

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13G

Amendment No. 1

Under the Securities Exchange Act of 1934

ISIS PHARMACEUTICALS, INC.
(Name of Issuer)

Common Stock, \$0.001 Par Value
(Title of Class of Securities)

4643300109
(CUSIP Number)

Wayne P. Merkelson, Esq.
Novartis Corporation
608 Fifth Ave
New York, NY 10020
Telephone: (212) 830-2432
(Name, Address and Telephone Number of
Person Authorized to Receive Notices and
Communications)

Copy to:

Spencer D. Klein, Esq.
Shearman & Sterling
599 Lexington Avenue
New York, New York 10022
Telephone: (212) 848-4000

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- Rule 13d-1(b)
 Rule 13d-1(c)
 Rule 13d-1(d)

CUSIP No. 4643300109

(1) Name of Reporting Person
S.S. or I.R.S. Identification No. of Above Person
Novartis AG

(2) Check the Appropriate Box if a Member of Group (See Instructions)

(a)

(b)

(3) SEC Use Only

(4) Citizenship or Place of Organization Switzerland

Number of (5) Sole Voting Power 0
Shares
Beneficially

Owned by
Each
Reporting
Person
With

(6) Shared Voting Power 1,819,000

(7) Sole Dispositive Power 0

(8) Shared Dispositive Power 1,819,000

(9) Aggregate Amount Beneficially Owned by Each Reporting Person
1,819,000

(10) Check if the Aggregate Amount in Row (9) Excludes Certain
Shares (See Instructions)

(11) Percent of Class Represented by Amount in Row (9)
4.52%

(12) Type of Reporting Person (See Instructions) C0

CUSIP No. 4643300109

(1) Name of Reporting Person
S.S. or I.R.S. Identification No. of Above Person
Novartis Pharma AG

(2) Check the Appropriate Box if a Member of Group (See Instructions)

[] (a) -----

[] (b) -----

(3) SEC Use Only -----

(4) Citizenship or Place of Organization Switzerland

Number of Shares Beneficially Owned by Each Reporting Person With

(5) Sole Voting Power 0

(6) Shared Voting Power 1,819,000

(7) Sole Dispositive Power 0

(8) Shared Dispositive Power 1,819,000

(9) Aggregate Amount Beneficially Owned by Each Reporting Person
1,819,000

(10) Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)

(11) Percent of Class Represented by Amount in Row (9)
4.52%

(12) Type of Reporting Person (See Instructions) C0

CUSIP No. 4643300109

(1) Name of Reporting Person
S.S. or I.R.S. Identification No. of Above Person
Novartis Pharmaceuticals Corporation

(2) Check the Appropriate Box if a Member of Group (See Instructions)
[] (a) -----
[] (b) -----

(3) SEC Use Only

(4) Citizenship or Place of Organization Switzerland

Number of Shares Beneficially Owned by Each Reporting Person With	(5)	Sole Voting Power 0 -----
	(6)	Shared Voting Power 0 -----
	(7)	Sole Dispositive Power 0 -----
	(8)	Shared Dispositive Power 0 -----

(9) Aggregate Amount Beneficially Owned by Each Reporting Person
0

(10) Check if the Aggregate Amount in Row (9) Excludes Certain
Shares (See Instructions)

(11) Percent of Class Represented by Amount in Row (9)
0%

(12) Type of Reporting Person (See Instructions) C0

CUSIP No. 4643300109

(1) Name of Reporting Person
S.S. or I.R.S. Identification No. of Above Person
Genetic Therapy, Inc.

(2) Check the Appropriate Box if a Member of Group (See Instructions)

[] (a) -----

[] (b) -----

(3) SEC Use Only -----

(4) Citizenship or Place of Organization Delaware

Number of Shares Beneficially Owned by Each Reporting Person With

(5) Sole Voting Power 0

(6) Shared Voting Power 0

(7) Sole Dispositive Power 0

(8) Shared Dispositive Power 0

(9) Aggregate Amount Beneficially Owned by Each Reporting Person
0

(10) Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)

(11) Percent of Class Represented by Amount in Row (9)
0%

(12) Type of Reporting Person (See Instructions) C0

Item 1. Issuer

This Amendment to Schedule 13G (the "Amendment") amends the Statement on Schedule 13G filed on February 13, 1999 by Novartis AG with respect to shares of Common Stock of the Issuer listed below.

- (a) Isis Pharmaceuticals, Inc.
- (b) 2292 Faraday Avenue
Carlsbad, California 92008

Item 2. Person Filing

- (a) Name of Person Filing: Novartis AG ("Novartis"), Novartis Pharma AG, Novartis Pharmaceuticals Corporation and Genetic Therapy, Inc. (together, the "Filers")
- (b) Address of Principal Office:
 - (i) The principal offices of Novartis are located at Lichtstrasse 35, CH-4002, Basel, Switzerland.
 - (ii) The principal offices of Novartis Pharma AG are located at Lichtstrasse 35, CH-4002, Basel, Switzerland.
 - (iii) The principal offices of Novartis Pharmaceuticals Corporation are located at 59 Route 10, East Hanover, New Jersey 07936.
 - (iv) The principal offices of Genetic Therapy, Inc. are located at 938 Clopper Road, Gaithersburg, Maryland 20878.
- (c) Citizenship: Novartis and Novartis Pharma AG are Swiss corporations. Novartis Pharmaceuticals Corporation and Genetic Therapy, Inc. are Delaware corporations.
- (d) Title of Class of Securities: Common Stock, \$0.001 par value.
- (e) CUSIP Number: 464300109

Item 3. This statement is filed pursuant to 17 CFR 240.13d-1(c).

Item 4. Ownership

- (a) Amount Beneficially Owned: Novartis Pharma AG beneficially owns 1,819,000 shares of Common Stock.
- (b) Percent of Class: 4.52%
- (c) Number of shares as to which each person has:
 - (i) Sole Voting Power: -0-
 - (ii) Shared Voting Power: 1,819,000
 - (iii) Sole Dispositive Power: -0-
 - (iv) Shared Dispositive Power: 1,819,000

Item 5. Ownership of Five Percent or Less of a Class

As of the date of the filing of the Amendment, the Filers cease to beneficially own more than five percent of the Common Stock.

Item 6. Ownership of More than Five Percent on Behalf of Another Person

Not applicable.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company

Not applicable.

Item 8. Identification and Classification of Members of the Group

Not Applicable.

Item 9. Notice of Dissolution of Group

Not Applicable.

Item 10. Certification if Statement Filed Pursuant to Rule 13d-1(c)

(a) Not applicable.

(b) By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: August 30, 2001

NOVARTIS AG

By: /s/ George Miller

Name: George Miller, Esq.

By: /s/ Dr. Urs Baerlocher

Name: Dr. Urs Baerlocher

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: August 30, 2001

NOVARTIS PHARMA AG

By: /s/ Joseph E. Mamie

Name: Joseph E. Mamie

By: /s/ Dr. Herbert Gut

Name: Dr. Herbert Gut

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: August 30, 2001

NOVARTIS PHARMACEUTICALS
CORPORATION

By: /s/ Gary Rosenthal

Name: Gary Rosenthal
Title: Vice President

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: August 30, 2001

GENETIC THERAPY, INC.

By: /s/ David Langham

Name: David Langham
Title: Vice President