

# CURRICULUM VITAE

03/27/22

## PERSONAL INFORMATION

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## EDUCATION

- 1973 Hebrew University Medical School, Jerusalem, Israel  
Major: Immunology  
Degree Awarded: M.Sc.
- 1974 - 1977 Hebrew University Medical School, Jerusalem, Israel  
Major: Immunology  
Degree Awarded: Ph.D.

## POSTDOCTORAL TRAINING

- 1977 - 1979 Karolinska Institute, Department of Tumor Biology, Stockholm, Sweden

## ACADEMIC APPOINTMENTS

- 2014- To date Retired. Volunteering as adjunct professor at Division of Cardiology, Rush Medicine, performing research on myocardium regeneration post MI.
- 2008- 2013 Professor, Department of Surgery, University of Massachusetts Medical School, Worcester, MA 01655
- 2004- 2008 Professor, Division of Hematology/Oncology, Department of Medicine, University of Massachusetts Medical School, Worcester, MA 01605
- 1999- 2004 Professor, Department of Cardiovascular-Thoracic Surgery, Department of Immunology and Microbiology, Rush University School of Medicine, Chicago IL.
- 1991 - 1999 Professor, Department of Microbiology and Immunology, MCP◆Hahnemann School of Medicine, Philadelphia, PA
- 1990 - 1991 Professor in Residence, Department of Laboratory Medicine and Department of Anatomy, University of California Medical Center, San Francisco, CA
- 1988 - 1990 Associate Professor (adjunct), Department of Laboratory Medicine and Department of Anatomy, University of California Medical Center, San Francisco, CA
- 1986 - 1988 Associate Research Immunologist, Cancer Research Institute, University of California Medical Center, San Francisco, CA
- 1984 - 1986 Visiting Scientist, Cancer Research Institute, University of California Medical Center, San Francisco, CA
- 1980 - 1984 Assistant Research Immunologist, Department of Hematology, Hadassah University Hospital, Jerusalem, Israel

## **HONORS AND AWARDS**

2015	Honorary member International Xenotransplantation Association
1983 - 1986	Leukemia Society of America "Special Fellow"
1981 - 1983	Israel Cancer Research Fund Award
1980	Lady Davis Foundation Award
1977	International Union Against Cancer Award
2015	Honorary Member International Xenotransplantation Association

## **MEMBERSHIPS AND OFFICE IN PROFESSIONAL SOCIETIES**

American Association of Immunology  
American Society of Biochemistry & Molecular Biology  
American Society of Hematology  
American Society for Complex Carbohydrates  
Society of Clinical Immunology  
American Aging Association  
Xenotransplantation Society

## **BIBLIOGRAPHY**

### **Peer Reviewed Papers**

1. Schlesinger, M. and **U. Galili**. Antigenic differences between T and B lymphocytes in man. *Israel J. Med. Sci.* **10**:715-721, 1974.
2. **Galili, U.** and M. Schlesinger. The formation of stable E-rosettes after neuraminidase treatment of either human peripheral blood lymphocytes or of sheep red blood cells. *J. Immunol.* **112**:1628-1934, 1974.
3. **Galili, U.** and M. Schlesinger. Subpopulations of human thymus cells differing in their capacity to form stable E-rosettes and their immunologic reactivity. *J. Immunol.* **115**:827-833, 1975.
4. **Galili, U.**, M. Eliakim, S. Slavin and M. Schlesinger. Lymphocyte subpopulations in chronic active hepatitis: Increase in lymphocytes forming stable E-rosettes. *Clin. Immunol. Immunopathol.* **4**:538-544, 1975.
5. **Galili, U.** and M. Schlesinger. Studies on the formation of E-rosettes by human T-lymphocytes and thymus cells. *Israel J. Med. Sci.* **11**:1357-1367, 1975.
6. Raben, M., N. Wallach, **U. Galili**, and M. Schlesinger. The effects of radiation therapy on lymphocyte subpopulations in cancer patients. *Cancer* **37**:1417, 1976.
7. **Galili, U.** and M. Schlesinger. The formation of stable E-rosettes by human T-lymphocytes activated in mixed lymphocyte reaction. *J. Immunol.* **117**:730-735, 1976.
8. Ben-Zvi, A., **U. Galili**, A. Russell and M. Schlesinger. Age associated changes in subpopulations of human lymphocytes. *Clin. Immunol. Immunopathol.* **7**:139-147, 1977.
9. **Galili, U.**, E. Klein and M. Schlesinger. Human T-lymphocyte receptors for sheep red blood cells and specific T antigens: Are they identical sites on the cell membrane? *J. Immunol.* **119**:104-109, 1977.

10. **Galili, U.**, M. Caine, C. Servadio, and M. Schlesinger. Attachment of T-lymphocytes from bladder carcinoma patients to monolayers of cancer cells: An assay for tumor recognition by peripheral blood lymphocytes. *Cancer Lett.* **3**:121-124, 1977.
11. **Galili, U.**, C. Brautbar, and M. Schlesinger. Association between HLA determinants and complement receptors on human lymphocytes. *Tissue Antigens* **10**:99-107, 1977.
12. **Galili, U.** and M. Schlesinger. Regulation of the cytotoxic effect of human 'Normal killer cells' on tumor cell lines by neuraminidase treated T-lymphocytes. *Cancer Immunol. Immunother.* **4**:33-39, 1978.
13. **Galili, U.**, N. Galili, F. Vanký and E. Klein. Natural species-restricted attachment of human and murine T-lymphocytes to various cells. *Proc. Natl. Acad. Sci. USA* **75**:2396-2400, 1978.
14. **Galili, U.**, L. Rosenthal, N. Galili, and E. Klein. Activated T cells in the synovial fluid of arthritic patients: Characterization and comparison with in vitro activated human and murine T cell in cooperation with monocytes in cytotoxicity. *J. Immunol.* **122**:878-883, 1979.
15. **Galili, U.**, F. Vanký, L. Rodriguez, and E. Klein. Activated T lymphocytes within human solid tumors. *Cancer Immunol. Immunother.* **6**:129-133, 1979.
16. **Galili, U.**, P. Hayry and E. Klein. Loss of net negative surface charge during MLC stimulation of human T lymphocytes. Correlation to stable E-rosette formation and natural attachment to normal and malignant cells. *Cell Immunol.* **48**:91-99, 1979.
17. **Galili, U.**, E. Klein, B. Christensson and P. Biberfeld. Lymphocytes in Hodgkin's biopsies exhibit: Stable E rosette formation, natural attachment and glucocorticoid sensitivity, similar to immunoactivated T cells. *Clin. Immunol. Immunopathol.* **16**:173-179, 1980.
18. Galili, N., **U. Galili**, E. Klein, L. Rosenthal and B Nordenskjold. Human T lymphocytes become glucocorticoid sensitive upon immune activation. *Cell Immunol* **50**:440-444, 1980.
19. **Galili, U.**, E. Klein, G. Klein, and I.S. Bal. Activated T lymphocytes in infiltrates and draining lymph nodes of nasopharyngeal carcinoma. *Int. J. Cancer* **25**:85-89, 1980.
20. **Galili, U.**, J. Seely, E. Svedmyr, E. Klein, G. Klein and O. Weiland. Blood lymphocytes in infectious mononucleosis share the following characteristics with activated T cells: Natural attachment, stable E rosetting and glucocorticoid sensitivity. *J. Clin. Lab. Immunol.* **3**:153-158, 1980.
21. **Galili, U.**, E. Klein, G. Klein, and P. Biberfeld. The natural attachment of thymocytes and activated T lymphocytes to normal and malignant cells: An interspecies study. *Dev Comp. Immunol.* **4**:367-374, 1980.
22. **Galili, U.**, M. Prokocimer and G. Izak. The in vitro sensitivity of leukemic and normal leukocytes to hydrocortisone induced cytolysis. *Blood* **56**:1077-1081, 1980.
23. **Galili, U.**, N. Manny, and G. Izak. EA rosette formation: A simple means to increase sensitivity of antiglobulin test in patients with anti red cell antibodies. *Br. J. Haematol.* **47**:227-233, 1980.
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27. Galili, N., **U. Galili**, A. Ravid, M. Schlesinger, and N. Goldblum. Induction of differentiation with phorbol ester in a human T cell line Be13 expressing both prothymocyte and thymocyte characteristics. *Hum. Lymphocyte Differentiation* **1**:123-130, 1981.
28. **Galili, U.**, L. Rosenthal and E. Klein. Activated T cells in the synovial fluid of arthritic patients. II. In vitro activation of the autologous blood lymphocytes. *J. Immunol.* **127**:430-432, 1981.
29. **Galili, U.**, R. Leizerowitz, J. Moreb, H. Gamliel, D. Gurfel and A. Polliak. The in vitro lysis of chronic lymphocytic leukemia cells by glucocorticoids: Metabolic and ultrastructural aspects of the killing process. *Cancer Res.* **42**:1433-1440, 1982.
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54. Thall, A., J. Etienne-Decerf, R. Winand and **U. Galili**. The  $\alpha$ -Galactosyl epitopes on human normal and autoimmune diseased thyroid cells. *Autoimmunity* **10**:81-88, 1991.
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59. Heda, G.H., T.R. Henion and **U. Galili**. A simple *in vitro* site directed mutagenesis of concatamerized cDNA by inverse polymerase chain reaction. *Nucl. Acid Res.* **20**:5241-5242, 1992.
60. **Galili, U.** Interaction of the natural anti-Gal antibody with  $\alpha$ -galactosyl epitopes: A major obstacle for xenotransplantation in humans. *Immunology Today* **14**:480-482, 1993.
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63. Kim, M., M.V. Rao, D.J. Tweardy, M. Prakash, **U. Galili** and E. Gorelik. Lectin-induced apoptosis of tumor cells. *Glycobiology* **3**:447-453, 1993.
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65. Henion, T.R., B.A. Macher, F. Anaraki and **U. Galili**. Defining the minimal size of catalytically active primate  $\alpha$ 1,3 galactosyltransferase: Structure function studies on the recombinant truncated enzyme. *Glycobiology* **4**:193-201, 1994.
66. Repik, P.M., J.M. Strizki and **U. Galili**. Differential host dependent expression of  $\alpha$ -galactosyl epitopes on viral glycoproteins: A study of Eastern equine encephalitis virus as a model. *J. Gen. Virol.* **75**:1177-1181, 1994.

67. Winand, R.J., J. Winand-Devigne, M. Meurisse and **U. Galili**. Specific stimulation of Graves' disease thyrocytes by the natural anti-Gal antibody from normal and autologous serum. *J. Immunol.* **153**:1386-1395, 1994.
68. Hamadeh, R.M., **U. Galili**, P. Zhou and J.M. Griffis. Human secretions contain IgA, IgG and IgM anti-Gal (anti- $\alpha$ -galactosyl) antibodies. *Clin. Diagnos. Lab. Immunol.* **2**:125-131, 1995.
69. Wang, L., F. Anaraki, T.R. Henion and **U. Galili**. Variations in activity of the human natural anti-Gal antibody in young and elderly populations. *J. Gerontol. (Med. Sci.)*, **50A**:M227-M233, 1995.
70. **Galili, U.**, A. Tibell, B. Samuelsson, L. Rydberg and C.G. Groth. Increased anti-Gal activity in diabetic patients transplanted with fetal porcine islet cell clusters. *Transplantation* **59**:1549-1556, 1995.
71. **Galili, U.**, C.R. Gregory and R.E. Morris. Contribution of anti-Gal to primate and human IgG binding to porcine endothelial cells. *Transplantation* **60**:210-213, 1995.
72. **Galili, U.** and P. Andrews. Suppression of  $\alpha$ -galactosyl epitopes synthesis and production of the natural anti-Gal antibody: A major evolutionary event in ancestral Old World primates. *J. Human Evolution* **29**:433-442, 1995.
73. Wang, L., M.Z. Radic and **U. Galili**. Human anti-Gal heavy chain genes: Preferential use of V<sub>H</sub>3 and the presence of somatic mutations. *J. Immunol.* **155**:1276-1285, 1995.
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77. **Galili, U.**, P.K. Repik, F. Anaraki, K. Mozdzanowska, G. Washko and W. Gerhard Enhancement of antigen presentation of influenza virus hemagglutinin by the natural anti-Gal antibody. *Vaccine* **14**:321-328, 1996.
78. **Galili, U.** and K.L. Matta. Inhibition of anti-Gal IgG binding to porcine endothelial cells by synthetic oligosaccharides. *Transplantation* **62**:356-362, 1996.
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81. Stone, K.R., A.W. Walgenbach, T. Abrams, J. Nelson, N. Gellett and **U. Galili**. Porcine and bovine cartilage transplants in cynomolgus monkey: I. A model for chronic xenograft rejection. *Transplantation*, **63**:640-645, 1997.
82. **Galili, U.**, D.C. LaTemple, A.W. Walgenbach and K.R. Stone. Porcine and bovine cartilage transplants in cynomolgus monkey: II. Changes in anti-Gal response during chronic rejection. *Transplantation*, **63**:646-651, 1997.
83. Gorelik, E., F. Xu, T. Henion, F. Anaraki and **U. Galili**. Reduction in metastatic properties of BL6 melanoma cells expressing terminal Fuca1-2Gal after  $\alpha$ 1,2fucosyltransferase cDNA transfection. *Cancer Research*, **57**:332-336, 1997.
84. **Galili, U.** and D.C. LaTemple. The natural anti-Gal antibody as a universal augmenter of autologous tumor vaccine immunogenicity. *Immunology Today*, **18**:281-285, 1997.
85. Henion, T.R., W. Gerhard, F. Anaraki and **U. Galili**. Synthesis of  $\alpha$ -gal epitopes on influenza virus vaccines by recombinant  $\alpha$ 1,3galactosyltransferase enables the formation of immune complexes with the natural anti-Gal antibody. *Vaccine*, **15**:1174-1182, 1997.
86. Wang, L., M.Z. Radic, **D. Siegel**, T. Chang, J. Bracey and **U. Galili**. Cloning of anti-Gal Fabs from combinatorial phage display libraries: Structural analysis and comparison of Fab expression in pComb3<sup>H</sup> and pComb8 phage. *Molecular Immunology*, **34**:609-618, 1997.
87. **Galili, U.**, D.C. LaTemple and M.Z. Radic. A sensitive assay for measuring  $\alpha$ -gal epitope expression on cells by a monoclonal anti-Gal antibody. *Transplantation*, **65**:1129-1132, 1998.
88. Shinkel, T.A., C.G. Chen, E. Salvaris, T.R. Henion, H. Barlow, **U. Galili**, M.J. Pearse and A.J. d'Apice. Changes in cell surface glycosylation in  $\alpha$ -galactosyltransferase knock-out and  $\alpha$ 1,2fucosyltransferase transgenic mice. *Transplantation*, **64**:197-204, 1997.
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100. Tanemura M, **Galili U**. T cells interacting with the  $\alpha$ -Gal epitope: studies in  $\alpha$ 1, 3Galactosyltransferase knock-out mice. *Transplant Proc* **32**:921-923, 2000.
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### Books Editing and Writing

1. **Galili, U.** and J.L. Avila. Editing the book “ $\alpha$ -Gal and Anti-Gal :  $\alpha$ 1,3galactosyltransferase,  $\alpha$ -gal epitopes and the natural anti-Gal antibody.” Published by KLUWER&PLENUM Press, ”Subcellular Biochemistry”, Vol. 32: 1999, and writing 6 of the 15 chapters in this book (see below).
2. **Galili, U.,** writing the book “The natural anti-Gal antibody as foe turned friend in medicine”, published by Elsevier/Academic Press, London, 2018.

### Book Chapters

1. **Galili, U.** Glucocorticoid-induced lysis of human leukemia cells. In: Prediction of Response to Cancer Therapy, Ed. T.C. Hall, Alan R. Liss Scientific Publications, p. 43-59, 1988.
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## Invited Reviews and Manuscripts

1. Schlesinger, M. and **U. Galili**. The effect of neuraminidase on the formation of E-rosettes by human peripheral lymphocytes and sheep red blood cells. *Behring Inst. Mitt* **55**:272-276, 1974.
2. Klein, E., F. Vanký, **U. Galili**, B. Vose and M. Fope. In situ expression of tumor immunity. *Contem. Top. Immunobiol.* **10**:79-107, 1980.
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16. **Galili, U.** Significance of the natural human anti-Gal antibody in xenotransplantation. *Xeno* **2**:84-87, 1994.
17. **Galili, U.**, A. Tibell, B. Samuelsson, L. Rydberg and C.G. Groth. Anti-Gal activity in diabetic patients transplanted with fetal porcine islet cell clusters. *Xenotransplantation* **2**:188-192, 1995.
18. **Galili, U.**, C.R. Gregory and R.E. Morris. New World monkeys as a primate model for xenografts in the absence of anti-Gal. *Transplant. Proc.* **28**:572-573, 1996.
19. **Galili, U.**, A. Tibell, B. Samuelsson, L. Rydberg and C.G. Groth. Increased anti-Gal activity in diabetic patients transplanted with porcine islet cells. *Transplant. Proc.* **28**:569-571, 1996.
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23. Gregory, C.R., **Galili, U.**, Hancock, W.W., Valverde, C.R., Griffey, S.M., Berryman, E.R. and Morris, R.E.. Squirrel monkeys hyperacutely reject porcine musculocutaneous flaps despite a lack of naturally occurring xenoantibodies. *Transplant. Proc.* **30**:1082-1083, 1998.
24. Tanemura, M., and **U. Galili** T cells interacting with the  $\alpha$ -gal epitope: Studies in  $\alpha$  1,3galactosyltransferase knock out mice. *Transplant. Proc.* **32**: 921-923, 2000.
25. Tanemura, M., and **U. Galili** Differential expression of the  $\alpha$ -gal epitope on pig and mouse organs. *Transplant. Proc.* **32**: 843, 2000.
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28. Tanemura, M., and **U. Galili** Identification of B cells with receptors for  $\alpha$ -gal epitopes (Gal  $\alpha$ 1-3Gal $\beta$ 1-4GlcNAc-R) in xenograft recipients. *Transplant. Proc.* **32**: 857-858, 2000.
29. **Galili, U.** and M. Tanemura Significance of  $\alpha$ -gal (Gal $\alpha$ 1-3Gal $\beta$ 1-4GlcNAc-R) epitopes and  $\alpha$ 1,3galactosyltransferase in xenotransplantation. *Trends in Glycoscience and Glycotechnology* (TIGG) **11**: 317-327, 2000.
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41. **Galili, U.** Discovery of the natural anti-Gal antibody and its past and future relevance to medicine. *Xenotransplantation* **20**: 138–147, 2013.
42. **Galili, U.** Increasing the immunogenicity of HIV and influenza virus vaccines by anti-Gal mediated targeting to antigen presenting cells. *Current Topics in Virology*, **12**: 1-12, 2014.
43. **Galili, U.** Inhalation of  $\alpha$ -gal/sialic acid liposomes: a novel approach for inhibition of influenza virus infection. *Future Virol.* **11**: 95 -99, 2016.

## **CLINICAL TRIAL ACTIVITIES**

### **Researcher initiated clinical trials with INDs approved by the FDA (submitted by Uri Galili)**

1. IND-9685: “Autologous tumor cell membranes enzymatically treated to express  $\alpha$ -galactosyl epitopes” (Approval date 04/19/2002).
2. IND-11183: “ $\alpha$ -Gal modified autologous neoplastic lymphohematologic vaccine” (Approval date 10/22/2003).

3. IND-12946: "Glycosphingolipids expressing  $\alpha$ -gal epitopes; Administered intratumoral" (Approval date 01/18/2007).

## **RESEARCH GRANTS AND CONTRACTS**

Leukemia Society of America	Glucocorticoid effects on leukemia cells
Principal Investigator:	<b>U. Galili</b>
Years of Award:	1984-1985
Total Direct Costs/Yr:	\$70,000
NIH DK-32094	Red cell membrane.
Principal Investigator:	Steven B. Shohet
Years of Award:	1986 - 1991
American Cancer Society	$\alpha$ 1-3 galactosyltransferase in human normal and malignant cells.
Principal Investigator:	<b>U. Galili</b>
Total Direct Costs/Yr:	\$100,000
Years of Award:	1989 - 1991
NIA NIH R01AG-06299	Anti-Gal on human red cells: A model for cell aging.
Principal Investigator:	<b>U. Galili</b>
Total Direct Costs/Yr:	\$180,000
Years of Award:	1986 - 1994
NIH R01 GM-40205 (subcontract)	Gal $\alpha$ 1-3Gal glycoconjugates: Biochemical and evolutionary aspects.
Principal Investigator:	B.A.Macher
Total Direct Costs/Yr:	\$70,000
Years of Award:	1987 - 1995
Mizutani Foundation for Glycoscience	Reactive sites and regulation of primate $\alpha$ -1,3galactosyltransferase
Principal Investigator:	<b>U. Galili</b>
Total Direct Costs/Yr:	\$60,000
Years of Award:	1993 - 1995
NIH R01 Subcontract	H-2, $\alpha$ -galactosyl epitopes and tumors
Principal Investigator:	E. Gorelik
Total Direct Costs/Yr:	\$30,519
Years of Award:	1994 - 1997
NIH R01 AG/AI1307	Molecular changes in antibody affinity in the elderly
Principal Investigator:	<b>U. Galili</b>
Total Direct Costs/Yr:	\$157,000
Years of Award:	1996 - 1999
NIH SBIR (subcontract)	Pig articular cartilage as xenograft in monkeys
Principal Investigator:	Kevin R. Stone, M.D.
Total Direct Costs/Yr:	\$32,000

Date of Award:	April 1998
NIH R01 CA85868 Principal Investigator: Total Direct Costs/Yr: Years of Award:	Enhancing tumor vaccine immunogenicity by anti-Gal <b>U. Galili</b> \$142,000 1999-2002
NIH SBIR (subcontract) Cross Cart, Inc. Principal Investigator: Years of Award:	Pig articular cartilage as xenograft in monkeys \$52,000/year <b>U. Galili</b> 1999-2001
NIH R01 AI45849 Principal Investigator: Total Direct Costs/Yr: Years of Award:	Preventing anti-Gal production by $\alpha$ -gal toxin <b>U. Galili</b> \$175,000/year 2000-2003
American Heart Association Principal Investigator: Total Direct Costs/Yr: Years of Award:	Preventing anti-Gal activity by anti-Gal scFv <b>U. Galili</b> \$50,000 2002-2004
NIH R21 AI58749 Principal Investigator: Total Direct Costs/Yr: Years of Award:	Increase gp120 immunogenicity/linked to $\alpha$ -gal epitopes <b>U. Galili</b> \$150,000/year Sept. 2004- August 2006
NIH R01CA122019 Principal Investigator: Total Direct Costs/Yr: Years of Award:	Xenograft-like rejection of tumors by $\alpha$ -gal glycolipids <b>U. Galili</b> \$210,000 (pre-cut \$250,000) Feb. 2008- Jan. 2011
UMass Development grant	Acceleration of wound healing by $\alpha$ -gal nanoparticles <b>U. Galili</b> <b>\$25,000</b> 2010-2011
UMass Development grant	Regeneration of post ischemia myocardium by $\alpha$ -gal nanoparticles <b>U. Galili</b> \$25,000 2012-2013
NIH R21 CA130295 Principal Investigator: Total Direct Costs/Yr: Years of Award:	Intratumoral injection of $\alpha$ -gal glycolipids in stage IV melanoma: Phase I trial <b>U. Galili</b> \$221,000/year (pre-cut \$250,000) Feb. 2009- Jan. 2012
Baum Foundation	Post-MI myocardium regeneration by $\alpha$ -gal nanoparticles

Gary L. Schaer and **U. Galili**  
Total \$250,000 2019-2022

**PATENTS (Uri Galili):**

1. Compositions and methods for vaccines comprising  $\alpha$ -galactosyl epitopes  
Patent number: 5879675, Issued: March 9, 1999.
2. Anterior cruciate ligament xenografts, (with KR Stone) Patent number: 6210440, Issued: April 3, 2001
3. Compositions and methods for vaccines comprising  $\alpha$ -galactosyl epitopes, Patent number: 6361775, Issued: March 26, 2002.
4. Methods and compositions for preventing anti-Gal production in xenograft recipients, (with KR Stone)  
Patent number: 6613330, Issued: September 2, 2003.
5. Soft tissue xenografts, (with KR Stone) Patent number: 6758865, Issued: July 6, 2004.
6. Tumor lesion regression and conversion in situ into autologous tumor vaccines by compositions that result in anti-Gal antibody binding, Patent number: 7820628, Issued: October 26, 2010.
7. Compositions and methods for wound healing, Patent number: 8084057, Issued: December 27, 2011.
8. Compositions and methods for wound healing, Patent number: 8440198, Issued: May 14, 2013.
9. Compositions and methods for wound healing, Patent number: 8865178, Issued: October 21, 2014.
10. Glycolipid containing compositions for use in the treatment of tumors, Patent number: 10092586, Issued: October 9, 2018.
11. Compositions and methods for increasing immunogenicity of glycoprotein vaccines, Patent number: 9662383, Issued: May 30, 2017.
12. Compositions and methods for increasing immunogenicity of glycoprotein vaccines, Patent number: 10201601, Issued: February 12, 2019.

**REVIEWING MANUSCRIPTS FOR:**

Proceedings of the National Academy of Science of USA  
Blood  
Biomaterials  
Journal of Immunology  
Immunology Today  
Glycoconjugate Journal  
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Journal of Biological Chemistry  
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Nature Medicine  
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