

**ROBERT M. HOFFMAN**

**CURRICULUM VITAE**

**55 YEARS IN SCIENCE**

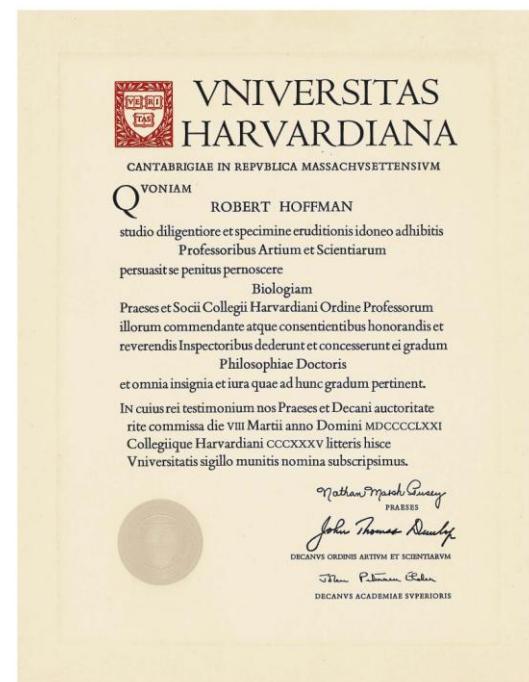
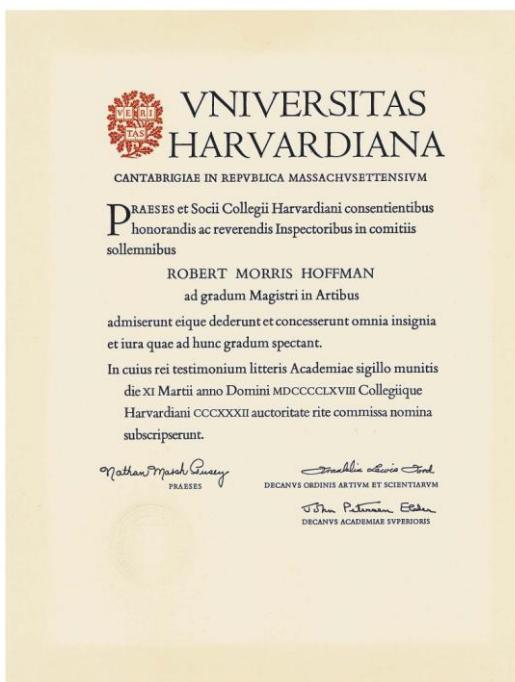
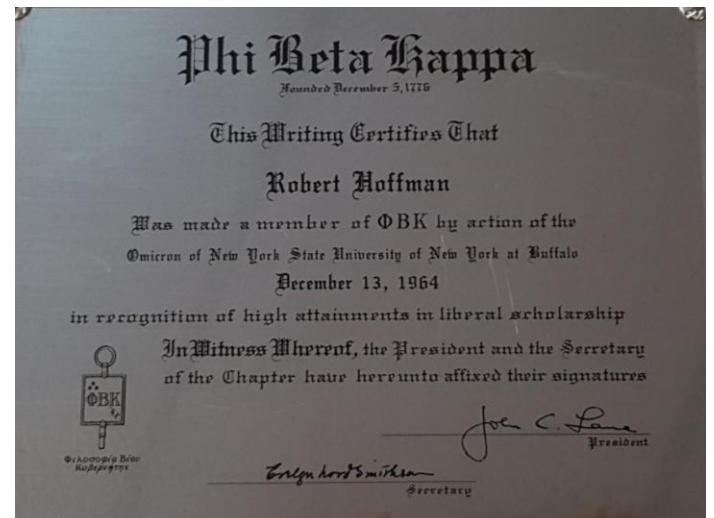
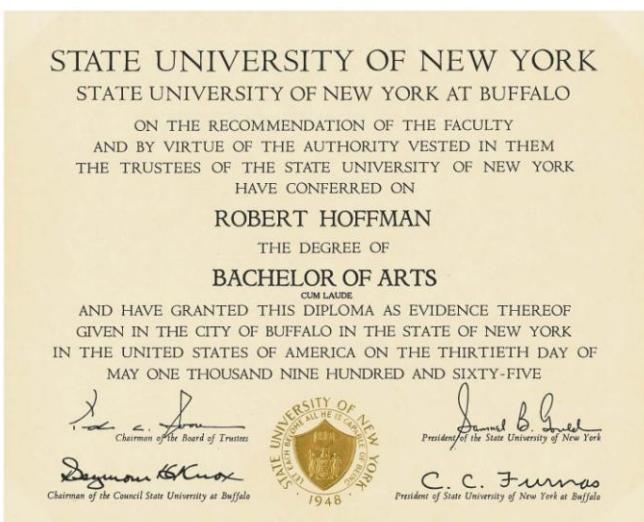
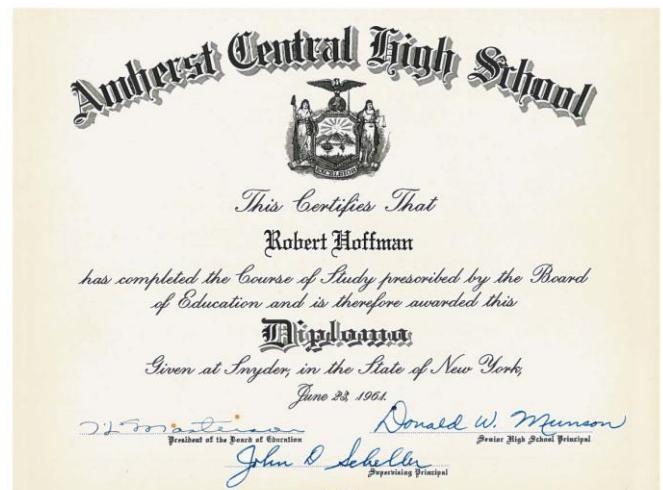
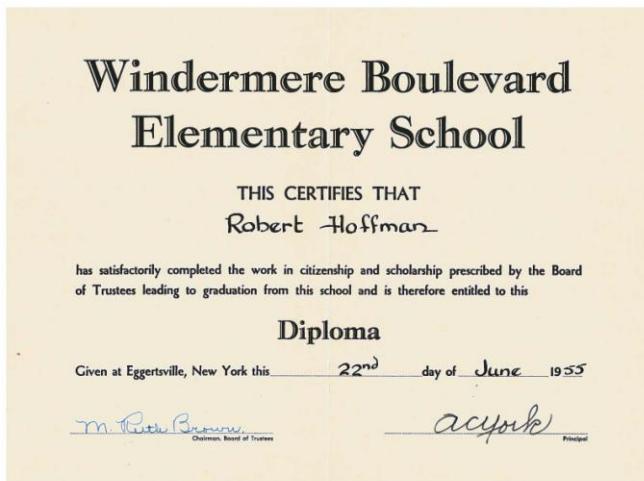
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*CURRICULUM VITAE*

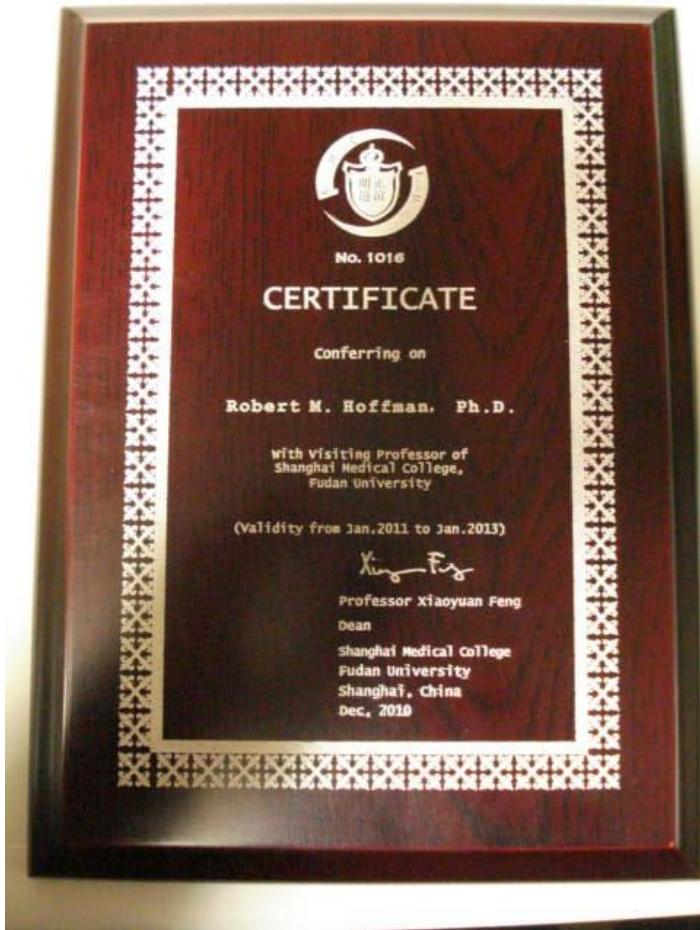
**ROBERT M. HOFFMAN**

<b>OFFICES:</b>	AntiCancer, Inc. 7917 Ostrow Street San Diego, California 92111 TEL: (858) 654-2555 FAX: (858) 268-4175
	Department of Surgery University of California, San Diego Medical Center 200 West Arbor Drive San Diego, California 92103-8402 TEL: (619) 543-6890 FAX: (619) 543-3763
<b>BIRTH DATE:</b>	June 19, 1944 Greenwich, Connecticut
<b>EDUCATION:</b>	Ph.D. (Biology) Harvard University Cambridge, Massachusetts
	B.A. (Biology) State University of New York Buffalo, New York
<b>PRESENT POSITIONS:</b>	President, Chairman of Board and CEO AntiCancer, Inc. San Diego, California
	Professor Department of Surgery University of California, San Diego Medical Center 200 West Arbor Drive San Diego, California 92103-8220
	CEO Robert M. Hoffman Foundation for Cancer Research

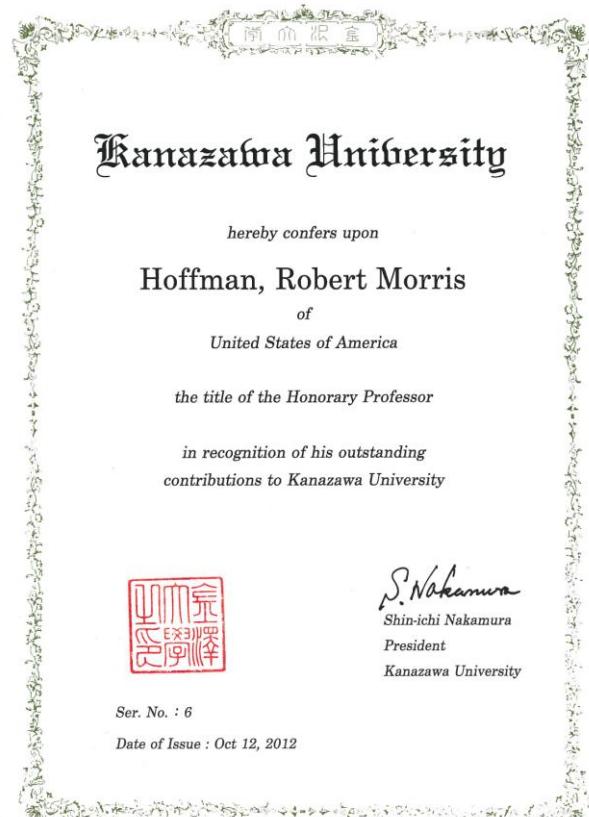
## EDUCATION HISTORY:



## HONORARY PROFESSORSHIPS:



Shanghai Medical College  
Fudan University



Kanazawa University



Sun Lee Award for Microsurgery  
2016

## **MAJOR RESEARCH ACCOMPLISHMENTS:**

- 1) I was the first to discover a mutant in energy metabolism:
  - Hoffman, R.M., and Raper, J.R. Genetic restriction of energy conservation in *Schizophyllum*. *Science* **171**, 418-419, 1971
- 2) I was the first to demonstrate altered DNA methylation in human cancer:
  - Diala, E.S. and Hoffman, R.M. Hypomethylation of HeLa cell DNA and the absence of 5-methylcytosine in SV40 and adenovirus (type 2) DNA: analysis by HPLC. *Biochem. Biophys. Res. Commun.* **107**, 19-26, 1982.
  - Diala, E.S., Cheah, M.S.C., Rowitch, D. and Hoffman, R.M. Extent of DNA methylation in human tumor cells. *J. Natl. Cancer Inst.* **71**, 755-764, 1983.
- 3) I was the first to demonstrate altered DNA methylation in an oncogene:
  - Cheah, M.S., Wallace, C.D. and Hoffman, R.M. Hypomethylation of DNA in human cancer cells: a site-specific change in the c-myc oncogene. *J. Natl. Cancer Inst.* **73**, 1057-1065, 1984.
- 4) I discovered methionine addiction of cancer, the most fundamental and general hallmark of cancer known as Hoffman effect. (Kaiser, P. Methionine dependence of cancer. *Biomolecules* **10**, 568, 2020)
  - Hoffman, R.M. and Erbe, RW. High *in vivo* rates of methionine biosynthesis in transformed human and malignant rat cells auxotrophic for methionine. *Proc. Natl. Acad. Sci. USA* **73**, 1523-1527, 1976.
  - Hoffman, R.M., Jacobsen, S.J. and Erbe, R.W. Reversion to methionine independence in simian virus 40-transformed human and malignant rat fibroblasts is associated with altered ploidy and altered properties of transformation. *Proc. Natl. Acad. Sci. USA* **76**, 1313-1317, 1979.
  - Coalson, D.W., Mecham, J.O., Stern, P.H., and Hoffman, R.M. Reduced availability of endogenously synthesized methionine for S-adenosylmethionine formation in methionine-dependent cancer cells. *Proc. Natl. Acad. Sci. USA* **79**, 4248-4251, 1982.
  - Stern, P.H., Mecham, J.O., Wallace, C.D. and Hoffman, R.M. Reduced free-methionine in methionine-dependent SV40-transformed human fibroblasts synthesizing apparently normal amounts of methionine. *J. Cell. Physiol.* **117**, 9-14, 1983.
  - Stern, P.H., and Hoffman, R.M. Elevated overall rates of transmethylation in cell lines from diverse human tumors. *In Vitro* **20**, 663-670, 1984.
  - Yamamoto J, Han Q, Inubushi S, Sugisawa N, Hamada K, Nishino H, Miyake K, Kumamoto T, Matsuyama R, Bouvet M, Endo I, Hoffman RM Histone methylation status of H3K4me3 and H3K9me3 under methionine restriction is unstable in methionine-addicted cancer cells, but stable in normal cells. *Biochem Biophys Res Commun.* 2020 Oct 2:S0006-291X(20)31861-1. doi: 10.1016/j.bbrc.2020.09.108. Online ahead of print. PMID: 33019978.
- 5) I pioneered the field of cancer epigenetics:
  - Hoffman, R.M. Altered methionine metabolism, DNA methylation and oncogene expression in carcinogenesis. A review and synthesis. *Biochim. Biophys. Acta* **738**, 49-87, 1984.
- 6) I pioneered the field of methionine-deprivation cancer therapy:
  - Stern, P.H. and Hoffman, R.M. Enhanced *in vitro* selective toxicity of chemotherapeutic agents for human cancer cells based on a metabolic defect. *J. Natl. Cancer Inst.* **76**, 629-639, 1986
  - Sun, X., Yang, Z., Li, S., Tan, Y., Zhang, N., Wang, X., Yagi, S., Yoshioka, T., Takimoto, A., Mitsushima, K., Suginaka, A., Frenkel, E.P., and Hoffman, R.M. *In vivo* efficacy of recombinant methioninase is enhanced by the combination of polyethylene glycol conjugation and pyridoxal 5' phosphate supplementation. *Cancer Research* **63**, 8377-8383, 2003.

- Yang, Z., Wang, J., Yoshioka, T., Li, B., Lu, Q., Li, S., Sun, X., Tan, Y., Yagi, S., Frenkel, E.P., and Hoffman, R.M. Pharmacokinetics, methionine depletion, and antigenicity of recombinant methioninase in primates. *Clinical Cancer Research* **10**, 2131-2138, 2004.
- Yang, Z., Sun, X., Li, S., Tan, Y., Wang, X., Zhang, N., Yagi, S., Takakura, T., Kobayashi, Y., Takimoto, A., Yoshioka, T., Suginaka, A., Frenkel, E.P., and Hoffman, R.M. Circulating half-life of PEGylated recombinant methioninase holoenzyme is highly dose dependent on cofactor pyridoxal-5'-phosphate. *Cancer Research* **64**, 5775-5778, 2004.
- Yang, Z., Wang, J., Lu, Q., Xu, J., Kobayashi, Y., Takakura, T., Takimoto, A., Yoshioka, T., Lian, C., Chen, C., Zhang, D., Zhang, Y., Li, S., Sun, X., Tan, Y., Yagi, S., Frenkel, E.P., and Hoffman, R.M. PEGylation confers greatly extended half-life and attenuated immunogenicity to recombinant methioninase in primates. *Cancer Research* **64**, 6673-6678, 2004.

7) I was the first to compare gene expression in normal and cancer cells:

- Williams, J., Hoffman, R.M. and Penman, S. The extensive homology between mRNA sequences of normal and SV40-transformed human fibroblasts. *Cell* **11**, 901-907, 1977.

8) I pioneered the field of non-viral gene therapy:

- Hoffman, R.M., Margolis, L.B. and Bergelson, L.D. Binding and entrapment of high molecular weight DNA by lecithin liposomes. *FEBS Letters* **93**, 365-368, 1978.
- Li, L., Hoffman, R.M. The feasibility of targeted selective gene therapy of the hair follicle. *Nature Medicine* **1**, 705-706, 1995.

9) I developed the first practical *in vitro* drug response assay for human cancer patients to enable individualized cancer therapy:

- Freeman, A.E. and Hoffman, R.M. In vivo-like growth of human tumors in vitro. *Proc. Natl. Acad. Sci. USA* **83**, 2694-2698, 1986.
- Vescio, R.A., Redfern, C.H., Nelson, T.J., Ugoretz, S., Stern, P.H. and Hoffman, R.M. *In vivo*-like drug responses of human tumors growing in three-dimensional gel-supported, primary culture. *Proc. Natl. Acad. Sci. USA* **84**, 5029-5033, 1987.
- Furukawa, T., Kubota, T., Hoffman, R.M. Clinical applications of the histoculture drug response assay. *Clinical Cancer Research* **1**, 305-311, 1995.
- Kubota, T., Sasano, N., Abe, O., Nakao, I., Kawamura, E., Saito, T., Endo, M., Kimura, K., Demura, H., Sasano, H., Nagura, H., Ogawa, N., Hoffman, R.M. Potential of the histoculture drug response assay to contribute to cancer patient survival. *Clinical Cancer Research* **1**, 1537-1543, 1995.

10) I pioneered the field of culturing hair-growing skin:

- Li, L., Margolis, L.B. and Hoffman, R.M. Skin toxicity determined *in vitro* by three-dimensional, native-state histoculture. *Proc. Natl. Acad. Sci. USA* **88**, 1908-1912, 1991.
- Li, L., Margolis, L.B., Paus, R. and Hoffman, R.M. Hair shaft elongation, follicle growth, and spontaneous regression in long-term, gelatin sponge-supported histoculture of human scalp skin. *Proc. Natl. Acad. Sci. USA* **89**, 8764-8768, 1992.

11) I developed the first clinically-relevant mouse models of human cancer:

- Fu, X.Y., Besterman, J.M., Monosov, A. and Hoffman, R.M. Models of human metastatic colon cancer in nude mice orthotopically constructed by using histologically intact patient specimens. *Proc. Natl. Acad. Sci. USA* **88**, 9345-9349, 1991.
- Fu, X., Guadagni, F. and Hoffman, R.M. A metastatic nude-mouse model of human pancreatic cancer constructed orthotopically from histologically intact patient specimens. *Proc. Natl. Acad. Sci. USA* **89**, 5645-5649, 1992.

12) I discovered the specific role of the host organ in cancer growth:

- Togo, S., Shimada, H., Kubota, T., Moossa, A.R., Hoffman, R.M. Host organ specifically determines cancer progression. *Cancer Res.* **55**, 681-684, 1995.

13) I discovered the governing step of metastasis:

- Kuo, T-H., Kubota, T., Watanabe, M., Furukawa, T., Teramoto, T., Ishibiki, K., Kitajima, M., Moossa, A.R., Penman, S., Hoffman, R.M. Liver colonization competence governs colon cancer metastasis. *Proc. Natl. Acad. Sci. USA* **92**, 12085-12089, 1995.

14) I co-discovered the genetic basis of cell senescence:

- Schmitt, C.A., Fridman, J.S., Yang, M., Baranov, E., Hoffman, R.M. and Lowe, S.W. Dissecting p53 tumor suppressor functions *in vivo*. *Cancer Cell* **1**, 289-298, 2002 (Cover story).
- Schmitt, C.A., Fridman, J.S., Yang, M., Lee, S., Baranov, E., Hoffman, R.M., and Lowe, S.W. A senescence program controlled by p53 and p16<sup>INK4a</sup> contributes to the outcome of cancer therapy. *Cell* **109**, 335-346, 2002.

15) I pioneered *in vivo* imaging using fluorescent proteins:

- Hoffman, R.M. The multiple uses of fluorescent proteins to visualize cancer *in vivo*. *Nature Reviews Cancer* **5**, 796-806, 2005.
- Chishima, T., Miyagi, Y., Wang, X., Yamaoka, H., Shimada, H., Moossa, A.R. and Hoffman, R.M. Cancer invasion and micrometastasis visualized in live tissue by green fluorescent protein expression. *Cancer Research* **57**, 2042-2047, 1997.
- Naumov, G.N., Wilson, S.M., MacDonald, I.C., Schmidt, E.E., Morris, V.L., Groom, A.C., Hoffman, R.M., Chambers, A.F. Cellular expression of green fluorescent protein, coupled with high-resolution *in vivo* videomicroscopy, to monitor steps in tumor metastasis. *J. Cell Sci.* **112**, 1835-1842, 1999.
- Yang, M., Baranov, E., Jiang, P., Sun, F-X., Li, X-M., Li, L., Hasegawa, S., Bouvet, M., Al-Tuwaijri, M., Chishima, T., Shimada, H., Moossa, A.R., Penman, S., Hoffman, R.M. Whole-body optical imaging of green fluorescent protein-expressing tumors and metastases. *Proc. Natl. Acad. Sci. USA* **97**, 1206-1211, 2000.
- Yang, M., Baranov, E., Moossa, A.R., Penman, S., Hoffman, R.M. Visualizing gene expression by whole-body fluorescence imaging. *Proc. Natl. Acad. Sci. USA* **97**, 12278-12282, 2000.
- Yang, M., Baranov, E., Li, X-M., Wang, J-W., Jiang, P., Li, L., Moossa, A.R., Penman, S., Hoffman, R.M. Whole-body and intravital optical imaging of angiogenesis in orthotopically implanted tumors. *Proc. Natl. Acad. Sci. USA* **98**, 2616-2621, 2001.
- Zhao, M., Yang, M., Baranov, E., Wang, X., Penman, S., Moossa, A.R., and Hoffman, R.M. Spatial-temporal imaging of bacterial infection and antibiotic response in intact animals. *Proc. Natl. Acad. Sci. USA* **98**, 9814-9818, 2001.
- Yang, M., Baranov, E., Wang, J-W., Jiang, P., Wang, X., Sun, F-X., Bouvet, M., Moossa, A.R., Penman, S., and Hoffman, R.M. Direct external imaging of nascent cancer, tumor progression, angiogenesis, and metastasis on internal organs in the fluorescent orthotopic model. *Proc. Natl. Acad. Sci. USA* **99**, 3824-3829, 2002.
- Bouvet, M., Wang, J-W., Nardin, S.R., Nassirpour, R., Yang, M., Baranov, E., Jiang, P., Moossa, A.R., and Hoffman, R.M. Real-time optical imaging of primary tumor growth and multiple metastatic events in a pancreatic cancer orthotopic model. *Cancer Research* **62**, 1534-1540, 2002 (Cover story).
- Yang, M., Li, L., Jiang, P., Moossa, A.R., Penman, S., and Hoffman, R.M. Dual-color fluorescence imaging distinguishes tumor cells from induced host angiogenic vessels and stromal cells. *Proc. Natl. Acad. Sci. USA* **100**, 14259-14262, 2003.
- Mitsiades, C.S., Mitsiades, N.S., Bronson, R.T., Chauhan, D., Munshi, N., Treon, S.P., Maxwell, C.A., Pilarski, L., Hideshima, T., Hoffman, R.M., and Anderson, K.C. Fluorescence imaging of multiple myeloma cells in a clinically relevant SCID/NOD *in vivo* model: biologic and clinical implications. *Cancer Research* **63**, 6689-6696, 2003.
- Yamamoto, N., Jiang, P., Yang, M., Xu, M., Yamauchi, K., Tsuchiya, H., Tomita, K., Wahl, G.M., Moossa, A.R., and Hoffman, R.M. Cellular dynamics visualized in live cells *in vitro* and *in vivo* by differential dual-color nuclear-cytoplasmic fluorescent-protein expression. *Cancer Research* **64**, 4251-4256, 2004.
- Simberg, D., Duza, T., Park, J.H., Essler, M., Pilch, J., Zhang, L., Derfus, A.M., Yang, M., Hoffman, R.M., Bhatia, S., Sailor, M.J., and Ruoslahti, E. Biomimetic amplification of nanoparticle homing to tumors. *Proc. Natl. Acad. Sci. USA* **104**, 932-936, 2007.

- Hoffman, R.M., and Yang, M. Color-coded fluorescence imaging of tumor-host interactions. *Nature Protocols* **1**, 928-935, 2006.
- Hoffman, R.M., and Yang, M. Subcellular imaging in the live mouse. *Nature Protocols* **1**, 775-782, 2006.
- Hoffman, R.M., and Yang, M. Whole-body imaging with fluorescent proteins. *Nature Protocols* **1**, 1429-1438, 2006.

16) I was the first to image the tumor microenvironment:

- Yang, M., Jiang, P., and Hoffman, R.M. Whole-body subcellular multicolor imaging of tumor-host interaction and drug response in real time. *Cancer Research* **67**, 5195-5200, 2007

17) I discovered the only known adult pluripotent stem cells:

- Li, L., Mignone, J., Yang, M., Matic, M., Penman, S., Enikolopov, G., and Hoffman, R.M. Nestin expression in hair follicle sheath progenitor cells. *Proc. Natl. Acad. Sci. USA* **100**, 9958-9961, 2003.
- Amoh, Y., Li, L., Yang, M., Moossa, A.R., Katsuoka, K., Penman, S., and Hoffman, R.M. Nascent blood vessels in the skin arise from nestin-expressing hair follicle cells. *Proc. Natl. Acad. Sci. USA* **101**, 13291-13295, 2004.
- Amoh, Y., Li, L., Campillo, R., Kawahara, K., Katsuoka, K., Penman, S., and Hoffman, R.M. Implanted hair follicle stem cells form Schwann cells that support repair of severed peripheral nerves. *Proc. Natl. Acad. Sci. USA* **102**, 17734-17738, 2005.
- Amoh, Y., Li, L., Katsuoka, K., Penman, S., and Hoffman, R.M. Multipotent nestin-positive, keratin-negative hair-follicle bulge stem cells can form neurons. *Proc. Natl. Acad. Sci. USA* **102**, 5530-5534, 2005.

18) I was the first to determine what controlled the clonality of metastasis:

- Yamamoto, N., Yang, M., Jiang, P., Xu, M., Tsuchiya, H., Tomita, K., Moossa, A.R., and Hoffman, R.M. Determination of clonality of metastasis by cell-specific color-coded fluorescent-protein imaging. *Cancer Research* **63**, 7785-7790, 2003.

19) I discovered the first bacteria that specifically target and can completely eradicate cancer:

- Zhao, M., Yang, M., Li, X-M., Jiang, P., Baranov, E., Li, S., Xu, M., and Hoffman, R.M. Tumor-targeting bacterial therapy with amino acid auxotrophs of GFP-expressing *Salmonella typhimurium*. *Proc. Natl. Acad. Sci. USA* **102**, 755-760, 2005.
- Zhao, M., Yang, M., Ma, H., Li, X., Tan, X., Li, S., Yang, Z., and Hoffman, R.M. Targeted therapy with a *Salmonella typhimurium* leucine-arginine auxotroph cures orthotopic human breast tumors in nude mice. *Cancer Research* **66**, 7647-7652, 2006.
- Zhao, M., Geller, J., Ma, H., Yang, M., Penman, S., and Hoffman, R.M. Monotherapy with a tumor-targeting mutant of *S. typhimurium* cures orthotopic metastatic mouse models of human prostate cancer. *Proc. Natl. Acad. Sci. USA* **104**, 10170-10174, 2007.
- Arrach, N., Zhao, M., Porwollik, S., Hoffman, R.M., and McClelland, M. *Salmonella* promoters preferentially activated inside tumors. *Cancer Research* **68**, 4827-4832, 2008.

20) I discovered that passenger stromal cells are necessary for metastasis:

- Bouvet, M., Tsuji, K., Yang, M., Jiang, P., Moossa, A.R., and Hoffman, R.M. *In vivo* color-coded imaging of the interaction of colon cancer cells and splenocytes in the formation of liver metastases. *Cancer Research* **66**, 11293-11297, 2006.

21) I discovered the mechanism of chemotherapy-induced alopecia:

- Amoh, Y., Li, L., Moossa, A.R., Katsuoka, K., and Hoffman, R.M. Chemotherapy targets the hair-follicle vascular network but not the stem cells. *J. Invest. Dermatol.* **127**, 11-15, 2007.

22) I developed the first recombinant enzyme-based diagnostics for homocysteine, vitamin B<sub>6</sub> and cysteine:

- Tan, Y., and Hoffman, R.M. A highly sensitive single-enzyme homocysteine assay. *Nature Protocols* **3**, 1388-1394, 2008.
- Han, Q., and Hoffman, R.M. Enzymatic assay for total plasma Cys. *Nature Protocols* **3**, 1778-1781, 2008.
- Han, Q., and Hoffman, R.M. **3**, 1815-1819, 2008. Nonradioactive enzymatic assay for plasma and serum vitamin B<sub>6</sub>. *Nature Protocols*

23) I developed the basis for fluorescence-guided cancer surgery:

- Kishimoto, H., Zhao, M., Hayashi, K., Urata, Y., Tanaka, N., Fujiwara, T., Penman, S., and Hoffman, R.M. In vivo internal tumor illumination by telomerase-dependent adenoviral GFP for precise surgical navigation. *Proc. Natl. Acad. Sci. USA* **106(34)**, 14514-14517, 2009.
- Green Surgery, Barbara R. Jasny, Editors' Choice. *Science* **325**, 1321, 11 September 2009.

24) I co-discovered that blood vessels in tumors can be formed from cancer cells:

- Soda, Y., Marumoto, T., Friedmann-Morvinski, D., Soda, M., Liu, F., Michiue, H., Pastorino, S., Yang, M., Hoffman, R.M., Kesari, S., Verma, I.M. Transdifferentiation of glioblastoma cells into vascular endothelial cells. *Proc. Natl. Acad. Sci. USA* **108**, 4274-4280, 2011 (Cover story).

25) I co-discovered that tumor-infiltrating T-cells stimulate cancer metastasis:

- Tan, W., Zhang, W., Strasner, A., Grivennikov, S., Cheng, J.Q., Hoffman, R.M., and Karin, M. Tumour-infiltrating regulatory T cells stimulate mammary cancer metastasis through RANKL-RANK signaling. *Nature* **470**, 548-553, 2011.

#### **POSTDOCTORAL TRAINING:**

Department of Biology Harvard University With the late Professor John R. Raper	1971-1973
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Massachusetts General Hospital Harvard Medical School With Dr. Richard W. Erbe and Professor John W. Littlefield	1973-1975
--	-----------

USA-USSR National Academy of Sciences Exchange Fellow The Shemyakin Institute of Bioorganic Chemistry Academy of Sciences, Moscow, USSR With Professor L.D. Bergelson	1976-1977
--	-----------

Weizmann Institute of Science Rehovot, Israel With Dr. Carol Prives	1978
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#### **PREVIOUS ACADEMIC POSITIONS:**

Instructor of Pediatrics Harvard Medical School Massachusetts General Hospital	1975-1979
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Assistant Professor, Department of Pediatrics University of California, San Diego School of Medicine	1979-1983
--	-----------

Associate Professor, Department of Pediatrics University of California, San Diego School of Medicine	1983-1990
--	-----------

Professor, Department of Pediatrics  
University of California, San Diego  
School of Medicine

1990-1995

#### **PROFESSIONAL SOCIETIES:**

1. Society for *In Vitro* Biology
2. American Association of Cancer Research
3. American Society for Clinical Oncology
4. Society of Surgical Oncology
5. American Society for Cell Biology
6. Metastasis Research Society
7. Japanese Cancer Association
8. Japanese Society of Clinical Oncology (First American Member)
9. Japanese Metastasis Research Society (First American Member)
10. Japanese Society of Human Cell
11. Preclinical Therapeutic Model Group of the European Organization for Research and Treatment of Cancer
12. Chinese Society for Clinical Oncology (First American Member)
13. International Society for Stem Cell Research

#### **BOARDS:**

Ad-Hoc Reviewer  
National Cancer Institute

1986-present

#### **EDITORIAL BOARDS:**

*Anticancer Research* 1985-present  
*In Vitro Cellular and Developmental Biology* 1987-present  
Associate Editor, *Clinical Cancer Research* 2000-Present  
Academic Editor, *PLOS ONE* 2015-Present  
Editorial Advisory Board, *Journal of Fluorescence Guided Surgery* 2015-Present

#### **TEACHING AT THE UNIVERSITY OF CALIFORNIA, SAN DIEGO:**

Biology 112:	"Cell and Molecular Biology" Spring and Fall With Professor Gordon Sato	1980
Pediatrics 233:	"Genes and Cancer" Winter	1982-1994
Pediatrics 235:	"New Biological Approaches to Cancer Prevention and Treatment" Spring	1983-1994
Pediatrics 237:	"Biochemical Genetics of Aging" Fall	1984-1994

#### **SCIENTIFIC MENTORING OF SURGICAL RESIDENTS AT UCSD**

Reza Gamagami, M.D. (1994-1996)  
Babak Rashidi, M.D. (1998-2000)  
Waddah B. Al-Refaei, M.D. (2000-2001)  
Michele McElroy, M.D. (2004-2006)  
Cristina Metildi, M.D. (2010-Present)

Aaron R. Sasson, M.D. (1995-1997)  
Maria Al-Tuwaijri, M.D. (2000-2001)  
Matthew H. G. Katz, M.D. (2002-2004)  
Hop S. Tran Cao, M.D. (2007-2009)  
Ali Maawy, M.D. (2012-Present)

Jonathan Delong, M.D. (2015-Present)

## Progressive Surgical Associates

Laura Ragauskaitė, M.D., F.A.C.S.  
Board Certified General Surgeon  
  
Erik Borncamp, M.D., F.A.C.S.  
Board Certified General Surgeon

Reza A. Gamagami, M.D., F.A.C.S.  
Board Certified Surgeon

Venkata R. Kakarla, M.D.  
Board Certified General Surgeon  
  
Katherine Powers, PA-C  
Physician Assistant

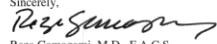
Professor Brian Clary, M.D.  
Chairman Department of Surgery  
UCSD, San Diego, CA.

Re: Robert Hoffman, Ph.D.

Dear Dr. Clary,

I have known Dr. Hoffman for twenty five years. As you know funding for research has become increasingly both arduous and scarce. As a junior faculty at UCSD in 2004, I was able to pursue a surgical oncologic research when all other venues had failed. Dr. Hoffman's efforts undoubtedly contributed to my success as a surgical oncologist. Dr. Hoffman's contribution to the UCSD department of surgery for the past two decades are innumerable, he continues to be a tremendous asset especially in such difficult times. I, therefore, without hesitation, support his efforts for future UCSD surgical residents. Do not hesitate to contact me if I can be of any further assistance.

Sincerely,

  
Reza Gamagami, M.D., F.A.C.S.  
Chairman Department of Surgery  
Silver Cross Hospital

1890 Silver Cross Boulevard, Suite 410, New Lenox, Illinois 60451      815.717.8730 phone / 815.717.8729 fax      [www.gamagami.com](http://www.gamagami.com)

## MedStar Georgetown University Hospital

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Waddah Al-Refaie, MD, FACS  
Chief, Division of Surgical Oncology  
Department of Surgery  
  
Surgeon in Chief,  
Lombardi Comprehensive Care Center

May 17, 2016

Dear Dr. Bryan Clary,

It is with great enthusiasm that I write a strong letter of support for Dr. Robert Hoffman, the current President, Chairman of the Board, and CEO of AntiCancer, Inc. I have known Dr. Hoffman for nearly 20 years. Dr. Hoffman's CV attests for his unequivocal commitment to excellence, service, scholarly endeavors, and most importantly research.

As you know I am loyal alum at University of California, San Diego, Department of Surgery, having graduated in 2004. Dr. Hoffman had a tremendous impact on my academic and research career. My research experience in his lab and under his tutelage have shaped my academic career moving forward to land a great general surgery residency at UCSD and an outstanding surgical oncology fellowship and the University of Texas at M.D. Anderson Cancer Center. This fantastic research experience has also shaped my academic surgical career at my prior tenure at the University of Minnesota and current leadership position at Georgetown University Medical Center and Medstar Health.

It goes without saying that Dr. Hoffman is a well respected professional who is known for his research and dedication to science. He continuously displays an infectious passion for teaching and making a difference in our community at large. I witnessed firsthand through Dr. Hoffman and my time at AntiCancer how research can truly revolutionize the world of cancer medicine and this is something that resonates with me throughout my career and inspires me to stay involved in research.

Dr. Hoffman has tremendous passion for teaching and mentorship of students. He is the recipient of several prestigious teaching honors and awards in recognition to his outstanding service and dedication. Dr. Hoffman has published numerous chapters in books and journal articles which have

Knowledge and Compassion  
Focused on You



May 13, 2016

### Division of Surgical Oncology

Aaron Sisson, MD  
Professor of Surgery &  
Chief of Surgical Oncology  
Tel: (631) 444-8086  
Fax: (631) 444-7871  
[aaron.sisson@stonybrookmedicine.edu](mailto:aaron.sisson@stonybrookmedicine.edu)

Bryan M. Clary, MD, M.B.A.  
Professor and Chair, Department of Surgery  
M.J. Orloff Fam. Endowed Chair in Surgery  
Surgeon-in-Chief  
UC San Diego Health System  
UCSD Medical Center  
200 West Arbor Drive #8400  
San Diego, CA 92103-8400

Dear Dr. Clary,

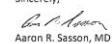
It is a great pleasure to write a letter of support for Robert Hoffman. During my residency at UCSD from 1993-1999, I was fortunate to have the opportunity to spend one year in the lab with Dr. Hoffman. I had already formed an interest in surgical oncology and my research experience further enhanced my interest in cancer research, particularly translational research.

During this period, we were working on an orthotopic model for both colon cancer and pancreas cancer. At the time this was relatively a new concept. We were able to develop an experimental model, test it, and ultimately perform multiple hypothesis generated experiments. For me, this was a very productive research endeavor and led to 5 peer-reviewed publications and multiple abstracts. I was the first surgical resident to work in Dr. Hoffman's laboratory, and my positive experience and productivity spurred multiple other surgical residents to pursue scientific investigation with Dr. Hoffman.

I greatly valued my time with Dr. Hoffman during my research year and surgical residency. I benefited from his advice and mentorship. I, along with other residents, found Dr. Hoffman to be an invaluable member of the Department of Surgery.

Please feel free to contact me if you require any further information. Lastly, congratulations on your appointment as the fourth Chairman in the Department of Surgery at UCSD.

Sincerely,

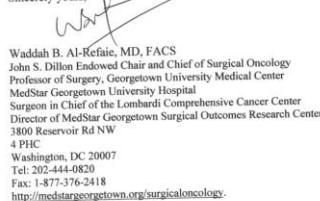
  
Aaron R. Sisson, MD

Administrative Office  
HSC, Level 1B, Box 060  
Stony Brook, NY 11794-8191

Stony Brook Cancer Center  
3 Edmund D. Pellegrino Road  
Stony Brook, NY 11794-9450

In closing, it is my honor to give Dr. Robert Hoffman my strongest personal and professional recommendations I am capable of giving. Please do not hesitate to contact me with any questions regarding his well deserved application.

Sincerely yours,

  
Waddah B. Al-Refaie, MD, FACS  
John S. Dillon Endowed Chair and Chief of Surgical Oncology  
Professor of Surgery, Georgetown University Medical Center  
MedStar Georgetown University Hospital  
Surgeon in Chief of the Lombardi Comprehensive Cancer Center  
Director of MedStar Georgetown Surgical Outcomes Research Center  
3600 Reservoir Rd NW  
4th Fl.  
Washington, DC 20007  
Tel: 202-444-0820  
Fax: 1-877-376-2418  
<http://medstargeorgetown.org/surgicaloncology>.



Matthew H.G. Katz, MD, FACS  
Associate Professor  
[mhkgatz@mdanderson.org](mailto:mhkgatz@mdanderson.org)  
1713-794-4656 | F 1713-745-1921  
Division of Surgery  
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Houston, TX 77230-1402

In summary, I fully support Dr. Hoffman's academic appointment within the Department of Surgery and hope that he continues to be a resource for UCSD's surgical trainees interested in the study of surgery and cancer.

If I can answer any questions regarding this letter of support, please do not hesitate to contact me.

May 9, 2016

Dr. Clary and Committee:

Please accept this letter of support on behalf of Dr. Robert Hoffman, who I understand is currently undergoing academic review by the Department of Surgery at the University of California at San Diego.

I am qualified to write this letter, as I worked under Dr. Hoffman's supervision when I was a surgical resident at UCSD 2004-2006. This work was done as part of my lab experience with Dr. Michael Bouvet. I elected to work with Dr. Bouvet at that time in large part because of his known collaboration with Dr. Hoffman; indeed, many prior residents had enjoyed great success working with Dr. Hoffman at AntiCancer during their lab years.

During my two-year lab experience, much of which was spent at AntiCancer, I was instrumental in developing mouse models with which to conduct *in vivo* tests novel therapeutics for pancreatic cancer. My work during that period led to over 10 first-author, high-impact publications, including 2 in *Cancer Research*, as well as national visibility on the podium at too-many-to-count surgical and scientific meetings. Furthermore, the work that I did led to multiple other manuscripts which were published following my years in the lab. The experience, I truly believe, was instrumental to my acceptance for surgical oncology fellowship at the University of Texas MD Anderson Cancer Center, the prominent fellowship for surgical oncology in the world. Dr. Hoffman has since helped train other UCSD residents who have gone to MD Anderson and other excellent surgical oncology fellowships.

Although Dr. Hoffman's value to the department can best be measured objectively using the measures alluded to above—namely number of publications, impact factors, number of surgical residents trained—it is significantly more than this. Dr. Hoffman is an unwavering advocate and mentor for all trainees who work with him. Certainly, Dr. Hoffman provides academic counseling to trainees during their time in the laboratory. But, his interest and loyalty continues long after "graduation". As a specific but telling example: when I graduated from MD Anderson and started my first job at UCI Irvine, I was thrown into a job that demanded scientific productivity immediately, but provided little in the way of startup or mentorship support in this area. Dr. Hoffman recognized this dilemma and provided me with laboratory space and animals with which to perform initial experiments—experiments that led to both seed funding and a publication in *Molecular Cancer Therapeutics*. The work that I did helped to jump-start my early academic career. I will never forget this act of sponsorship.

Sincerely,

Matthew H.G. Katz, MD, FACS

CARING INTEGRITY DISCOVERY

Saturday May 14, 2016

Michele McElroy MD, FCAP  
AmeriPath Denver  
695 S Broadway, Ste 100  
Denver CO 80209  
303-899-6900

To Whom It May Concern

My name is Michele McElroy, I am currently a pathologist with AmeriPath Denver and I worked in Dr. Michael Bouvet's laboratory from 2006 to 2008 under an NIH T32 training grant. During that time, our laboratory frequently worked on joint projects with the researchers in Dr. Robert Hoffman's lab at AntiCancer Inc. I was fortunate to author several papers with Drs. Bouvet and Hoffman that were accepted for publication, and I have included those publications for your convenience below. Working with both Dr. Bouvet and Hoffman allowed me to successfully collaborate with other scientists on interesting projects, and taught me the value of working with and learning from other laboratories in the pursuit of a common goal.

If I can provide any additional information about my time working with Dr. Robert Hoffman, please do not hesitate to contact me.

Yours Cordially,

Michele McElroy MD



MICHAEL E. DEBAKEY  
DEPARTMENT OF  
SURGERY

Hop S. Tran Cao, M.D.  
Assistant Professor of Surgery  
Division of Surgical Oncology  
Michael E. DeBakey Department of Surgery  
Baylor College of Medicine  
  
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[hop.tranco@bcm.edu](mailto:hop.tranco@bcm.edu)

May 13, 2016

To Whom It May Concern:

I am writing this letter to voice my support for Dr. Robert Hoffman, and to share the experiences that I had with him at AntiCancer Inc.

I am a proud graduate of the Department of Surgery at the University of California San Diego (UCSD) School of Medicine, where I began my internship in 2005. I graduated as the Administrative Chief Resident in 2012. Following residency, I completed a fellowship in Complex General Surgical Oncology at the University of Texas MD Anderson Cancer Center, from which I graduated this past year. I have since joined the Michael E. DeBakey Department of Surgery at the Baylor College of Medicine as an Assistant Professor of Surgery on the tenure track.

During my residency, I spent two years in the laboratory of Dr. Michael Bouvet. During this time, I was introduced to the concept of using fluorescence technology and the various roles it may play in medicine. I met Dr. Hoffman soon after joining the lab, and immediately was challenged by him to think about ways in which I could help translate this technology from bench to bedside. This led me down the path of studying ways in which surgical navigation, for both staging and therapeutic purposes, may be improved with fluorescence imaging. At AntiCancer, where Dr. Hoffman's laboratory is located, I met individuals from diverse backgrounds with whom I was able to engage in deep and thoughtful conversations, leading to meaningful feedback and improved research projects, and with whom I communicated extensively. Beyond the people, the research resources available at AntiCancer were truly important to my ability to carry out and complete experiments. In particular, the fluorescence imaging devices for both whole body and microscopic imaging were key to our success.

Dr. Hoffman served an important role in my development as a scientist during my two years in the lab. As a mentor, he did not try to dictate specific details as to what I should be doing, but instead encouraged me to come up with my own ideas and my own plans, but was always available to help me troubleshoot when things didn't go right. As such, he was an exemplary model of mentorship and guidance.

My time in the lab was productive, allowing me to give multiple podium and poster presentations and to publish numerous manuscripts. I have no doubt that this was critical in helping me match into a competitive fellowship in Surgical Oncology. I will forever cherish my two research years at UCSD – they were informative and a time of personal and professional growth, a lot of which would not have been possible without the tutelage from Dr. Hoffman and the lessons I learned at AntiCancer.

Please feel free to contact me should you have any questions or wish to discuss further.

Sincerely,

Hop S. Tran Cao

## American Advanced Surgery

3501 N. Scottsdale Rd., Suite 140 • Scottsdale, AZ 85251  
Phone 480-513-2727 • Fax 480-513-2729  
[www.americanadvancedsurgery.com](http://www.americanadvancedsurgery.com)



B. Rashidi, MD  
GENERAL SURGERY  
SURGICAL ONCOLOGY  
MINIMALLY INvasive SURGERy  
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COLORECTAL SURGERY

May 13, 2016

Dr. Bryan Clary  
Chairman of The Department of Surgery at UCSD

Dear Dr. Bryan Clary

I am writing this letter regarding Dr. Robert Hoffman, PHD. My name is Babak Rashidi, MD, FACS. I am a general surgeon and surgical oncology. Board Certified from the American College of Surgeons and The European College of Surgeons. I did general surgery residency at USCD from year 2000 to 2005 and at University of Padua, Italy from year 1993 to 1998. I have a general and surgical oncology practice in Scottsdale, Arizona with more than 700 major operations per year.

I've known Dr. Hoffman for 17 years. I did two years of research in AntiCancer under Dr. Hoffman's direct supervision. During those two years I published more than 10 peer review cancer research articles and 40 abstracts.

Dr. Hoffman's guidance and supervision were essential for me and for many others like me that we had the pleasure to do research in Anticancer. I consider Dr. Hoffman the biggest influence in my career and still now I use his advices to treat my cancer patients.

Dr. Hoffman's knowledge in cancer research is unique and he is considered one of the most famous and influential cancer researchers in the world. I strongly believe he is an essential asset for The Department of Surgery at UCSD and his name will help the surgery department to remain one of the pioneers of cancer research in the country and in the world. I personally cannot imagine The Department of Surgery without Dr. Hoffman.

I hope this letter will help you to make your decision regarding Dr. Hoffman's future in The Department of Surgery at UCSD.

Please feel free to contact me with any questions.

B. Rashidi MD, FACS

### Anticancer

From: Cristina Metildi [metildi24@gmail.com]  
Sent: Saturday, May 7, 2016 5:52 PM  
To: Anticancer  
Subject: Re: Request regarding Dr. Robert Hoffman

Hi Charlene,

Below are some of my thoughts on the matter... Let me know if this is what you are looking for. Always happy to help in any way possible.

Dear Dr. Clary,

I understand that you will be meeting soon with Dr. Hoffman to determine his future in the Department of Surgery at UCSD. I would like to share some of my thoughts and experiences I had working with Dr. Hoffman over a course of three years while in Dr. Bouvet's lab.

First, Dr. Hoffman wrote a beautiful letter for me when I applied for a T32 NIH Training Grant. With his kind words, I was able to obtain a well-sought out grant that also gave me the opportunity to obtain a Masters in Clinical Research. With his guidance, I was able to develop a sound research project that permitted such an opportunity. I learned a lot in the process of obtaining my Masters that only strengthened my research experience. Without his letter and support, I am not sure I would have obtained this prestigious grant. And without this grant, I would not have had the amazing experience I did in the lab. The productivity and the experience education allowed me to match in a competitive fellowship and provided me with skills to apply to my future career in academic medicine.

Furthermore, the access to his lab and ideas, his collaborating partners and connections, made me that much more productive in the lab permitting me to publish over 15 papers and present at numerous conferences. Overall, including presentations (oral and posters), accepted abstracts and papers, I had over 50 publications.

Overall, I am truly grateful for the opportunity that Dr. Hoffman along with Dr. Bouvet provided me. I learned so much under his guidance and he was a caring, very supportive PI and mentor. I think UCSD would greatly miss his contributions. Not only did he provide me with an amazing experience, but also to residents before and after me. Dr. Katz (at MD Anderson), Dr. Hop Tran Cao (also did fellowship at MD Anderson), Dr. Menen (currently doing breast fellowship at MD Anderson) and a former resident at UCSD (transitioned to pathology), and Dr. Ali Maawy, to name a few. I am sure he has many more projects for up and coming residents eager to take advantage of such an opportunity. Please consider Dr. Hoffman as a vital contributor to the research conducted in Department of Surgery at UCSD.

Thank you,

Cristina Metildi

To whom it may concern.

I have known my great teacher and professor, Dr. Robert Hoffman for the last seven years. I spent two years as a research fellow at AntiCancer under Dr. Hoffman's supervision. Without any doubt these two years was one of the most scientifically productive periods during my medical career.

I got to work closely to Dr. Hoffman during my stay at AntiCancer and I got to know him as a Professor and as a person. I learned a lot from Dr. Hoffman about science, oncology and life. During my stay at AntiCancer, I met and learned a lot from a group of the most talented, knowledgeable and well-educated scientists, surgical residents and physicians, not only from our nation but worldwide.

My work under Dr. Hoffman's supervision and my scientific productivity at AntiCancer helped me to join residency training at one of the most established residency programs in the east coast. During my residency training I never was far from AntiCancer, I still had a paper published with AntiCancer's team, I chose to come back from the east coast to spend my away elective at AntiCancer to continue my research activities during my residency training.

At this point of my medical and scientific career, I admit that working with Dr. Hoffman impacted my career in an unbelievably positive way and it always made me competitive amongst my peers.

Dr. Hoffman's approach to teaching is very unique and makes his researchers and students love what they are doing.

Dr. Hoffman's scientific activities extend beyond AntiCancer's borders to benefit the whole community by offering multiple internships for college and high school students who are interested in sciences. This allows for Dr. Hoffman to create a knowledgeable generation which will be able to support the scientific future of our nation. I confidently believe that Dr. Hoffman is one of the greatest professors that I have met during my medical career.

With all my enthusiasm, I strongly support Dr. Hoffman to continue his scientific and academic career at the Department of Surgery at University of California, San Diego.

Mohamed K. Hassanein, MD

PGY-III, Internal medicine  
Capital Health Regional Medical Center  
Trenton, NJ  
Phone: (858)967-3070  
Email: [Mohamedkadyhassanein@gmail.com](mailto:Mohamedkadyhassanein@gmail.com)

### Anticancer

From: Rhiana Menen [rhiana@rhians.org]  
Sent: Saturday, May 14, 2016 11:53 AM  
To: Anticancer  
Subject: Request for Dr. Robert Hoffman

To whom it may concern,

This letter is in support of Dr Robert Hoffman. I had the opportunity to work with Dr. Hoffman and AntiCancer as a UCSD surgical research resident between 6/2010-6/2012. Under Dr. Hoffman's leadership, I came to have expertise in several areas, including advanced fluorescence imaging and technology, Circulating Tumor Cells, and the tumor microenvironment, as well as the learning basics of cell culture and laboratory techniques. The unique working environment within AntiCancer allows for collaboration amongst international scientists and fosters creative scientific advances that are often not possible in the more cloistered University environment.

Dr Hoffman himself made time for his mentees with weekly meetings to discuss new possible projects, encouraging new areas of scientific interest, and personally oversaw the writing of their manuscripts.

During my research under the guidance of Dr Hoffman, I was able to publish eight peer-reviewed papers, present five oral poster presentations at national meetings, and present eight poster presentations at national meetings. The depth of this research allowed me to gain entrance to a surgical fellowship at M.D. Anderson Cancer Center, one of the leading cancer hospitals in the world, and has set me up for a promising career in the field of cancer surgery, as well as help instill in me a love of research within the field of cancer.

Personally, Dr Hoffman is a warm, caring, and innovative researcher and I highly recommend his continued involvement in training UCSD's future scientists and physicians.

Thank you,

Rhiana Menen, MD  
Fellow of Breast Surgical Oncology  
M.D. Anderson Cancer Center  
Houston, Texas

Ali Maawy  
4029 43<sup>rd</sup> St #506  
San Diego, CA 92105

Re: Letter in support of Dr. Robert Hoffman, Ph.D

I would like to take this opportunity to show my support and appreciation for Dr. Robert Hoffman. I have had the opportunity and pleasure to work with Dr. Hoffman, predominantly during my time as a research fellow. Dr. Hoffman was a great mentor to work with and a great resource throughout my time in research. To date we still keep in touch and I consider him a good mentor and friend. He is one of the smartest, most knowledgeable and prolific scientists that I have had the pleasure of interacting with. Dr. Hoffman gave me the opportunity to not only conduct research but molded me and allowed me to grow, eventually giving me the freedom to ask my own questions and formulate my own research projects with minimal supervision. He always made it a point to not only point me in the right direction, but to pair me up with someone who had a skillset that would be useful to do the project properly to completion. Most of all, he made himself available at any time of day or night, ensuring we had the tools to conduct and complete meaningful research, even when it wasn't economically advantageous to him. Through his mentorship I was able to learn how to conduct basic science research, ask meaningful questions and devise appropriate experiments. I learnt a great deal on how to write papers and get them to publication. Importantly, I was able to learn how to present research material both as oral presentations and as posters, spending countless hours rehearsing with us prior to our presentations. As a mark of his commitment Dr. Hoffman always makes it a point to be present during presentations for both support and protection if necessary. Despite his numerous international obligations he would often cut his trip short to be present during our research presentations. I have no doubt that Dr. Hoffman will be an invaluable asset to the program should he become a member of the research faculty and will continue to mold and inspire upcoming scientists and individuals. In my case, I was willing to do a third year of research mainly because of him and what we had planned for my final year of research. He is a pleasure to work with and has always had my best interests. I hope to continue to work with him and collaborate on projects in the future.

Please do not hesitate to call with questions.

Thank you,



Ali Maawy, MD

#### Anticancer

From: DeLong, Jonathan [jdelong@ucsd.edu]  
Sent: Monday, May 9, 2016 7:05 PM  
To: Anticancer  
Subject: Re: Request regarding Dr. Robert Hoffman

Importance: High

Charlene,

Here are some thoughts that I have regarding my experience at AntiCancer.

It is hard to believe that I have had a research position at AntiCancer for less than a year. During my time, I have learned an enormous amount of technique in basic science, particularly with mouse models for cancer. A large reason for this is the collaborative culture that Dr. Hoffman has instilled upon the investigators at AntiCancer. Prior to my position here, I had little experience in the lab and now I am very comfortable with a variety of advanced lab skills. I have also been trained on and have been able to take advantage of the many technological resources at AntiCancer, particularly the Maestro and OV101 small animal imaging devices. I have learned a variety of surgical procedures including subcutaneous tumor implantation for the growth of human cancers in mouse models, as well as orthotopic implantation of tumors directly onto mouse pancreas, liver, and colon for development of various cancer models. I have learned how to inject monoclonal antibody into these mice and use the aforementioned imaging devices to visualize the fluorescence labeling of these tumors.

Dr. Hoffman has been an excellent mentor and his enthusiasm for the science is contagious. His mentorship has been invaluable for me in the development of my scientific curiosity and his feedback is thoughtfully critical and patient. He has helped me extensively with my manuscripts which has no doubt has contributed to their ultimate acceptance. I look forward to spending the next year in the lab to continue my research in fluorescence guided surgery.

Jonathan DeLong

## UNIVERSITY COMMITTEES:

Admissions Committee  
University of California, San Diego  
School of Medicine

1983-1985

Electives Committee  
University of California, San Diego  
School of Medicine

1989-1990

## HONORS AND AWARDS:

Sun Lee Award  
International Society for Experimental Microsurgery

2016

Honorary Professor  
Kanazawa University

2012

Honorary Professor  
Fudan University, Shanghai Medical College  
Shanghai, China

2010

A.N. Belozersky Medal  
Moscow State University

1990

Research Career Development Award  
National Cancer Institute

1982-1987

Fellow of the Leukemia Society of America

1979-1981

Fellow of the Medical Foundation of Boston	1976-1977
United States National Academy of Sciences Exchange Fellowship Shemyakin Institute of Bioorganic Chemistry Moscow, USSR.	1976-1977
Postdoctoral Fellowship Awardee National Institutes of Health	1974, 1976, 1978
National Institutes of Health Postdoctoral Training Grant Fellow Harvard Medical School	1973-1974
Postdoctoral Research Fellow Harvard University	1971-1973
National Institutes of Health Training Grant Predoctoral Fellowship Harvard University	1966-1971
Phi Beta Kappa State University of New York Buffalo, New York	1964

#### **LECTURES AT SCIENTIFIC CONFERENCES:**

International Symposium on "The biochemistry of S-adenosylmethionine as a basis of drug design" Bergen, Norway Lecture entitled "Cancer, methionine and transmethylation."	1985
Federation of American Societies for Experimental Biology Summer Research Conference entitled "Folic acid, B-12, and one-carbon metabolism" Saxtons River, Vermont Lecture entitled "Altered methionine metabolism and transmethylation in human cancer cells."	1986
Gordon Research Conference on Cancer New London, New Hampshire Lecture entitled "Methionine, transmethylation and cancer."	1987
Invited lecturer, Tissue Culture Association Conference Las Vegas, Nevada Lecture entitled "Partitioning of methyl groups in cancer and normal cell types."	1988
Federation of American Societies for Experimental Biology Summer Research Conference Copper Mountain, Colorado Lecture entitled "Cancer, methionine metabolism and transmethylation."	1989
Invited Lecturer, Dae Han Biochemical Society Seoul, Korea Lecture entitled "Altered methionine metabolism, unbalanced global cellular transmethylation and cancer."	1990

Invited Lecturer, Korean Association of Molecular Biology Pusan, Korea Lecture entitled "Rational evaluation and design of cancer drugs. "	1990
Third International Conference of Anticancer Research Marathon, Greece Lecture entitled "The development of clinically relevant <i>in vitro</i> and <i>in vivo</i> preclinical models: Three-dimensional gel-supported <i>in vitro</i> histoculture and orthotopic implantation and metastasis of human tumors in nude mice. "	1990
Invited Lecturer, Regina Elena Cancer Center Rome, Italy Lecture entitled "Patient-like <i>in vitro</i> and <i>in vivo</i> pre-clinical models of human cancer."	1991
Gordon Research Conference on Cancer Chemotherapy New London, New Hampshire Lecture entitled "Orthotopic-transplantation animal models for the identification of new anticancer drugs. "	1992
Fourth International Congress of the Metastasis Research Society Paris, France Lecture entitled "The nude mouse comes to the cancer clinic: Metastatic models of the major cancer types constructed by orthotopic transplantation of histologically-intact patient specimens."	1992
First Congress of the International Society for Experimental Microsurgery Rome, Italy Lecture entitled "Microsurgery, orthotopic human tumor transplantation and the nude mouse: Patent-like metastatic models of human cancer. "	1992
Keystone Symposium on Discovery and Development of Therapeutic Compounds Snowmass, Colorado Session Chairman, Lecture entitled "Orthotopic models for treatment evaluation <i>in vivo</i> using histologically-intact cancer patient specimens."	1993
FASEB Summer Conference Copper Mountain, Colorado Lecture entitled "MetaMouse®: the nude mouse comes to the cancer clinic via orthotopic transplantation of architecturally-intact patient tumors. "	1993
Hellenic Society for Breast Cancer Research, First International Congress Corfu, Greece Lecture entitled "Patient-like cancer models and therapeutics specific for cancer- an approach to the next generation of treatment"	1993
FASEB Summer Conference Copper Mountain, Colorado Lecture entitled "Tissue architecture and metastases"	1994
Japan Society of Human Cell Meeting Toyoma City, Japan Lecture entitled " <i>In vitro</i> drug response assays are clinically useful in cancer"	1995
Hellenic Society for Breast Cancer Research, Second International Congress Kos Island, Greece Lecture entitled "Methioninase (AC9301): A selective antitumor agent with a new mechanism of action."	1995

6th International Congress on Anticancer Treatments Paris, France Lecture entitled “Pilot phase I clinical trial of methioninase: serum depletion of methionine without acute toxicity.”	1996
6th International Congress on Anticancer Treatments Paris, France Lecture entitled “The gelatinase-A Inhibitor CT1746 arrests human colon tumor growth and spread and increases survival in a patient like orthotopic model in nude mice.”	1996
IBC USA Alopecia Conference San Diego, California Lecture entitled “The feasibility of targeted selective gene therapy of the hair follicle.”	1996
Shanghai International Symposium on Liver Cancer & Hepatitis Shanghai, China Lecture entitled “Liver colonization capability governs metastatic potential”	1996
Cambridge Healthtech Institute’s Engineered Animal Models Baltimore, Maryland Lecture entitled “MetaMouse® Models of Cancer: Clinically Relevant Orthotopic Models of Cancer Growth and Metastasis”	1996
Third International Conference of the Asian Clinical Oncology Society (ACOS) Kunming, China Lecture entitled “Taking chemotherapy from random to rational with the histoculture drug response assay”	1996
The International Congress on Human Cell and Cell Culture Tokyo, Japan Lecture entitled “Nutritional regulation of cancer growth by use of methioninase: possible apoptotic cell kill mechanism”	1996
The Sixth International Congress of the Metastasis Research Society Gent, Belgium Lecture entitled “Surgical Orthotopic Implantation (SOI): A new approach to develop clinically-relevant models of human metastatic cancer in immunodeficient rodents”	1996
IBC’s Alopecia Conference Washington, D.C. Lecture entitled “Hair Follicle Targeting of Large and Small Molecules with Topical Liposomes”	1996
First Panhellenic Congress of Tumors Markers with International Participation Athens, Greece Lecture entitled “Methionine dependence as a Possible Universal Therapeutic Tumor Marker”	1996
Seventh International Congress on Anticancer Treatment (SOMPS) Paris, France Lecture entitled “R-Methioninase as a potential universal apoptotic antitumor agent”	1997
Seventh International Congress on Anticancer Treatment (SOMPS) Paris, France Lecture entitled “Acquisition of broad range multidrug resistance in recurrent	1997

breast cancer”

IBC's Drug Discovery Approaches to Cosmeceuticals Conference East Rutherford, NJ Lecture entitled “Hair producing histoculture skin for the discovery of a new generation of hair follicle targeted cosmeceuticals and therapeutics	1997
30th Annual Meeting of the Japanese Research Society for Appropriate Cancer Chemotherapy Tokyo, Japan Lecture entitled “Histoculture Drug Response Assay”	1997
IBC's Delivery Technologies for Cosmetic Ingredients Conference Philadelphia, PA Lecture entitled “Cosmetic and therapeutic molecules targeted to hair follicles by topical liposomal application”	1997
6th Hellenic Congress on Senology and the 3rd International Congress of the Hellenic Society for Breast Cancer Research Alexandroupolis, Greece Lecture entitled “Cachexia in breast cancer and elevated amino-acid requirements of tumors: Selective biological targets for therapy”	1997
FASEB Summer Research Conference on Biological Methylation Saxtons River, Vermont Lecture entitled “Alterations in methionine dependence and transmethylation in cancer: methioninase for therapy”	1997
3 <sup>rd</sup> International Symposium on Polymer Therapeutics London, England Lecture entitled “Polyethylene glycol conjugation of recombinant methioninase for cancer therapy”	1998
8 <sup>th</sup> International Congress on Anti-Cancer Treatment Paris, France Lecture entitled “Polyethylene glycol conjugation of recombinant methioninase for cancer therapy”	1998
Gordon Research Conference on Lasers in Medicine and Biology Meriden, New Hampshire Lecture entitled “Green fluorescent protein: A new light to study metastasis and angiogenesis”	1998
25 <sup>th</sup> Balkan Medical Week Conference Ioannina, Greece Lecture entitled “Methioninase: A new selective cancer therapy”	1998
7 <sup>th</sup> Annual Meeting of the Japanese Association for Metastasis Research Sapporo, Japan Lecture entitled “Green fluorescent protein: A new light to study the role of angiogenesis in metastasis”	1998
SPIE's International Symposium on Biomedical Optics San Jose, CA Lecture entitled “Green fluorescent protein: A new light to visualize metastasis and angiogenesis in cancer”	1999

2 <sup>nd</sup> International Symposium on GFP – The Green Fluorescent Protein San Diego, CA Lecture entitled “Fluorescent optical tumor imaging (FOTI) of human cancers in live nude mice”	1999
4 <sup>th</sup> International Conference of the Asian Clinical Oncology Society (ACOS) Bali, Indonesia Lecture entitled “Individualizing cancer chemotherapy by tumor histoculture”	1999
58 <sup>th</sup> Annual Meeting of the Japanese Cancer Association Hiroshima, Japan Lecture entitled “Orthotopic transplant mouse models with green fluorescent protein-expressing cancer cells to visualize micrometastasis and angiogenesis”	1999
SPIE’s International Symposium on Biomedical Optics San Jose, CA Lecture entitled “External optical imaging of green fluorescent protein-expressing metastatic tumors”	2000
VIII International Congress of the Metastasis Research Society London, UK Lecture entitled “GFP tumor, metastases, and angiogenesis whole-body imaging”	2000
9 <sup>th</sup> Shizuoka Drug Delivery Conference Shizuoka, Japan Lecture entitled “Polyethylene glycol conjugation of recombinant methioninase for cancer therapy”	2000
World Congress on In Vitro Biology San Diego, California Lecture entitled “Individualized cancer chemotherapy by tumor histoculture”	2000
13 <sup>th</sup> International Congress on Photobiology San Francisco, California Lecture entitled “ <i>In vivo</i> high-throughput drug screen with whole-body imaging GFP tumor models”	2000
11 <sup>th</sup> International Symposium for Bioluminescence and Chemiluminescence Monterey, California Lecture entitled “Whole-body optical imaging of green fluorescent protein-expressing tumors”	2000
3 <sup>rd</sup> International Symposium on Minimal Residual Cancer Hamburg, Germany Lecture entitled “Mouse Models: Whole-body and intra-vital fluorescence imaging of minimal residual disease, tumor growth and progression”	2001
54 <sup>th</sup> Annual Cancer Symposium of the Society of Surgical Oncology Washington, DC Lecture entitled “Visualizing gene expression by whole-body fluorescence imaging”	2001
Asan Medical Center, Dept. of General Surgery and Div. Of Hematology/Oncol. Seoul, Korea Special Lecture entitled “The clinical significance of HistoCulture Drug Response Assay (HDRA) in solid tumors”	2001

92 <sup>nd</sup> Annual American Association for Cancer Research Annual Meeting Educational Session 7 – Approaches in Drug Development and Toxicology New Orleans, Louisiana Lecture entitled “Whole-body fluorescence imaging of GFP of tumor growth, Metastasis, angiogenesis and gene expression”	2001
NCI Mouse Models of Human Cancers Consortium Preclinical Trials Meeting Bethesda, MD Lecture entitled “ <i>In vivo</i> imaging”	2001
NIH Mouse Models of Mammary Cancer Consortium Meeting Bethesda, MD Lecture entitled “Whole-body fluorescence imaging with GFP of tumor growth, metastasis, angiogenesis and gene expression”	2001
62 <sup>nd</sup> Annual Meeting of the Society of Investigative Dermatology Washington, DC Oral Presentation “Gene therapy of growing hair shafts”	2001
NCI Mouse Models of Human Cancers Consortium Lung Cancer Workshop Boston, MA Lecture entitled “GFP imaging of lung tumors in nude mice”	2001
29 <sup>th</sup> Annual Meeting of the American Society for Photobiology Chicago, IL Lecture entitled “Real-time whole-body fluorescence imaging of bacterial infection”	2001
NCI Preclinical Angiogenesis Imaging Models Working Group Meeting Washington, DC Lecture entitled “GFP imaging of angiogenesis in mice”	2001
IIR’s 3 <sup>rd</sup> Annual Conference on Angiogenesis: Innovative Science and New Applications Boston, MA Lecture entitled “Whole-body and intravital optical imaging of angiogenesis in orthotopically implanted tumors”	2001
2 <sup>nd</sup> Annual Molecular Imaging Workshop East Lansing, MI Lecture entitled “Whole-body fluorescence imaging with GFP of tumor growth, metastasis, angiogenesis and gene expression”	2001
15 <sup>th</sup> Annual BACT Symposium Nagoya, Japan Lecture entitled “ <i>In vitro</i> chemosensitivity as a predictor of outcome in patients with head and neck cancer”	2001
University of Texas NSF IGERT Program Seminar Austin, TX Lecture entitled “Whole-body imaging of tumors, metastasis, micrometastasis, angiogenesis and gene expression”	2001
Massachusetts General Hospital, Wellman Laboratories of Photomedicine Lecture Series Boston, MA Lecture entitled “Optical imaging with GFP”	2002

Sidney Kimmel Cancer Center Seminar Series San Diego, CA Lecture entitled “Optical imaging with GFP”	2002
SPIE’s BIOS 2002 Symposium – Conference on Functional Imaging and Optical Manipulation of Living Cells and Tissues San Jose, CA Lecture entitled “Fluorescence imaging of angiogenesis in green fluorescent protein-transduced tumors”	2002
European School of Haematology’s Animal Models of Human Disease: Modeling Human Cancers in the Mouse: A Practical Issue Paris, France Lecture entitled “Whole-body fluorescence imaging of tumor growth, micrometastasis, metastasis, angiogenesis and gene expression”	2002
Showa University, Northern Yokohama Hospital Yokohama, Japan Lecture entitled “Green fluorescent protein imaging of cancer”	2002
UCLA Crump/General Electric/LSI Molecular Imaging Seminar Series Los Angeles, CA Lecture entitled “Optical imaging with GFP”	2002
93 <sup>rd</sup> Annual Meeting of the American Association for Cancer Research San Francisco, CA Lecture entitled “Direct external imaging of nascent cancer, tumor progression, angiogenesis, and metastasis on internal organs in the fluorescent orthotopic model”	2002
University of Texas of M.D. Anderson Cancer Center – Dept. of Cancer Biology’s Cancer Metastasis Research Program Seminar Series Houston, TX Lecture entitled “Optical imaging with GFP”	2002
Netherlands Cancer Institute Symposium: In the Footsteps of Antoni Van Leeuwenhoek Amsterdam, Netherlands Lecture entitled “Non-invasive visualization of fluorescent tumors in intact animals”	2002
6 <sup>th</sup> Joint Meeting of the Japan Society of Histochemistry and Cytochemistry and the Histochemical Society Seattle, WA Lecture entitled “Non-invasive visualization of fluorescent tumors in intact animals”	2002
9 <sup>th</sup> Annual Meeting of the European Hair Research Society Brussels, Belgium Lecture entitled “Selective hair follicle targeting”	2002
6 <sup>th</sup> Congress of the International Society for Experimental Microsurgery San Diego, CA Lecture entitled “Direct external imaging of nascent cancer, tumor progression, angiogenesis, and metastasis on internal organs in the fluorescent orthotopic model”	2002
1 <sup>st</sup> Annual Meeting of the Society of Molecular Imaging Boston, MA Lecture entitled “Multi-color imaging with fluorescent proteins”	2002

9 <sup>th</sup> International Congress of the Metastasis Research Society Chicago, IL Lecture entitled “Dual-color imaging of tumors and metastasis in mice”	2002
2 <sup>nd</sup> Petersberg Euroconference Petersberg, Germany Lecture entitled “ <i>In vivo</i> fluorescence resonance energy transfer (FRET) measurement”	2002
Jichi Medical School Jichi, Japan Lecture entitled “Green fluorescent protein imaging of tumor cells <i>in vivo</i> ”	2002
Dana-Farber/Harvard Cancer Center Cancer Cell Biology Program’s Minisymposium on Molecular Imaging Boston, MA Lecture entitled “Dual-color <i>in vivo</i> imaging of cancer”	2002
The Hebrew University of Jerusalem Jerusalem, Israel Lecture entitled “A hair-brain connection: Nestin expressing hair follicle stem cells”	2003
The Hebrew University of Jerusalem Jerusalem, Israel Lecture entitled “Whole-body optical imaging of tumor growth, metastasis and host reaction”	2003
Russian Academy of Sciences, Institute of Gene Biology Moscow, Russia Lecture entitled “ <i>In vivo</i> molecular imaging with fluorescent protein”	2003
M.D. Anderson Cancer Center 1 <sup>st</sup> Course of Molecular Mechanisms in Brain Tumors Montgomery, TX Lecture entitled “Use of green fluorescent protein and red fluorescent protein to follow brain tumors and their therapy <i>in vivo</i> by whole-body imaging”	2003
National Institute of Infectious Diseases Symposia on Bioimaging and Nano-technology Tokyo, Japan Lecture entitled “Imaging analysis of angiogenesis and metastasis of cancer”	2003
Roswell Park Cancer Institute Molecular and Cellular Biophysics Department Special Seminar Buffalo, NY Lecture entitled “Multi-colored imaging of multiple events in tumor progression”	2003
76 <sup>th</sup> Annual Meeting of the Japanese Orthopaedic Association Kanazawa, Japan 1) Lecture entitled “Correlation of green fluorescent protein with standard x-ray in assessing prostate cancer bone lesions in nude mice” 2) Lecture entitled “Multicolor <i>in vivo</i> cellular and molecular imaging with GFP and RFP”	2003
15 <sup>th</sup> Annual Pezcoller Symposium (see <i>Cancer Research</i> <b>64</b> , 2929-2933, 2004) Rovereto, Italy Lecture entitled “Real-time visualization of cancer cellular and molecular biology in the intact animal”	2003

Tumor Biology Center at the University of Freiburg's Symposium on Novel Approaches for the Discovery of Anticancer Agents. Freiburg, Germany Lecture entitled "Imaging tumor progression <i>in vivo</i> "	2003
Dedication of Dong Fang Hospice in honor of founder Professor Jia Xi Li and in memory Of former Minister of Health Minzhang Chen Beijing, P.R. China Lecture entitled "Drug evaluation in pancreatic cancer MetaMouse"	2003
4 <sup>th</sup> International Symposium on Minimal Residual Cancer Oslo, Norway Lecture entitled "Visualizing live tumor cells interacting with host cells color-Coded with green fluorescent protein and red fluorescent protein"	2003
SPIE's BIOS 2004 Symposium – Genetically engineered and optical probes for biomedical applications II: Genetically engineered fluorescent proteins and bioluminescent probes. San Jose, CA Lecture entitled "Dual-color imaging of tumor host interaction with GFP and RFP"	2004
26 <sup>th</sup> Annual University of California of San Diego Assembly in Surgery San Diego, CA Lecture entitled "Dual-color fluorescence imaging of tumor-host interaction with green and red fluorescent proteins"	2004
Pfizer and Howard Hughes Medical Institute Seminar Series at Connecticut College New London, CT Lecture entitled "Multi-color <i>in vivo</i> imaging: The new cell biology"	2004
95 <sup>th</sup> American Association for Cancer Research Annual Meeting – "Meet-the-Expert" Sunrise Session Orlando, FL Lecture entitled "Imaging of animal models with GFP"	2004
Kyoto University Graduate School of Medicine, Department of Pharmacology Kyoto, Japan Lecture entitled " <i>In vivo</i> imaging with fluorescent proteins"	2004
13 <sup>th</sup> Annual Meeting of the Japanese Association for Metastasis Research Tokyo, Japan Lecture entitled " <i>In vivo</i> imaging with fluorescent proteins"	2004
Mouse Workshop at Murinus GmbH Hamburg, Germany Lecture entitled "Multi-color fluorescence imaging <i>in vivo</i> : The new cell biology"	2004
4 <sup>th</sup> Intercontinental Meeting of the Hair Research Societies Berlin, Germany Lecture entitled "Potential of nestin-expressing hair-follicle stem cells to form neurons and blood vessels"	2004
32 <sup>nd</sup> Annual Meeting of the American Society for Photobiology Seattle, WA Lecture entitled "Multi-color <i>in vivo</i> imaging with fluorescent proteins"	2004

12 <sup>th</sup> International Congress of the Histochemistry and Cytochemistry San Diego, CA Lecture entitled “Rainbow imaging <i>in vivo</i> ”	2004
University of Washington’s Friday Harbor Laboratories Centennial Celebration - Calcium-Regulated Photoproteins and Green Fluorescent Proteins Friday Harbor, WA Lecture entitled “Imaging cell biology <i>in vivo</i> with fluorescent proteins”	2004
42 <sup>nd</sup> Annual Meeting of the Japan Society of Clinical Oncology Kyoto, Japan Lecture entitled “Multicolor imaging of tumor growth, metastasis and angiogenesis <i>in vivo</i> ”	2004
19 <sup>th</sup> Annual Meeting of the International Society for Biological Therapy of Cancer Primer on Biological Therapy of Cancer San Francisco, CA Lecture entitled “Rainbow imaging: Cell biology <i>in vivo</i> ”	2004
Florescent Proteins in Drug Development <i>In Vivo</i> Molecular Imaging Cambridge Healthtech Institute La Jolla, California Lecture entitled “ <i>In Vivo</i> imaging with green fluorescent proteins”	2004
19 <sup>th</sup> World Congress of International Society for Digestive Surgery Yokohama, Japan Lecture entitled: “ <i>In Vivo</i> imaging with fluorescent proteins: the new cell biology”	2004
European Molecular Biology Organizations’ Course on Light Microscopy Life Specimens in collaboration with the National University of Singapore, the Institute of Molecular Cell Biology, and the Institute of Bio and Nanotechnology Singapore Lecture entitled “ <i>In vivo</i> imaging with fluorescent proteins: the new cell biology”	2005
SPIE’s BIOS 2005 Symposium – Genetically engineered and optical probes for biomedical applications III. San Jose, CA Lecture entitled “ <i>In vivo</i> imaging with fluorescent proteins: the new cell biology”	2005
Biophysical Society 49 <sup>th</sup> Annual Meeting Long Beach, CA Lecture entitled “Imaging with fluorescent proteins <i>in vivo</i> , the new cell biology”	2005
University of Texas NSF IGERT Program Seminar Austin, TX Lecture entitled “ <i>In vivo</i> imaging with multi-color fluorescent proteins: The new cell biology”	2005
4 <sup>th</sup> Conference on Hyperhomocysteinemia Saarbrucken, Germany Lecture entitled “Use of methionine-homocysteine, $\alpha$ , $\gamma$ -lyases to develop an <i>in vitro</i> Enzymatic diagnostics panel for homocysteine, cysteine, methionine and vitamin B <sub>6</sub> .”	2005
Joint Congress of the Histochemical Society and the Society for Histochemistry Noordwijkerhout, The Netherlands Lecture entitled “Multi-color imaging of the multiple events of tumor progression in real-time”	2005

66 <sup>th</sup> Annual Meeting of the Society of Investigative Dermatology St. Louis, MO Lecture entitled “Nestin-positive, keratin-15-negative primitive stem cells in the hair follicle capable of forming multiple types of non-hair-follicle cells”	2005
14 <sup>th</sup> Annual Meeting of the Japanese Association for Metastasis Research Osaka, Japan Lecture entitled “Multi-color imaging of the multiple events of tumor progression in real-time”	2005
University of Texas, MD Anderson Cancer, Science Park-Research Division, Virginia Harris Cockrell Cancer Research Institute Lecture entitled “Multi-color imaging of the multiple events of tumor progression in real time”	2005
1 <sup>st</sup> International Tübingen-Symposium on Pediatric Solid Tumors Tübingen, Germany Lecture entitled “Dual-color labeling and fluorescent imaging for <i>in vivo</i> visualization of cytoplasmic and nuclear dynamics of cancer cell migration”	2005
63 <sup>rd</sup> Annual Meeting of the Microscopy Society of America- Microscopy and Microanalysis 2005 Honolulu, HI Lecture entitled “Multi-color <i>in vivo</i> imaging with fluorescent proteins: The new cell biology”	2005
10 <sup>th</sup> Anniversary Drug Discovery Technology and Development Conference Boston, MA Lecture entitled “ <i>In vivo</i> imaging of tissues, cells, organelles, trafficking and gene expression with multicolor fluorescent proteins in real-time”	2005
Stem Cell Research: A Technology with the Promise to Contribute to All of Medicine Cambridge Healthtech Institute Lecture entitled “Hair follicle nestin-expressing stem cells can form neurons”	2005
5 <sup>th</sup> International Symposium on Minimal Residual Cancer San Francisco, CA Lecture entitled “Multi-color subcellular imaging of cancer cell dynamics in live animals”	2005
43 <sup>rd</sup> Annual Meeting of the Japan Society of Clinical Oncology Sapporo, Japan Lecture entitled “Visualizing the <i>in vivo</i> cell biology of metastasis in real time”	2005
35 <sup>th</sup> Annual European Society for Dermatological Research Tübingen, Germany Lecture entitled “Multi-potent nestin-positive keratin-negative hair-follicle bulge stem cells can form neurons”	2005
Eisai Oncology Area Committee Meeting Boston, MA Lecture entitled “Orthotopic transplantation models and GFP imaging”	2005
13 <sup>th</sup> Annual Meeting of the Society for Hair Science Research Tokyo, Japan Lecture entitled “Implanted hair follicle stem cells form Schwann cells which support repair of severed nerves and spinal cord”	2005
SPIE’s BIOS 2006 Symposium – Genetically engineered and optical probes for biomedical applications. San Jose, CA	2006

Lecture entitled "Multi-color imaging with fluorescent proteins in mice"

Cambridge Healthtech Institute's 13<sup>th</sup> International Molecular Medicine Tri-Conference  
San Francisco, CA

2006

Lecture entitled "Orthotopic Metastatic Mouse Models: the Bridge Linking  
Preclinical and Clinical Development"

9<sup>th</sup> Annual Meeting of the American Society for Gene Therapy

2006

Baltimore, MD

Lecture entitled "Metastatic disease in cancer"

47<sup>th</sup> Annual Meeting of the Japanese Society of Clinical Cytology

2006

Yokohama, Japan

Lecture entitled "Real time multi-color subcellular imaging in mice"

Genomics and Cancer 2006 – German Cancer Research Center (DKFZ)

2006

Heidelberg, Germany

Lecture entitled "*Salmonella typhimurium* amino acid auxotrophs selectively target  
metastatic prostate and breast tumors"

FEBS Advanced Course: From Functional Genomics to Molecular Proteomics

2006

Yerevan, Armenia

Lecture entitled "Tri-color whole-body cellular imaging of tumor-stroma interaction and  
drug response in live mice"

21<sup>st</sup> Century COE Colloquium: Animal Models of Cancer Research – Kyoto University

2006

Kyoto, Japan

Lecture entitled "Development of the new field of in vivo cell biology with multi-color  
fluorescent proteins"

Dynamic Microscopy 2006

2006

Würzburg, Germany

Lecture entitled "Whole-body subcellular imaging in the live animals"

18<sup>th</sup> Annual Meeting of the Korean Society for Molecular and Cellular Biology

2006

Seoul, Korea

Lecture entitled "Subcellular imaging in living mice: The new cell biology"

2006 Hwasun Optical Imaging Workshop & Symposium

2006

Seoul, Korea

Lecture entitled "Targeted therapy with a *Salmonella typhimurium* Leucine-Arginine  
auxotroph cures orthotopic human breast tumors in nude mice"

14<sup>th</sup> Symposium on Bioluminescence and Chemiluminescence

2006

San Diego, CA

Lecture entitled "Subcellular imaging in vivo: The new cell biology"

Cambridge Healthtech Institute's 3<sup>rd</sup> Annual Fluorescent Proteins in Drug Development

2006

La Jolla, California

Lecture entitled "Whole-body subcellular imaging in the live mouse"

International Symposia for Bioimaging

2006

Kyoto, Japan

Lecture entitled "Subcellular imaging in vivo: The new cell biology"

Joint Meeting of the 3<sup>rd</sup> ISC International Conference on Cancer Therapeutics and the  
11<sup>th</sup> International Symposium on Cancer Chemotherapy

2006

Tokyo, Japan Lecture entitled "The use of fluorescent proteins imaging to visualize new cellular and subcellular targets for cancer chemotherapy <i>in vivo</i> "	
SPIE's BIOS 2007 Symposium – Genetically engineered and optical probes for biomedical applications. San Jose, CA Lecture entitled "Tri-color whole-body cellular imaging of tumor-stroma interaction and drug response in live mice"	2007
Keystone Symposium on Imaging Immune Response Keystone, CO Lecture entitled "Tri-color imaging of interaction of the host immune system and tumor Cells in the living mouse"	2007
79 <sup>th</sup> Japanese Gastric Cancer Meeting Nagoya, Japan Lecture entitled "The use of fluorescent protein imaging to visualize new cellular and subcellular targets for cancer chemotherapy <i>in vivo</i> "	2007
3 <sup>rd</sup> International Conference on Stem Cell Research and Therapeutics San Diego, CA Lecture entitled "Multipotency of Hair Follicle Stem Cells to Form Neural Cells"	2007
143 <sup>rd</sup> Meeting of the Japanese Society of Veterinary Medicine Tsukuba City, Japan Lecture entitled "Subcellular imaging <i>in vivo</i> : The new cell biology"	2007
Annual Meeting of the American Society for Investigative Pathology at Experimental Biology 2007 Washington, DC Lecture entitled "Whole-body subcellular multicolor imaging of tumor-host interaction and drug response in real time"	2007
54 <sup>th</sup> Annual Meeting of the Japanese Meeting of Animal Science Tokyo, Japan Lecture entitled "Whole-body subcellular multicolor imaging of tumor-host interaction and drug response in real time"	2007
2007 University of Pennsylvania's In Vivo Optical Imaging Retreat Progress & Clinical Translation Philadelphia, PA Lecture entitled "Multicolor macro and cellular imaging <i>in vivo</i> "	2007
16 <sup>th</sup> Annual Meeting of the Japanese Metastasis Society Toyama City, Japan Lecture entitled "Non-invasive multi-color imaging of cancer and stromal cells in live mice"	2007
Topical Problems of Biophotonics Nizhny Novgorod, Russia Lecture entitled "Multicolor whole-body cellular imaging with fluorescent proteins"	2007
Cedars-Sinai Medical Center, Dept. of Surgery and Minimally Invasive Surgical Technologies Institute, Research Seminar Los Angeles, CA Lecture entitled "The pluripotency and clinical potential for regenerative medicine of hair follicle stem cells"	2007

23 <sup>rd</sup> Japan Human Science Bio-Seminar Tokyo, Japan Lecture entitled “In vivo molecular imaging with fluorescent proteins: a new paradigm for drug discovery”	2007
4 <sup>th</sup> Symposium in Stem Cell Repair and Regeneration London, England Lecture entitled “Multipotency of hair follicle stem cells to form neural cells”	2007
66 <sup>th</sup> Annual Meeting of the Japanese Cancer Association Yokohama, Japan Lecture entitled “Direct targeting of lymph node metastasis with a tumor-selective strain of <i>Salmonella typhimurium</i> ”	2007
SPIE’s BIOS 2008 Symposium – Small Animal Whole-Body Optical Imaging Based on Genetically Engineered Probes. San Jose, CA Lecture entitled “Direct targeting of lymph node metastasis of pancreatic cancer with a tumor-Selective strain of <i>Salmonella typhimurium</i> ”	2008
SPIE’s BIOS 2008 Symposium – Small Animal Whole-Body Optical Imaging Based on Genetically Engineered Probes. San Jose, CA Lecture entitled “Use of GFP for in vivo imaging: Concepts and misconceptions”	2008
SPIE’s BIOS 2008 Symposium – Small Animal Whole-Body Optical Imaging Based on Genetically Engineered Probes. San Jose, CA Lecture entitled “Use of telomerase-specific replication-competent adenovirus expressing GFP (OBP-401) to label tumor cells in vivo for surgical navigation”	2008
SPIE’s BIOS 2008 Symposium – Small Animal Whole-Body Optical Imaging Based on Genetically Engineered Probes. San Jose, CA Lecture entitled “Imaging enhancement of malignancy by cyclophosphamide: Surprising chemotherapy opposite effects”	2008
SPIE’s BIOS 2008 Symposium – Small Animal Whole-Body Optical Imaging Based on Genetically Engineered Probes. San Jose, CA Lecture entitled “Non-invasive in vivo subcellular multicolor imaging of the tumor microenvironment and drug response in real time”	2008
SPIE’s BIOS 2008 Symposium – Small Animal Whole-Body Optical Imaging Based on Genetically Engineered Probes. San Jose, CA Lecture entitled “Multicolor imaging of intra-lymphatic pancreatic-cancer-cell trafficking using red fluorescent protein-labeled cancer cells and green fluorescent protein monoclonal anti-LYVE-1 antibody”	2008
University of British Columbia Life Science Institute Seminar Series Vancouver, BC, Canada Lecture entitled “In vivo molecular imaging with fluorescent proteins: A new paradigm for drug discovery”	2008

31 <sup>st</sup> Postgraduate Assembly in Surgery Conference San Diego, CA Marshall J. Orloff Lecture entitled “Animal models of human cancer: What have we learned?”	2008
Ordway Research Institute Seminar Series Albany, NY Lecture entitled “Color-coded <i>in vivo</i> imaging with fluorescent proteins”	2008
Roswell Park Cancer Institute Pharmacology and Therapeutics Seminar Series Buffalo, NY Lecture entitled “Imaging small animals with fluorescent proteins. The new science of <i>in vivo</i> cell biology”	2008
Korean Society for Molecular Imaging Annual Meeting Seoul, Korea Lecture entitle “Imaging with fluorescent proteins: The new science of <i>in vivo</i> cell biology”	2008
3 <sup>rd</sup> Meeting of the Japanese Society of Molecular Imaging Omiya City, Japan Lecture entitled “Subcellular <i>in vivo</i> imaging: The new cell biology”	2008
3 <sup>rd</sup> Goettingen Meeting on Molecuular and Optical Imaging Bad Sooden-Allendorf, Germany Lecture entitled “Imaging with fluorescent proteins: The new science of <i>in vivo</i> cell biology”	2008
25 <sup>th</sup> Conference of the European Society for Microcirculation Budapest, Hungary Lecture entitled “Dynamic imaging of cancer cells in the microcirculation”	2008
25 <sup>th</sup> Conference of the European Society for Microcirculation Budapest, Hungary Lecture entitled “Measurement of homocysteine microsamples”	2008
1 <sup>st</sup> Advanced Bio-Imaging Workshop at Hawsbury, University of Western Sydney Hawsbury, Australia Lecture entitled “Fluorescent proteins for <i>in vivo</i> imaging of cancer and for anticancer drug discovery”	2008
1 <sup>st</sup> Advanced Bio-Imaging Workshop at Hawsbury, University of Western Sydney Hawsbury, Australia Lecture entitled “Effective cancer treatment using tumor targeting bacteria”	2008
1 <sup>st</sup> Advanced Bio-Imaging Workshop at Hawsbury, University of Western Sydney Hawsbury, Australia Lecture entitled “Subcellular imaging techniques to study tumor-host interactions”	2008
BIO Japan 2008 Yokohama, Japan Lecture entitled “The use of fluorescent proteins for high resolution multiparameter <i>in vivo</i> imaging”	2008
17 <sup>th</sup> Annual Meeting of the Bioimaging Society (Presidential Symposium) Chiba, Japan Lecture entitled “Cellular and subcellular imaging with fluorescent proteins in live mice”	2008
UCSD Moores Cancer Center-Cancer Therapeutics Training Program Lecture Series La Jolla, CA Lecture entitled “The multiple uses of fluorescent proteins to visualize cancer <i>in vivo</i> ”	2008

SPIE's BIOS 2009 Symposium – Fluorescence In Vivo Imaging Based on Genetically-Engineered Probes: From Living Cells to Whole Body Imaging IV San Jose, CA Lecture entitled “Real-time color-coded cellular imaging of interaction between lung metastasis and splenocytes”	2009
SPIE's BIOS 2009 Symposium – Fluorescence In Vivo Imaging Based on Genetically-Engineered Probes: From Living Cells to Whole Body Imaging IV San Jose, CA Lecture entitled “Selective GFP labeling of cancer metastasis in nude mice by the telomerase-specific replication-competent adenovirus expressinog GFP (OBP-401)”	2009
GTCbio's 5 <sup>th</sup> Stem Cell Research and Therapeutics Conference Cambridge, MA Lecture entitled “The pluripotency of hair follicle stem cells to form neurons and other cell types for regenerative medicine”	2009
2 <sup>nd</sup> Pan Pacific Symposium on Stem Cells Research Taichung, Taiwan Lecture entitled “The <i>In Vivo</i> Revolution: The Use of Fluorescent Proteins to Image Cancer and Other Diseases in Mice”	2009
2 <sup>nd</sup> Pan Pacific Symposium on Stem Cells Research Taichung, Taiwan Lecture entitled “The Pluripotency of Hair Follicle Stem Cells and Their Potential Use in Regenerative Medicine”	2009
Japanese Molecular Imaging Meeting Tokyo, Japan Lecture entitled “Imaging with Fluorescent Proteins <i>In Vivo</i> : The New Revolution”	2009
ChineseAcademy of Medical Sciences and the Peking Union Medical College Beijing, China Lecture entitled “The Multiple Uses of Fluorescent Proteins to Visualize Cancer <i>In Vivo</i> ”	2009
The Hebrew University of Jerusalem – Immunology Seminar Jerusalem, Israel Lecture entitled “Imaging with fluorescent proteins – The In Vivo Revolution”	2009
II International Symposium - Topical Problems of Biophotonics Nizhny Novgorod, Russia Lecture entitled “Current Technology for <i>In Vivo</i> Imaging Using Fluorescent Proteins”	2009
36 <sup>th</sup> Congress of the International Union of Physiological Sciences Kyoto, Japan Lecture entitled “Advantages of Hair Follicle Pluripotent Stem (hfPS) Cells over ES and IPS Cells for Regenerative Medicine”	2009
KEIO-LUND (Keio University) Summer School Tokyo, Japan Lecture entitled “Advantages of Hair Follicle Pluripotent Stem (hfPS) Cells over ES and IPS Cells for Regenerative Medicine”	2009
Bio Japan 2009 - World Business Forum Yokohama, Japan Lecture entitled “Whole-Body Subcellular Multicolor Imaging of Tumor-Host Interaction and Drug Response in Real Time”	2009

WE-Heraeus-Seminar on Molecular Imaging Bad Honnef, Germany Lecture entitled “ <i>In Vivo</i> Imaging with Fluorescent Proteins from Macro to Subcellular”	2009
3 <sup>rd</sup> Advances in Stem Cell Discovery & Development San Diego, CA Lecture entitled “Human hair follicle pluripotent stem (hfPS) cells promote regeneration of peripheral-nerve injury: An advantageous alternative to ES and iPS cells”	2009
The 4 <sup>th</sup> International Forum on Laboratory Animal Sci-Tech and The 7 <sup>th</sup> Annual Conference on Laboratory Animal Sci-Tech of North China Beijing, China Lecture entitled “ <i>In Vivo</i> Imaging with Fluorescent Proteins from Macro to Subcellular”	2009
Medical Materials in Taiwan Forum Kaoshiung, Taiwan Lecture entitled “ <i>In Vivo</i> Imaging with Fluorescent Proteins from Macro to Subcellular”	2009
Medical Materials in Taiwan Forum Kaoshiung, Taiwan Lecture entitled “The Successful Story of AntiCancer Inc.”	2009
National Animal Laboratory Center Taipei, Taiwan Lecture entitled “The <i>In Vivo</i> Revolution: The Use of Fluorescent Proteins to Image Cancer and Other Diseases in Mouse Models in Real Time”	2009
35 <sup>th</sup> Annual Meeting of the Taiwanese Dermatological Association Kaohsiung, Taiwan Lecture entitled “Human Hair Follicle Pluripotent Stem (hfPS) Cells for Regenerative Medicine: An Advantageous Alternative to ES and iPS Cells”	2009
Kyushu University (Department of Dermatology) Fukuoka, Japan Lecture entitled “Human Hair Follicle Pluripotent Stem (hfPS) Cells for Regenerative Medicine: An Advantageous Alternative to ES and iPS Cells”	2009
UV Bio-Imaging International Sales Meeting Bangkok, Thailand Lecture entitled “Fluorescent protein <i>in vivo</i> imaging”	2010
DFG-Excellence Academy of Molecular Imaging Aachen, Germany Lecture entitled “ <i>In vivo</i> imaging with fluorescent proteins from macro to subcellular”	2010
6 <sup>th</sup> Annual Stem Cell Research and Therapeutics Conference Boston, MA Lecture entitled “Direct transplantation of uncultured hair follicle pluripotent stem (hfPS) cells promotes the recovery of peripheral nerve”	2010
9 <sup>th</sup> International Conference of the Asian Clinical Oncology Society Gifu, Japan Lecture entitled “The multiple uses of fluorescent proteins to visualize cancer <i>in vivo</i> ”	2011
Japanese National Cancer Center Research Institute Tokyo, Japan Lecture entitled “The GFP revolution <i>in vivo</i> ”	2011

Bio-Japan Yokohama, Japan Lecture entitled “The multiple uses of fluorescen proteins to visualize cancer in vivo”	2010
22 <sup>nd</sup> Annual Meeting of the Korean Society for Molecular and Cellular Biology Seoul, Korea Lecture entitled “The use of fluorescent proteins for cellular and subcellular imaging in live mice”	2011
Idibell Cancer Conferences (ICC) on Mouse Models of Cancer Barcelona, Spain Lecture entitled “Orthotopic metastatic mouse models expressing fluorescent proteins for imaging metastasis at the macro and cellular level in real time”	2011
4 <sup>th</sup> Advances in Stem Cell Discovery and Development Conference San Francisco, CA Lecture entitled “Nestin-expressing cells from the dermal papilla and bulge area in the mouse vibrissa can equally repair spinal cord injury”	2011
2 <sup>nd</sup> Annual General Surgery Update Las Vegas, NV Lecture entitled “Animal models of human cancer – what have we learned?”	2011
74 <sup>th</sup> Annual Meeting of the Japanese Dermatological Assocation Tokyo, Japan Lecture entitled “In vivo imaging of dynamics of tumor growth, metastasis and angiogenesis”	2011
Annual Meeting of the Society for Investigative Dermatology Phoenix, AZ Lecture entitled “The bulge area is the major hair follicle source of nestin-expressing cells which can repair the spinal cord compared to the dermal papilla”	2011
6 <sup>th</sup> Workshop on Advanced Multiphoton & Fluorescence Lifetime Imaging Techniques (FLIM) Saarbrücken, Germany Lecture entitled “The multiple uses of fluorescen proteins to visualize cancer in vivo”	2011
7 <sup>th</sup> Triennial International Union of Pure and Applied Physics La Jolla, CA Lecture entitled “The multiple uses of fluorescen proteins to visualize cancer in vivo”	2011
15 <sup>th</sup> Annual Meeting of the European Hair Research Society Jerusalem, Israel Lecture entitled “The bulge area is the major hair follicle source of nestin-expressing pluripotent stem cells”	2011
III International Symposium on Topical Problems of Biophotonics Nizhny Novgorod, Russia Lecture entitled “Imaging the in vivo cell biology of cancer”	2011
21 <sup>st</sup> International Pigment Cell Conference Bordeaux, France Lecture entitled “Hair follicle pluripotent stsem (hfPS) cells for regenerative medicine: an advantageous alternative to ES and iPS cells”	2011
Dong Fang Hospital Beijing, China Lecture entitled “Fluorescence imaging and orthotopic models to evaluate TCM and metastatic	2012

effects of liver resection”

McGill-CIHR DDTP Retreat 2012

2012

Montreal, Canada

Lecture entitled “The multiple uses of fluorescent proteins to visualize cancer in vivo”

1<sup>st</sup> Annual International Meeting of the Society of Molecular Imaging of Thailand:

2012

From Preclinical to Clinical Application

Bangkok, Thailand

Lecture entitled “Imaging cancer cell-killing by tumor –targeting bacteria”

72<sup>nd</sup> Annual Meeting of the Society of Investigative Dermatology

2012

Raleigh, NC

Lecture entitled “Nestin-expressing multipotent stem cells originate in the bulge of the hair follicle and migrate to the dermal papilla”

27<sup>th</sup> Annual Meeting of the Academy of Pharmaceutical Science and Technology

2012

Kobe, Japan

Lecture entitled “In vivo imaging with fluorescent proteins”

7<sup>th</sup> Workshop on Advanced Multiphoton and Fluorescence Lifetime Imaging Techniques

2012

Saarbrücken, Germany

Lecture entitled “Imaging cancer dynamics in vivo at the tumor and cellular level with fluorescent proteins”

21<sup>st</sup> Annual Meeting of the Japanese Association for Metastasis Research

2012

Hiroshima, Japan

Lecture entitled “Do exosomes form a pre-metastatic niche”

10<sup>th</sup> Annual Meeting of the Japanese Society for Medical Oncology

2012

Osaka, Japan

Lecture entitled “Making patient tumors glow in nude mice by coloring the stroma with fluorescent proteins”

RIKEN Center for Molecular Imaging Science Japan

2012

Osaka, Japan

Lecture entitled “In vivo imaging from macro to subcellular with multiple colors of fluorescent proteins”

14<sup>th</sup> International Congress of Histochemistry and Cytochemistry

Kyoto, Japan

Lecture entitled “The multiple uses of fluorescent proteins to visualize cancer in vivo”

14<sup>th</sup> Biennial Congress of the Metastasis Research Society

2012

Brisbane, Australia

Lecture entitled “Modeling and visualizing metastasis”

7<sup>th</sup> Chinese Conference on Oncology

2012

Beijing, China

Lecture entitled “Major liver resection stimulates stromal recruitment and metastasis compared with repeated minor resection”

UCSD Surgery Grand Rounds

2012

La Jolla, CA

Lecture entitled “Fluorescence-guided surgery”

International Symposium on Pancreas Cancer 2012

2012

Kyoto, Japan

Lecture entitled “Imageable orthotopic nude mouse models of patient pancreatic cancer specimens for identifying improved individualized therapy”

Kitasato University Kanagawa, Japan Lecture entitled “The roles of nestin-expressing multipotent stem cells in the hair follicle”	2012
37 <sup>th</sup> Annual Meeting of the Japanese Society for Investigative Dermatology Okinawa, Japan Lecture entitled “Nestin-expressing stem cells form the whisker sensory nerve in 3D Gelfoam histoculture”	2012
9 <sup>th</sup> Hwasun Optical Imaging Workshop and Symposium and the 2 <sup>nd</sup> Symposium for Bacteria-Mediated Cancer Therapy Gwangju, South Korea Lecture entitled “Tumor targeting <i>Salmonella</i> amino acid auxotrophs”	2012
Shanghai Medical College, Fudan University Shanghai, China Lecture entitled “Tumor-targeting <i>Salmonella</i> -mediated anticancer therapy”	2012
2 <sup>nd</sup> Military Medical University Shanghai, China Lecture entitled “Nestin-expressing stem cells form the whisker sensory nerve in 3D Gelfoam histoculture”	2012
7 <sup>th</sup> World Congress for Hair Research Edinburgh, Scotland Lecture entitled “The role of nestin-expressing stem cells in formation of the hair follicle sensory nerve”	2013
Korean Cancer Association Annual Meeting Seoul, Korea Lecture entitled “Orthotopic imageable tumorgrafts for personalized optimal cancer therapy and drug discovery”	2013
19 <sup>th</sup> Annual Meeting of the Japanese Society for Gene Therapy Okayama, Japan Lecture entitled “Glowing tumors make for better detection and resection”	2013
72 <sup>nd</sup> Annual Meeting of the Japanese Cancer Association Yokohama, Japan Lecture entitled “Comparison of <i>Salmonella typhimurium</i> A1-R and chemotherapy of human-patient pancreatic tumorgrafts”	2013
72 <sup>nd</sup> Annual Meeting of the Japanese Cancer Association Yokohama, Japan Lecture entitled “Invasive cancer cells are not cycling”	2013
72 <sup>nd</sup> Annual Meeting of the Japanese Cancer Association Yokohama, Japan Lecture entitled “Bacterial targeting of brain metastasis”	2013
Shanghai Medical College, Fudan University Shanghai, China Lecture entitled “The multiple uses of fluorescent proteins to visualized cancer in vivo”	2014
2 <sup>nd</sup> Military Medical University Shanghai, China Lecture entitled “Nestin-expressing multipotent hair follicle stem cells for regenerative medicine”	2014

The 12 <sup>th</sup> Congress of the Intl. Society for Experimental Microsurgery Kyoto, Japan	2014
Lecture entitled "Fluorescence-guided surgery followed by UVC irradiation eradicates macro and microscopic cancer resulting in complete responses of pancreatic cancer in orthotopic mouse models"	
UCLA Tumor Board Los Angeles, California	2014
Lecture entitled "Patient-derived orthotopic xenograft (PDOX): Clinically-relevant mouse models for individualized cancer therapy"	
ASAN Hospital, Hepatobiliary Division Seoul, Korea	2014
Lecture entitled "The advantages of the PDOX model over the PDX model"	
Lecture entitled "The multiple uses of fluorescent proteins to visualize cancer in vivo"	
ASAN Medical Center Seoul, Korea	2014
Lecture entitled "The multiple uses of fluorescent proteins to visualized cancer in vivo"	
40 <sup>th</sup> Annual Meeting of the Korean Cancer Association Seoul, Korea	2014
Lecture entitled "Patient-derived orthotopic xenograft (PDOX) nude mouse metastatic model of cervical cancer"	
23 <sup>rd</sup> Annual Meeting of the Japanese Association for Metastasis Research Kanazawa, Japan	2014
Lecture entitled "Real-time FUCCI imaging of cell cycle phase of each cell in tumors demonstrates why cancer chemotherapy is not effective in solid cancers"	
Lecture entitled "Combination with fluorescence-guided surgery and neoadjuvant chemotherapy on a Pancreatic cancer patient derived orthotopic xenograft (PDOX)"	
12 <sup>th</sup> Annual Meeting of the Japanese Society of Medical Oncology Fukuoka, Japan	2014
Lecture entitled "Pancreatic cancer patient derived orthotopic xenograft (PDOX) cured by fluorescence-guided surgery followed by UVC"	
Lecture entitled "Real-time color coded imaging of cell cycle phase demonstrates why invasive metastatic cancer cells are drug resistant"	
Kanazawa University Kanazawa, Japan	2014
Lecture entitled "Patient-derived orthotopic xenograft (PDOX) nude mouse metastatic model of cervical cancer"	
73 <sup>rd</sup> Annual Meeting of the Japanese Cancer Association Yokohama, Japan	2014
Lecture entitled "Intravital in vivo FUCCI imaging demonstrates locational dependence of proliferation of cancer cells within tumors:	
Lecture entitled "FUCCI imaging demonstrates invading cancer cells are mostly in G <sub>0</sub> /G <sub>1</sub> and resist cytotoxic chemotherapy"	
University of Auckland Auckland, New Zealand	2014
Lecture entitled "Orthotopic metastatic mouse models for anticancer drug discovery and evaluation: A bridge to the clinic"	

9 <sup>th</sup> Intl. Conference of Anticancer Research Sithonia, Greece Lecture entitled “Cell cycle decoy with <i>Salmonella typhimurium</i> A1-R to convert tumors from chemo-Resistant to sensitive”	2014
Sarcoma Oncology Center Santa Monica, California Lecture entitled “Patient-derived orthotopic xenograft (PDOX) for individualized treatment and drug discovery and a new general paradigm of cancer chemotherapy which overcomes drug resistance of metastatic cancer”	2015
Wako Pure Chemical Osaka, Japan Lecture entitled “The multiple uses of fluorescent proteins to visualize cancer in vivo”	2015
San Diego State University – Biomedical Technology Students Association San Diego, CA Lecture entitled “The multiple uses of fluorescent proteins to visualize cancer in vivo”	2015
Hoag Family Cancer Center Newport, CA Lecture entitled “Patient-derived orthotopic xenograft (PDOX) for individualized treatment and drug discovery”	2015
7 <sup>th</sup> Intl. Conference on Tumor Microenvironment: Progression, Therapy & Prevention Tel Aviv, Israel Lecture entitled “Highly-effective fluorescence-guided surgery enabled by color-coded cancer cells and the tumor microenvironment with genetic reporters in a patient-derived orthotopic xenograft (PDOX) model of pancreatic cancer”	2015
American Associate for Pharmaceutical Scientists – State-of-the-Art Symposium Orlando, FL Lecture entitled “Color-coded macro, cellular and subcellular in vivo imaging for cancer drug discovery”	2015
5 <sup>th</sup> China Green New Medical Technology Forum Fuzhou, Fujian Province, China Lecture entitled “Patient-derived orthotopic xenograft (PDOX) for individualized treatment and drug discovery”	2015
Eisai Co. Ltd. Tokyo, Japan Lecture entitled “The multiple uses of fluorescent proteins to visualize cancer in vivo”	2016
Kyowa Hakko Eisai Co. Ltd. Tokyo, Japan Lecture entitled “The multiple uses of fluorescent proteins to visualize cancer in vivo”	2016
Oriental Yeast Co. Ltd. Tokyo, Japan Lecture entitled “The multiple uses of fluorescent proteins to visualize cancer in vivo”	2016
Takeda Shodan Tokyo, Japan Lecture entitled “The multiple uses of fluorescent proteins to visualize cancer in vivo”	2016

23 <sup>rd</sup> Annual Molecular Medicine Tri-Conference San Francisco, CA Lecture entitled “Orthotopic mouse models of cancer and GFP labeling for the study of circulating tumor cells”	2016
14 <sup>th</sup> Sino-American Biotechnology and Pharmaceutical Professional Association La Jolla, CA Lecture entitled “Patient-derived orthotopic xenografts (PDOX): better mimic of the patient than subcutaneous xenografts”	2016
Oriental Yeast Co. Symposium Tokyo, Japan Lecture entitled “The multiple uses of fluorescent proteins to visualize cancer in vivo”	2016
13 <sup>th</sup> Intl. Congress of the International Society for Experimental Microsurgery Tianjin, China Lecture entitled “Comparison at the cellular level of tumor metastatic behavior after orthotopic cellular or microsurgical tissue implantation”	2016
13 <sup>th</sup> Intl. Congress of the International Society for Experimental Microsurgery Tianjin, China Lecture entitled “Microsurgery for establishing clinically-relevant mouse models of cancer”	2016
16 <sup>th</sup> Biennial Conference of the Metastasis Research Society (MRS) & the 12 <sup>th</sup> National Congress of the Chinese Society of Tumor Metastasis (ChMRS) Chengdu, China Lecture entitled “Patient-derived orthotopic xenografts (PDOX) mimic the metastatic pattern of cancer patients unlike subcutaneous xenografts due to fundamental differences in cellular and molecular behavior”	2016
10 <sup>th</sup> Anniversary of the Founding of the Chinese Association of Life Care Beijing, China Lecture entitled “Patient-derived orthotopic xenografts (PDOX) mimic the metastatic pattern of cancer patients unlike subcutaneous xenografts due to fundamental differences in cellular and molecular behavior”	2016
Jagiellonian Centre for Experimental Therapeutics (JCET) Krakow, Poland Lecture entitled “The multiple uses of fluorescent proteins to visualize cancer in vivo”	2016
Jagiellonian Centre for Experimental Therapeutics (JCET) Krakow, Poland Lecture entitled “Patient-derived orthotopic xenografts (PDOX) mimic the metastatic pattern of cancer patients unlike subcutaneous xenografts due to fundamental differences in cellular and molecular behavior”	2016
3 <sup>rd</sup> Conference on Aneuploidy and Cancer: Clinical and Experimental Analysis Berkeley, CA Lecture entitled “On the generation of cancer”	2017
CIEA Tokyo, Japan Lecture entitled “Patient-derived orthotopic xenografts (PDOX) mouse models of cancer”	2017
Kan Research Institute Tokyo, Japan Lecture entitled “Pancreatic cancer imageable patient-derived orthotopic xenografts (iPDOX)”	2017

NCI Microbial-Based Cancer Therapy Bethesda, MD Lecture entitled “Tumor-targeting <i>Salmonella typhurium</i> A1-R”	2017
NCI Microbial-Based Cancer Therapy Bethesda, MD Lecture entitled “Microbial-based cancer therapy”	2017
Yamaha Motor Co. Ltd. Tokyo, Japan Lecture entitled “The HistoCulture Drug Response Assay”	2017
19 <sup>th</sup> Intl. Society of Limb Salvage General Meeting Kanazawa, Japan Lecture entitled “Patient-derived orthotopic xenografts (PDOX) mouse models of sarcoma for precise individualized therapy”	2017
Asan Pancreatic Cancer Symposium 2017 of KAHBPS, Asan Medical Center Seoul, Korea Lecture entitled “Patient-derived orthotopic xenografts (PDOX)”	2017
Cancer Therapeutics Training (CT <sup>2</sup> ) Program, UCSD Moores Cancer Center La Jolla, CA Lecture entitled “Patient-derived orthotopic xenografts (PDOX) for precision individualized cancer treatment”	2017
30 <sup>th</sup> Annual Research Meeting of the Japanese Orthopaedic Association Okinawa, Japan Lecture entitled “Patient-derived orthotopic xenografts (PDOX)”	2017
10 <sup>th</sup> World Congress for Hair Research Kyoto, Japan Lecture entitled “Hair-follicle-associated pluripotent (HAP) stem cells”	2017
Tsukuba Research Laboratories, Eisai Co. Ltd. Tokyo, Japan Lecture entitled “Patient-derived orthotopic xenografts (PDOX)”	2017
New Business Development Center, Yamaha Motor Co. Ltd. Shizuoka, Japan Lecture entitled “The HistoCulture Drug Response Assay”	2017
UCLA LA BioMed President’s Lecture Series Los Angeles, CA Lecture entitled “Tumor-targeting <i>Salmonella typhurium</i> A1-R”	2018
Japan National Cancer Center PDX meeting Tokyo, Japan Lead lecture: The PDOX model	2018
International Society Experimental Microsurgery Society Debrecen, Hungary Only Plenary Lecture: The PDOX model	2018

Chinese Society of Precision Medicine Meeting  
Beijing  
Honorary Chairman's Lecture  
40 Years Research in Precision Medicine

2018

**Publications of Robert M. Hoffman**  
**Total citations: 52,025 (h-index=115) (h-10-index=696)**

1. Hoffman, R.M., and Raper, J.R. Genetic restriction of energy conservation in *Schizophyllum*. *Science* **171**, 418-419, 1971.
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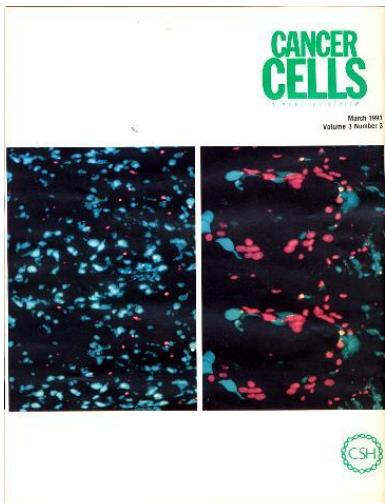
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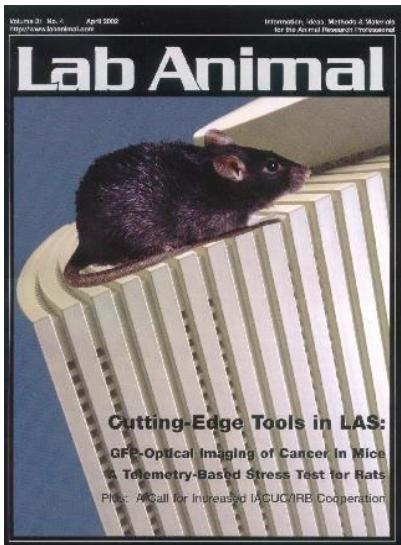
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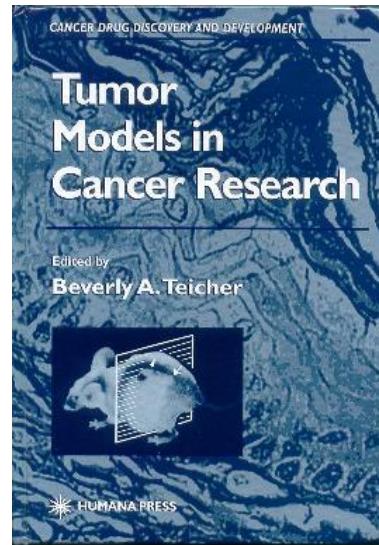
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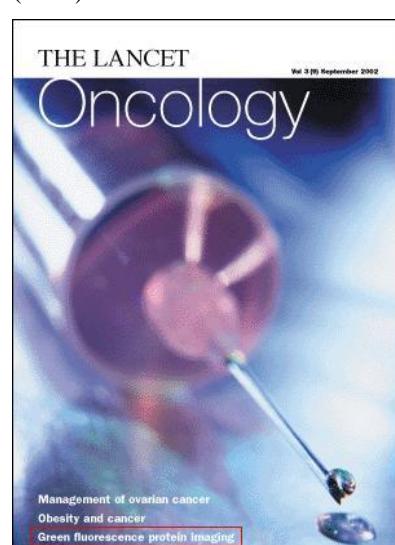
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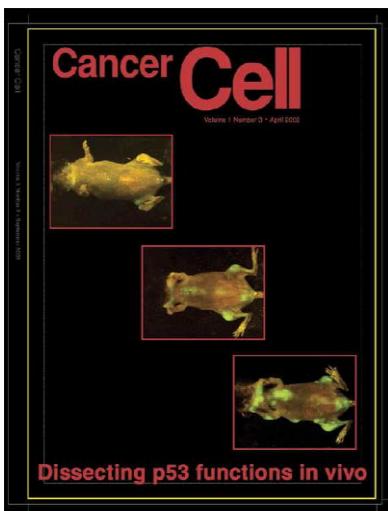
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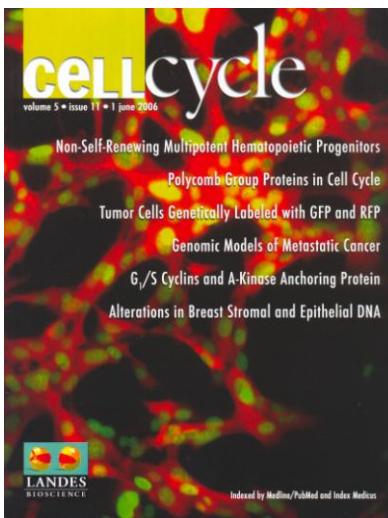
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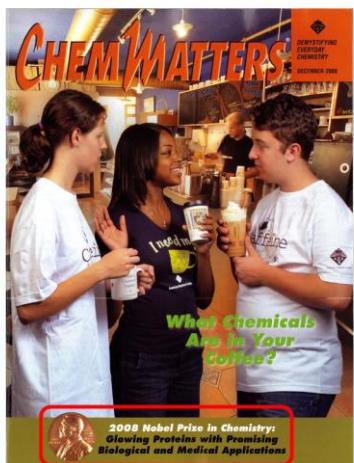
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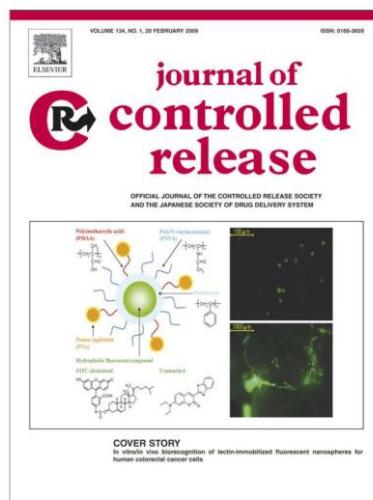
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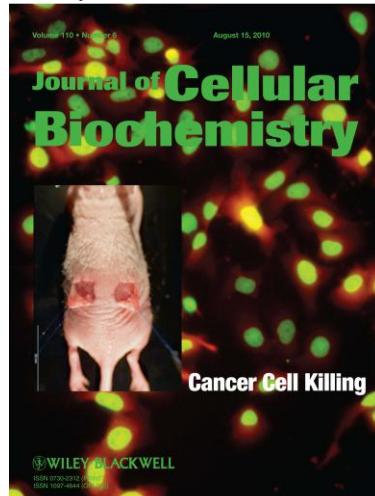
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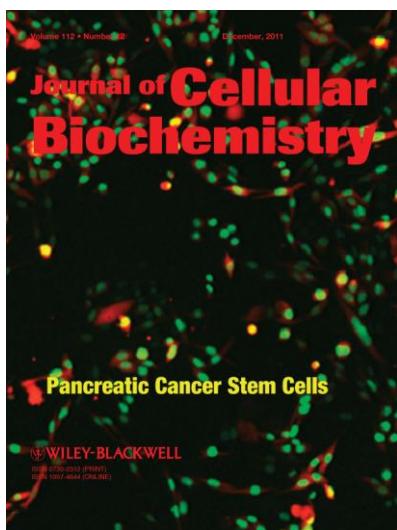
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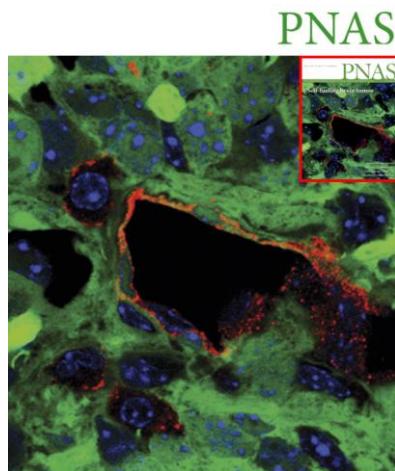
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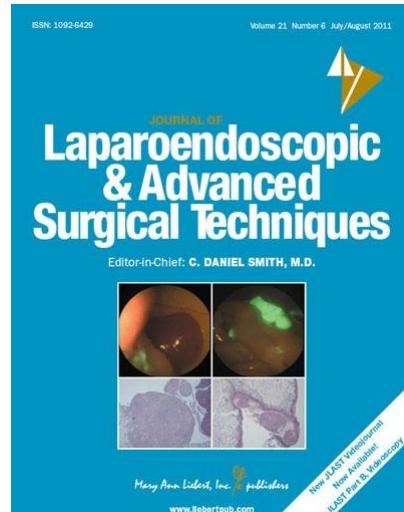
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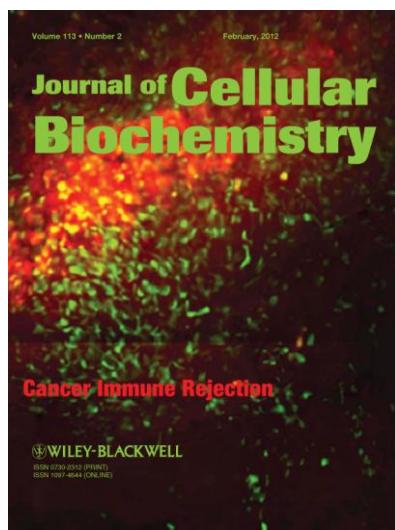
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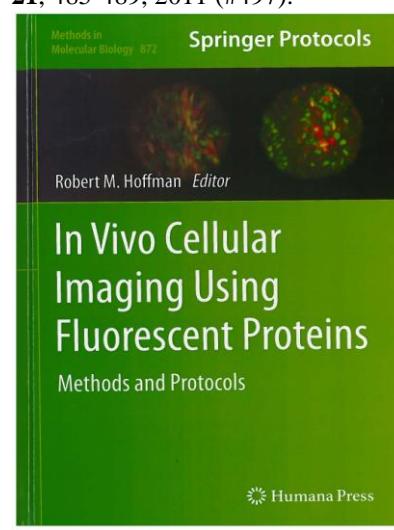
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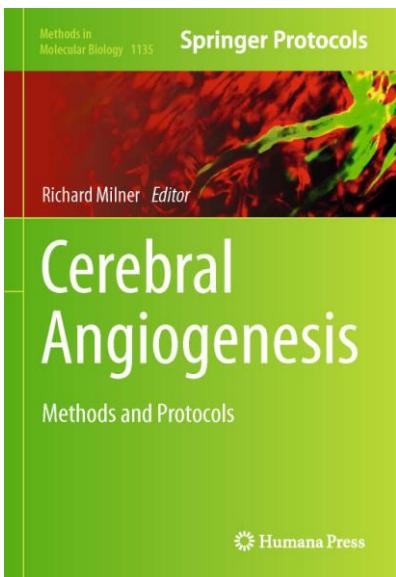
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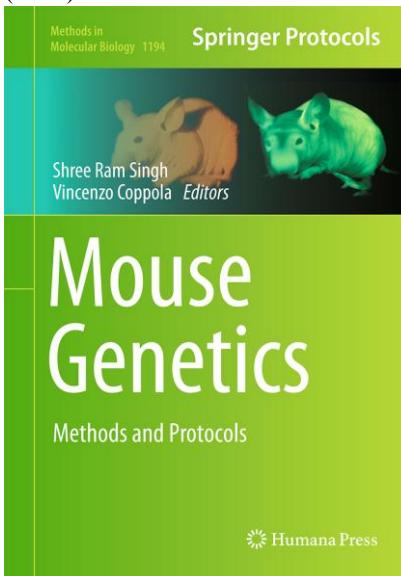
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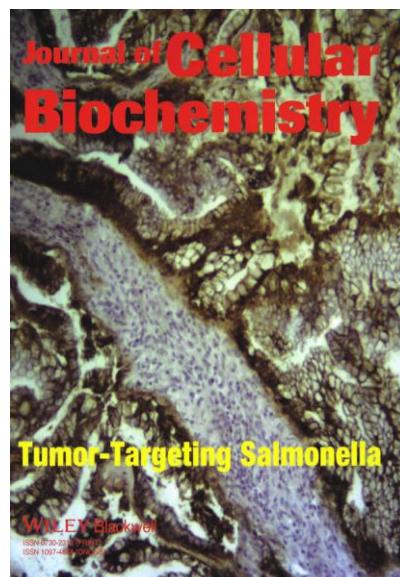
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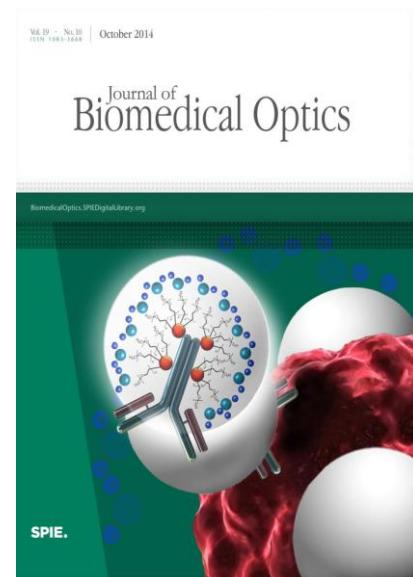
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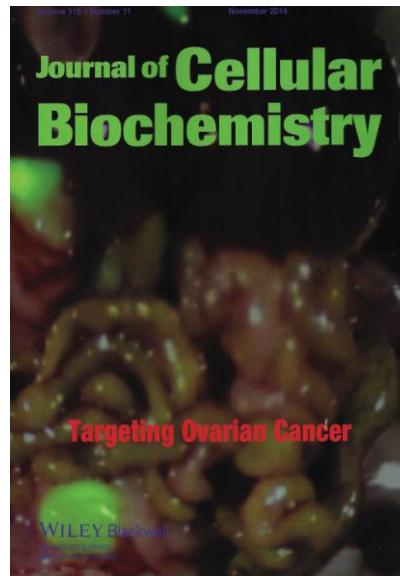
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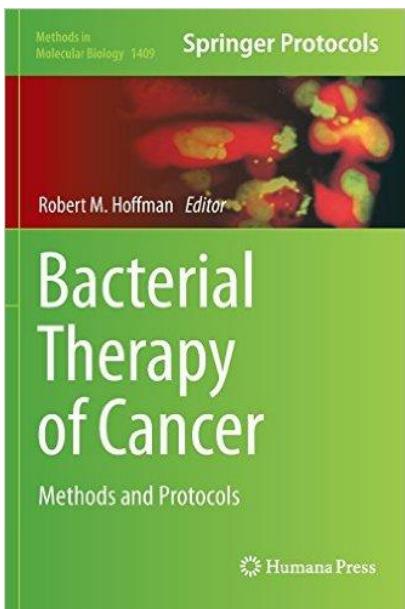
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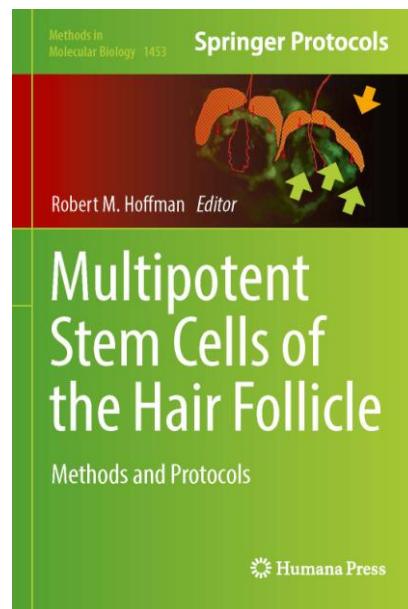
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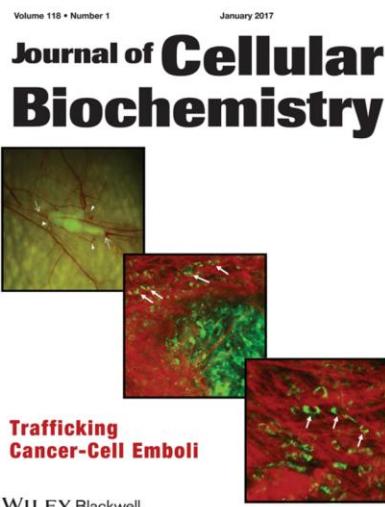
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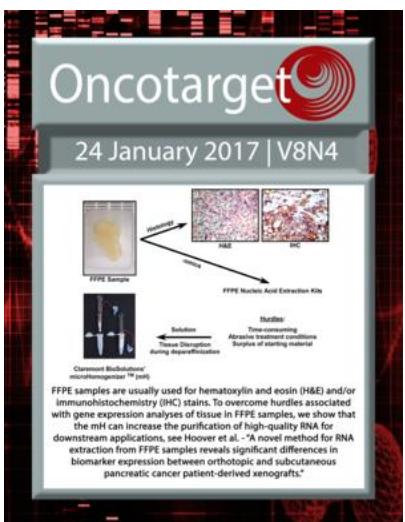
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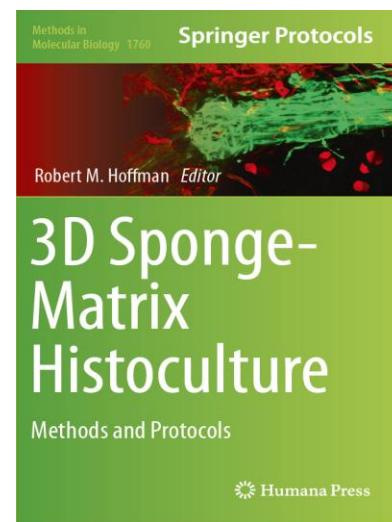
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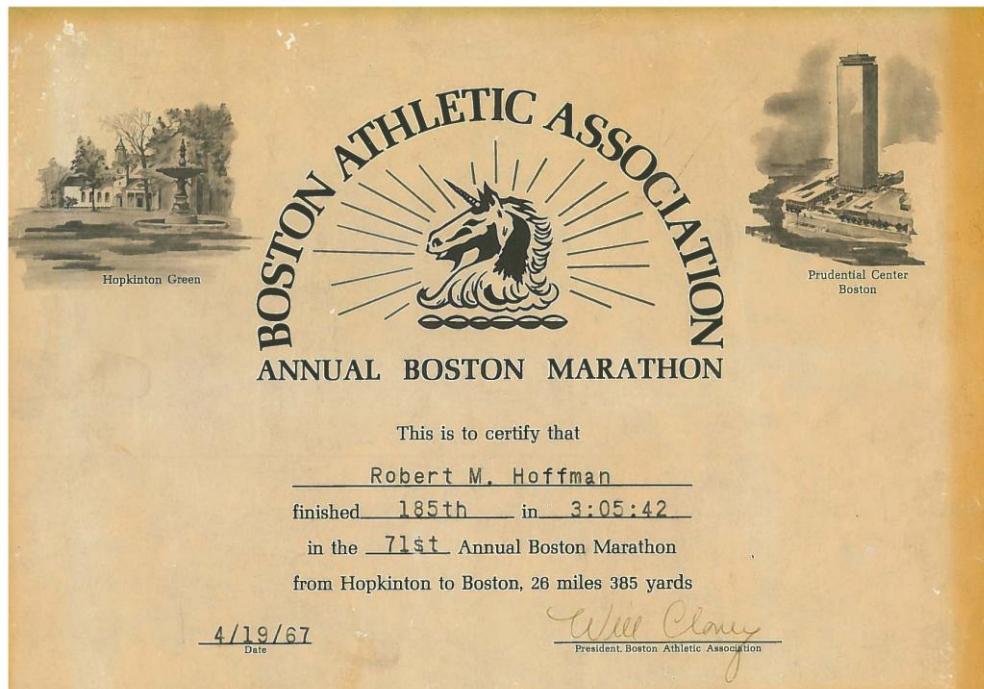


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ATHLETIC ACHIEVEMENT



Boston Marathon 1967



October 17, 2014