to treat patients after the fact would be a major advantage," the researcher remarked.

Novo Nordisk A/S will soon begin toxicity studies in preparation for clinical trials.

Novo Nordisk A/S is a major force in insulin manufacture and diabetes treatment and is the world's largest producer of industrial enzymes. The company also manufactures and markets a variety of other pharmaceutical and bioindustrial products. Headquartered in Denmark, Novo Nordisk A/S employs more than 7,500 people in 30 countries and markets its products in 120 countries.

For additional information, please contact:

Roselyn Hirsch or

Erica Kaplan

Ruder.Finn

(212) 593-6359

For further information contact:  
Gary Esterow/Andrea Marozas  
Ruder-Finn  
(212) 715-1589/593-6313

For Immediate Release



**Novo Nordisk  
Pharmaceuticals Inc.**

211 Carnegie Center  
Princeton, NJ 08540-6213

Tel. 609-987-5800  
Fax 609-921-8082

**GOLF PRO SHERRI TURNER TO CONTINUE AS SPOKESPERSON  
FOR NOVO NORDISK PHARMACEUTICALS INC.**

PRINCETON, N.J. (February 8, 1990) -- Novo Nordisk Pharmaceuticals Inc. (NNPI) has renewed its endorsement contract with professional golfer Sherri Turner, the company announced today. Turner, the Ladies Professional Golf Association's (LPGA) leading money winner in 1988 and GOLF magazine's 1988 "Player-of-the Year," will continue to represent NNPI during the 1990 LPGA tour, promoting the company's line of insulin products and insulin delivery systems.

An insulin-dependent diabetic for 16 years, Turner's daily regimen includes two injections of Novo Nordisk insulin using the company's NovolinPen™ delivery system. A self-contained pen-like device, NovolinPen allows diabetics to inject insulin in a simple and discreet manner, without handling conventional vials or syringes.

"Sherri Turner is a role model and an inspiration for youngsters challenged by diabetes," said C. Henk Bleeker, NNPI president. "She has shown that diabetes is not an obstacle to success."

Novo Nordisk Pharmaceuticals Inc. is the U.S. subsidiary of Novo Nordisk A/S, Denmark, the world's largest producer of insulin and insulin delivery systems. Located in Princeton, N.J., Novo Nordisk Pharmaceuticals Inc. has direct responsibility for the sales, marketing and new product registration of Novo Nordisk diabetes care and other pharmaceutical products in the United States.

###

FOR IMMEDIATE RELEASE

March 14, 1990

**Year-End Statement 1989**

Bagsvaerd, Denmark -- In its first full year, the new company, Novo Nordisk, realized a sales increase of 16 percent and increases in pretax income and net income of 10 percent and 6 percent, respectively.

These results were achieved while implementing the merger between Novo Industri and Nordisk Gentofte more smoothly than expected.

**1989**

**Sales**

Sales in both groups, the Health Care Group (HCG) and the Bioindustrial Group (BIG), increased 19 percent in 1989 measured against 1988 results. Combined sales in other business units - including A/S Ferrosan - fell 25%, primarily as a consequence of restructurings and the sale of product groups.

**Cost Development**

Raw materials including energy amounted to 26 percent of sales versus 24 percent of sales in 1988, mainly due to price increases on a few important raw materials.

All other costs increased 15 percent compared to 1988, principally due to the continued expansion of marketing and R&D activities, including ZymoGenetics, Inc. Seattle, acquired on August 1, 1988, and to merger-related non-recurring expenses.

**Currency**

Compared with 1988, the average value of the Novo Nordisk group of invoicing currencies increased close to 3 percent in 1989. Since Novo Nordisk invoices more than 80 percent of its sales in foreign currencies, 1989 results were positively affected by currency developments.

**Taxation**

Taxes for 1989 are expected to amount to DKr. 303 million compared with DKr. 250 million in 1988.

Taxes for 1988, first published in the pro forma figures accompanying the first quarter 1989 release, proved to be overestimated by DKr. 42 million, due to exceptionally low taxes for Nordisk Gentofte A/S for the calendar year 1988.



Novo Nordisk

Corporate PR  
& Press Relations

**Press Release**

### **Equity**

Investments of approximately DKr. 420 million in intangible assets in connection with the purchase of the remaining 10 percent of A/S Ferrosan, Novo Nordisk's purchase of Squibb's part in our joint U.S. insulin business, and the product range of Celltech Diagnostics, have been charged directly against unappropriated retained earnings in accordance with the accounting principles of the corporation.

This also applies to adjustments of the insulin production capacity carried out and planned following the merger.

In total this amounts to approximately DKr. 500 million. Equity now constitutes 54 percent of total assets or DKr. 6,259 million compared to 58 percent or DKr. 6,183 million in 1988.

### **Outlook 1990**

Corporate sales are budgeted to grow approximately 10 percent, 10-15 percent in HCG and 5-10 percent in BIG, mainly based on volume growth in both groups.

During 1990 the development in currency exchange rates will be of major importance to sales and earnings. Of particular interest are movements in the U.S. dollar, Japanese yen and British pound which constitute approximately 35 percent of Novo Nordisk's group of invoicing currencies. It was, as stated in November 1989, management's objective to achieve a 12-15 percent pretax income growth in 1990, dependent upon, among other things, currency development. Since then, currency exchange rates have decreased substantially compared to Danish kroner. In the first two months of 1990 alone the value of Novo Nordisk's invoicing currencies has dropped 6 percent compared with the corresponding period in 1989. Measured in local currencies the group's business in individual countries developed as expected, but if exchange rates continue at their current unexpectedly low levels for the rest of the year it will be difficult to achieve growth in the corporation's pretax earnings in 1990.

The effective tax rate for 1990 is expected to be on the 32-34 percent level.

### **Cost Development in 1990**

1990 will be affected by improved product mix and production economy partly as a consequence of the merger.

The corporation plans, in accordance with its long-term objectives, to substantially increase costs and investments associated with product development and marketing activities in 1990, especially within HCG.

### **Quarterly Distribution**

Due to its products and customers, Novo Nordisk will always be subject to considerable fluctuations in sales and earnings from quarter to quarter. Therefore, assessments should be based on results achieved over a longer period.

Approximately 37 percent of pretax earnings in 1989 were realized in the first quarter. This was due to Nordisk Gentofte's conversion in late 1988 from distributors to wholly-owned companies in certain key European markets. In 1990 earnings are expected to be more evenly distributed over the quarters.

## 1989

### Health Care Group

HCG sales increased 19 percent in 1989 to DKr. 4,912 million from DKr. 4,126 million in 1988.

Sales of insulin increased approximately 15 percent and accounted for 76 percent of total 1989 HCG sales, compared with 78 percent in 1988. According to preliminary market share data, Novo Nordisk's 1989 insulin market share stabilized, stated as an average using volume data.

Human insulin now represents 51 percent of total insulin volume, up from 44 percent in 1988.

Sales of other pharmaceutical products increased 27 percent in 1989 versus 1988. Human growth hormone, Norditropin™, increased almost 30 percent and gynecological products increased approximately 35 percent in 1989, compared with 1988 results.

Novo Nordisk's HMge insulins (human insulins produced by fermentation of genetically-modified yeast) were approved for marketing and sold in several additional countries including West Germany and the United Kingdom in 1989. A new disposable, patient-friendly insulin injection system, NovoLet™, was also introduced late in 1989.

HCG marketing expenses increased in 1989, principally due to the expansion of sales forces. Two important marketing agreements were renegotiated. Novo Nordisk became the sole owner of Squibb-Novo, Inc. We also purchased the interest and marketing rights of Squibb in our joint U.S. insulin business. The agreement that Nordisk Gentofte had with Yamanouchi in Japan was expanded to cover HCG's diabetes care products and human growth hormone.

### Bioindustrial Group

BIG sales increased 19 percent in 1989 to DKr. 2,167 million, compared with DKr. 1,828 million in 1988. The Bioindustrial Group experienced sales increases in all of its businesses, especially the Enzyme Process and Biochemicals Divisions.

The Enzyme Process Division regained its position as a substantial supplier to the U.S. starch industry with a series of new enzymes with improved properties. Several customers in more mature industries showed increased interest in using enzymes, because enzyme processes, compared with traditional processes, can result in better production economy, improved workplace safety, and they are environmentally sound.

BIG's largest business area, the Detergent Enzymes Division, achieved good results due to increased use of enzymes in detergents.

### Ferrosan

Ferrosan sales fell from DKr. 302 million in 1988 to DKr. 189 million in 1989, primarily due to the divestment of A/S Danochemo, the divestment of some product groups and to the transfer of its ethical pharmaceuticals business to HCG in 1988.

### **Total Employees**

Novo Nordisk employed 8,094 people at year-end 1989, an increase of 595 from year-end 1988, including the 168 employees from Squibb-Novo, Inc., now Novo Nordisk Pharmaceuticals, Inc.,

### **Capital Expenditures**

Total capital expenditures for fixed assets, environmental protection and safety were DKr. 895 million in 1989.

The most prominent projects in 1989 were the new enzyme plant in Brazil, investment in new laboratory and administration facilities for BIG in Japan, and in a new insulin finishing, bottling and packaging plant in France. In Denmark, Novo Nordisk also invested in new laboratories and production facilities for the Biopharmaceuticals Division, a factory for the production of products based on mammalian cell culture, new laboratory facilities for the CNS research unit, and general expansion of production capacity.

### **Dividend**

The Board of Directors of Novo Nordisk A/S will propose a dividend of 20 percent of the nominal share value of DKr. 4 per share (and per ADS) at the Annual General Meeting, April 24, 1990.

Novo Nordisk is one of the world's leading biotechnology companies. It is a major force in insulin manufacture and diabetes treatment and is the world's largest producer of industrial enzymes. The company also manufactures and markets a number of other pharmaceutical and bioindustrial products. Headquartered in Denmark, Novo Nordisk employs more than 8,000 people in 30 countries and markets its products in 120 countries. Its B shares are listed on the stock exchanges in Copenhagen, London, Basel, Zurich and Geneva. Its ADSs are listed on the New York Stock Exchange under the symbol "NVO".

- table follows -

**NOVO NORDISK A/S**

(Amounts in millions, except per share)

Fourth Quarter Ended Dec. 31.

	<u>1989</u>		<u>1988**</u>		<u>% Change Year-Over-Year</u>
	<u>Dkr.</u>	<u>US\$*</u>	<u>Dkr.</u>	<u>US\$*</u>	
Net turnover	1,835	277.7	1,478	223.7	24
Income before tax	191	28.9	144	21.8	33
Tax	63	9.5	1***	--	--
Net income	128	19.4	143	21.6	(10)
Earnings per share (ADS)	4.05	.61	4.52	.69	(10)
Average number of ADSs and shares outstanding	31.6	31.6	31.6	31.6	--

Year Ended Dec. 31.

	<u>1989</u>		<u>1988**</u>		<u>% Change Year-Over-Year</u>
	<u>Dkr.</u>	<u>US\$*</u>	<u>Dkr.</u>	<u>US\$*</u>	
Net turnover	7,334	1,110.0	6,296	952.9	16
Income before tax	1,049	158.8	953	144.2	10
Tax	303	45.9	250	37.8	21
Net income	746	112.9	703	106.4	6
Earnings per share (ADS)	23.58	3.57	22.24	3.37	6
Average number of ADSs and shares outstanding	31.6	31.6	31.6	31.6	--

\* Translated for convenience at the December 31, 1989 exchange rate of U.S. \$1.00 = DKr. 6.6075.

\*\* 1988 figures for the merged company are included in this statement for purposes of comparison and were calculated on a pro forma basis.

\*\*\* cf. page 1.

For additional information, please contact:

Denis J. Peters  
Ruder Finn, Inc.  
(212) 715-1544

Sarah Kendall Bayles  
Investor Relations Officer -  
North America  
(212) 867-0131

RUDER FINN, INC.

AMOUNTS RECEIVED FROM SEDGWICK GROUP PLC.

FOR THE SIX MONTH PERIOD ENDED 03/27/90

DATE FUNDS RECEIVED	NAME OF FOREIGN PRINCIPAL FROM WHOM RECEIVED	PURPOSE	AMOUNT
10/18/89	SEDCWICK GROUP PLC	FEE	3,000.00
10/18/89	SEDCWICK GROUP PLC	EXPENSES	836.59
11/16/89	SEDCWICK GROUP PLC	FEE	3,000.00
12/08/89	SEDCWICK GROUP PLC	FEE	2,145.41
01/11/90	SEDCWICK GROUP PLC	FEE	3,000.00
01/19/90	SEDCWICK GROUP PLC	FEE	3,000.00
01/29/90	SEDCWICK GROUP PLC	EXPENSES	556.24
02/23/90	SEDCWICK GROUP PLC	EXPENSES	744.52
02/27/90	SEDCWICK GROUP PLC	EXPENSES	981.04
03/19/90	SEDCWICK GROUP PLC	FEE	3,200.00
	TOTAL FUNDS RECEIVED		20,463.80

RUDER FINN, INC.

SCHEDULE OF EXPENSES FOR SEDGWICK GROUP

FOR THE SIX MONTH PERIOD ENDING 03/27/90

DATE	VENDOR	DESCRIPTION OF WORK DONE	AMOUNT
VARIOUS	CONNING AND COMPANY	SUBSCRIPTION	500.00
VARIOUS	DOW JONES	SUBSCRIPTION	79.87
VARIOUS	DOW JONES	NEWS SERVICE	227.05
VARIOUS	DUFF & PHELPS	SUBSCRIPTION	900.00
VARIOUS	DENIS PETERS	EXPENSES	225.76
VARIOUS	IMAGE COURIER	MESSENGER	14.25
VARIOUS	INSTITUTIONAL INVEST	SUBSCRIPTION	27.85
VARIOUS	MERRILL LYNCH SEC.	SUBSCRIPTION	650.00
12/22/89	NELSON PUBLICATIONS	SUBSCRIPTIONS	38.21
VARIOUS	N.Y. SOCIETY SEC. DIR.	SUBSCRIPTION	37.40
VARIOUS	N.Y. TELEPHONE	TELEPHONE & TELECOPIER	1,638.27
VARIOUS	POSTMASTER	POSTAGE	290.72
VARIOUS	RUDER FINN	PHOTOCOPIES	60.28
02/15/89	SCOTT CLARK	EXPENSES	0.00
10/04/89	SALOMON BROTHERS	SUBSCRIPTION	500.00
VARIOUS	VICKERS STOCK	SPECIAL MATERIALS	11.36
VARIOUS	WALL STREET JOURNAL	SUBSCRIPTION	39.60
VARIOUS	VICKERS STOCK RESEARCH	RESEARCH	15.58
		TOTAL	5,256.20

RUDER FINN, INC.

AMOUNTS RECEIVED FROM ITALIAN TRADE COMMISSION

FOR THE SIX MONTH PERIOD ENDED 03/27/90

DATE FUNDS RECEIVED	NAME OF FOREIGN PRINCIPAL FROM WHOM RECEIVED	PURPOSE	AMOUNT
11/14/89	ITALIAN TRADE COMMISSION	FEE	25,000.00
01/25/89	ITALIAN TRADE COMMISSION	EXPENSES	5,844.63
	TOTAL FUNDS RECEIVED		30,844.63

RUDER FINN, INC.

SCHEDULE OF EXPENSES FOR THE ITALIAN TRADE COMMISSION

FOR THE SIX MONTH PERIOD ENDING 03/27/90

DATE	VENDOR	DESCRIPTION OF WORK DONE	AMOUNT
VARIOUS	L. BREYER	EXPENSES	70.62
VARIOUS	RUDER FINN DESIGN	DESIGN SERVICES	11,753.00
VARIOUS	IMAGE COURIER	MESSENGER	625.75
VARIOUS	FEDERAL EXPRESS	SHIPMENT	70.75
VARIOUS	N.Y. TELEPHONE	TELEPHONE & TELECOPIER	846.70
03/17/89	P.R. NEWSWIRE	NEWSWIRE DANISH PRIME MINISTER	75.00
VARIOUS	WIDE WORLD PHOTO	PHOTOGRAPHIC SERVICES	5,844.63
VARIOUS	POSTMASTER	POSTAGE	103.80
VARIOUS	PUBLIC RELATIONS PRODUCTION	PRINTING AND PRODUCTION	2,659.66
VARIOUS	RUDER FINN	WORDPROCESSING	1,273.90
VARIOUS	RUDER FINN	PHOTOCOPIES	147.41
VARIOUS	F. SCHROEDER	EXPENSES	116.30
VARIOUS	SKYLINE CREDIT RIDE	CARFARE	24.00
		TOTAL	23,611.52

RUDER FINN, INC.

AMOUNTS RECEIVED FROM FINNAIR

FOR THE SIX MONTH PERIOD ENDED 03/27/90

DATE FUNDS RECEIVED	NAME OF FOREIGN PRINCIPAL FROM WHOM RECEIVED	PURPOSE	AMOUNT
10/23/89	FINNAIR		
01/16/90	FINNAIR	EXPENSES	5,102.95
01/16/90	FINNAIR	FEE	8,000.00
01/24/90	FINNAIR	FEE	8,000.00
02/27/90	FINNAIR	FEE	8,000.00
02/27/90	FINNAIR	FEE	8,000.00
03/14/90	FINNAIR	FEE	8,000.00
03/14/90	FINNAIR	EXPENSES	2,859.60
03/14/90	FINNAIR	EXPENSES	3,737.91
03/14/90	FINNAIR	FEE	8,000.00
TOTAL FUNDS RECEIVED			59,700.46

RUDER FINN, INC.

SCHEDULE OF EXPENSES FOR FINNAIR

FOR THE SIX MONTH PERIOD ENDING 03/27/90

DATE	VENDOR	DESCRIPTION OF WORK DONE	AMOUNT
11/20/89	AMERICAN BAR ASSOC.	SPECIAL MATERIALS	168.25
VARIOUS	BROADCAST N.Y.	AUDIO-VISUAL SERVICES	0.00
VARIOUS	KATHY BLOOMGARDEN	EXPENSES	188.05
VARIOUS	RUDER FINN DESIGN	DESIGN SERVICES	1,245.26
VARIOUS	FLEET RADIO	CARFARES	131.25
12/26/89	JOURNAL OF COMMERCE	SUBSCRIPTION	9.00
VARIOUS	IMAGE COURIER	MESSENGER	1,923.75
VARIOUS	FRANK WALTON	EXPENSES	135.90
VARIOUS	FEDERAL EXPRESS	SHIPMENT	3,304.42
09/20/89	L.A. TIMES	SPECIAL MATERIALS	448.00
VARIOUS	QUALITY COLOR LABORATORY	PHOTOGRAPHY	524.60
10/01/89	MAL DUNN ASSOCIATES	SPECIAL MATERIALS	625.00
VARIOUS	N.Y. TELEPHONE	TELEPHONE & TELECOPIER	2,380.97
VARIOUS	P.R. NEWSWIRE	NEWSWIRE SERVICES	1,300.00
VARIOUS	N.Y. POSTAGE	POSTAGE	714.23
VARIOUS	N.Y. TIMES	SPECIAL MATERIALS	1,250.00
09/28/89	RESEARCH PROJECTS CORP.	SPECIAL MATERIALS	121.00
VARIOUS	RUDER FINN	BROADCAST SERVICES	54.00
VARIOUS	PUBLIC RELATIONS PRODUCTION	PRINTING AND PRODUCTION	12,711.56
VARIOUS	RUDER FINN	PHOTOCOPIES	1,716.35
VARIOUS	QUALIFIED LISTS CORP.	EXPENSES	612.00
VARIOUS	SPEED GRAPHICS	GRAPHICS	231.00
VARIOUS	SKYLINE CREDIT RIDE	LOCAL TRANSPORTATION	778.75
11/14/89	TRI-COUNTY BUSINESSMEN'S	AD PLACEMENT	190.32
		TOTAL	30,763.66

RUDER FINN, INC.

AMOUNTS RECEIVED FROM BOEHRINGER INGELHEIM ZENTRALE

FOR THE SIX MONTH PERIOD ENDED 03/27/90

DATE FUNDS RECEIVED	NAME OF FOREIGN PRINCIPAL FROM WHOM RECEIVED	PURPOSE	AMOUNT
10/02/89	BOEHRINGER INGELHEIM ZENTRALE	FEE	3,500.00
10/02/89	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	63.82
10/02/89	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	127.09
10/02/89	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	163.67
10/10/89	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	1,138.02
10/10/89	BOEHRINGER INGELHEIM ZENTRALE	FEE	6,000.00
10/10/89	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	326.01
10/10/89	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	139.96
10/10/89	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	63.40
10/10/89	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	1,552.16
10/10/89	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	733.96
10/10/89	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	397.86
10/10/89	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	2,820.00
10/10/89	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	2,856.49
10/10/89	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	1,148.75
10/10/89	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	2,022.04
10/16/89	BOEHRINGER INGELHEIM ZENTRALE	FEE	3,500.00
10/16/89	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	1,452.13
11/13/89	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	694.72
11/13/89	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	54.48
11/22/89	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	834.68
11/22/89	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	1,358.56
11/22/89	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	1,543.96
11/22/89	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	922.09
11/29/89	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	1,964.74
11/29/89	BOEHRINGER INGELHEIM ZENTRALE	FEE	8,375.00
11/29/89	BOEHRINGER INGELHEIM ZENTRALE	FEE	8,375.00
11/29/89	BOEHRINGER INGELHEIM ZENTRALE	FEE	2,500.00
11/29/89	BOEHRINGER INGELHEIM ZENTRALE	FEE	3,000.00
12/08/89	BOEHRINGER INGELHEIM ZENTRALE	FEE	3,500.00
12/08/89	BOEHRINGER INGELHEIM ZENTRALE	FEE	3,000.00
12/21/89	BOEHRINGER INGELHEIM ZENTRALE	FEE	6,000.00
12/21/89	BOEHRINGER INGELHEIM ZENTRALE	FEE	10,500.00
12/21/89	BOEHRINGER INGELHEIM ZENTRALE	FEE	3,500.00
01/12/90	BOEHRINGER INGELHEIM ZENTRALE	FEE	12,000.00
01/12/90	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	4,459.92
01/18/90	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	553.51
01/18/90	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	3,399.75
01/18/90	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	1,601.65
01/18/90	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	630.40
01/18/90	BOEHRINGER INGELHEIM ZENTRALE	FEE	6,000.00
01/18/90	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	1,015.48
01/18/90	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	2,272.99
01/18/90	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	1,159.95
01/18/90	BOEHRINGER INGELHEIM ZENTRALE	FEE	14,500.00
01/18/90	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	951.05

RUDER FINN, INC.

AMOUNTS RECEIVED FROM BOEHRINGER INGELHEIM ZENTRALE

FOR THE SIX MONTH PERIOD ENDED 03/27/90

DATE FUNDS RECEIVED	NAME OF FOREIGN PRINCIPAL FROM WHOM RECEIVED	PURPOSE	AMOUNT
01/18/90	BOEHRINGER INGELHEIM ZENTRALE	FEE	3,000.00
01/18/90	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	1,350.01
01/18/90	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	1,955.21
01/18/90	BOEHRINGER INGELHEIM ZENTRALE	FEE	4,500.00
01/18/90	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	1,507.39
01/18/90	BOEHRINGER INGELHEIM ZENTRALE	FEE	4,000.00
01/18/90	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	1,403.59
01/18/90	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	391.42
01/18/90	BOEHRINGER INGELHEIM ZENTRALE	FEE	3,000.00
01/30/90	BOEHRINGER INGELHEIM ZENTRALE	FEE	3,000.00
01/30/90	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	1,404.70
01/30/90	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	2,389.18
01/30/90	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	3,916.64
01/30/90	BOEHRINGER INGELHEIM ZENTRALE	FEE	3,500.00
01/30/90	BOEHRINGER INGELHEIM ZENTRALE	FEE	13,000.00
02/12/90	BOEHRINGER INGELHEIM ZENTRALE	FEE	3,500.00
02/12/90	BOEHRINGER INGELHEIM ZENTRALE	EXPENSES	1,425.61
03/05/90	BOEHRINGER INGELHEIM ZENTRALE	FEE	600.00
		FEE	5,000.00
	TOTAL FUNDS RECEIVED		191,517.04

RUDER FINN, INC.

SCHEDULE OF EXPENSES FOR BOEHRINGER INGELHEIM ZENTRALE

FOR THE SIX MONTH PERIOD ENDING 03/27/90

DATE	VENDOR	DESCRIPTION OF WORK DONE	AMOUNT
VARIOUS	CHEST	SUBSCRIPTION	100.00
VARIOUS	SCIENCE	SUBSCRIPTION	75.00
VARIOUS	CPS COMMUNICATIONS	SUBSCRIPTION	35.00
VARIOUS	AMER. REVIEW RESP	SUBSCRIPTION	119.50
VARIOUS	AMERICAN JOURNAL	SUBSCRIPTION	66.00
VARIOUS	SPRINGER-VERLAG NY	SUBSCRIPTION	165.50
VARIOUS	AMER. MEDICAL ASSOC.	SUBSCRIPTION	69.00
VARIOUS	CURRENT MED. LIT.	SUBSCRIPTION	40.00
VARIOUS	BACONS PUBLICITY	SUBSCRIPTIONS	180.00
VARIOUS	NEW ENGLAND JOURNAL	SUBSCRIPTION	74.00
VARIOUS	AMER. COLLEGE OF	SUBSCRIPTION	55.00
VARIOUS	BRITISH MEDICAL JOURNAL	SUBSCRIPTION	174.00
VARIOUS	AMERICAN REVIEW OF	SUBSCRIPTION	0.00
VARIOUS	AAAS	SUBSCRIPTION	75.00
VARIOUS	CATHY BECKER POPESCU	SPECIAL EVENTS	49.74
VARIOUS	ERICA KAPLAN	EXPENSES	666.16
VARIOUS	DAY'S TRAVEL AGENCY	AIRFARE	2,651.00
VARIOUS	IMAGE COURIER	MESSENGER	14.25
VARIOUS	FEDERAL EXPRESS	SHIPMENT	116.41
VARIOUS	K&L CUSTOM PHOTO	AUDIO/VISUAL	126.59
VARIOUS	NEONATAL RESDEARCH	REGISTRATION FEE	350.00
VARIOUS	N.Y. TELEPHONE	TELEPHONE & TELECOPIER	4,083.14
VARIOUS	POSTMASTER	POSTAGE	2,020.05
VARIOUS	ROSELYN HIRSH	EXPENSES	512.68
VARIOUS	RUDER FINN INTL.	RESEARCH	300.00
VARIOUS	RUDER FINN	PETTY CASH/EXPENSES	134.37
VARIOUS	PUBLIC RELATIONS PROD	PRINTING AND PRODUCTION	305.67
VARIOUS	RCA GLOBAL COMM.	TELECOMMUNICATIONS	25.35
VARIOUS	RUDER FINN	PHOTOCOPIES	1,251.86
07/10/89	VICTOR RIVERA	DESIGN	86.25
VARIOUS	WIDE WORLD PHOTOS	PHOTOGRAPHY	0.00
		TOTAL	13,821.52

RUDER FINN, INC.

AMOUNTS RECEIVED FROM NOVO INDUSTRI A-S

FOR THE SIX MONTH PERIOD ENDED 03/27/90

DATE FUNDS RECEIVED	NAME OF FOREIGN PRINCIPAL FROM WHOM RECEIVED	PURPOSE	AMOUNT
10/06/89	NOVO INDUSTRI A-S	EXPENSES	8,934.58
10/06/89	NOVO INDUSTRI A-S	FEE	36,000.00
10/23/89	NOVO INDUSTRI A-S	EXPENSES	184.89
10/23/89	NOVO INDUSTRI A-S	EXPENSES	8.56
10/27/89	NOVO INDUSTRI A-S	EXPENSES	2,326.07
10/27/89	NOVO INDUSTRI A-S	EXPENSES	1,831.62
10/27/89	NOVO INDUSTRI A-S	FEE	4,000.00
11/10/89	NOVO INDUSTRI A-S	EXPENSES	2,541.30
11/10/89	NOVO INDUSTRI A-S	FEE	4,000.00
11/10/89	NOVO INDUSTRI A-S	EXPENSES	156.36
11/28/89	NOVO INDUSTRI A-S	EXPENSES	947.53
11/28/89	NOVO INDUSTRI A-S	EXPENSES	246.15
11/28/89	NOVO INDUSTRI A-S	FEE	26,000.00
11/28/89	NOVO INDUSTRI A-S	EXPENSES	307.23
11/28/89	NOVO INDUSTRI A-S	EXPENSES	1,401.94
11/28/89	NOVO INDUSTRI A-S	EXPENSES	195.31
11/28/89	NOVO INDUSTRI A-S	EXPENSES	10,665.98
11/28/89	NOVO INDUSTRI A-S	EXPENSES	5,141.75
11/28/89	NOVO INDUSTRI A-S	FEE	26,000.00
12/06/89	NOVO INDUSTRI A-S	EXPENSES	575.03
12/06/89	NOVO INDUSTRI A-S	EXPENSES	7,231.42
12/06/89	NOVO INDUSTRI A-S	EXPENSES	10,690.00
12/08/89	NOVO INDUSTRI A-S	FEE	4,000.00
12/13/89	NOVO INDUSTRI A-S	EXPENSES	1,867.55
12/13/89	NOVO INDUSTRI A-S	EXPENSES	145.91
12/13/89	NOVO INDUSTRI A-S	FEE	4,000.00
12/26/89	NOVO INDUSTRI A-S	EXPENSES	11,616.06
01/03/90	NOVO INDUSTRI A-S	EXPENSES	516.84
01/03/90	NOVO INDUSTRI A-S	EXPENSES	5,520.25
01/03/90	NOVO INDUSTRI A-S	EXPENSES	600.53
01/03/90	NOVO INDUSTRI A-S	EXPENSES	10,340.23
01/03/90	NOVO INDUSTRI A-S	EXPENSES	1,029.36
01/08/90	NOVO INDUSTRI A-S	FEE	6,630.00
01/22/90	NOVO INDUSTRI A-S	EXPENSES	2,216.31
01/22/90	NOVO INDUSTRI A-S	EXPENSES	424.94
01/25/90	NOVO INDUSTRI A-S	FEE	30,990.00
02/01/90	NOVO INDUSTRI A-S	EXPENSES	9,990.00
02/21/90	NOVO INDUSTRI A-S	FEE	4,000.00
02/21/90	NOVO INDUSTRI A-S	EXPENSES	477.80
03/05/90	NOVO INDUSTRI A-S	FEE	28,500.00
03/05/90	NOVO INDUSTRI A-S	EXPENSES	1,704.23
03/05/90	NOVO INDUSTRI A-S	EXPENSES	1,788.39
03/05/90	NOVO INDUSTRI A-S	EXPENSES	7,156.02
03/05/90	NOVO INDUSTRI A-S	EXPENSES	481.31
03/05/90	NOVO INDUSTRI A-S	EXPENSES	393.29
03/05/90	NOVO INDUSTRI A-S	EXPENSES	46.87

RUDER FINN, INC.

AMOUNTS RECEIVED FROM NOVO INDUSTRI A-S

FOR THE SIX MONTH PERIOD ENDED 03/27/90

DATE FUNDS RECEIVED	NAME OF FOREIGN PRINCIPAL FROM WHOM RECEIVED	PURPOSE	AMOUNT
03/14/90	NOVO INDUSTRI A-S	FEE	45,500.00
03/14/90	NOVO INDUSTRI A-S	EXPENSES	10,869.41
03/14/90	NOVO INDUSTRI A-S	EXPENSES	140.41
03/14/90	NOVO INDUSTRI A-S	EXPENSES	606.96
03/14/90	NOVO INDUSTRI A-S	EXPENSES	10,000.00
03/14/90	NOVO INDUSTRI A-S	EXPENSES	32.20
03/14/90	NOVO INDUSTRI A-S	FEE	54,000.00
03/26/90	NOVO INDUSTRI A-S	EXPENSES	677.49
	NOVO INDUSTRI A-S	FEE	4,000.00
	TOTAL FUNDS RECEIVED		409,648.08

RUDER FINN, INC.

SCHEDULE OF EXPENSES FOR NOV0

FOR THE SIX MONTH PERIOD ENDING 03/27/90

DATE	VENDOR	DESCRIPTION OF WORK DONE	AMOUNT
VARIOUS	AD-KING	SHIRTS FOR STEVESON	1,619.04
VARIOUS	AMER. SOC. OF HEMATOLOGY	LIST RENTAL	0.00
VARIOUS	AARON BETSKY	BROCHURE WRITER	750.00
VARIOUS	ASH MEMBERSHIP	MEMBERSHIP LIST	2,000.00
VARIOUS	APPLE VALLEY MONOGRAM	LOGOS/PATCHES	0.00
VARIOUS	ATLANTA MARRIOTT MARQUIS	DEPOSIT	150.00
VARIOUS	ASSET INTERNATIONAL	DIRECTORY	0.00
VARIOUS	BACONS PUBLICITY	SUBSCRIPTIONS	34.00
VARIOUS	BLUE BIRD TAXI	CABFARE	145.85
VARIOUS	JOHN MAYER BRANDT	PHOTOGRAPHER	350.00
05/31/89	AUDREY HOFFMAN	SPOKESPERSON	300.00
VARIOUS	BROADCAST MONITORING	AUDIO-VISUAL SERVICES	100.00
VARIOUS	KATHY BLOOMGARDEN	EXPENSES	2,867.77
VARIOUS	KARL SCHROFF	MAILING EXPENSES	0.00
VARIOUS	SANDY CHO	EXPENSES	59.00
VARIOUS	KALB, VOORHIS & CO.	MAILING EXPENSES	0.00
VARIOUS	CORP. TRANS.	CABFARE	25.00
VARIOUS	COLUMBIA UNIVERSITY	LECTURE FEE	20,000.00
VARIOUS	COSANTI	SPECIAL EVENTS	1,544.00
VARIOUS	DOW JONES INFO SERVICES	TELEPHONE	303.92
VARIOUS	DICK SCOTT	FILM PROCESSING	0.00
VARIOUS	B.ENNIS	EXPENSE	116.22
VARIOUS	RUDER FINN DESIGN	DESIGN SERVICES	13,379.42
VARIOUS	EXECUTIVE CHARGE	CABFARES	0.00
VARIOUS	FIND SVP. INC.	RESEARCH	177.90
VARIOUS	FINANCIAL WORLD	PUBLICATION	941.50
VARIOUS	DAY'S TRAVEL AGENCY	AIRFARE	5,717.00
VARIOUS	ILLAH CALIFORNIA	SPECIAL MATERIALS	877.00
VARIOUS	GEN PUBLISHING	SUBSCRIPTIONS	168.00
VARIOUS	IMAGE COURIER	MESSENGER	1,646.00
VARIOUS	PAUL HOOVER	EXPENSES	67.00
VARIOUS	INVESTORS DAILY	SUBSCRIPTION	13.22
VARIOUS	INSTITUTIONAL INVESTOR	SUBSCRIPTION	27.85
VARIOUS	FEDERAL EXPRESS	SHIPMENT	774.16
02/23/89	LARINI COMMUNICATIONS	SUBSCRIPTION	0.00
VARIOUS	MEDICAL & SCIENCE NEWS	SUBSCRIPTION	20.96
VARIOUS	DENNIS PETERS	EXPENSE	1,668.74
VARIOUS	LUCE PRESS CLIPPING	CLIPPING SERVICE	2,295.02
VARIOUS	MEDIA GUIDE	SUBSCRIPTIONS	22.95
09/29/89	KPRC AM 950	PRINTING & PRODUCTION	12.00
VARIOUS	NEW YORK ACADEMY	CATERING	2,918.00
VARIOUS	MISC. ADJ.	SPECIAL CLERICAL	2,184.78

VARIOUS	N.Y. SOCIETY SEC. DIR.	SUBSCRIPTION	37.40
VARIOUS	OFFICIAL MEETING GUIDE	PRESS EXPENSE	41.14
VARIOUS	N.Y. TELEPHONE	TELEPHONE & TELECOPIER	18,907.30
03/17/89	P.R. NEWSWIRE	NEWSWIRE DANISH PRIME MINISTER	3,431.00
VARIOUS	PRO LAB PHOTO	PHOTOGRAPHIC SERVICES	162.54
VARIOUS	POSTMASTER	POSTAGE	1,245.16
VARIOUS	PETER STEINBERG	EXPENSES	324.95
VARIOUS	RUDER FINN	PETTY CASH/EXPENSES	(153.37)
VARIOUS	RUDER FINN	OFFICE SUPPLIES	98.38
VARIOUS	RUDER FINN	BROADCAST SERVICES	4,122.50
VARIOUS	PUBLIC RELATIONS PRODUCTION	PRINTING AND PRODUCTION	13,794.00
VARIOUS	RUDER FINN	WORDPROCESSING	2,809.50
VARIOUS	THREE B'S TICKET AGENCY	THEATRE AGENCY	490.00
VARIOUS	KARL SCHROFF	SPECIAL MAILING	641.58
VARIOUS	RUDER FINN	PHOTOCOPIES	6,077.29
02/15/89	SCOTT CLARK	EXPENSES	137.00
06/05/89	SUSAN SMIRNOFF	EXPENSES	815.95
VARIOUS	SPEED GRAPHICS	GRAPHICS	0.00
VARIOUS	SKYLINE CREDIT RIDE	CABFARE	465.20
VARIOUS	VIDEO MONITORING SVCS.	AUDIO-VISUAL SVCS	404.66
VARIOUS	STANDARD & POORS	PUBLICATIONS	86.16
VARIOUS	SHERRI TURNER	VISOR ENDORSEMENT	865.00
VARIOUS	TWR EXPRESS	CABFARES	130.90
VARIOUS	F. WALTON	EXPENSES	230.04
06/05/89	TAYLOR MADE GOLF	SPECIAL MATERIALS	1,454.88
VARIOUS	TEXACE CORP.	SPECIAL MATERIALS	536.75
VARIOUS	WALL STREET JOURNAL	SUBSCRIPTION	19.80
VARIOUS	UNITED PARCEL	PARCEL DELIVERY	163.57
VARIOUS	SANDRA STAHL	EXPENSES	302.60
VARIOUS	VICKERS STOCK RESEARCH	RESEARCH	42.52
04/01/89	SUNDANCE GRAND PRIX	REGISTRATION FEE	516.84
	KIRK J. ZACHARY	SPOKESPERSON	100.00
			118,755.47

TOTAL 240,333.01

UNITED STATES DEPARTMENT OF JUSTICE  
REGISTRATION UNIT  
CRIMINAL DIVISION  
WASHINGTON, D.C. 20530

NOTICE

Please answer the following questions and return this sheet in triplicate with your supplemental statement:

1. Is your answer to Item 16 of Section V (Political Propaganda - page 7 of Form OBD-64 - Supplemental Statement):

Yes \_\_\_\_\_ or No  \_\_\_\_\_

(If your answer to question 1 is "yes" do not answer question 2 of this form.)

2. Do you disseminate any material in connection with your registration:

Yes \_\_\_\_\_ or No \_\_\_\_\_

(If your answer to question 2 is "yes" please forward for our review copies of all such material including: films, film catalogs, posters, brochures, press releases, etc. which you have disseminated during the past six months.)

  
\_\_\_\_\_  
Signature

April 26, 1990

\_\_\_\_\_  
Date

Rosalind Safrin

\_\_\_\_\_  
Please type or print name of signatory on the line above

Executive Vice President

\_\_\_\_\_  
Title

INTERNAL SECURITY  
RECORDS SECTION

90 APR 27 48:53

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