

University of California, San Francisco

CURRICULUM VITAE

Updated 11/8/09

Name: Matthew Lawrence Springer, Ph.D.

Position: Associate Professor of Medicine
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EDUCATION:

1981-1985:	UC Berkeley	B.A.	Molecular Biology
1985-1991:	Stanford University (PI: Charles Yanofsky)	Ph.D.	Biological Sciences
1991-1993:	Stanford University (PI: James A. Spudich)	Postdoctoral	Biochemistry
1993-1997:	Stanford University (PI: Helen M. Blau)	Postdoctoral	Molecular Pharmacology

PRINCIPAL POSITIONS HELD:

1997-1999:	Stanford University	Research Scientist	Molecular Pharmacology
1999-2003:	Stanford University	Senior Research Scientist	Genetic Pharmacology
2003-2008:	UC San Francisco	Assistant Professor	Medicine/Cardiology
2008-now:	UC San Francisco	Associate Professor	Medicine/Cardiology

CONCURRENT POSITIONS AND AFFILIATIONS:

2003-2008: Director, UCSF Cardiology Division Laboratory of Molecular Cardiology
2008-now: Investigator, UCSF Cardiovascular Research Institute
2008-now: Faculty, UCSF Broad Center of Regeneration Medicine and Stem Cell Research
2008-now: Faculty, UCSF Center for Tobacco Control Research & Education
2008-now: Faculty, UCSF Biomedical Sciences Graduate Program

HONORS AND AWARDS:

- 1985: Selected graduation speaker, Department of Molecular Biology, UC Berkeley
- 1985: Graduated with Distinction, UC Berkeley
- 1987: Exceptional Contributions in Teaching Award, Dept. of Biol. Sciences, Stanford University
- 2008: Winner 4th Prize, Nikon Small World Competition for microscopy (>2000 entries)

KEYWORDS/AREAS OF INTEREST:

Angiogenesis, VEGF, stem cells, progenitor cells, gene therapy, heart failure, myocardial infarction, coronary artery disease, cardiac regeneration, peripheral artery disease, vascular injury, nitric oxide, flavanols, skeletal muscle myoblasts, secondhand smoke

PROFESSIONAL ACTIVITIES

PROFESSIONAL ORGANIZATIONS:

MEMBERSHIPS

- 1993-now: American Association for the Advancement of Science
- 1997-now: American Society of Gene Therapy
- 2004-now: American Heart Association
- 2004-now: American Heart Association Council on Basic Cardiovascular Sciences
- 2005-now: American Physiological Society

SERVICE TO PROFESSIONAL ORGANIZATIONS:

- 2005-2008: American Heart Association (National) grant reviewer
- 2005: Session co-chair, American Society of Gene Therapy 8th Annual Meeting
- 2007-2010: Member, American Society of Gene Therapy Cardiovascular Gene Therapy Committee
- 2007: Session organizer and moderator, American Heart Association Scientific Sessions
- 2008: Session chair, American Society of Gene Therapy 11th Annual Meeting
- 2009: Session chair, American Society of Gene Therapy 12th Annual Meeting

SERVICE TO PROFESSIONAL PUBLICATIONS:

- 1995-1996: Contributors panel for literature review section, *Molecular Medicine Today*
- 2005-2009: In the last 5 years - Ad hoc referee for *Blood*, *Circulation* (6 papers), *Differentiation*, *FASEB J.* (2 papers), *Int. J. Cardiol.*, *J. Cardiac Failure* (2 papers), *J. Gene Med.*, *Molecular Therapy*, *Tissue Engineering*

INVITED PRESENTATIONS:

INTERNATIONAL

- 1996: International Congress of the Cell Transplant Society, Miami Beach, FL, speaker
- 1997: Interamerican Medical Dental Congress, New York City, NY, plenary speaker

- 1999: International Congress, Medical Students' Council of the Technological Institute of Advanced Studies, Monterrey, Mexico, plenary speaker
- 2001: 1st Annual Congress, Spanish Gene Therapy Society, Valencia, Spain, speaker
- 2002: Seminar, Biomedical Research Centre, Univ. of British Columbia, Vancouver, BC, Canada
- 2002: 11th International meeting, Society for Cancer Gene Therapy, London, UK, plenary speaker
- 2005: Symposium, Swiss Cardiovascular Research and Training Network, Geneva, Switzerland (viewable online at http://www.visualsonics.com/imaging/online_workshops.php)
- 2007: Seminar, National Cheng Kung University, Tainan, Taiwan
- 2009: Seminar, Klinikum Großhadern, Ludwig Maximilian University, Munich, Germany
- 2009: Seminar, Helmholtz Zentrum, Munich, Germany
- 2009: Seminar, Heinrich Heine University, Düsseldorf, Germany
- 2009: Taiwan Society for Stem Cell Research Conference, Tainan, Taiwan, plenary speaker

NATIONAL

- 1995: Keystone Symposium: Gene Therapy and Molecular Medicine, Steamboat Springs, CO, plenary speaker
- 1998: Seminar, Baylor College of Medicine, Houston, TX
- 1999: Seminar, Harvard Medical School, Boston, MA
- 1999: Seminar, Baylor College of Medicine, Houston, TX
- 2000: 3rd Gene Transfer Clinical Research Safety Symposium, NIH, Bethesda, MD, speaker and discussion panelist
- 2001: Annual meeting, Association of Medical Illustrators (National), Pacific Grove, CA, speaker
- 2002: Seminar, University of Washington, Seattle, WA
- 2007: Scientific Sessions, American Heart Association, Orlando, FL, speaker
- 2008: Annual Meeting, Experimental Biology, San Diego, CA, speaker
- 2009: 12th Annual Meeting, American Society of Gene Therapy, San Diego, CA, speaker

REGIONAL, OTHER

- 1998: Seminar, Geron Corporation, Menlo Park, CA
- 1999: Seminar, Genentech, South San Francisco, CA
- 1999: Seminar, UCSF, San Francisco, CA
- 2000: Seminar, Stanford University, Stanford, CA
- 2000: Seminar, Systemix, Palo Alto, CA
- 2000: Seminar, NASA Ames Research Center, Moffett Field, CA
- 2001: Seminar, Stanford University, Stanford, CA
- 2002: Seminar, Stanford University, Stanford, CA
- 2002: UC Systemwide Biomedical Engineering Symposium, Berkeley, CA, speaker
- 2002: Seminar, Sangamo Biosciences, Richmond, CA
- 2003: Seminar, SUGEN, South San Francisco, CA
- 2003: Seminar, Guidant Corporation., Santa Clara, CA
- 2003: Seminar, Exelixis, South San Francisco, CA
- 2005: Grand Rounds, Division of Cardiology, UCSF, San Francisco, CA
- 2005: Seminar, Five Prime Therapeutics, South San Francisco, CA
- 2006: Grand Rounds, Division of Cardiology, UCSF, San Francisco, CA
- 2006: Seminar, Surgical Research Laboratory, San Francisco General Hospital, San Francisco, CA
- 2007: Seminar, Department of Surgery, UCSF, San Francisco, CA

- 2007: Grand Rounds, Division of Cardiology, UCSF, San Francisco, CA
- 2007: Seminar, Center for Cerebrovascular Research, San Francisco General Hospital, SF, CA
- 2008: Seminar, Cardiovascular Research Group, San Francisco General Hospital, SF, CA
- 2008: Seminar, Center for Tobacco Control Research and Education, UCSF, San Francisco, CA
- 2008: UCSF Cardiovascular Research Institute annual retreat, Marshall, CA, speaker
- 2009: UCSF Institute of Regeneration Medicine annual retreat, Pacific Grove, CA, speaker
- 2009: Seminar, Buck Institute for Age Research, Novato, CA
- 2009: UCSF BMS Graduate Program annual retreat, Tahoe City, CA, speaker

ORAL ABSTRACT PRESENTATIONS

- 1998: 1st Annual Meeting of the American Society of Gene Therapy, Seattle, WA
- 1998: Annual meeting, American Society for Cell Biology, San Francisco, CA
- 2000: 3rd Annual Meeting of the American Society of Gene Therapy, Denver, CO
- 2006: 9th Annual Meeting of the American Society of Gene Therapy, Baltimore, MD

GOVERNMENT AND OTHER PROFESSIONAL SERVICE:

- 2000: Speaker, discussion panelist, 3rd Gene Transfer Clinical Research Safety Symposium, NIH
- 2007: Reviewer, NIH NHLBI special review committee for Program Project Grant
- 2009: Virginia Tobacco Settlement Fund grant reviewer

UNIVERSITY AND PUBLIC SERVICE

PRE-UCSF UNIVERSITY SERVICE

- 1984-1985: President, Molecular Biology Undergraduate Society, UC Berkeley
- 1986-1987: Graduate Admissions Committee, Dept. of Biological Sciences, Stanford University
- 1988-1989: Graduate student representative, Dept. of Biological Sciences, Stanford University

UC SYSTEM-WIDE SERVICE

- 2006-2007: UC Discovery Grant reviewer

UCSF CAMPUS-WIDE SERVICE

- 2004-2008: UCSF Academic Senate Committee on Research
- 2005-2009: UCSF Research Administration Board
- 2006-now: Emergency floor warden, Medical Sciences Building 11th floor
- 2007-2008: Chair, Research Administration Board task force to create faculty/industry resources website (<http://ctsi.ucsf.edu/research/industry-faq>)
- 2007-now: Recurring lectures to campus community about home earthquake preparedness

UCSF SCHOOL OF MEDICINE SERVICE

- 2005-2006: Faculty search committee, UCSF Department of Surgery

PUBLIC SERVICE

- 2007-now: San Francisco Fire Department Neighborhood Emergency Response Team (NERT)
- 2008-now: Recurring public lectures about home earthquake preparedness at SF Public Library

2009-now: Member, South Beach/Rincon/Mission Bay Neighborhood Association

TEACHING AND MENTORING

COURSES, WORKSHOPS, AND LECTURE SERIES:

- 1984: Teaching assistant, "Introduction to Molecular Biology," UC Berkeley
- 1986: Teaching assistant, "Biology Core Experimental Laboratory," Stanford University
- 1986: Teaching assistant, "Biochemistry, Genetics, and Molecular Biol.," Stanford University
- 1992-1998: Guest lecturer for graduate and undergraduate classes and to special high school programs, Stanford University and San Francisco State University
- 1997, 1998: Faculty discussion panelist, Stanford University undergraduate ethics symposium
- 1999: Lectured to medical students at Technological Institute of Advanced Studies, Monterrey, Mexico, in conjunction with a conference at which I was a speaker
- 2005: Lecture to Cardiology fellows for weekly Fellows Session
- 2006: Group session leader, UCSF CTST-sponsored NIH Grant Workshop
- 2006: Lecture for Cardiology fellows summer session
- 2007: Class lecture at National Cheng Kung University, Tainan, Taiwan, in conjunction with public seminar
- 2008: Chaired mock grant peer review panel for Tobacco Center fellows, UCSF
- 2009: Mock grant peer review panel for Tobacco Center fellows, UCSF
- 2009: Small group facilitator for UCSF Office of Career and Professional Development workshop on oral presentation skills

RESEARCH AND CREATIVE ACTIVITIES

PEER REVIEWED PUBLICATIONS:

1. **Springer, M.L.** and Yanofsky, C. (1989). A morphological and genetic analysis of conidiophore development in *Neurospora crassa*. *Genes Dev.* **3**:559-571. (cover photo)
2. **Springer, M.L.** (1989). An effective procedure for the preparation of *Neurospora crassa* conidiophores for scanning electron microscopy. *Fungal Genet. Newsl.* **36**:78.
3. **Springer, M.L.** (1991). Tergitol-induced colonial growth without inhibition of conidiation. *Fungal Genet. Newsl.* **38**:92.
4. **Springer, M.L.**, Hager, K.M., Garrett-Engele, C., and Yanofsky, C. (1992). Timing of synthesis and cellular localization of two conidiation-specific proteins of *Neurospora crassa*. *Dev. Biol.* **152**:255-262. (cover photo)
5. **Springer, M.L.** and Yanofsky, C. (1992). Expression of *con* genes along the three sporulation pathways of *Neurospora crassa*. *Genes Dev.* **6**:1052-1057.
6. **Springer, M.L.** (1993). Genetic control of fungal differentiation: The three sporulation pathways of *Neurospora crassa*. *BioEssays* **15**:365-374. (Review) (cover photo)
7. **Springer, M.L.**, Patterson, B., and Spudich, J.A. (1994). Stage-specific requirement for myosin II during *Dictyostelium* development. *Development* **120**:2651-2660.

8. Blau, H.M. and **Springer, M.L.** (1995). Gene therapy—A novel form of drug delivery. *N. Engl. J. Med.* **333**:1204-1207. (Review)
9. Blau, H.M. and **Springer, M.L.** (1995). Muscle-mediated gene therapy. *N. Engl. J. Med.* **333**:1554-1556. (Review)
10. **Springer, M.L.** and Blau, H.M. (1997). High-efficiency retroviral infection of primary myoblasts. *Som. Cell Mol. Genet.* **23**:203-209.
11. Kang, S.-M., Hofmann, A., Le, D.L., **Springer, M.L.**, Stock, P.G., and Blau, H.M. (1997). Immune response and myoblasts that express Fas ligand. *Science* **278**:1322-1324.
12. **Springer, M.L.**, Kraft, P.E., and Blau, H.M. (1998). Inhibition of solid tumor growth by Fas ligand-expressing myoblasts. *Som. Cell Mol. Genet.* **24**:281-289.
13. **Springer, M.L.**, Chen, A.S., Kraft, P.E., Bednarski, M., and Blau, H.M. (1998). VEGF gene delivery to muscle: Potential role for vasculogenesis. *Mol. Cell* **2**:549-558. (cover photo)
14. Abendroth, A., Slobedman, B., **Springer, M.L.**, Blau, H.M., and Arvin, A.M. (1999). Analysis of immune responses to varicella zoster viral proteins induced by DNA vaccination. *Antiviral Res.* **44**: 179-192.
15. **Springer, M.L.**, Ip, T.K., and Blau, H.M. (2000). Angiogenesis monitored by perfusion with a space-filling microbead suspension. *Mol. Therapy* **1**: 82-87.
16. **Springer, M.L.**, Hortelano, G., Bouley, D., Wong, J., Kraft, P.E., and Blau, H.M. (2000). Induction of angiogenesis by implantation of encapsulated primary myoblasts expressing vascular endothelial growth factor. *J. Gene Med.* **2**:279-288.
17. Lee, R.J., **Springer, M.L.**, Blanco-Bose, W.E., Shaw, R., Ursell, P.C., and Blau, H.M. (2000). VEGF gene delivery to myocardium: Deleterious effects of unregulated expression. *Circulation* **102**:898-901. (Commentary in *Nature Med.* **6**:1102-1103) (cover photo)
18. **Springer, M.L.**, Ozawa, C.R., and Blau, H.M. (2002). Transient production of α -smooth muscle actin by skeletal myoblasts during differentiation in culture and following intramuscular implantation. *Cell Motil. Cytoskeleton* **51**:177-186.
19. Munz, B., Hildt, E., **Springer, M.L.**, and Blau, H.M. (2002). RIP2, a checkpoint in myogenic differentiation. *Mol. Cell Biol.* **22**:5879-5886.
20. **Springer, M.L.**, Ozawa, C.R., Banfi, A., Kraft, P.E., Ip, T.K., Brazelton, T.R., and Blau, H.M. (2003). Localized arteriole formation adjacent to sites of implantation of myoblasts expressing VEGF. *Mol. Ther.*, **7**:441-449. (Commentary in *ibid.*, **7**:428)
21. Ozawa, C.R., Banfi, A., Glazer, N., Thurston, G., **Springer, M.L.**, Kraft, P.E., McDonald, D.M., and Blau, H.M. (2004). Microenvironmental VEGF concentration, not total dose, determines a threshold between normal and aberrant angiogenesis. *J. Clin. Invest.* **113**: 516-527. (Commentary in *ibid.*, **113**:493)
22. **Springer, M.L. [corresponding author]**, Sievers, R.E., Viswanathan, M.N., Yee, M.S., Foster, E., Grossman, W., and Yeghiazarians, Y. (2005). Closed-chest cell injections into mouse myocardium guided by high-resolution echocardiography. *Amer. J. Physiol. Heart Circ. Physiol.*, **289**:H1307-H1314.

23. Kamba, T., Tam, B.Y.Y., Hashizume, H., Haskell, A., Sennino, B., Mancuso, M.R., Norberg, S.M., O'Brien, S.M., Davis, R.B., Thurston, G., Joho, S., **Springer, M.L.**, Kuo, C.J., and McDonald, D.M. (2006). VEGF-dependent plasticity of fenestrated capillaries in the normal adult microvasculature. *Amer. J. Physiol. Heart Circ. Physiol.* **290**:H560-H576. (Commentary in *ibid.*, **290**:H509)
24. **Springer, M.L.** (2006). A Balancing Act: Therapeutic Approaches to the Modulation of Angiogenesis. *Current Opinion in Investigational Drugs* **7**:243-250. (Review)
25. von Degenfeld, G., Banfi, A., **Springer, M.L.**, Jacobi, J., Ozawa, C.R., Merchant, M.J., Cooke, J.P., and Blau, H.M. (2006). Microenvironmental concentration of VEGF is critical to stable and functional vessel growth in ischemia. *FASEB J.* **20**:2657-2659.
26. Zhang, Y., Takagawa, J., Sievers, R.E., Khan, M.F., Viswanathan, M.N., **Springer, M.L.**, Foster, E., and Yeghiazarians, Y. (2007) Validation of the wall motion score and myocardial performance indices as novel techniques to assess left ventricular function in mice post myocardial infarction. *Amer. J. Physiol. Heart Circ. Physiol.* **292**:H1187-H1192.
27. Takagawa, J., Zhang, Y., Sievers, R.E., Kapasi, N.K., Wong, M.L., Wang, Y., Yeghiazarians, Y., Lee, R.J., Grossman, W., and **Springer, M.L.** (2007) Myocardial infarct size measurement in the mouse chronic infarction model: Comparison of area- and length-based approaches. *J. Appl. Physiol.* **102**:2104-2111.
28. **Springer, M.L. [corresponding author]**, Banfi, A., Ye, J., von Degenfeld, G., Kraft, P.E., Saini, S.A., Kapasi, N.K., and Blau, H.M. (2007). Localization of vascular response to VEGF is not dependent on heparin binding. *FASEB J.* **21**:2074-2085.
29. Heiss, C., Sievers, R.E., Amabile, N., Momma, T.Y., Chen, Q., Natarajan, S., Yeghiazarians, Y., and **Springer, M.L.** (2008). *In vivo* measurement of flow-mediated vasodilation in living rats using high resolution ultrasound. *Amer. J. Physiol. Heart Circ. Physiol.* **294**:H1086-H1093.
30. Heiss, C., Wong, M.L., Block, V.I., Lao, D., Real, W.M., Yeghiazarians, Y., Lee, R.J., and **Springer, M.L.** (2008). Pleiotrophin induces nitric oxide dependent migration of endothelial progenitor cells. *J. Cell. Physiol.* **215**:366-373.
31. Heiss, C., Amabile, N., Lee, A.C., Real, W.M., Schick, S., Lao, D., Wong, M.L., Jahn, S., Angeli, F.S., Minasi, P., **Springer, M.L.**, Hammond, S.K., Glantz, S.A., Grossman, W., Balmes, J.R., and Yeghiazarians, Y. (2008). Second hand smoke causes acute vascular injury, and mobilization of dysfunctional endothelial progenitor cells. *J. Am. Coll. Cardiol.* **51**:1760-1771. (Commentary in *ibid.*, **51**:1772)
32. Li, X., Tjwa, M., Van Hove, I., Enholm, B., Neven E., Paavonen, K., Jeltsch, M., Diez Juan, T., Sievers, R.E., Chorianopoulos, E., Wada, H., Vanwildemeersch, M., Noel, A., Foidart, J.-M., **Springer, M.L.**, von Degenfeld, G., Dewerchin, M., Blau, H.M., Alitalo, K., Eriksson, U., Carmeliet, P. and Moons, L. (2008). Re-evaluation of the role of VEGF-B suggests a restricted role in the revascularization of the ischemic myocardium. *Arterioscler. Thromb. Vasc. Biol.* **28**:1614-1620. (Commentary in *ibid.*, **28**:1575-1576)
33. Yeghiazarians, Y., Zhang, Y., Prasad, M., Shih, H., Saini, S.A., Takagawa, J., Sievers, R.E., Wong, M.L., Kapasi, N.K., Mirsky, R., Koskenvuo, J., Minasi, P., Ye, J., Viswanathan, M.N., Angeli, F.S., Boyle A.J., **Springer, M.L.**, and Grossman, W. (2009). Injection of bone marrow cell extract into infarcted hearts results in functional improvement comparable to intact cell therapy. *Mol. Ther.* **17**:1250-1256. (Commentary in *ibid.*, **17**:1120) (Cover photo)

NON-PEER REVIEWED PUBLICATIONS:

1. **Springer, M.L.** (1995). Gene therapy for restenosis: retinoblastoma to the rescue. *Molec. Med. Today* **1**:57. (Commentary)
2. **Springer, M.L.** (1995). Cell implantation treatment for MPS VII. *Molec. Med. Today* **1**:111. (Commentary)
3. **Springer, M.L.** (1996). Towards a treatment for Tay-Sachs disease. *Molec. Med. Today* **2**:232. (Commentary)
4. **Springer, M.L.**, Rando, T., and Blau, H.M. (1997; revised 2002). Gene delivery to muscle. In *Current Protocols in Human Genetics*, A.L. Boyle, ed. John Wiley & Sons, N.Y., Unit 13.4. (Invited chapter)
5. Ozawa, C.R., **Springer, M.L.**, and Blau, H.M. (2000). A novel means of drug delivery: Myoblast-mediated gene therapy and regulatable retroviral vectors. *Annu. Rev. Pharmacol. Toxicol.* **40**: 295–317. (Invited chapter)
6. Ozawa, C.R., **Springer, M.L.**, and Blau, H.M. (2000). Ex vivo gene therapy using myoblasts and regulatable retroviral vectors. In *Gene Therapy: Therapeutic Mechanisms and Strategies*. N.S. Templeton and D.D. Lasic, ed. Marcel Dekker, Inc., New York, pp. 61-80. (Invited chapter)
7. **Springer, M.L.**, Brazelton, T.R., and Blau, H.M. (2001). Not the usual suspects: The unexpected sources of tissue regeneration. *J. Clin. Invest.* **107**:1355-1356. (Commentary)
8. **Springer, M.L.** (2002). VEGF therapy in heart disease: For better or for worse? *Drug Discovery Today.* **7**:209-211. (Invited editorial)
9. Banfi, A., **Springer, M.L.**, and Blau, H.M. (2002). Myoblast-mediated gene transfer for therapeutic angiogenesis. *Methods Enzymol.* **346**:145-157. (Invited chapter)
10. von Degenfeld, G., Banfi, A., **Springer, M.L.**, and Blau, H.M. (2003). Myoblast-mediated gene transfer for therapeutic angiogenesis and arteriogenesis. *British J. Pharmacol.* **140**:620-626. (Review)
11. **Springer, M.L.** (2008). Living both music and medicine: Where the two practices intersect. (One of several sections.) *San Francisco Medicine* **81(2)**:38-39. (Invited commentary)
12. **Springer, M.L.** Assessment of Myocardial Angiogenesis and Vascularity in Small Animal Models. In *Stem Cells for Myocardial Regeneration: Methods and Protocols*. R.J. Lee, ed. Humana Press, Inc., Totowa, N.J., *in press*. (Invited chapter)

NON-SCIENCE ARTICLES:

1. **Springer, M.L.** (2006). No guts, no glory: Digging into ‘Chanukah, Oh Chanukah.’ *Strings* **144**:42-45.
2. **Springer, M.L.** (2007). Half a world away: Exploring celebratory music from China. *Strings* **145**:26-29.

OTHER CREATIVE ACTIVITIES:

- 2006: Springer Laboratory website (<http://cardiolab.ucsf.edu/molcardiolab/>), including lab information, technical resources, and protocols.
- 2007: Website as an information resource for faculty to learn about dealing with industry: through the Research Administration Board, I co-authored the content and coordinated the project (<http://ctsi.ucsf.edu/research/industry-faq>).
- 2008: Home earthquake preparedness website as a campus and public resource (<http://homepage.mac.com/matthewspringer/earthquake/main.html>).

CONSULTING:

- 2000-2003: Consultant, Lockheed Martin Engineering and Sciences Company for research at NASA Ames Research Center, involving development of cell culture research unit for the International Space Station.

MISCELLANEOUS:

Journal covers and textbook covers using Springer photomicrographs:

- 1989: *Genes Dev.* vol. 3, no. 4
1990: *BioEssays* vol. 12, no. 2
1992: *Dev. Biol.* vol. 152, no. 2
1993: *BioEssays* vol. 15, no. 6
1998: *Mol. Cell* vol. 2, no. 5
1998: *Fungal Gen. Biol.* vol. 25, no. 3
2000: *Neurospora, Contributions of a Model Organism*, by R. Davis
2000: *The Neurospora Compendium: Chromosomal Loci*, by D.D. Perkins *et al.*

Textbooks, news articles, reviews, and exhibits using Springer photomicrographs (partial list):

- 1990: N.L. Glass and C. Staben, *Sem. Dev. Biol.* 1:177-184, Fig. 2
1992: *Development: The Molecular Genetic Approach*, V.E.A. Russo *et al.* eds., pp 91-93
1994: *Biology: Concepts and Connections*, by N. Campbell *et al.*, p 333 (also Spanish, Italian translations)
1996: *The World of the Cell*, 3rd edition, by W. Becker *et al.*, p 752
1999: R. Maheshwari, *Fungal Gen. Biol.* 26:1-18, Fig. 6
2000: *Neurospora, Contributions of a Model Organism*, by R. Davis, various pages
2000: *The Neurospora Compendium: Chromosomal Loci*, by D.D. Perkins *et al.*, various pages
2000: *Nature* 404:805 News Feature
2000: The Oregonian (newspaper), Nov. 22, pp 1M-2M
2001: Johnson Space Center, Houston, TX, educational CD-ROM
2002: R.H. Davis and D.D. Perkins, *Nature Reviews Genetics*, 3:7-13
2004: *Chronobiology: Biological Timekeeping*, J.C. Dunlap *et al.* eds., plate 2

- 2004: *Genomics & Proteomics*, June online issue <http://www.genpromag.com>
- 2004: *Biology*, 7th Edition, by N. Campbell and J. Reece, p 616 (also French translation)
- 2004: *Arti VMBO-Praktijkboek Handenarbeid 2* (“Arts & Crafts Workbook”; The Netherlands), by C. van Sabben, p 19
- 2005: *Circadian Physiology*, 2nd Edition, by R. Refinetti, p 230
- 2005: *Genetik* (Germany), by W. Janning and E. Knust, p 102
- 2005: *Introduction to Microbiology* (Online textbook) by T. Paustian and G. Roberts, Fig. 1.2
- 2005: *Concepts of Genetics*, 8th Edition, by W.S. Klug *et al.*, p 12
- 2005: *Storia Della Scienza* (“History of Science”; Italy), Vol. IX, Parisi *et al.*, eds., p 122
- 2006: *Microbiology*, 2nd Edition, by R.W. Bauman, p 359
- 2006: R. Allshire and E. Selker, in Chapter 6, *Epigenetics*, C.D. Allis *et al.*, eds., p 114
- 2007: *Biologia*, 7th Edition (Argentina), by H. Curtis *et al.*, p 192
- 2008: *Principles of Modern Microbiology*, by M. Wheelis, p 349
- 2008: *Biology – Concepts & Investigations*, by M. Hoefnagels, p 437
- 2008: Nikon Small World microscopy competition 4th prize: February in Nikon 2009 calendar plus online coverage in New York Times, National Geographic, Scientific American, New Scientist, MSNBC
- 2009: *DNATrium* interactive exhibit of genetics and genomics, Broad Institute, Cambridge, MA
- 2009: N. Raju, *J. Biosci.* 34:139-159, Fig. 3B
- TBA: D. Ebbole, in *Cellular and Molecular Biology of Filamentous Fungi*, American Society of Microbiology