

REPLIDYNE INC  
Form 8-A12G  
June 26, 2006

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, DC 20549

FORM 8-A  
FOR REGISTRATION OF CERTAIN CLASSES OF SECURITIES  
PURSUANT TO SECTION 12(B) OR (G) OF THE  
SECURITIES EXCHANGE ACT OF 1934  
Replidyne, Inc.

(Exact Name of Registrant as Specified in its Charter)

Delaware

84-1568247

(State of Incorporation or Organization)

(I.R.S. Employer Identification no.)

1450 Infinite Drive  
Louisville, CO

80027

(Address of Principal Executive Offices)

(Zip Code)

If this form relates to the registration of a class of securities pursuant to Section 12(b) of the Exchange Act and is effective pursuant to General Instruction A.(c), please check the following box. o

If this form relates to the registration of a class of securities pursuant to Section 12(g) of the Exchange Act and is effective pursuant to General Instruction A.(d), check the following. x

Securities Act registration statement number to which the form relates: 333-133021

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

Title of Each Class to  
be so Registered

Name of Each Exchange on Which  
Each Class is to be Registered

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

Common Stock, \$0.001 par value per share

(Title of class)

**Item 1. Description of Registrant's Securities to be Registered.**

A description of the Common Stock to be registered hereunder is contained in the section entitled "Description of Capital Stock," commencing at page 107 of the Prospectus included in the Registrant's Form S-1 Registration Statement, No. 333-133021, originally filed with the Securities and Exchange Commission on April 5, 2006, as amended (the "Registration Statement") and is incorporated herein by reference.

**Item 2. Exhibits.**

**Exhibit**

**Number**

**Description**

- |      |   |
|------|---|
| 3.1* | Restated Certificate of Incorporation, dated August 17, 2005, currently in effect   |
| 3.2* | Certificate of Amendment of Restated Certificate of Incorporation, dated March 8, 2006, currently in effect   |
| 3.3* | Form of Certificate of Amendment of Restated Certificate of Incorporation   |
| 3.4* | Form of Amended and Restated Certificate of Incorporation to be effective upon completion of the offering   |
| 3.5* | Amended and Restated Bylaws, currently in effect  |
| 3.6* | Form of Amended and Restated Bylaws to be effective upon completion of the offering   |
| 4.2* | Specimen Common Stock Certificate   |
| 4.5* | Fourth Amended and Restated Stockholders Agreement, dated August 17, 2005, between the Registrant and certain of its stockholders, as amended March 7, 2006 |

\* Filed as an exhibit to the Registration Statement and incorporated herein by reference.

**SIGNATURE**

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the Registrant has caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized.

**Replidyne, Inc.**

(Registrant)

Date: June 26, 2006

By: /s/ Kenneth J. Collins  
Kenneth J. Collins  
President and Chief Executive Officer

3.