

FORM D



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

FORM D

OMB APPROVAL table with fields: OMB Number: 3235-0076, Expires: May 31, 2005, Estimated average burden hours per response: 16.00

NOTICE OF SALE OF SECURITIES PURSUANT TO REGULATION D, Section 4(6), AND/OR UNIFORM LIMITED OFFERING EXEMPTION

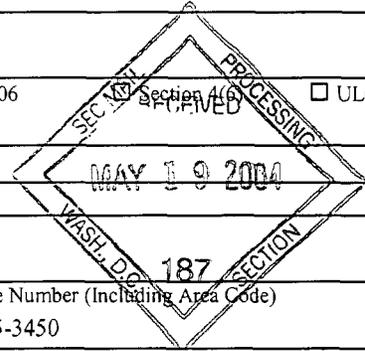
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SEC USE ONLY table with fields: Prefix, Serial, DATE RECEIVED

Name of Offering, Note and Warrant Financing, Filing Under (Rule 504, Rule 505, Rule 506, ULOE), Type of Filing (New Filing, Amendment)

A. BASIC IDENTIFICATION DATA

1. Enter the information requested about the issuer. Name of Issuer: Replidyne, Inc. Address of Executive Offices: 1450 Infinite Drive, Louisville, CO 80027. Telephone Number: (303) 665-3450. Address of Principal Business Operations: Same. Brief Description of Business: Drug Discovery Company. Type of Business Organization: corporation.



PROCESSED MAY 24 2004

THOMSON FINANCIAL

Actual or Estimated Date of Incorporation or Organization: Month 12, Year 00, Actual checked. Jurisdiction of Incorporation or Organization: DE

GENERAL INSTRUCTIONS

Federal: Who Must File: All issuers... When to File: A notice must be filed no later than 15 days... Where to File: U.S. Securities and Exchange Commission... Copies Required: Five (5) copies... Information Required: A new filing must contain all information... Filing Fee: There is no federal filing fee.

State: This notice shall be used to indicate reliance on the Uniform Limited Offering Exemption (ULOE) for sales of securities in those states that have adopted ULOE and that have adopted this form.

ATTENTION Failure to file notice in the appropriate states will not result in a loss of the federal exemption. Conversely, failure to file the appropriate federal notice will not result in a loss of an available state exemption unless such exemption is predicated on the filing of a federal notice.

A. BASIC IDENTIFICATION DATA

2. Enter the information requested for the following:

- Each promoter of the issuer, if the issuer has been organized within the past five years;
- Each beneficial owner having the power to vote or dispose, or direct the vote or disposition of, 10% or more of a class of equity securities of the issuer;
- Each executive officer and director of corporate issuers and of corporate general and managing partners of partnership issuers; and
- Each general and managing partner of partnership issuers.

Check Boxes that Apply: Promoter Beneficial Owner Executive Officer Director General and/or Managing Partner

Full Name (Last name first, if individual)

Collins, Kenneth J.

Business or Residence Address (Number and Street, City, State, Zip Code)

1450 Infinite Drive, Louisville, CO 80027

Check Boxes that Apply: Promoter Beneficial Owner Executive Officer Director General and/or Managing Partner

Full Name (Last name first, if individual)

Janjic, Nebojsa

Business or Residence Address (Number and Street, City, State, Zip Code)

1450 Infinite Drive, Louisville, CO 80027

Check Boxes that Apply: Promoter Beneficial Owner Executive Officer Director General and/or Managing Partner

Full Name (Last name first, if individual)

Lawlor, Augustine

Business or Residence Address (Number and Street, City, State, Zip Code)

44 Nassau Street, Princeton, NJ 08542

Check Boxes that Apply: Promoter Beneficial Owner Executive Officer Director General and/or Managing Partner

Full Name (Last name first, if individual)

McHenry, Charles S.

Business or Residence Address (Number and Street, City, State, Zip Code)

1450 Infinite Drive, Louisville, CO 80027

Check Boxes that Apply: Promoter Beneficial Owner Executive Officer Director General and/or Managing Partner

Full Name (Last name first, if individual)

Mirabelli, Chris

Business or Residence Address (Number and Street, City, State, Zip Code)

44 Nassau Street, Princeton, NJ 08542

Check Boxes that Apply: Promoter Beneficial Owner Executive Officer Director General and/or Managing Partner

Full Name (Last name first, if individual)

Mitchell, Dan

Business or Residence Address (Number and Street, City, State, Zip Code)

4430 Arapahoe Avenue, Suite 220, Boulder, CO 80303

Check Boxes that Apply: Promoter Beneficial Owner Executive Officer Director General and/or Managing Partner

Full Name (Last name first, if individual)

Clark, Jill

Business or Residence Address (Number and Street, City, State, Zip Code)

1450 Infinite Drive, Louisville, CO 80027

Check Boxes that Apply: Promoter Beneficial Owner Executive Officer Director General and/or Managing Partner

Full Name (Last name first, if individual)

Christoffersen, Ralph

Business or Residence Address (Number and Street, City, State, Zip Code)

1450 Infinite Drive, Louisville, CO 80027

Check Boxes that Apply: Promoter Beneficial Owner Executive Officer Director General and/or Managing Partner

Full Name (Last name first, if individual)

HealthCare Ventures VI, L.P.

Business or Residence Address (Number and Street, City, State, Zip Code)

44 Nassau Street, Princeton, NJ 08542

Check Boxes that Apply: Promoter Beneficial Owner Executive Officer Director General and/or Managing Partner

Full Name (Last name first, if individual)

Morgenthaler Partners VII, L.P.

Business or Residence Address (Number and Street, City, State, Zip Code)

2945 Wilderness Place, Boulder, CO 80301

Check Boxes that Apply: Promoter Beneficial Owner Executive Officer Director General and/or Managing Partner

Full Name (Last name first, if individual)

Sequel Venture Partners III, LLC, and its affiliates

Business or Residence Address (Number and Street, City, State, Zip Code)

4430 Arapahoe Avenue, Suite 220, Boulder, CO 80303

Check Boxes that Apply: Promoter Beneficial Owner Executive Officer Director General and/or Managing Partner

Full Name (Last name first, if individual)

SmithKline Beecham plc

Business or Residence Address (Number and Street, City, State, Zip Code)

980 Great West Road, Brentford, Middlesex, England TW8 9GS

B. INFORMATION ABOUT OFFERING

1. Has the issuer sold, or does the issuer intend to sell, to non-accredited investors in this offering?..... Yes No
 Answer also in Appendix, Column 2, if filing under ULOE.
2. What is the minimum investment that will be accepted from any individual?..... \$ N/A
3. Does the offering permit joint ownership of a single unit?..... Yes No
4. Enter the information requested for each person who has been or will be paid or given, directly or indirectly, any commission or similar remuneration for solicitation of purchasers in connection with sales of securities in the offering. If a person to be listed is an associated person or agent of a broker or dealer registered with the SEC and/or with a state or states, list the name of the broker or dealer. If more than five (5) persons to be listed are associated persons of such a broker or dealer, you may set forth the information for that broker or dealer only.

Full Name (Last name first, if individual)

N/A

Business or Residence Address (Number and Street, City, State, Zip Code)

Name of Associated Broker or Dealer

States in Which Person Listed Has Solicited or Intends to Solicit Purchasers*

(Check "All States" or check individual States)..... All States

[AL]	[AK]	[AZ]	[AR]	[CA]	[CO]	[CT]	[DE]	[DC]	[FL]	[GA]	[HI]	[ID]
[IL]	[IN]	[IA]	[KS]	[KY]	[LA]	[ME]	[MD]	[MA]	[MI]	[MN]	[MS]	[MO]
[MT]	[NE]	[NV]	[NH]	[NJ]	[NM]	[NY]	[NC]	[ND]	[OH]	[OK]	[OR]	[PA]
[RI]	[SC]	[SD]	[TN]	[TX]	[UT]	[VT]	[VA]	[VA]	[WV]	[WI]	[WY]	[PR]

Full Name (Last name first, if individual)

Business or Residence Address (Number and Street, City, State, Zip Code)

Name of Associated Broker or Dealer

States in Which Person Listed Has Solicited or Intends to Solicit Purchasers

(Check "All States" or check individual States)..... All States

[AL]	[AK]	[AZ]	[AR]	[CA]	[CO]	[CT]	[DE]	[DC]	[FL]	[GA]	[HI]	[ID]
[IL]	[IN]	[IA]	[KS]	[KY]	[LA]	[ME]	[MD]	[MA]	[MI]	[MN]	[MS]	[MO]
[MT]	[NE]	[NV]	[NH]	[NJ]	[NM]	[NY]	[NC]	[ND]	[OH]	[OK]	[OR]	[PA]
[RI]	[SC]	[SD]	[TN]	[TX]	[UT]	[VT]	[VA]	[VA]	[WV]	[WI]	[WY]	[PR]

Full Name (Last name first, if individual)

Business or Residence Address (Number and Street, City, State, Zip Code)

Name of Associated Broker or Dealer

States in Which Person Listed Has Solicited or Intends to Solicit Purchasers

(Check "All States" or check individual States)..... All States

[AL]	[AK]	[AZ]	[AR]	[CA]	[CO]	[CT]	[DE]	[DC]	[FL]	[GA]	[HI]	[ID]
[IL]	[IN]	[IA]	[KS]	[KY]	[LA]	[ME]	[MD]	[MA]	[MI]	[MN]	[MS]	[MO]
[MT]	[NE]	[NV]	[NH]	[NJ]	[NM]	[NY]	[NC]	[ND]	[OH]	[OK]	[OR]	[PA]
[RI]	[SC]	[SD]	[TN]	[TX]	[UT]	[VT]	[VA]	[VA]	[WV]	[WI]	[WY]	[PR]

C. OFFERING PRICE, NUMBER OF INVESTORS, EXPENSES AND USE OF PROCEEDS

1. Enter the aggregate offering price of securities included in this offering and the total amount already sold. Enter "0" if answer is "none" or "zero." If the transaction is an exchange offering, check this box and indicate in the columns below the amounts of the securities offered for exchange and already exchanged.

Type of Security	Aggregate Offering Price	Amount Already Sold
Debt.....	\$ _____	\$ _____
Equity.....	\$ _____	\$ _____
<input type="checkbox"/> Common		
Convertible Securities (including warrants).....	\$ <u>7,700,000</u>	\$ <u>7,700,000</u>
Partnership Interests.....	\$ _____	\$ _____
Other (Specify _____)	\$ _____	\$ _____
Total.....	\$ <u>7,700,000</u>	\$ <u>7,700,000</u>

Answer also in Appendix, Column 3, if filing under ULOE.

2. Enter the number of accredited and non-accredited investors who have purchased securities in this offering and the aggregate dollar amounts of their purchases. For offerings under Rule 504, indicate the number of persons who have purchased securities and the aggregate dollar amount of their purchases on the total lines. Enter "0" if answer is "none" or "zero."

	Number Investors	Aggregate Dollar Amount of Purchases
Accredited Investors.....	<u>4</u>	\$ <u>7,700,000</u>
Non-accredited Investors.....	<u>0</u>	\$ <u>0</u>
Total (for filings under Rule 504 only).....	_____	\$ _____

Answer also in Appendix, Column 4, if filing under ULOE.

3. If this filing is for an offering under Rule 504 or 505, enter the information requested for all securities sold by the issuer, to date, in offerings of the types indicated, in the twelve (12) months prior to the first sale of securities in this offering. Classify securities by type listed in Part C - Question 1.

Type of Offering	Type of Security	Dollar Amount Sold
Rule 505.....	_____	\$ _____
Regulation A.....	_____	\$ _____
Rule 504.....	_____	\$ _____
Total.....	_____	\$ _____

4. a. Furnish a statement of all expenses in connection with the issuance and distribution of the securities in this offering. Exclude amounts relating solely to organization expenses of the issuer. The information may be given as subject to future contingencies. If the amount of an expenditure is not known, furnish an estimate and check the box to the left of the estimate.

Transfer Agent's Fees.....	<input type="checkbox"/>	\$ _____
Printing and Engraving Costs.....	<input type="checkbox"/>	\$ _____
Legal Fees.....	<input checked="" type="checkbox"/>	\$ <u>100,000</u>
Accounting Fees.....	<input type="checkbox"/>	\$ _____
Engineering Fees.....	<input type="checkbox"/>	\$ _____
Sales Commissions (specify finders' fees separately).....	<input type="checkbox"/>	\$ _____
Finders' Fees.....	<input type="checkbox"/>	\$ _____
Other Expenses (Identify _____)	<input type="checkbox"/>	\$ _____
Total.....	<input checked="" type="checkbox"/>	\$ <u>100,000</u>

C. OFFERING PRICE, NUMBER OF INVESTORS, EXPENSES AND USE OF PROCEEDS

b. Enter the difference between the aggregate offering price given in response to Part C - Question 1 and total expenses furnished in response to Part C - Question 4.a. This difference is the "adjusted gross proceeds to the issuer"..... \$ 7,600,000

5. Indicate below the amount of the adjusted gross proceeds to the issuer used or proposed to be used for each of the purposes shown. If the amount for any purpose is not known, furnish an estimate and check the box to the left of the estimate. The total of the payments listed must equal the adjusted gross proceeds to the issuer set forth in response to Part C - Question 4.b above.

	Payment to Officers, Directors, & Affiliates	Payment To Others
Salaries and fees.....	<input type="checkbox"/> \$ _____	<input type="checkbox"/> \$ _____
Purchase of real estate.....	<input type="checkbox"/> \$ _____	<input type="checkbox"/> \$ _____
Purchase, rental or leasing and installation of machinery and equipment	<input type="checkbox"/> \$ _____	<input type="checkbox"/> \$ _____
Construction or leasing of plant buildings and facilities	<input type="checkbox"/> \$ _____	<input type="checkbox"/> \$ _____
Acquisition of other businesses (including the value of securities involved in this offering that may be used in exchange for the assets or securities of another issuer pursuant to a merger).....	<input type="checkbox"/> \$ _____	<input type="checkbox"/> \$ _____
Repayment of indebtedness	<input type="checkbox"/> \$ _____	<input type="checkbox"/> \$ _____
Working capital.....	<input type="checkbox"/> \$ _____	<input checked="" type="checkbox"/> \$ <u>7,600,000</u>
Other (specify): _____		
_____	<input type="checkbox"/> \$ _____	<input type="checkbox"/> \$ _____
Column Totals	<input type="checkbox"/> \$ _____	<input checked="" type="checkbox"/> \$ <u>7,600,000</u>
Total Payments Listed (column totals added)	<input checked="" type="checkbox"/> \$ <u>7,600,000</u>	

D. FEDERAL SIGNATURE

The issuer had duly caused this notice to be signed by the undersigned duly authorized person. If this notice is filed under Rule 505, the following signature constitutes an undertaking by the issuer to furnish to the U.S. Securities and Exchange Commission, upon written request of its staff, the information furnished by the issuer to any non-accredited investor pursuant to paragraph (b)(2) of Rule 502.

Issuer (Print or Type) Replidyne, Inc.	Signature 	Date 5/14/04
Name of Signer (Print or Type) Kenneth J. Collins	Title of Signer (Print or Type) Chief Executive Officer	

ATTENTION
Intentional misstatements or omissions of fact constitute federal criminal violations. (See 18 U.S.C. 1001.)