

UNIVERSITY OF KANSAS SCHOOL OF MEDICINE
FACULTY CURRICULUM VITAE

I. PERSONAL DATA

Name: Lowell L. Tilzer
 Current Academic Rank: Professor of Pathology and Laboratory Medicine and Interim Chair
 Department(s): Medical Director, Clinical Laboratory

University of Kansas Hospital, 3901 Rainbow Boulevard, Kansas City, Kansas 66160-7232
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PROFESSIONAL DEVELOPMENT

Undergraduate and Graduate Education

<u>Years</u>	<u>Degree</u>	<u>Institution</u>
Sept 1968-May 1972	BA	University of Kansas

Postgraduate Education:

<u>Years</u>	<u>Area of Study</u>	<u>Institution</u>
July 1972-May 1976	M.D.	University of Kansas Medical Center
July 1973-May 1978	Ph.D. in Pathology	University of Kansas Medical Center
July 1976-June 1979	Resident in Pathology	University of Kansas Medical Center

Academic and Professional Appointments and Activities.

<u>Month and Year</u>	<u>Position</u>	<u>Institution</u>
July 1978-July 1982	Assistant Professor	University of Kansas Medical Center Department of Pathology
July 1982-July 1990	Associate Professor	University of Kansas Medical Center Department of Pathology
July 1990-Sep 1992	Professor	University of Kansas Medical Center Department of Pathology

Sep 1992-July 1996	Responsible Head and Community Blood Center of Greater Associate Medical Dir.Kansas City	
Sep 1995-July 1996	Responsible Head and Community Blood Center of Greater Medical Director	Kansas City
Jun 1989-Present	President	Isogene Biotechnology Two patents for DNA Purification
July 1996-2004	Consultant	Healthcare-ID, Inc.
Dec 1996-Sep 1999	Director-Blood Services	American Red Cross, Missouri
Sep 1999-May 2002	Chief Medical Officer	American Red Cross Central Plains
Jun 1999-Present	Consultant	T-Vax (start-up of Biotech Co.)
Jun 2002-Apr 2004	Chief Executive Officer	American Red Cross Southwest
Apr 2004-Present	Medical Director	University of Kansas Medical Center, Clinical Laboratories

Professional Registration/Licensure:

State _____
 Kansas State Board of Healing Arts
 Missouri Board of Registration for the Healing Arts
 Oklahoma State Board of Medical Licensure and Supervision

Professional Certification(s):

Date Board
 1983 Board Certification: Anatomic and Clinical Pathology

Professional Societies

Sigma Xi

American Society Clinical Pathologists

American Association of Clinical Chemists

American Society for Testing Materials

American Association for the Advancement of Science

American Association of Blood Banks

College of American Pathologists

Metropolitan Medical Society of Kansas City

Academy of Clinical Laboratory Physicians and Scientists

American Society of Hematologists

International Society for Hematotherapy and Graft Engineering

Kansas City Society of Pathologist, President 1997-1998

South Central Association of Blood Banks

Heart of America Association of Blood Banks

Association of Molecular Pathology

Honors and Awards

Varsity Gymnastics Team, Kansas University, 1968-69

Who's Who in American Students, 1975

William H. Bailey Award, Pathology, 1975

Grant Review Committee for Mid America Cancer Center 1980-1989

Reviewer for Journal of Laboratory & Clinical Medicine

Reviewer for Archives of Pathology & Lab Medicine

Chairman, Scientific Session MedLab Users Group 1984-1987

Professor of the International Molecular Cytology Program of the Instituto de Investigaciones, Citologicas de la Caja de Ahorros de Valencia, Spain (Sabbatical 1986, Valencia Spain)

Grant Review Committee-Comision Interministerial de Ciencia y Tecnologia (Spanish Central Government)

American Association of Clinical Chemists Speaker's Bureau

Chairman, ASTM Bar Codes Standards Committee

Organizing Committee - Human Genome Project III; Legal and Ethical Aspects. Valencia 1992.

1st Annual Student Voice Award, April 17, 1990, L. Tilzer, Department of Pathology

Selected by Graduating Medical Students to be School Marshall at Hooding and Commencement exercises, May 20, 1990.

Judge of NASA High School Science Projects to be included on the Space Shuttle. June 1990.

Student Voice Award, Honors in Education, 1990-91, School of Medicine

Chairman, Medical Advisory Committee, American Liver Foundation, Kansas City Chapter, 1998-99.

Vice Chairman for Faculty Affairs and Administration – Department of Pathology and Laboratory

Medicine – 2006.

Core Lab Automation Presentation – Association of Pathology Chairs, 2007.

II. TEACHING ACTIVITIES

1. Instruction:

Didactic (e.g.: lectures and formal presentations)

<u>Academic Year</u>	<u>Course</u>	<u>Title</u>	<u>Instruction</u>		<u>Student</u>	
			<u>Type</u>	<u>Hours</u>	<u>No</u>	<u>Type</u>
1980-92	Pathology		lecture	10	150	med studs
1980-92	Lab Medicine		lecture	10	30	med tech
1980-92	Lab Medicine		lecture	20	16	Path residents
2004-06	Lab Medicine		lecture	5-10	16	Path resident
2004-06	Lab Medicine		lecture	10		Med Tech studs

Nondidactic (e.g.: workshops, labs and discussion groups)

<u>Academic Year</u>	<u>Course</u>	<u>Title</u>	<u>Instruction</u>		<u>Student</u>	
			<u>Type</u>	<u>Hours</u>	<u>No</u>	<u>Type</u>
1980-92	Hematology lab		Lab – Hands-on work	5	150	Med Studs
1980-92	Receptor & Mol. Path lab		Lab- Hands on experience	20-200	10	residents

Clinical

<u>Year</u>	<u>Hours</u>	<u>Student</u>		<u>Length of Service</u>
		<u>No</u>	<u>Type</u>	
1980-92	100	16	Path residents & clin lab med stud clerkships	– 6 months
2004-06	200	16	Path residents	6 months

Teaching while away from KU

Community Blood Center 1992-1996

Guest lectures on Blood Banking to KU Medical Students

Guest lectures on Blood Banking and Coagulation to UMKC medical students

Lectured at Grand Rounds at most Kansas City Hospitals on Blood Banking

Gave lectures to med tech students on blood banking during their yearly two week rotations
Gave lectures to Kansas City Nurses on blood banking who participated in yearly CBC sponsored workshops
Grand Rounds and hospital med tech lectures throughout Southwest Missouri (Springfield and Joplin), as well as Northern Arkansas, as part of medical director of CBC of the Ozarks.
More than 100 lectures or workshops delivered.

Missouri-Illinois Region of the American Red Cross 1996-1999

Lectured throughout central and eastern Missouri hospitals, as well as central and southern Illinois, giving Grand Rounds and med tech society lectures on a regular basis.
More than 50 lectures delivered.

Central Plains Region of the American Red Cross – 1999-2002

Lectured throughout the State of Kansas at Ground Rounds, Clinical Lab Manager's Association meetings, Heart of America Blood Bank, and nursing groups.
More than 50 lectures delivered.

Southwest Region of the American Red Cross – 2002-2004

Lectured throughout eastern Oklahoma and all of Texas. Numerous lectures to doctors and med techs in Dallas, Houston, Galveston, Harlingen, Longview, Waco, Wichita Falls, and College Station.
More than 50 lectures delivered.

III. RESEARCH and SCHOLARLY ACTIVITIES:

Scholarly Publications

1. Plapp, F.V., Hayes, L.C., Tilzer, L. and Chiga, M. Dissociation and tRNA content of monosomes produced by dimethylnitrosamine and starvation. *Nature* 247: 311-313, 1974.
2. Tilzer, L.L., Plapp, F.V., Hayes, L.C. and Chiga, M. Certain characteristics of monosomes produced by carbon tetrachloride. *Biochem. Pharmacol.* 24: 99-101, 1975.

3. Hayes, L.C., Plapp, F.V., Tilzer, L.L. and Chiga, M. Characterization of monosomes produced by aflatoxin B. *Chem.-Biol. Interactions* 10: 343-347, 1975.
4. Plapp, F.V., Tilzer, L., Hayes, L. and Chiga, M. A rapid method for isolation of peptidyl tRNA from liver polysomes. *Anal. Biochem.* 64: 170-176, 1975.
5. Hayes, L.C., Plapp, F.V., Tilzer, L.L. and Chiga, M. Peptidyl tRNA content and dissociability of mouse liver monosomes produced by histidinol. *BioChem. Biophys. Res. Commun.* 65: 258, 1975.
6. Hayes, L.C., Plapp, F.V., Brewer, J., Rucker, M., Moore, D., Tilzer, L. and Chiga, M. Electrophoresis of human multiple myeloma and Waldenstroms macroglobulinemia sera in sodium-dodecylsulfate polyacrylamide gels. *Clin. Chim. Acta* 66: 119-123, 1976.
7. Amos, D. and Tilzer, L. Marchesani syndrome: a case report. *Am. J. Optom. Physiol. Opt.* 53: 753-754, 1976.
8. Hayes, L.C., Plapp, F.V., Tilzer, L.L., Reddy, J.K. and Chiga, M. In vivo production of falloff monosomes in mouse liver by sparsomycin. *Biochem. Pharmacol.* 26: 225-256, 1977.
9. McGregor, D.H., Pierce, G.E., Thomas, J.H. and Tilzer, L.L. Obstructive lesions of distal mesenteric arteries. *Arc. Pathol. Lab. Med.* 104: 79-83, 1980.
10. Plapp, F.V., Kowalski, M.M., Tilzer, L., Brown, P.J., Evans, J. and Chiga, M. Partial purification of Rh (D) antigens from Rh positive and negative erythrocytes. *Proc. Natl. Acad. Sci. USA* 76: 2694-2698, 1979.
11. Plapp, F.V., Kowalski, M.M., Evans, J., Tilzer, L.L. and Chiga, M. The role of membrane phospholipids in expression of erythrocyte Rh (D) antigen activity. *Proc Soc. Exp. Biol. Med.* 164: 561-568, 1980.
12. Plapp, F.V., Evans, J.P. and Tilzer, L.L. Detection of Rh (D) antigen on the inner surface of Rh negative erythrocyte membranes. *Fed. Proc.* 40: 208, 1981.
13. Tilzer, L.L., McFarland, R.T., Plapp, F.V., Evans, J.P. and Chiga, M. Different ionic forms of estrogen receptor in rat uterus and human breast carcinoma. *Cancer Res.* 41: 1058-1063, 1981.
14. Tilzer, L.L., Plapp, F.V. and Evans, J.P. Steroid receptor proteins in human meningiomas. *Cancer* 49: 633-636, 1982.
15. Rengacherry, S. and Tilzer, L. Dexamethasone receptors in human glioblastomas. *J of Surg Research* 31: 447-455, 1981.

16. Fabian, D., Tilzer, L., Sternson, L.: Comparative binding abilities of tamoxifen 4-hydroxytamoxifen and desmethyltamoxifen to human breast carcinoma estrogen receptors: correlation with blood levels. *Biopharm. and Drug Disp.* 2: 381-390, 1981.
17. Evans, J.P., Brown, P.J., Sinor, L.T., Tilzer, L.L., and Plapp, F.V. Identification of Rh (D) antigen in polyacrylamide gels by an enzyme linked immunoassay. *Molec. Immun.* 19: 671-675, 182.
18. Brown, P.J., Evans, J.P., Sinor, L.T., Tilzer, L.L., and Plapp, F.V. The rhesus D antigen is a dicyclohexylcarbodiimide binding proteolipid. *American Journal Pathology*, 110: 127-134, 1983.
19. Goto, H., Katayama, H., Tonooka, M., Tosone, S.R., Arakawa, K., Tilzer, L. The effect of diltiazem on metabolic changes during tourniquet ischemia. *Anesthesiology* 81: 3A, 1984.
20. Jorgensen, R., Borchert, J., Hassanein, R., Tilzer, L., Eaks, G., and Moore, W. Comparison of five glucose meters for self-monitoring of blood glucose by diabetic patients. *Diabetes Care* 9: 1, January/February 1986.
21. Goto, H., Benson, K.T., Katayama, H., Tonooka, M., Tilzer, L.L., Arakawa, K. Effect of high-dose of methylprednisone on tourniquet ischaemia. *Can. J. Anaest.* 35: 5 484-488, 1988.
22. Tilzer, L.L. and Jones, R.W. Use of bar code labels on collecting tubes for specimen management in the clinical laboratory. *Arch. Pathol. Lab. Med.* 112: 1200-1203, December 1988.
23. Tilzer, L.L. and Concepcion, E.G. Detection of the gene rearrangement in chronic myelogenous leukemia with biotinylated gene probes. *Amer. J. Clin. Path.* 4 91: 464-467, April 1989.
24. Thomas, S.M., Moreno, R.F. and Tilzer, L.L. DNA extraction with organic solvents in gel barrier tubes. *Nucleic Acids Research* 117: 13, 5411, 1989.
25. Tilzer, L., Moreno, R.F., Booth, F., Wilbur, S., and Thomas, S. DNA fingerprinting with nonradioactive gene probes. *Clin. Chem.* 35: 10 2147-2148, 1989.
26. Tilzer, L. and Beck, M. Blood Bank of the Future (letter to the editor) *Transfusion* 29: 9, June 1989.
27. Moreno, R.F., Booth, F.R., Hung, I.H. and Tilzer, L. Efficient DNA Isolation within a Single Gel Barrier Tube. *Nucleic Acids Research* 17: 20, 8393, 1989.
28. Tilzer, L., Thomas, S. and Moreno, R.F. Use of Silica Gel Polymer for DNA Extraction with

Organic Solvents. *Analytical Biochemistry* 183: 1 13-15, Nov. 15, 1989.

29. Moreno, R.F., Booth, F.R., Thomas, S.H., and Tilzer, L.L. Enhanced conditions for DNA fingerprinting with biotinylated M13 bacteriophage. *Journal of Forensic Science*, Vol, 35, No. 4 July 1990, pp. 831-837.

30. Tilzer, L.L. and Moreno, R.F. Detectives microscopicos: La ingenieria genetica permite realizar pruebas de diagnostico hasta ahora imposibles. *El Pais* 25-26, Feb. 26, 1989 (National newspaper of Spain)

31. Tilzer, L., Moreno, R. and Booth, F. Extraction of genomic DNA from strains without ethanol precipitation, June 19, 1989. *Proceedings of the International Symposium on the Forensic Aspects of DNA Analysis*.

32. Tilzer, L., Moreno, R. and Booth, F. DNA fingerprinting with M13mp8 RF bacteriophage using non-radioactive methods, June 19, 1989. *Proceedings of the International Symposium on the Forensic Aspects of DNA Analysis*.

33. Tilzer, L.L., *Hematology in the Laboratory Test Handbook*, Jacobs, D.S. editor. Wilkins and Williams, Baltimore. pp 454-553, 1990.

34. Weilert, M. and Tilzer, L.L. Putting Bar Codes to Work for Improved Patient Care: in *Clinics in Laboratory Medicine*, Raymond D. Aller, and Franklin Elevitch, editors, 11:1 March 1991.

35. Sancho-Tello, M., Perez-Roger, I., Imakawa, K., Tilzer, L., and Terranova, P.F. Expression of tumor necrosis factor- α in the rat ovary. *Endocrinology* 130:1359-1364, 1992.

36. Tilzer, L. Interactive Pathology Lectures/Lab. *Interactive Healthcare Newsletter*, Vol 7, No. 12, December 1991.

37. Tilzer, L. Standard Specification for Use of bar Codes on Specimen Tubes in the Clinical Laboratory. in *American Society of Testing Materials*. E1466, March, 1992.

38. Bodensteiner, D., Tilzer, L, Adams, M., and Bayer, W. Use of Blood Components in Cancer Patients with Bleeding in *Hematology/Oncology Clinics in North America*. edited by Rodger Bick, W.B. Saunders, vol 6:1375-1392, 1992.

39. Wilson, L., Horvat, R., Tilzer, L., Meis, A., Montag, L. and Huntrakoon, M. Identificaton of Donor Melanoma in a Renal Transplant Recipient. *Diag. Mol. Pathol.*, 1: 266-271, 1992

40. Bayer, WL., Bodenstiener, D., Tilzer, L., and Adams, M., Use of Platelets and other transfusion products in patients with Malignancy Seminars in Hemostasis and Thrombosis, edited by Rodger Bick., W. B. Saunders. vol 18 #4: 380-391. 1992.
41. Beck, M., and Tilzer, L. History and Future Compatibility Testing in Immunohematology: Principles and Practice Edited by Quinley, Eva D., JB Lippincott, Phil, PA, 1993.
42. Laboratory Test Handbook, D. Jacobs and L. Tilzer editors. 3rd edition, Lexi Comp, Cleveland, OH.,1994.
43. Tilzer, L. Use of Bar Codes for Specimen Management in the Medical Laboratory. in Proceedings of the Clinical Laboratory Automation Workshop, Edited by A. Eggert, P. Ross, P. Sobocinski, R. Tomar, and J. Westgard. Univ. of Wisconsin - Madison, 127-131. 1994.
44. Beck, M., and Tilzer, L. Red Cell Compatibility Testing: A Perspective for the Future. Transfusion Medicine Reviews Vol. 10, No.2, 1-15, 1996.
45. Ganguly S, Spengel K, Tilzer LL, O'neal B, Simpson SQ. Recombinant Factor VIIa: unregulated continuous use in patients with bleeding and coagulopathy does not alter mortality and outcome. Clin Lab Haematol. 2006 vol 5: 309-12.
46. Weber S, Merkel D, Miller P, Tilzer L, Kliethermes J, and Horvat R. Hospital and Clinical Laboratory Response to Mumps Exposures. Lab Medicine 38(5):285-288, 2007.
47. Tilzer L, Cold Agglutinins in Cardiac Surgery. CAP Today (in press)

Recent Abstracts:

Tilzer LL, Stephens DE, McDonald CM, Weber SH IMPLEMENTATION OF AUTOMATION IN THE TRANSFUSION SERVICE AT A 530 BED FACILITY WITH A LEVEL I TRAUMA PROGRAM to be presented at the CLMA national convention Tampa, FL May 2009.

IV. SERVICE ACTIVITIES:

Administrative Committees & Service Activities – 1980-1992

Associate Director, Clinical Laboratories, KUMC

Transfusion Committee Chairman, KUMC

Medical Director of:

Blood Bank

Hematology

Outpatient Services

Laboratory Computer

Stat Laboratory

Receptor Laboratory

Gene Rearrangement & Molecular Pathology Laboratory

Flow Cytometry Laboratory

M.D. - Ph.D. Advisory Committee - 1989

Advisory Committee, International Center for Cell Biology

Selection Committee, Summer Medical Student Spanish Exchange Program

Hospital Coordinator for KUMC Bloodmobiles

Vice-President - University Pathology Associates 1984-1987

Treasurer - University Pathology Associates 1988-1992

Installed and managed computerized professional pathology billing

Review Committee for Mid America Cancer Center Grants

CAP Clinical Laboratory Inspector

Consultant to the Cancer Information Service, Kansas University Medical Center

Chairman, Task Force of ASTM Bar Code Standardization in Clinical Laboratories

Community Blood Center Related Activities and Committees – 1992-1996

Council of Community Blood Centers- Scientific, Medical, Technical (SMT) committee

Chairman, Council of Community Blood Centers, American Red Cross, and American Association of Blood Banks Ad Hoc Committee on FDA Licensure

Citings Advisory Board

Member of Board of Directors, Heart of American Blood Banks 1992-1995

Consultant for Laboratory Information System choice and installation for Health Management, Inc.

Buenos Aires, Argentina, 1993-1994

Ladies Auxiliary to the VFW 1993-96 Cancer Research Fellowship Review Panel

Consultant for Blood Banking in the Kyrghyz Republic, former Soviet Union Central Asian Project of the American International Health Agency, December 7-21, 1995.

Advisory Committee: *Citings* Information Exchange 1996.

Community Blood Center Responsibilities – 1992-1996

Responsible Head for the FDA, CLIA 88, and other compliance matters

Associate Medical Director

Director Outpatient Apheresis and Transfusion Service
Director Blood Testing Laboratories
Head of Quality Assurance Unit
Infection Control Committee
Set up Bone Marrow Processing, Peripheral Blood Stem Cell Collection, Stem Cell Culture and Cryopreservation techniques for community hospital transplant programs
Medical Director of Medical Information System

Community Blood Center of the Ozarks Responsibilities – 1995-1996

Responsible Head for FDA compliance
Medical Director

American Red Cross Responsibilities – Kansas City – 1996-1999

Start-up of new Blood Distribution and Collection Center
Direct Donor Recruitment and Collections
Direct Hospital Services (Blood Distribution) to Kansas City Region
Direct Sales of Blood Products and Services throughout the Kansas City Region

American Red Cross – Central Plains Regions (Wichita) – 1999-2002

Director of Apheresis Department and Stem Cell Collection Program
Director of Hospital Services, Product Release Lab, Component Preparation and Reference Lab
Director of Education Department
Director of Quality Systems Support
Chief Medical Officer

American Red Cross – Southwest Region – 2002-2004

Chief Executive Officer
Responsible for safety, purity, and potency of blood for Texas and Oklahoma ARC.
Responsible for \$50 million sales of blood products.
Responsible for collection of 150,000 units of blood annually.

Kansas University Medical Center – Clinical Laboratory – 2004-2006

Medical Director
Promotions and Tenure Committee

Pharmacy and Therapeutics Committee

Blood Utilization Committee

Pneumonia Committee (ORYX)

Medical Director of Hospital Lab Partnership

Vice-Chairman for Faculty Affairs and Advancement, Department of Pathology

KU Hospital Performance Improvement Committee