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**SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

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POST-EFFECTIVE AMENDMENT NO. 1  
TO

**FORM S-3**

REGISTRATION STATEMENT UNDER THE  
SECURITIES ACT OF 1933

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**VIVUS, Inc.**

(Exact name of Registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction of incorporation or  
organization)

**94-3136179**  
(I.R.S. Employer Identification Number)

**1172 Castro Street**  
**Mountain View, CA 94040**  
**(650) 934-5200**  
(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

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**Leland F. Wilson**  
**President and Chief Executive Officer and Director**  
**VIVUS, Inc.**  
**1172 Castro Street**  
**Mountain View, CA 94040**  
**(650) 934-5200**  
(Name, address, including zip code, and telephone number, including area code, of agent for service)

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**Copies to:**

**John Slebir**  
General Counsel  
VIVUS, Inc.  
1172 Castro Street  
Mountain View, CA 94040  
(650) 934-5200

**Jon Layman**  
**Laura Berezin**  
Hogan Lovells US LLP  
525 University Avenue  
Palo Alto, CA 94301  
(650) 463-4000

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**Approximate date of commencement of proposed sale to the public:**  
**From time to time after the effective date of this Registration Statement.**

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. ☐

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. ☒

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. ☒

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. ☒

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. ☐

Large accelerated filer ☒ Accelerated filer ☐

Non-accelerated filer ☐  
(Do not check if a  
smaller reporting company)

Smaller reporting company ☐

**CALCULATION OF REGISTRATION FEE**

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Title of Each Class of Securities to be Registered		Amount to be Registered	Proposed Maximum Offering Price Per Unit	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, par value \$0.001 per share, and associated preferred stock purchase rights		(1)	(1)	(1)	\$0(2)
(1)	An indeterminate number of shares of common stock is being registered as may from time to time be sold at indeterminate prices. The registrant is omitting this information in accordance with Rules 456(b) and 457(r).				
(2)	The registrant is deferring payment of all registration fees in accordance with Rule 456(b).				

## EXPLANATORY NOTE

This filing constitutes Post-Effective Amendment No. 1 to Registration Statement No. 333-161948 on Form S-3 and relates to the preferred stock purchase rights associated with the common stock, par value \$0.001 per share, previously registered thereunder. Accordingly, this Post-Effective Amendment is being filed for the purpose of (i) registering pursuant to Rule 413(b) the preferred stock purchase rights, (ii) filing or incorporating by reference to the Registration Statement additional exhibits, and information related thereto, and (iii) updating the Information Incorporated by Reference section of the prospectus included in this Registration Statement. This Post-Effective Amendment No. 1 shall become effective immediately upon filing with the Securities and Exchange Commission ("SEC").

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### Information Incorporated By Reference

The Securities and Exchange Commission allows us to "incorporate by reference" information from other documents that we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus and any accompanying prospectus supplement. We incorporate by reference the documents listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, after the date of this prospectus and before the sale of all the securities covered by this prospectus and any accompanying prospectus supplement:

- our Annual Report on Form 10-K for the year ended December 31, 2010 filed with the SEC on March 12, 2011;
- the information specifically incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2010 from our definitive proxy statement on Schedule 14A, filed with the SEC on April 29, 2011;
- our Quarterly Reports on Form 10-Q for the quarterly periods ended March 31, 2011, June 30, 2011 and September 30, 2011 filed with the SEC on May 6, 2011, August 4, 2011 and November 8, 2011, respectively;
- our Current Reports on Form 8-K filed with the SEC on January 26, 2011, June 20, 2011, July 29, 2011, August 23, 2011, August 31, 2011, January 27, 2012 and February 16, 2012 (other than the portions of these reports furnished but not filed pursuant to SEC rules and the exhibits filed on such form that relate to such portions); and
- the description of our common stock contained in our Registration Statement on Form 8-A filed with the SEC on April 7, 1994, and the description of associated preferred stock purchase rights in our Registration Statement on Form 8-A filed with the SEC on March 28, 2007, including any amendments or reports filed for the purpose of updating each of such descriptions.

Any information that we subsequently file with the SEC that is incorporated by reference as described above will automatically update and supersede any previous information that is part of this prospectus.

We will provide to each person who so requests, including any beneficial owner to whom a prospectus is delivered, a copy of any and all of the documents incorporated by reference (including exhibits to these documents). You may request a copy of these filings, at no cost, by telephoning (650) 934-5200 or writing us at:

Office of the Chief Financial Officer  
VIVUS, Inc.  
1172 Castro Street  
Mountain View, CA 94040

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Part II

Information Not Required In The Prospectus

Item 16. Exhibits

Exhibit Number	Description of Document
1.1*	Form of Underwriting Agreement.
4.1(1)	Specimen Common Stock Certificate.
4.2(2)	Preferred Stock Rights Agreement dated as of March 27, 2007 between the Registrant and Computershare Investor Services, LLC.
5.1**	Opinion of Hogan Lovells US LLP.
23.1**	Consent of OUM & Co. LLP, Independent Registered Public Accounting Firm.
23.2**	Consent of Hogan Lovells US LLP (included in Exhibit 5.1).
24.1***	Power of Attorney of certain directors and officers of the Registrant.
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*	To be filed by amendment or as an exhibit to a current report on Form 8-K of the registrant and incorporated herein by reference, if applicable.
**	Filed herewith.
***	Previously filed.
(1)	Incorporated by reference to the same numbered exhibit filed with the Registrant's Annual Report on Form 10-K for the year ended December 31, 1996, as amended.
(2)	Incorporated by reference to Exhibit 4.1 filed with the Registrant's Registration Statement on Form 8-K (File No. 001-33389) filed with the Commission on March 28, 2007.

## Signatures

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this æPost-Effective Amendment to the Registration Statement on Form S-3 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Mountain View, State of California, on February 28, 2012.

VIVUS, INC.

By: /s/ LELAND F. WILSON

Leland F. Wilson  
*President and Chief Executive Officer*

Pursuant to the requirements of the Securities Act of 1933, this Post-Effective Amendment to the Registration Statement on Form S-3 has been signed by the following persons in the capacities and on February 28, 2012.

<u>Signature</u>	<u>Title</u>
<u>/s/ LELAND F. WILSON</u>	President, Chief Executive Officer and Director (Principal Executive Officer)
Leland F. Wilson	
*	
<u>Mark B. Logan</u>	Chairman of the Board and Director
*	Vice President of Finance and Chief Financial Officer (Principal Financial Officer)
<u>Timothy E. Morris</u>	
*	Vice President and Chief Accounting Officer (Principal Accounting Officer)
<u>Lee B. Perry</u>	
*	
<u>Virgil A. Place</u>	Chief Scientific Officer and Director
*	
<u>Graham Strachan</u>	Director
*	
<u>Charles J. Casamento</u>	Director
*	
<u>Linda M. Dairiki Shortliffe, M.D.</u>	Director

\*By: /s/ LELAND F. WILSON

Leland F. Wilson, *Attorney-in-Fact*  
*for the Officers and Directors signing in the capacities indicated.*

## Exhibit Index

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[Signatures](#)

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[LOGO]

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Columbia Square  
555 Thirteenth Street, NW  
Washington, DC 20004  
T +1 202 637 5600  
F +1 202 637 5910  
www.hoganlovells.com

February 28, 2012

Board of Directors  
VIVUS, Inc.  
1172 Castro Street  
Mountain View, CA 94040

Ladies and Gentlemen:

We are acting as counsel to VIVUS, Inc., a Delaware corporation (the "**Company**"), in connection with its Post-Effective Amendment No. 1 (the "**Amendment**") to the Company's registration statement on Form S-3 (File No. 333-161948 (as amended by the Amendment, the "**Registration Statement**"), filed with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "**Securities Act**") which Registration Statement relates to the proposed public offering of, among other things, shares of the common stock, par value \$0.001 per share (the "**Common Stock**") of the Company (the "**Shares**") and one one-thousandth (0.001) of a share of stock purchase rights associated with the Shares (the "**Rights**"), which are to be issued pursuant to the Preferred Stock Rights Agreement, dated as of March 27, 2007 (the "**Rights Agreement**"), between the Company and Computershare Investor Services, LLC, as Rights Agent (the "**Rights Agent**"). The Amendment and this opinion letter relate solely to the Rights, an opinion letter relating to the Shares having previously been filed. This opinion letter is furnished to you at your request to enable you to fulfill the requirements of Item 601(b)(5) of Regulation S-K, 17 C.F.R. § 229.601(b)(5), in connection with the Registration Statement

For purposes of this opinion letter, we have examined copies of such agreements, instruments and documents as we have deemed an appropriate basis on which to render the opinions hereinafter expressed. In our examination of the aforesaid documents, we have assumed the genuineness of all signatures, the legal capacity of all natural persons, the accuracy and completeness of all documents submitted to us, the authenticity of all original documents, and the conformity to authentic original documents of all documents submitted to us as copies (including telecopies). We also have assumed that the Rights Agreement has been duly authorized, executed, and delivered by the Rights Agent, and that the members of the Board of Directors of the Company have acted in a manner consistent with their fiduciary duties as required under applicable law in adopting the Rights Agreement. As to all matters of fact, we have relied on the representations and statements of fact made in the documents so reviewed, and we have not independently established the facts so relied on. This opinion letter is given, and all statements herein are made, in the context of the foregoing.

This opinion letter is based as to matters of law solely on the Delaware General Corporation Law, as amended. We express no opinion herein as to any other laws, statutes, ordinances, rules, or regulations. As used herein, the term "Delaware General Corporation Law, as amended" includes the statutory provisions contained therein, all applicable provisions of the Delaware Constitution and reported judicial decisions interpreting these laws.

Hogan Lovells US LLP is a limited liability partnership registered in the District of Columbia. Hogan Lovells refers to the international legal practice comprising Hogan Lovells US LLP, Hogan Lovells International LLP, Hogan Lovells Worldwide Group (a Swiss Verein), and their affiliated businesses with offices in: Abu Dhabi Alicante Amsterdam Baltimore Beijing Berlin Brussels Caracas Colorado Springs Denver Dubai Dusseldorf Frankfurt Hamburg Hanoi Ho Chi Minh City Hong Kong Houston London Los Angeles Madrid Miami Milan Moscow Munich New York Northern Virginia Paris Philadelphia Prague Rome San Francisco Shanghai Silicon Valley Singapore Tokyo Ulaanbaatar Warsaw Washington DC Associated offices: Budapest Jeddah Riyadh Zagreb

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Based upon, subject to and limited by the foregoing, we are of the opinion that, as of the date hereof, the associated Rights have been duly authorized by all necessary corporate action on the part of the Company and, following (i) effectiveness of the Amendment, and (ii) valid issuance and delivery of the Shares in the manner contemplated by the Registration Statement, the Rights will be validly issued.

It should be understood that the opinion above concerning the Rights does not address the determination a court of competent jurisdiction may make regarding whether the Board of Directors of the Company would be required to redeem or terminate, or take other action with respect to, the Rights at some future time based on the facts and circumstances existing at that time and that our opinion above addresses the Rights and the Rights Agreement in their entirety and not any particular provision of the Rights or the Rights Agreement and that it is not settled whether the invalidity of any particular provision of a rights agreement or of rights issued thereunder would result in invalidating in their entirety such rights.

This opinion letter has been prepared for use in connection with the Registration Statement. We assume no obligation to advise you of any changes in the foregoing subsequent to the effective date of the Registration Statement.

We hereby consent to the filing of this opinion letter as Exhibit 5.1 to the Registration Statement and to the reference to this firm under the caption "Legal Matters" in the prospectus constituting a part of the Registration Statement. In giving this consent, we do not thereby admit that we are an "expert" within the meaning of the Securities Act.

Very truly yours,

/s/ HOGAN LOVELLS US LLP

HOGAN LOVELLS US LLP

QuickLinks

[Exhibit 5.1](#)

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We hereby consent to the incorporation by reference in this Post-Effective Amendment No. 1 to the Registration Statement No. 333-161948 on Form S-3 of our reports dated February 25, 2011 relating to the consolidated financial statements and financial statement schedule of VIVUS, Inc. and the effectiveness of internal control over financial reporting of VIVUS, Inc., included in its Annual Report on Form 10-K for the year ended December 31, 2010. We also consent to the reference to us under the heading "Experts" in this Registration Statement.

OUM & Co. LLP  
San Francisco, California  
February 28, 2012

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QuickLinks

[Exhibit 23.1](#)

[CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM](#)