

Solexa, Inc.  
Form 424B3  
January 19, 2006

Prospectus Supplement No. 1

Filed Pursuant to  
Rule 424(b)(3) and (c)  
File No. 333-127460

**13,657,101 Shares of Common Stock  
SOLEXA, INC.**

This prospectus supplement supplements the prospectus, dated September 1, 2005, of Solexa, Inc. relating to the offering and sale by selling stockholders of Solexa (or by donees, pledgees, transferees and other successors in interest that receive such shares as a gift, pledge, partnership distribution or other non-sale transfer) of up to 13,657,101 shares of our common stock. This prospectus supplement should be read in conjunction with the prospectus, and is qualified by reference to the prospectus, except to the extent that the information presented herein supercedes the information contained in the prospectus. The term **Selling Stockholders** as used in the prospectus shall be deemed to include the selling stockholders identified in the table below. This prospectus supplement is not complete without, and may not be delivered or utilized except in connection with, the prospectus, including any amendments or supplements thereto.

**Investing in our common stock involves a high degree of risk. See Risk Factors beginning on page 2 of the prospectus.**

**NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ADEQUACY OR ACCURACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.**

The date of this prospectus is January 19, 2006.

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This prospectus supplement is being filed in connection with the distribution of shares held by Oxford BioScience Partners IV L.P. and mRNA Fund II L.P., together the Oxford Funds, each identified in the prospectus as selling stockholders, to their respective partners. No additional shares of Solexa common stock are being offered for resale hereunder. Except with respect to directors and officers of Solexa, the entities that have filed reports pursuant to Section 13(f) of the Securities Exchange Act of 1934, as amended, or the Act, and statements of beneficial ownership filed pursuant to Sections 13(d) and 13(g) of the Act, the ownership indicated in the table below is based solely on shares owned by the indicated selling stockholders as a result of a distribution of shares by the Oxford Funds on January 18, 2006. The table appearing on pages 10-13 of the prospectus under the caption "Selling Stockholders" is supplemented and amended to include the following stockholders in addition to those identified in the prospectus:

| Security Holders***  | Shares of Common Stock Beneficially Owned Prior to the Offering |          | Number of Shares Being Offered | Shares of Common Stock Beneficially Owned After Offering |          |
|--|---|----------|--------------------------------|--|----------|
|  | Shares  | Percent* |                                | Shares   | Percent* |
| Oxford BioScience Partners IV L.P. (1), (2)                            | 1,035,610   | 3.44%    | 490,819                        | 544,791  | 1.81%    |
| mRNA Fund II L.P. (1), (3)   | 10,388  | **       | 5,104                          | 5,284  | **       |
| 125 Broad Street Fund, LLC   | 6,534   | **       | 6,534                          | 0  | **       |
| AGF IART   | 13,069  | **       | 13,069                         | 0  | **       |
| AGF VIE  | 30,494  | **       | 30,494                         | 0  | **       |
| Akzo Nobel Pharma Ventures B.V.  | 4,356   | **       | 4,356                          | 0  | **       |
| Alexandra R. Pearsall  | 26  | **       | 26                             | 0  | **       |
| Alison Taunton-Rigby   | 218   | **       | 218                            | 0  | **       |
| ALPHA 2001 L.P.  | 10,891  | **       | 10,891                         | 0  | **       |
| American Family Mutual Insurance Company                               | 30,494  | **       | 30,494                         | 0  | **       |
| Artal Invest Ltd.  | 43,563  | **       | 43,563                         | 0  | **       |
| Ashley J. Stevens  | 436   | **       | 436                            | 0  | **       |
| Barry I. Eisenstein  | 436   | **       | 436                            | 0  | **       |
| Bear Stearns Private Equity Limited                                    | 10,891  | **       | 10,891                         | 0  | **       |
| Bernd R. Seizinger   | 436   | **       | 436                            | 0  | **       |
| Big Woods II LLC   | 21,781  | **       | 21,781                         | 0  | **       |
| Brent B. Milner  | 218   | **       | 218                            | 0  | **       |
| California Emerging Ventures II LLC                                    | 130,689   | **       | 130,689                        | 0  | **       |
| Catherine M. Stone Rev Tr dtd 10/18/99                                 | 1,089   | **       | 1,089                          | 0  | **       |
| Chaos Partners I, L.P.   | 4,356   | **       | 4,356                          | 0  | **       |
| Charles Schwab & Co., FBO Richard S. Foemmel IRA Account               | 436   | **       | 436                            | 0  | **       |
| Christopher Covington  | 436   | **       | 436                            | 0  | **       |
| Cornelius T. Ryan  | 108   | **       | 108                            | 0  | **       |
| Credit Suisse Anlagestiftung   | 6,534   | **       | 6,534                          | 0  | **       |
| CTTV Investments LLC   | 8,713   | **       | 8,713                          | 0  | **       |
| David J. Livingston, Trustee of the David J. Livingston Rev Trust 2002 | 218   | **       | 218                            | 0  | **       |
| Dennis H. and Susan F. Langer  | 218   | **       | 218                            | 0  | **       |
| Dogwood Investments, Inc.  | 21,781  | **       | 21,781                         | 0  | **       |



|  | Shares of Common<br>Stock Beneficially<br>Owned Prior to the<br>Offering |          | Number<br>of<br>Shares<br>Being<br>Offered | Shares of Common<br>Stock Beneficially<br>Owned After<br>Offering |          |
|--|--|----------|--|---|----------|
|  | Shares   | Percent* |  | Shares  | Percent* |
| <b>Security Holders***</b>   |  |          |  |   |          |
| Donald E. and Janet L. Schoeny   | 436  | **       | 436  | 0   | **       |
| Dr. Jules and Mrs. Barbara Blake   | 108  | **       | 108  | 0   | **       |
| Dr. Stephen Ashley Lawton & Mrs. Alison<br>Frances Lawton                                    | 218  | **       | 218  | 0   | **       |
| Edward B. Roberts  | 436  | **       | 436  | 0   | **       |
| Edward R. Gates  | 326  | **       | 326  | 0   | **       |
| Eric W. Roberts  | 436  | **       | 436  | 0   | **       |
| Fire and Police Pension Association of<br>Colorado   | 21,781   | **       | 21,781                                     | 0   | **       |
| Fort Washington Private Equity Investors<br>III, L.P.  | 43,563   | **       | 43,563                                     | 0   | **       |
| Frederick Frank  | 218  | **       | 218  | 0   | **       |
| GE Capital Equity Holdings, Inc.   | 65,344   | **       | 65,344                                     | 0   | **       |
| General Practitioner LLC   | 2,396  | **       | 2,396                                      | 0   | **       |
| Genzyme Corporation  | 21,781   | **       | 21,781                                     | 0   | **       |
| Georges Haas   | 218  | **       | 218  | 0   | **       |
| GIMV NV London Branch  | 52,276   | **       | 52,276                                     | 0   | **       |
| Godfrey S. Rockefeller C Tr dtd 12/12/63   |  |          |  |   |          |
| FBO Marion R. Stone  | 1,089  | **       | 1,089                                      | 0   | **       |
| Gordon M. Binder and Adele H. Binder,<br>trustees of the Binder Trust dated July 15,<br>2003 | 13,069   | **       | 13,069                                     | 0   | **       |
| GS PEP 1999 Manager Fund Technology<br>Holdings, LLC   | 1,551  | **       | 1,551                                      | 0   | **       |
| GS PEP Technology Fund 2000 Offshore<br>Holdings, L.P.                                       | 19,277   | **       | 19,277                                     | 0   | **       |
| GS PEP Technology Fund 2000, L.P.  | 48,847   | **       | 48,847                                     | 0   | **       |
| GS Private Equity Partners 2000 Manager<br>Fund, L.P.  | 18,993   | **       | 18,993                                     | 0   | **       |
| GS Private Equity Partners 2000 Offshore<br>Holdings, L.P.                                   | 17,207   | **       | 17,207                                     | 0   | **       |
| GS Private Equity Partners 2000, L.P.  | 50,925   | **       | 50,925                                     | 0   | **       |
| HarbourVest Partners VI-Parallel<br>Partnership Fund L.P.                                    | 3,267  | **       | 40,296                                     | 0   | **       |
| HarbourVest Partners VI-Partnership Fund<br>L.P.   | 40,296   | **       | 3,267                                      | 0   | **       |
| HarbourVest VII Venture Ltd.   | 21,781   | **       | 21,781                                     | 0   | **       |
| Health Advances, Inc.  | 436  | **       | 436  | 0   | **       |
| Helen S. Fitzgerald  | 436  | **       | 436  | 0   | **       |
| Henry E. Blair   | 218  | **       | 218  | 0   | **       |
| HFI Private Equity, Ltd.   | 32,672   | **       | 32,672                                     | 0   | **       |
| Hiorts Finance SA  | 8,713  | **       | 8,713                                      | 0   | **       |



|  | Shares of Common<br>Stock Beneficially<br>Owned Prior to the<br>Offering |          | Number<br>of<br>Shares<br>Being<br>Offered | Shares of Common<br>Stock Beneficially<br>Owned After<br>Offering |          |
|--|--|----------|--|---|----------|
|  | Shares   | Percent* |  | Shares  | Percent* |
| <b>Security Holders***</b>   |  |          |  |   |          |
| Howard Hughes Medical Institute  | 87,127   | **       | 87,127                                     | 0   | **       |
| Immunex Corporation  | 8,713  | **       | 8,713                                      | 0   | **       |
| International Business Machines<br>Corporation   | 21,781   | **       | 21,781                                     | 0   | **       |
| Jack H. Morgan   | 218  | **       | 218  | 0   | **       |
| Jean Montagu   | 436  | **       | 436  | 0   | **       |
| Jeffrey A. Leerink   | 326  | **       | 326  | 0   | **       |
| Jeffrey Matthews   | 436  | **       | 436  | 0   | **       |
| Jennifer P. Stone 1991 Revocable Trust   | 1,089  | **       | 1,089                                      | 0   | **       |
| Joel S. Marcus   | 436  | **       | 436  | 0   | **       |
| John J. & Wendy G. J. Troy   | 436  | **       | 436  | 0   | **       |
| John R. Brown  | 326  | **       | 326  | 0   | **       |
| Joseph R. Hyde, III  | 43,563   | **       | 43,563                                     | 0   | **       |
| JP Morgan Bank, trustee for the BP Master<br>Trust for Employee Pension Plans  | 43,563   | **       | 43,563                                     | 0   | **       |
| JPMorgan Chase Retirement Plan   | 21,781   | **       | 21,781                                     | 0   | **       |
| Justin P. Morreale   | 436  | **       | 436  | 0   | **       |
| Karl H. Proppe   | 218  | **       | 218  | 0   | **       |
| Kenneth A. Sorensen  | 436  | **       | 436  | 0   | **       |
| Kenneth Ward   | 218  | **       | 218  | 0   | **       |
| Klee USA Fund I, L.P.  | 32,672   | **       | 32,672                                     | 0   | **       |
| Larry Abrams   | 436  | **       | 436  | 0   | **       |
| Lee Brettman   | 436  | **       | 436  | 0   | **       |
| Los Angeles County Employees Retirement<br>Association   | 87,127   | **       | 87,127                                     | 0   | **       |
| Lucy S. Moore  | 1,089  | **       | 1,089                                      | 0   | **       |
| Luna PCC Limited 2000 Cell   | 436  | **       | 436  | 0   | **       |
| Marc Kozin   | 326  | **       | 326  | 0   | **       |
| Margraf Investments, LLC   | 436  | **       | 436  | 0   | **       |
| Marion R. Stone  | 1,089  | **       | 1,089                                      | 0   | **       |
| Marion R. Stone Tr dtd 12/30/87  | 2,178  | **       | 2,178                                      | 0   | **       |
| Markaz Offshore Direct Investments   | 4,356  | **       | 4,356                                      | 0   | **       |
| Matthew L. Clark   | 108  | **       | 108  | 0   | **       |
| MC Life Science Ventures, Inc.   | 13,069   | **       | 13,069                                     | 0   | **       |
| MCC-PCG International Private Equity<br>Fund   | 13,069   | **       | 13,069                                     | 0   | **       |
| Mellon Trust of New England, N.A., f/k/a<br>Boston Safe Deposit and Trust Company as<br>Trustee for the Qwest Occupational Health<br>Trust | 9,802  | **       | 9,802                                      | 0   | **       |
| Mellon Trust of New England, N.A., f/k/a<br>Boston Safe Deposit and Trust Company as   | 55,543   | **       | 55,543                                     | 0   | **       |

Trustee for the Qwest Pension Trust

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| Security Holders***  | Shares of Common Stock Beneficially Owned Prior to the Offering |          | Number of Shares Being Offered | Shares of Common Stock Beneficially Owned After Offering |          |
|--|---|----------|--------------------------------|--|----------|
|  | Shares  | Percent* |                                | Shares   | Percent* |
| Mellon Trust of New England, N.A., f/k/a Boston Safe Deposit and Trust Company, as Trustee for the Raytheon Master Pension Trust | 87,127  | **       | 87,127                         | 0  | **       |
| Michael E. Lytton  | 53  | **       | 53                             | 0  | **       |
| Michael R. Pavia   | 436   | **       | 436                            | 0  | **       |
| Nationwide Mutual Insurance Company  | 21,781  | **       | 21,781                         | 0  | **       |
| Nippon Life Insurance Company  | 43,563  | **       | 43,563                         | 0  | **       |
| Nordea Thematic Fund of Funds I k/s  | 8,713   | **       | 8,713                          | 0  | **       |
| OBP Management IV L.P. (1), (4)  | 19,998  | **       | 19,998                         | 0  | **       |
| Palladian Partners 2001, LLC   | 10,891  | **       | 10,891                         | 0  | **       |
| Palmer & Dodge LLP   | 218   | **       | 218                            | 0  | **       |
| Partners Group Private Equity Performance Holding Limited  | 17,425  | **       | 17,425                         | 0  | **       |
| Paul A. Kirkconnell  | 436   | **       | 436                            | 0  | **       |
| Pearl Holding Limited  | 21,781  | **       | 21,781                         | 0  | **       |
| Peter Lanciano   | 436   | **       | 436                            | 0  | **       |
| Peter O. Kliem & Ann Wolff   | 218   | **       | 218                            | 0  | **       |
| Peter Preuss   | 2,178   | **       | 2,178                          | 0  | **       |
| Peter Wirth  | 436   | **       | 436                            | 0  | **       |
| Philip J. Edmundson  | 326   | **       | 326                            | 0  | **       |
| Philip V. Holberton  | 218   | **       | 218                            | 0  | **       |
| Pravin R. Chaturvedi   | 326   | **       | 326                            | 0  | **       |
| Private Equity Investment Fund IV, LP  | 13,069  | **       | 13,069                         | 0  | **       |
| Private Equity Technology Partners III C.V.  | 43,563  | **       | 43,563                         | 0  | **       |
| Raymond N. Charest   | 26  | **       | 26                             | 0  | **       |
| RGIP, LLC  | 436   | **       | 436                            | 0  | **       |
| Rho Fund Investors II LLC  | 21,781  | **       | 21,781                         | 0  | **       |
| Richard H. Egdahl  | 218   | **       | 218                            | 0  | **       |
| Robert E. Flaherty   | 218   | **       | 218                            | 0  | **       |
| Robert Granovsky   | 218   | **       | 218                            | 0  | **       |
| Robert J. Hennessey  | 436   | **       | 436                            | 0  | **       |
| Scott M. Rocklage  | 436   | **       | 436                            | 0  | **       |
| Shalon Ventures L.P.   | 436   | **       | 436                            | 0  | **       |
| Silicon Valley Bancshares  | 2,178   | **       | 2,178                          | 0  | **       |
| Stone Street PEP Technology Fund 2000, L.P.  | 17,451  | **       | 17,451                         | 0  | **       |
| Suzanne Troy Cole  | 436   | **       | 436                            | 0  | **       |
| Teachers Insurance and Annuity Association of America  | 87,127  | **       | 87,127                         | 0  | **       |
| TH&T Partners 2001, LLC  | 436   | **       | 436                            | 0  | **       |
| The Bear Stearns Companies, Inc.   | 10,891  | **       | 10,891                         | 0  | **       |



| Security Holders***                           | Shares of Common Stock Beneficially Owned Prior to the Offering |          | Number of Shares Being Offered | Shares of Common Stock Beneficially Owned After Offering |          |
|---|---|----------|--------------------------------|--|----------|
|   | Shares  | Percent* |                                | Shares   | Percent* |
| The John T. Lupton Trust                      | 10,891  | **       | 10,891                         | 0  | **       |
| The Lloyd Cotsen 1985 Trust                   | 10,891  | **       | 10,891                         | 0  | **       |
| The Markaz/Hamilton Lane Technology Fund L.P. | 13,069  | **       | 13,069                         | 0  | **       |
| The Norinchukin Bank                          | 21,781  | **       | 21,781                         | 0  | **       |
| The Regents of the University of California   | 108,907   | **       | 108,907                        | 0  | **       |
| The Robert and Francine Lent Living Trust     | 10,891  | **       | 10,891                         | 0  | **       |
| Timothy B. Stone 1994 Rev Tr                  | 436   | **       | 436                            | 0  | **       |
| Timothy R. Surgenor                           | 218   | **       | 218                            | 0  | **       |
| Tri-State Growth Capital Fund I L.P.          | 21,781  | **       | 21,781                         | 0  | **       |
| Trustees of Boston University                 | 8,713   | **       | 8,713                          | 0  | **       |
| United of Omaha Life Insurance Company        | 21,781  | **       | 21,781                         | 0  | **       |
| Victor W. Schmitt                             | 326   | **       | 326                            | 0  | **       |
| Vincent P. Stanton, Jr.                       | 173   | **       | 173                            | 0  | **       |
| V-Sciences Fund Investments Pte Ltd           | 21,781  | **       | 21,781                         | 0  | **       |
| Wachovia Investors, Inc.                      | 21,781  | **       | 21,781                         | 0  | **       |
| William A. Holodnak                           | 218   | **       | 218                            | 0  | **       |
| Subtotal                                      | 3,045,998   | 10.54%   | 2,495,923                      | 550,075  | 1.83%    |

\* Percentage calculations based on 30,097,987 shares of our common stock that were issued and outstanding as of January 18, 2006.

\*\* Represents beneficial ownership of less than 1%.

\*\*\* Addresses that are not listed are c/o Oxford BioScience Partners VI L.P., 222 Berkeley Street, Boston, MA 02116.

- (1) OBP Management IV L.P. is the general partner for Oxford Bioscience Partners IV L.P. and mRNA Fund II L.P. Mark Carthy, a former director of Solexa, is a General Partner of OBP Management IV L.P. and may be deemed to share voting and investment power over the shares held by Oxford Bioscience Partners IV L.P. and mRNA Fund II L.P. Mr. Carthy disclaims beneficial ownership of such shares except to the extent of his pecuniary interest therein. Doug Fambrough, a director of Solexa, is affiliated with Oxford Bioscience Partners IV, L.P. and mRNA Fund II L.P. and does not possess voting and/or investment power of the shares held by these entities. Dr. Fambrough disclaims beneficial ownership of such shares except to the extent of his pecuniary interest therein. Excludes 1,559 shares of restricted common stock and options to purchase 20,000 shares of common stock held by Dr. Fambrough.
- (2) Includes 272,268 shares of common stock issuable upon exercise of a warrant.

- (3) Includes 2,732 shares of common stock issuable upon exercise of a warrant.
- (4) Excludes 763,342 shares of common stock held by Oxford BioScience Partners IV L.P., 272,268 shares of common stock issuable upon exercise of a warrant held by Oxford BioScience Partners IV L.P., 27,523 shares of common stock held by mRNA Fund II L.P. and 2,732 shares of common stock issuable upon exercise of a warrants held by mRNA Fund II L.P.