04-04-2003 HEETU.S. DEPARTMENT OF COMMERCE RECORDAT FORM **PTO-1595** (Rev. 03/01) U.S. Patent and Trademark Office 4-2-03 OMB No. 0651-0011 (exp. 5/31/2002) 102410132 To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof. 1. 2 Name and address of receiving party(ies): Name of conveying party(ies): Name: Sam B. Humphries LifeSpex, Inc. Additional name(s) of conveying party(ies) attached? 

Yes Internal Address: Nature of conveyance: Street Address: 7913 Wyoming Court Assignment Merger City: Bloomington State: MN □ Security Agreement Change of Name Other Notice of Grant of Security Interest in Patents Execution Date(s): December 1, 2002 Additional name(s) of receiving party(ies) attached? Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: A. Patent Application No(s). Patent No(s). 6.332.092 09/519,153 60/076,979 6 258 576 5,623,932 6,135,965 6,487,440 08/693,471 08/667,993 5,697,373 09/421,965 08/672,623 6,241,662 5,838,435 6,095,982 5,902,246 60/014,073 5,699,795 5,612,540 Additional numbers attached? ☐ Yes ☒ No Total number of applications and patents involved: 20 Name and address of party to whom correspondence concerning 6. document should be mailed: Name: Barbara A. Wrigley Total Fee (37 CFR 3.41).....\$800.00. Internal Address: 3300 Plaza VII Building Enclosed Street Address: 45 South Seventh Street Authorized to be charged to deposit account City: Minneapolis State: MN ZIP: 55402 Authorized to charge any underpayment or credit any  $\boxtimes$ overpayment to deposit account. Our File No.: 17073-1

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Name of Person Signing

Signature

March 26, 2003

Date

Total number of pages including cover sheet, attachments, and document: 4

Mail documents to be recorded with required cover sheet information to: Commissioner of Patents & Trademarks, Box Assignments Washington, D.C. 20231

TC2: 625203 v01 03/26/2003

REEL: 013907 FRAME: 0474

## NOTICE OF GRANT OF SECURITY INTEREST IN PATENTS

United States Patent and Trademark Office:

Please be advised that pursuant to the Loan Agreement, dated as of December 1, 2002 (the "Loan Agreement"), between Sam B. Humphries ("Lender") and LifeSpex, Inc, ("Borrower"), Borrower has granted to Lender a continuing security interest in and continuing lien upon the patents and patent applications listed in Schedule I heretc.

PATENT REEL: 013907 FRAME: 0475

## SCHEDULE I PATENT RIGHTS ISSUED U.S. AND PCT PATENTS

09/175,232	08/757,116	08/693,471	09/519,153	08/666,021	08/412,325	08/988,840	08/403,446	08/469,396	08/060,432
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June 5, 2001	October 24, 2000			July 10, 2001	March 18, 1997	August 1, 2000	December 16, 1997	April 29, 1997	June 6, 1995
Acetic Acid as a Signal Enhancing Contrast Agent in Fluorescence Spectroscopy	Spectroscopic Detection of Cervical Pre- Cancer Using Radial Basis Function Networks	Method and Apparatus for the Characterization of Epithelial Lines Viscus	Method and Apparatus for the Characterization of Epithelial Lines Viscus	Diagnostic Method and Apparatus for Cervical Squamous Intraepithelial Lesions in Vitro and in Vivo Using Fluorescence Spectroscopy	Optical Method for the Detection of Cervical Neoplasias Using Fluorescence Spectroscopy	Spectroscopic Method and Apparatus for Optically Detecting Abnormal Mammalian Epithelial Tissue	Optical Method and Apparatus for the Diagnosis of Cervical Precancers Using Raman and Fluorescence Spectroscopies	Diagnosis of Displasia Using Laser Induced Fluorescence	Diagnosis of Displasia Using Laser Induced Fluorescence

PATENT REEL: 013907 FRAME: 0476

March 5, 1998  October 20, 1997  November 17, 1998  June 19, 1996  June 28, 1996  November 17, 1998  Calibration Method for Spectroscopic Systems  Near-Infrared Raman Spectroscopy for In Utero and In Vivo Detection of Cervical PreCancers  Spectroscopic Probe for In Vivo	Juno	08/672,623
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January 19, 2001 November 26, 2002 Optical Probe Having and Methods for	6,487,440 Jani	09/766,544
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and Apparatus Incorporating Same		
Neoplasia Using Fluorescence Spectroscopy		
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PATENT
RECORDED: 04/02/2003 REEL: 013907 FRAME: 0477