

CURRICULUM VITAE

Robert E. Tigelaar, M.D.

PERSONAL:

Born: April 19, 1942, Grand Rapids, Michigan

Marital Status: Married, 1964, to Mary Peelen

Two children: Rachel Elizabeth (10/04/75)
Katherine Anna (09/13/77)

EDUCATION:

June 1964 - B.A., Hope College, Holland, Michigan

June 1968 - M.D., University of Michigan Medical School

POSTGRADUATE TRAINING:

Internship: 07/68 - 06/69 Pathology, New York University Medical Center, New York City (NIH Trainee)

Residency: 07/69 - 06/70 Pathology, New York University Medical Center, New York City (NIH Trainee)

09/76 - 08/79 Dermatology, University of Washington, Seattle, Washington

BOARD CERTIFICATION: 11/80 American Board of Dermatology

FACULTY POSITIONS HELD: 09/77 - 07/78 Acting Instructor in Medicine (Dermatology), University of Washington, Seattle, Washington

07/78 - 08/80 Associate Professor of Medicine (Dermatology), University of Washington, Seattle, Washington

09/80 - 07/90 Faculty, Graduate Program in Immunology, University of Texas Southwestern Medical Center, Dallas, Texas

09/80 - 08/82 Associate Professor of Internal Medicine (Dermatology), University of Texas Health Science Center at Dallas, Dallas, Texas

09/82 - 08/89 Associate Professor of Dermatology, University of Texas Health Science Center at Dallas, Dallas, Texas

05/84 - 07/90 Program Director, Immunodermatology Fellowship Training Program, University of Texas Southwestern Medical Center, Dallas, Texas

09/89 - 07/90 Professor of Dermatology, University of Texas Southwestern Medical Center, Dallas, Texas

07/90 – present Professor of Dermatology and Immunobiology, Yale University School of Medicine

01/05 - present Interim Chair of Dermatology, Yale University School of Medicine

09/92 – 04/09 Director, Yale Skin Diseases Research Center

07/06 - present Co-Director, Yale SPORE in Skin Cancer

OTHER POSITIONS HELD:

07/70 - 06/74 Research Associate, Laboratory of Microbial Immunity, National Institute of Allergy and Infectious Disease, National Institutes of Health, Bethesda, Maryland

09/72 - 08/73 USPHS working assignment, Tumor Immunology Unit, Zoology Department, University College, London, England

07/74 - 08/76 Senior Investigator, LMI, NIAID, NIH, Bethesda, Maryland

MILITARY SERVICE:

07/70 - 08/76 USPHS

HONORS AND OTHER SPECIAL SCIENTIFIC RECOGNITION:

University of Michigan Merit Scholarship, 1964 - 1968
Alpha Omega Alpha
NIH Research Career Development Award, 1980 - 1985
Robert A. Cooke Memorial Lectureship of the American Academy of Allergy and Immunology, 1993

LICENSURE TO PRACTICE:

State of Connecticut 1990-2006, No. 031011

SOCIETIES:

American Association of Immunology
American Academy of Dermatology
American Federation for Clinical Research
Clinical Immunology Society
Society for Investigative Dermatology
European Society for Dermatologic Research
American Dermatologic Society for Allergy and Immunology

OFFICES HELD/ APPOINTMENTS: Western Section, Society for Investigative Dermatology, President, 1979

Director, Advanced Immunology Course, Annual Meeting of the American Academy of Dermatology, 1984 - 1988

Southern Section, Society for Investigative Dermatology, President, 1988

Council on Research Activities, American Academy of Dermatology, 01/87 - 12/91

National Institute of Arthritis and Musculoskeletal and Skin Diseases Special Grants Review Committee, 07/87 - 07/90; Chairman 08/89 - 07/90

Program Committee, Society for Investigative Dermatology, 1993 – 1998 (Chair, 1998)

Board of Directors, Society for Investigative Dermatology, 1998 – 2004

Finance Committee, Society for Investigative Dermatology, 2002-present (Chair, 2004-present)

Board of Scientific Counselors for Clinical Sciences & Epidemiology, NCI, NIH (8/08 – 7/13)

EDITORIAL BOARDS: *Regional Immunology*, 1988-1993

Associate Editor, *Journal of Immunology*, 1988 - 1990

Associate Editor, *Journal of Investigative Dermatology*, 1992-1997, 2002-present

Section Editor, *Journal of Investigative Dermatology*, 1997-2006

RESEARCH INTERESTS: Immunobiology of murine dendritic epidermal T cells
Immunobiology of benign and malignant cutaneous lymphoid infiltrates

CURRENT GRANT SUPPORT: **P50 CA121974 Halaban (PI), Tigelaar (Co-PI)**
07/01/06-06/30/11
NIH/NCI
“Yale Specialized Program of Research Excellence (SPORE) in Skin Cancer”
The Yale SPORE in Skin Cancer program is focused on two skin cancers, basal cell carcinoma (BCC) and melanoma. The goals are to conduct epidemiologic and genetic studies on early onset basal cell carcinoma, establish novel high-throughput prognostic and diagnostic

tools for melanomas and introduce novel targeted therapies to treat melanoma.

5 P30 AR41942 Tigelaar (PI)

09/30/92-3/31/09

NIH/NIAMS

“Yale Skin Diseases Research Core Center”

The goal of the YSDRCC is to create an environment capable of greatly amplifying understanding of basic cutaneous biology and of a broad variety of skin diseases.

5 R01 AR049282 Tigelaar (PI)

09/1/03-7/31/09

NIH/NIAMS

“Regulation of Cutaneous Inflammation by Local $\gamma\delta$ Cells”

The striking phenotype of the TCR $\delta^{-/-}$ mouse skin, and the capacity to rescue it via adoptive transfer of DETC progenitors offers a powerful experimental system to define the mechanisms by which local T cells regulate the effects of the systemic immune response within the local tissues. This will be pursued in this program of study.

These studies will: 1) characterize the nature of inflammatory reactions that can be regulated by local TCR $\gamma\delta$ cells; 2) the properties of TCR $\gamma\delta$ cells that regulate inflammation; 3) the mechanisms that local $\gamma\delta$ cells utilize to regulate inflammation; and 4) the background genes that influence that regulation.

5 RO1 CA102703 Girardi (PI) (Tigelaar: Investigator)

7/1/03-7/30/09

NIH/NCI

“T Cell Regulation of Cutaneous Malignancy”

This five-year award examines the role of T cell subsets in malignancy using several models of skin cancer in mice.

BIBLIOGRAPHY

Robert E. Tigelaar, M.D.

INVESTIGATIVE STUDIES

1. Tigelaar RE and Conklin JL: Benzidine staining after extraction of adult-type hemoglobin for identification of primitive chick erythrocytes. *Stain Tech* 41:66-68, 1966.
2. Mancino D, Tigelaar RE and Ovary Z: Passive cutaneous anaphylactic and Schultz-Dale reactions in guinea pigs by chemically univalent dinitrophenyl-derivatives of bacitracin A and papain. *J Immunol* 103:750-756, 1969.
3. Mancino D, Tigelaar RE and Ovary Z: Antigenic properties of monodinitrophenyl-derivatives of bacitracin A in guinea pigs. *Immunol* 18:739-747, 1970.
4. Tigelaar RE, Vaz MN and Ovary Z: Immunoglobulin in receptors on mouse mast cells. *J Immunol* 106:661-672, 1971.
5. Asofsky R, Cantor H and Tigelaar RE: Cell interactions in the graft-versus-host response. *Prog in Immunol* 1:369-381, 1971.
6. Tigelaar RE and Asofsky R: Synergy among lymphoid cells mediating the graft-versus-host response. IV. Synergy in GVH reaction quantitated by mortality assay in sublethally irradiated recipients. *J Exp Med* 135:1059-1070, 1972.
7. Tigelaar RE and Asofsky R: Kinetics of graft-versus-host splenomegaly in neonatal F1 recipients of parental strain mouse lymph node cells and/or thymocytes. *Transplant* 14:805-807, 1972.
8. Tigelaar RE and Asofsky R: Synergy among lymphoid cells mediating the graft-versus-host response. V. Derivation by differential migration in lethally irradiated recipients of two interacting subpopulations of thymus-derived cells from normal spleen. *J Exp Med* 137:239-253, 1973.
9. Tigelaar RE and Asofsky R: Graft-versus-host reactivity of mouse thymocytes: Effect of cortisone pretreatment of donors. *J Immunol* 110:567-574, 1973.
10. Tigelaar RE, Rappaport RL II, Inman JK and Kupferberg HJ: A radioimmunoassay for diphenylhydantoin. *Clin Chimica Acta* 5457:231-241, 1973.
11. Tigelaar RE and Feldmann M: Synergy among thymocytes and peripheral lymph node cells *in vitro* generation of cytotoxic lymphocytes to alloantigens. *Transplant Proc* 5:1711-1715, 1973.
12. Gorczynski R, Kontianen S, Mitchison NA and Tigelaar RE: Antigen-antibody complexes as blocking factors on the T-lymphocyte surface. In: *Cellular Selection and Regulation in the Immune Response*. Edelman G (Ed.), Raven Press, 1974, pp 143-154.
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15. Tigelaar RE, Gershon R and Asofsky RM: Graft-versus-host reactivity of mouse thymocytes: Effects of *in vivo* treatment with anti-TL serum. *Cell Immunol* 19:58-64, 1975.
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21. Weinbaum FI, Weintraub J, Nkrumah FK, Evans CB, Tigelaar RE and Rosenberg YJ: Immunity to *Plasmodium berghei yoelii* in mice. II. Specific and nonspecific cellular and humoral responses during the course of infection. *J Immunol* 121:629-636, 1978.
22. Tigelaar RE, Bergstresser PR, Lonsberry LM, Elmets CA, Wood PJ and Streilein JW: Oral ingestion of epicutaneously applied hapten in mice may unwittingly induced down-regulation of contact hypersensitivity. *J Immunol* 129:1898-1904, 1982.
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24. Bergstresser PR, Tigelaar RE, Dees JH and Streilein JW: Thy-1 antigen-bearing dendritic cells populate murine epidermis. *J Invest Dermatol* 81:286-288, 1983.
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26. Bergstresser PR, Tigelaar RE and Streilein JW: Thy-1 antigen-bearing dendritic cells in murine epidermis are derived from bone marrow precursors. *J Invest Dermatol* 83:83-87, 1984.
27. Bergstresser PR, Tigelaar RE and Tharp MD: Conjugated avidin identifies cutaneous rodent and human mast cells. *J Invest Dermatol* 83:214-218, 1984.
28. Piepkorn M and Tigelaar RE: The intracutaneous growth of murine lymphomas: Epidermal invasion is characteristic of multiple tumor phenotypes. *J Invest Dermatol* 83:281-285, 1984.
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38. Nixon-Fulton JL, Hackett J Jr, Bergstresser PR, Kumar V and Tigelaar RE: Phenotypic heterogeneity and cytotoxic activity of Con A and IL 2-stimulated cultures of mouse Thy-1⁺ epidermal cells. *J Invest Dermatol* 91:62-68, 1988.
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52. Tigelaar RE, Lewis JM and Bergstresser PR: TCR γ/δ ⁺ dendritic epidermal T cells as constituents of skin associated lymphoid disease. J Invest Dermatol 94:58s-63s, 1990.
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55. Simon JC, Tigelaar RE, Bergstresser PR, Edelbaum, D, Cruz PD Jr: UVB radiation converts Langerhans cells from immunogenic to tolerogenic antigen presenting cells: Induction of specific clonal anergy in CD4⁺ T helper 1 cells. J Immunol 146:485-491, 1991.
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58. Girolomoni G and Tigelaar RE: Peptidergic neurons regulate contact sensitivity reactions in mice: Vasoactive intestinal peptide (VIP) possesses powerful immunosuppressive activity. In: *Pharmacology of the Skin. Vol. 4. Immunological and Pharmacological Aspects of Atopic and Contact Eczema*. Karger, Basel, 1992, pp 9-12.
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64. Longley J, Ding T-G, Levin D, Lewis J, Edelson R, Tigelaar R and Flavell R: Regulation of transgenic class II major histocompatibility genes in murine Langerhans cells. *J Invest Dermatol*, 104:329-34, 1995.
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98. Strid J, Tigelaar RE, Hayday AC. Skin immune surveillance by T cells-A new order? *Semin Immunol.* 2009 Jun;21(3):110-20.

CHAPTERS

1. Ovary Z and Tigelaar RE: Use of the skin as a "tool" or convenient milieu to study allergic responses. In: *Advances in Biology of Skin*, Vol XI. Montagna W (Ed.), Appleton-Century-Crofts, New York, 1971, pp 103-121.
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