

CURRICULUM VITAE

Pudur Jagadeeswaran

I. GENERAL INFORMATION

A. Personal Data:

1. **Citizenship Status:** U.S. Citizen
2. **US Social Security No:** Confidential

B. Education:

1978	Ph.D.	Biochemistry	Indian Institute of Science, India
1973	M.S.	Biochemistry	University of Madras, India
1971	B.S.	Chemistry	Sri Venkateswara University, India

C. Postgraduate training:

1979-1982	Postdoctoral Fellow	Human Genetics	Yale University, CT
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D. Academic Appointments:

2005-Present	Professor with tenure, Department of Biological Sciences, University of North Texas, Denton, TX
2001-2005	Professor with tenure, Department of Cellular and Structural Biology, The University of Texas Health Science Center at San Antonio, TX
1990 - 2000	Associate Professor with tenure, Department of Cellular and Structural Biology, The University of Texas Health Science Center at San Antonio, TX
1988 - 1989	Associate Professor, (tenure track) Department of Cellular and Structural Biology, The University of Texas Health Science Center at San Antonio, TX
1982 - 1988	Assistant Professor, (tenure track) Department of Genetics, University of Illinois College of Medicine, Chicago, IL

E. Other Employment: N/A

F. Certification and Licensure: N/A

G. Honors and Awards:

Member, NIH Study Section (F32 NIDDK) 2009
Member, NIH Study Section (K01-K08 NHLBI) 2009
Member, NIH Study Section-Clinical Hematology 2008
Reviewer, Oklahoma Center for the Advancement of Science and Technology, 2007
Reviewer, AFAR 2008
Member, NIH Study Section (K01-K08 NHLBI) 2008
Reviewer, NSF Panel, 2007
State of the Art Lecture at Isth, 2007
Reviewer, Oklahoma Center for the Advancement of Science and Technology, 2007
Member, NIH Study Section (K01-K08 NHLBI) 2007
Member, NIH Study Section (Special Emphasis Panel-K08 NHLBI) 2006
Member, NIH Study Section (K01-K08 NHLBI) 2006
Member, NIH Study Section (Clinical Hematology), 2006
Reviewer, Oklahoma Center for the Advancement of Science and Technology, 2006
Member, NIH Study Section (K01-K08 NHLBI) 2006
Member, NIH Study Section (NHLBI Hem2-review group currently HT) 2002-2006
Member, NIH Study Section (Centers for excellence in molecular hematology) 2005
Member, NIH Study Section (K01-K08 NHLBI) 2005
Member, NIH Study Section (Special emphasis panel-COBRE) 2004
Reviewer, National Science Foundation, Integrative Animal Biology 2003
Mario Toppo Distinguished Scientist award by ASIOA at FASEB 2002
Member, NIH Study Section (Special emphasis panel-anemia and thalassemia) 2002
Reviewer, NSF equivalent in Austria 2002
Member (ad-hoc) NIH Study Section (Pharmacology-review group) 2002
Member (ad-hoc) NIH Study Section (Path A-review group) 2002
Scientific Advisory Board, Discovery Genomics Inc. 2001-Present
Member (ad-hoc) NIH Study Section (NHLBI Hem2-review group) 2001
Member, American Foundation for Aging Research National Advisory Council, 2001
Member, American Heart Association-Western Review Consortium, Peer Review Committee, 2000-2004
Member (ad-hoc) NIH Study Section (NHLBI Hem2-review group) 2000
Managing Editor, Frontiers in Bioscience 2000-current
Member (ad-hoc) NIH Study Section (NIAAA AA1-review group) 1999
Reviewer (Grants)- Wellcome Research Trust (London) 1997-99
Member Editorial Board of Analytical Biochemistry, 1994-1997
Basil O' Conner Award, 1984-1987
Council of Scientific and Industrial Research Graduate Fellowship, 1973-1977
Secretary, Biochemical Society, Indian Institute of Science, 1975-1976
Valedictorian, University of Madras, India in MS Biochemistry, 1973
Valedictorian, SV University, India in BS Chemistry, Physics and Zoology combination, 1971
National Merit Scholarship, India, 1968-1973
Valedictorian, ZP High School, India, 1967

II. TEACHING

A. Classroom/Laboratory:

Year	Course title	Credit hr	School/ level	Hours Class/lab	Role
2008	Nature News & Views	1	CAS/G	15/0	Director
2008	Medical Genetics	3	CAS/G	45/0	Director
2008	Nature News & Views	1	CAS/G	15/0	Director
2008	Principles of Biology II	3	CAS/UG	45/0	Director
2007	Nature News & Views	1	CAS/G	15/0	Director
2007	Principles of Biology II	3	CAS/UG	45/0	Director
2007	Animal Models of Disease	3	CAS/G	45/0	Director
2006	Nature News & Views	1	CAS/G	15/0	Director
2006	Animal Models of Disease	3	CAS/G	45/0	Director
2006	Principles of Biology II	3	CAS/UG	22/0	Director
2005	Animal Models	3	GS/G	6/0	Director
2004	Microscopic Anatomy	7	MS/P	3/35	Instructor
	Molecular Biology Core Course II	4	GS/G	4/0	Instructor
	Biological Regulatory Mechanisms	3	GS/G	45/0	Director
2003	Microscopic Anatomy	7	MS/P	2/35	Instructor
	Molecular Biology Core Course II	4	GS/G	4/0	Instructor
	Biological Regulatory Mechanisms	3	GS/G	45/0	Director
2002	Microscopic Anatomy	7	MS/P	2/35	Instructor
	Molecular Biology Core Course II	4	GS/G	4/0	Instructor
	Biological Regulatory Mechanisms	3	GS/G	45/0	Director
2001	Microscopic Anatomy	7	MS/P	1/35	Instructor
	Molecular Biology Core Course II	4	GS/G	4/0	Instructor
2000	Microscopic Anatomy	7	MS/P	1/35	Instructor
	Molecular Biology Core Course II	4	GS/G	4/0	Instructor
1999	Microscopic Anatomy	7	MS/P	0/35	Instructor
	Introduction to Research	1	GS/G	0.5/0	Instructor
	Molecular Biology Core Course II	4	GS/G	4/0	Instructor
	Medical Genetics	4	MS/P	0/16	Instructor
1998	Introduction to Research	1	GS/G	0.5/0	Instructor
	Molecular Biology Core Course II	4	GS/G	4/0	Instructor
	Medical Genetics	4	MS/P	0/16	Instructor
	Biological Regulatory Mechanisms	3	GS/G	45/0	Director
1997	Introduction to Research	1	GS/G	0.5/0	Instructor
	Molecular Biology Core	4	GS/G	4/0	Instructor

	Course II				
1996	Medical Genetics	4	MS/P	0/16	Instructor
	Introduction to Research	1	GS/G	0.5/0	Instructor
	Molecular Biology Core	4	GS/G	4/0	Instructor
	Course II				
1995	Medical Genetics	4	MS/P	0/16	Instructor
	Introduction to Research	1	GS/G	0.5/0	Instructor
	Molecular Biology Core	4	GS/G	4/0	Instructor
	Course II				
1994	Medical Genetics	4	MS/P	0/16	Instructor
	Biological Regulatory Mechanisms	3	GS/G	45/0	Director
	Introduction to Research	1	GS/G	0.5/0	Instructor
	Molecular Biology Core	4	GS/G	4/0	Instructor
	Course II				
1993	Medical Genetics	4	MS/P	0/16	Instructor
	Introduction to Research	1	GS/G	0.5/0	Instructor
	Molecular Biology Core	4	GS/G	4/0	Instructor
	Course II				
1992	Medical Genetics	4	MS/P	0/16	Instructor
	Biological Regulatory Mechanisms	3	GS/G	45/0	Director
	Introduction to Research	1	GS/G	0.5/0	Instructor
	Molecular Biology Core	4	GS/G	4/0	Instructor
	Course II				
1991	Medical Genetics	4	MS/P	0/16	Instructor
	Introduction to Research	1	GS/G	0.5/0	Instructor
1990	Medical Genetics	4	MS/P	0/16	Instructor
	Introduction to Research	1	GS/G	0.5/0	Instructor
	Biological Regulatory Mechanisms	3	GS/G	45/0	Director
1989	Introduction to Research	1	GS/G	0.5/0	Instructor
	Cell Biology	3	GS/G	1.5/0	Instructor
	Basic methodologies in Molecular Biology	2	GS/G	5.0/0	Instructor
1988	Introduction to Research	1	GS/G	0.5/0	Instructor
	Biological Regulatory Mechanisms	3	GS/G	45/0	Director
	Biological Regulatory Mechanisms	3	GS/G	20/0	Co-Director
1987	Biological Regulatory Mechanisms	3	GS/G	20/0	Co-Director
	Biochemistry of Cellular Differentiation	3	GS/G	4.5/0	Instructor
1986	Biochemistry of Cellular Differentiation	3	GS/G	4.5/0	Instructor
	Biochemistry of Cellular Differentiation	3	GS/G	4.5/0	Instructor
1985	Biochemistry of Cellular Differentiation	3	GS/G	4.5/0	Instructor
	Biochemistry of Cellular Differentiation	3	GS/G	4.5/0	Instructor
1984	Biochemistry of Cellular Differentiation	3	GS/G	4.5/0	Instructor

1983	Cellular Differentiation Biochemistry of Cellular Differentiation	3	GS/G	4.5/0	Instructor
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*School: Graduate School (GS), Medical School (MS), College of Arts and Sciences (CAS); **Level: Graduate (G), Under Graduate (UG)

I taught the Biological regulatory mechanisms (45 hrs) from 1987. This is an advanced course for which I was a course director and contributed to the core course in molecular biology (4 hrs). In addition, I contributed to Medical School Teaching by participating in the Medical Genetics course (16 hrs) every year from 1991-1999. I have also been participating in teaching microscopic anatomy to medical students in both laboratory (35 hrs) and classroom (3 hr) teaching (listed above). To participate more in medical school teaching, I have audited the Microscopic Anatomy course (see below). In addition, animated videos on mechanism of translation have been developed (see below). Recently I developed the course on Animal Models of Human Disease and also introduced a course on Nature News and Views where students discuss the News and Views section of Nature magazine.

B. Clinical Teaching: N/A

C. Instructional Development:

1. Formal Study to Improve Teaching Abilities

Completed course entitled "Presenting Information to Students" at UTHSCSA in 1989.

Audited Head and neck section of "Gross Anatomy and Embryology", 1996

Audited the course entitled "Microscopic Anatomy", 1998

2. Current Research Concerning Teaching:

a. Developed a 90-minute videotape on "Molecular Diagnostic Methods." (1994) This involved 2500 slide preparations using computer graphics and transmission of those images to video with an audio. The video was used as a part of training residents from Obstetrics and Gynecology at the UTHSCSA (currently available).

b. Developed three other 90-minute videotapes on molecular biology of translation (1997 – currently available).

c. Microscopic Anatomy course material was placed on the videotapes (1998 – currently available).

3. Bibliography Concerning Teaching:

a. Development of laboratory techniques course involving DNA sequencing and library screening (Course on Basic Methodologies in Molecular Biology).

b. Development of course involving topics with a regulatory viewpoint (Course on Biological Regulatory Mechanisms).

Topics include:

Transposable Elements, Metabolic regulation in yeast, Transcription by Polymerases I, II and III, Switches in SV40 and adenoviruses, mating type switch in yeast, DNA-protein interactions, Protein-Protein interactions in blood coagulation, Gene regulation in bacteriophage lambda, Cell Cycle control, Cell Lineages, Translational Control, Regulation retroviruses, Signal Transduction pathways

- c. A case study on Duchenne Muscular Dystrophy X-linked inheritance (Course on Medical Genetics)
- d. Teaching mutational analysis of factor IX and X deficiencies in the laboratory to medical genetics students.

4. Media and Software developed:

Have developed methods of presenting advanced topics such as translation by video instruction

C. Masters' Thesis and Ph.D. Dissertations Directed, Membership on supervising Committees and Postdoctoral Fellows Supervised:

- 1. Supervised the following **postdoctoral fellows/visiting professors**:

Post doc./Visiting Prof.	Year	Current position
Dr. D. Lavelle (postdoc)	1984-1985	Scientist at VA Hospital
Dr. R.K. Kaul (postdoc)	1985-1987	Scientist in University of Washington
Dr. K.J. Rao (visiting prof.)	1987-1989	Professor, SV University
Dr. S.V.K. Reddy (postdoc)	1988-1989	Professor, Dept. Medicine University of South Carolina
Dr. Appaswamy Pillai (visiting prof.)	1993	Emeritus Professor, SV Arts College
Dr. E.J. Boland (postdoc)	1991-1994	Asst. Professor, UTHSCSA
M.W. Odom (visiting prof.)	1991-1994	Associate Professor, Dept. Pediatrics UTHSCSA
Dr. Y.C. Liu (postdoc)	1994-1997	Clinical practice
Dr. R. Hanumanthaiah (postdoc)	1999-2001	Residency program, UTHSCSA
Dr. B. Thattaliyath (postdoc)	2002-2004	Postdoctoral Fellow, University of Florida at Gainesville
Dr. N. Krishnegowda (postdoc)	2002-2003	Postdoctoral fellow, UTHSCSA
Dr. M. Cykowski (postdoc)	2003-2005	2003-2004 Teaching Anatomy and Histology, UTHSCSA
Dr. Seongcheol Kim (postdoc)	2005-Present	
Dr. RajPurohit (postdoc)	2007-present	
Dr. Avinash S (postdoc)	2008	
Dr. Shelly Crary (visiting)	2009-present	Asst. Professor

Professor)

UTSouthwestern

2. Served as member on the **Ph.D./M.S. supervising committee** for the following students:

Student	Yr completed
Ms. K. Choi	1985
Mr. T. Firak	1986
Mr. C.C. Lee	1989
Ms. V. Magnuson	1992
Mr. R. Lanier	1992
Mr. D. Chen	1993
Mr. G. Grant	1999
Mr. J. Munoz	2000
Mr. T. Giambernardi	2000
Mr. Mark Lyle	2001
Mr. Matt	Present
Mr. Alex	Present
Mr. Neil	Present
Mr. Todd	Present

3. Supervised the following **graduate students**:

Student	Start Date	Yr completed
<u>Michael Gregory</u>	1998	2003

Honors/awards: Best poster award at C&S Biology departmental retreat (2001), Invited Speaker in FASEB meeting (Orlando, FL) in “Animal Models and Disease” session in the minisymposium series (2001), Poster presentation in Cold Spring Harbor meetings on Zebrafish Development and Genetics (2000)

Publications:

1. Jagadeeswaran, P., **Gregory M.**, Johnson S and Thankavel B (2000) Hemostatic screening and identification of zebrafish mutants with coagulation pathway defects: An approach to identifying novel hemostatic genes in man. *Br J Haematol* 110, 946-956. *
2. Jagadeeswaran, P **Gregory, M** Zhou Y, Zon LI, Padmanabhan K and Hanumanthaiah, R (2000) Isolation of zebrafish full-length prothrombin cDNA and linkage group mapping. *Blood Cells Molecules and Diseases* 26, 479-489. *
3. Sheehan JP, Templer M, **Gregory M**, Hanumanthaiah, Troyer D, Thankavel B and Jagadeeswaran P (2001) Demonstration of the extrinsic coagulation pathway in teleostei: Identification of zebrafish coagulation factor VII. *Proc. National Acad. Sci. U.S.A.* 98, 8768-73.*
4. Hanumanthaiah, R., Thankavel, B., Day, K., **Gregory, M.**, Jagadeeswaran, P. (2001) Developmental expression of vitamin K-dependent gamma-carboxylase activity in zebrafish embryos: Effect of warfarin. *Blood Cells Mol. Dis.* 27, 992-99.*
5. **Gregory, M.**, Jagadeeswaran, P. (2002) Selective Labeling of Zebrafish Thrombocytes: Quantitation of Thrombocyte Function and Developmental Detection.

Blood Cells Mol. Dis. 28, 417-27.*

6. **Gregory, M.**, Hanumanthaiah, R., Jagadeeswaran, P. (2002) Genetic analysis of hemostasis and thrombosis using vascular occlusion *Blood Cells Mol. Dis.* 29, 286-295.*
7. Jagadeeswaran, P., **Gregory, M.**, Day, K., Cykowski, M., and Thattaliyath, B. Zebrafish as a genetic model for hemostasis and thrombosis. *J. Throm. Haemostasis* (in press)*

Abstracts:

8. Jagadeeswaran, P., Thankavel, B., **Gregory, M.**, Templer, M. and Sheehan, J. (1999) Analysis of Zebrafish Hemostasis and Isolation of Mutants with Hemostatic Defects. *First European Meeting on Zebrafish Genetics and Development*, Tubingen, p28
9. Sheehan J, Templer M, **Gregory M**, Jagadeeswaran P (1999) Cloning and predicted protein structure of zebrafish factor VII *Supplement to Thromb Haemostasis* p467-468
10. Thankavel, B., **Gregory, M** Jagadeeswaran, P. (2000) Hemostatic screening and identification of zebrafish mutants with coagulation pathway defects In *Zebrafish Development and Genetics*, Cold Spring Harbor Laboratory, p2
11. **Gregory M**, Thankavel, B Jagadeeswaran, P. (2000) Chemically induced vascular occlusion in zebrafish embryos In *Zebrafish Development and Genetics*, Cold Spring Harbor Laboratory, p99
12. Hanumanthaiah, R **Gregory, M** Thankavel, B and Jagadeeswaran, P. (2000) Molecular characterization of zebrafish coagulation In *Zebrafish Development and Genetics*, Cold Spring Harbor Laboratory, p104
13. Jagadeeswaran P, Thankavel B, **Gregory M.** (2001) Developmental expression of vitamin K-dependent gamma-carboxylase activity in zebrafish embryos: Effect of warfarin *FASEB J* 15 (4): A175-A175 Part 1
14. **Gregory M**, Jagadeeswaran P (2001) Zebrafish: A genetic model for vascular occlusion. *FASEB J.* 15, A1102-A1102
15. **Gregory, M.**, Jagadeeswaran, P. (2001) Genetic screen for vascular occlusion in zebrafish larvae. *Blood* 98, 1088 Part 1
16. Lin, H.F., Paw, B.H., **Gregory, M.**, Jagadeeswaran, P., Handin, R.I. (2001) Production and characterization of transgenic zebrafish (*Danio rario*) with fluorescent thrombocytes and thrombocyte precursors. *Blood* 98, 2147 Part 1
17. **Gregory, M.**, Jagadeeswaran, P. (2002) Screening and identification of mutants of vascular occlusion in zebrafish larvae In *Zebrafish Development and Genetics*, Madison, p227
18. **Gregory, M.**, Jagadeeswaran, P. (2002) Selective labeling of zebrafish thrombocytes: Quantitation of thrombocyte function and developmental detection In *Zebrafish Development and Genetics*, Madison, p228
19. Thattaliyath, B., **Gregory** Jagadeeswaran, P. (2003) Role of two populations of zebrafish thrombocytes In International Society of Thrombosis and Hemostasis (in press)

Publications:

1. Hanumanthaiah, R., Thankavel, B., **Day, K.**, Gregory, M., Jagadeeswaran, P. (2001) Developmental expression of vitamin K-dependent gamma-carboxylase activity in zebrafish embryos: Effect of warfarin. *Blood Cells Mol. Dis.* 27, 992-99.*
2. Hanumanthaiah, R., **Day, K.**, Jagadeeswaran, P. (2002) Comprehensive Analysis of Blood Coagulation Pathways in Teleostei: Evolution of Coagulation Factor Genes and Identification of Zebrafish Factor VIIIi *Blood Cells Mol. Dis.* 29, 57-68.*
3. Day, K., Krishnegowda, N., **Jagadeeswaran, P.** (2004) Knockdown of prothrombin in zebrafish *Blood Cells Mol. Dis.* 32:191-8
4. Jagadeeswaran, P., Gregory, M., **Day, K.**, Cykowski, M., and Thattaliyath, B. Zebrafish as a genetic model for hemostasis and thrombosis. *J. Throm. Haemostasis* (in press)*

Abstracts:

5. Hanumanthaiah R, **Day K**, Jagadeeswaran, P Characterization of cDNAs of blood coagulation pathway proteins in zebrafish. *Blood* 98, 2212 Part 1
6. **Day K**, Hanumanthaiah R, Jagadeeswaran, P (2001) Developmental role of thrombin in zebrafish. *Blood* 98, 3898 Part 2
7. **Day K**, Hanumanthaiah R, Jagadeeswaran, P (2002) Molecular evolution of blood coagulation genes in vertebrates In *Zebrafish Development and Genetics*, Madison, p178
8. **Day K**, Hanumanthaiah R, Jagadeeswaran, P (2002) Expression and characterization of zebrafish coagulation factor X and prothrombin In *Zebrafish Development and Genetics*, Madison, p179
9. Hanumanthaiah R, **Day K**, Jagadeeswaran, P (2002) Demonstration of the effects of antithrombin, GAS6, factor VIIIi, factor VII and prothrombin knockdown in the zebrafish by laser-induced thrombosis, In *Zebrafish Development and Genetics*, Madison, p236
10. Day K, and **Jagadeeswaran, P.** (2004) Genes regulated by thrombin in development prior to blood circulation. In *Zebrafish Development and Genetics*, Madison, p141

Michael Herrera 2001 2004

Publications:

1. **Herrera, M** and Jagadeeswaran, P. (2004) Annual fish as a genetic model for aging. *J. of Gerontology* 59(2):101-7.*

Abstracts:

2. **Herrera M**, Jagadeeswaran, P (2002) Killifish: A vertebrate model for aging In *Zebrafish Development and Genetics*, Madison, p244

3. Herrera M, **Jagadeeswaran, P.** (2004) Annual fish as a genetic model for aging. In *Zebrafish Development and Genetics*, Madison, p163
4. Trained the following **high school (HS) /undergraduate (U) / MD students (MD)**:

Branigan Mulchahy (HS), Kimi Johnson (HS), Lam Mays (HS), Kristal Garcia (HS), Praveen Mammen (HS), Quynh Le (HS), Oscar Garza (HS), Shankar Yakkala (HS), Michael Delavega (HS), Alex Zimmerle (HS), Ashwin Gaitonde (HS), Ian Thompson III (HS), Priya Nair (HS), Abhijit Koli (HS), Stephanie Narvaez (HS) Susuma Bhaktha (U), Sujatha Ramamurthy (U), and, Louis Alfonso Garcia (U), Denise Ayo (U) Gerardo Ortiz (MD), Ryan Green (MD), David Benglis (MD), Manesh Sagar (MD), Stephnie Narvaz (HS), Lauren (HS), Mandeep Magat (U), Ali Palewala (HS). (see under community service), Lala Jefreen (U), Ryan (U), Meghana (TAMS), Marcus Perkins (U), Setlur (TAMS), Marey (U), Subhada (TAMS), Meera Gudavalli (TAMS).
5. The following **graduate students had a six week rotation or laboratory training** in my laboratory:

Larry Gelbert (1984), Gary Vogel (1985), Z.Q. Zhou (1988), Yolanda Sanchez (1988), Keith May (1989), Michael Gregory (1998), Jessica Huamani (2000), Kenneth Day (2000), Devon Hall (2001), Michael Wetzel (2003).

III. RESEARCH

A. Bibliography:

PAPERS/CHAPTERS:

1. **Jagadeeswaran, P.** and J.D. Cherayil (1977). Electrophoresis of ³²P labeled oligonucleotides and thin layer DEAE cellulose for rapid separation in fingerprinting. *Current Science*, 46:546-548. *
2. **Jagadeeswaran, P.**, and J.D. Cherayil, N. Pattabiraman, and V. Sasisekharan (1977). A computer method for predicting the sequence of tRNA from its enzymatic digestion products based on its secondary structure. *Current Science*, 46:691-694. *
3. **Jagadeeswaran, P.** and J.D. Cherayil (1978). Nucleotide sequence of 5S RNA of mycobacterium smegmatis. *Proc. Indian Acad. Sci.*, 87B: 213-224. *
4. **Jagadeeswaran, P.** and J.D. Cherayil (1980). A general model for the conformational switch in 5S RNA during protein synthesis. *J. Theor. Biol.*, 83:369-75. *
5. **Jagadeeswaran, P.** and J.D. Cherayil (1980). Structure of the 5S RNA from mycobacterium smegmatis. An intermediate structure. *Int. J. Biol. Macromolecules*, 2:107-108. *
6. Duncan, C.H., **P. Jagadeeswaran**, R.R.C. Wang, and S.M. Weissman (1981). Alu family RNA polymerase III transcriptional units interspersed in human beta-like globin genes. Structural analysis of templates and transcripts. *Gene*, 13:185-96. *
7. **Jagadeeswaran, P.**, B.G. Forget, and S.M. Weissman (1981). Short interspersed repetitive DNA elements in eukaryotes, transposable DNA elements generated by reverse transcription of RNA Pol III transcripts. *Cell*, 26:141-2. *

11. **Jagadeeswaran, P.**, J. Pan, R.A. Spritz, C.A. Duncan, P.A. Biro, D. Tuan, B.G. Forget, and S.M. Weissman (1981). Structures in intergenic DNA of non-alpha globin genes in man. In *Developmental Biology Using Purified Genes*, ICN-UCLA Symp. Molec. Cell Biol. 23, Brown, D.E. and C.F. Fox (eds.), pp. 71-80, Academic Press, New York.
12. Spritz, R.A., **P. Jagadeeswaran**, P.V. Choudary, P.A. Biro, J.T. Elder, J.K. deRiel, J.L. Manley, M.L. Gefter, B.G. Forget, and S.M. Weissman (1981). Intervening sequence mutation in a cloned human beta plus thalassemic gene. *Proc. Natl. Acad. Sci.*, 78:2455-9. *
13. Spritz, R.A., **P. Jagadeeswaran**, P.A. Biro, J.T. Elder, P.V. Choudary, J.K. deRiel, J.L. Manley, M.L. Gefter, S.M. Weissman, and B.G. Forget (1981). Structure and functional characterization of clones beta plus thalassemic globin gene fragments. In *Organization and expression of globin genes*, G. Stamatoyannopoulou and Q.W. Nienhuis (eds.), pp. 279-286, A.R. Liss, Inc., New York.
14. Spritz, R.A., **P. Jagadeeswaran**, P.A. Biro, J.T. Elder, J.K. deRiel, B.G. Forget, S.M. Weissman, J.L. Manley, and M.L. Gefter (1981). Intervening sequence mutation in a cloned human beta plus thalassemic globin gene. In *Developmental Biology Using Purified Genes*, ICN-UCLA Symp. Molec. Cell Biol. 23, Brown, D.E. and C.F. Fox (eds.), pp. 61-70, Academic Press, New York.
15. **Jagadeeswaran, P.**, D. Tuan, B.G. Forget, and S.M. Weissman (1982). A gene deletion ending at the midpoint of a repetitive DNA sequence is one form of hereditary persistence of fetal hemoglobin. *Nature*, 296:469-70. *
16. **Jagadeeswaran, P.** and P. McGuire (1982). Interactive computer programs in sequence data analysis. *Nucl. Acid. Res.*, 10:433-47. *
17. **Jagadeeswaran, P.**, B.G. Forget, and S.M. Weissman (1982). Interspersed repetitive DNA sequences of the human genome: Are they transposons? *Prog. Clin. Biol. Res.*, 103 Pt A: 29-35. *
18. Forget, B.G., D. Tuan, P.A. Biro, **P. Jagadeeswaran**, and S.M. Weissman (1981). Structural features of the DNA flanking the human non-alpha globin genes: Implications of the control of fetal hemoglobin switching. *Transact. Assoc. Am. Phys.*, 94:204-10. *
19. Forget, B.G., D. Tuan, M.V. Newman, E.A. Feingold, F. Collins, Y. Fukumaki, **P. Jagadeeswaran** and S.M. Weissman (1983). Molecular Studies of mutations that increase HbF production in man. *Prog. Clin. Biol. Res.*, 134:65-76. *
20. Fukumaki, Y., F. Collins, R. Kole, C.J. Stoeckert, **P. Jagadeeswaran**, C.H. Duncan, and S.M. Weissman (1982). Repeated sequence DNA. *Cold Spring Harbor Symposia on Quantitative Biology*, 57:1079-81. *
21. **Jagadeeswaran, P.**, J. Pan, B.G. Forget, and S.M. Weissman (1982). Sequences of non-alpha globin genes in man. *Cold Spring Harbor Symposia on Quantitative Biology*, 57:1081-83. *
22. **Jagadeeswaran, P.**, D.E. Lavelle, R. Kaul, T. Mohandas, and S.T. Warren (1984). Isolation and characterization of human factor IX cDNA. Identification of Taq I polymorphism and regional assignment. *Somatic Cell and Molec. Genetics*, 10:465-73. *
23. **Jagadeeswaran, P.**, C.R. Ashman, S. Roberts, and J. Langenberg (1984). Nucleotide sequence and analysis of deletion mutants of Escherichia coli gpt gene in plasmid pSV2gpt. *Gene*, 31:309-13. *
24. Warren, S.T., T.W. Glover, R.L. Davidson, and **P. Jagadeeswaran** (1985). Linkage and recombination between fragile X-linked mental retardation and the factor IX

- gene. *Human Genetics*, 69:44-6. *
25. Kaul, R.K., B. Hildebrand, S. Roberts, and **P. Jagadeeswaran** (1986). Isolation and characterization of human factor X full length cDNA. *Gene*, 41:311-14. *
 26. **Jagadeeswaran, P.** and R.K. Kaul (1986). Use of reverse phase chromatography in Maxam-Gilbert reactions: A step towards automation. *Gene Analysis Techniques*, 3:79-85. *
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INVITED LECTURES:

1. M.D. Anderson Hospital, Department of Biochemistry, Structure and Function of Alu Family, 1982.
2. University of Texas at Galveston, Department of Cell Biology, Transposable Alu Family, 1982.
3. Sri Venkateswara University, India, Department of Zoology on Alu Family as Transposable Elements, 1982.
4. Sri Venkateswara University, India, Department of Anthropology on Molecular Evolution of Globin Genes, 1982.
5. Indian Institute of Science, Department of Biochemistry on Molecular Genetics of Human Globin Genes, 1982.
6. University of Chicago, Department of Hematology on Molecular Basis of Hemophilia B, 1984.
7. Sri Venkateswara University, India, Department of Zoology on Molecular Basis for Hemophilia B, 1985.
8. Indian Institute of Science, Department of Biochemistry on Molecular Genetics of Blood Coagulation, 1985.
9. Northwestern University Medical School, Department of Microbiology on Structure of Human Factor IX Gene, 1985.
10. University of Vermont, Department of Biochemistry, Molecular Genetics of Blood Clotting, 1985.
11. Children's Memorial Hospital, Department of Pediatrics, Molecular Basis for Hemophilia B, 1985.
12. Rush University, Department of Hematology, Molecular Basis for Factor X Deficiency, 1986.
13. Rush University, Department of Microbiology and Immunology, Molecular Genetics of Blood Coagulation, 1986.
14. Cornell Medical School, Thrombosis Research Center, Molecular Genetics of Blood Coagulation, 1987.
15. Temple University, Thrombosis Research Center, Molecular Genetics of Blood Coagulation, 1987.

16. Washington State University, Department of Veterinary Microbiology and Pathology, Molecular Genetics of Blood Coagulation, 1987.
17. Wayne State University, Department of Molecular Biology and Genetics, Molecular Genetics of Blood Coagulation, 1987.
18. Southern Illinois University, Department of Pediatrics, Molecular basis of Hemophilia, 1988
19. Trinity University, Department of Biology, Molecular Basis for Factor X deficiency, 1989.
20. University of Tennessee, Department of Pediatrics. Seminar for Pediatric Grand Rounds, 1989.
21. Mayo Medical School, Hematology Research, Molecular Biology of blood coagulation Factors, 1989.
22. Sri Venkateswara University, India, Department of Zoology Transcription of Factor IX gene during aging, 1993.
23. Trinity University Department of Biology, Transcription of Factor IX gene during aging, 1993.
24. Packard/Canberra Company, Automation of Maxam-Gilbert Sequencing Reactions, 1995.
25. University of Texas Health Science Center at San Antonio, Department of Pediatrics, Genetics of Zebrafish Hemostasis, 1999
26. University of Texas Health Science Center at San Antonio, Department of Medicine, Genetics of Zebrafish Hemostasis (informal seminar), 1999
27. Texas A&M University, Department of Biology, Zebrafish hemostasis, 1999
28. Temple University, Thrombosis Research Center, Zebrafish hemostasis, 1999.
29. Oklahoma Medical Research Foundation, University of Oklahoma Health Science Center, Zebrafish as a genetic model for hemostasis, 2000
30. Saint Louis University, Department of Medicine, Zebrafish as a model for human disease, 2000
31. University of Michigan, Department of Internal Medicine, Zebrafish as a genetic Model for Hemostasis, 2001
32. Ohio State University, Department of Neurobiotechnology, Zebrafish as a genetic Model for Human Disease, 2001

33. University of Texas Health Center at Tyler, Department of Biochemistry, Zebrafish as a genetic model for hemostasis, 2001
34. Zygogen LLC. at Atlanta, Vascular Occlusion in zebrafish: a model for thrombosis, 2001
35. Baylor College of Medicine, Thrombosis Research Center: Zebrafish as a genetic model for hemostasis and thrombosis, 2001
36. Blood Center, Milwaukee, Zebrafish as a genetic model for hemostasis and thrombosis, 2001
37. University of Nevada at Reno, Department of Animal Genetics. Zebrafish as a genetic model for hemostasis and thrombosis, 2001
38. University of Minneapolis at Minnesota, Department of Genetics. Zebrafish as a genetic model for hemostasis and thrombosis, 2002
39. Millennium Pharmaceuticals, Division of cardiovascular sciences: Zebrafish as a genetic model for hemostasis and thrombosis, 2002
40. University of Wisconsin, Milwaukee, Great Lakes Water Institute: Zebrafish as a genetic model for hemostasis and thrombosis, 2002
41. University of Texas Health Science Center at San Antonio: Zebrafish: A novel genetic model for hemostasis and thrombosis, 2003
42. Florida Hospital and Cancer Institute: Zebrafish: A novel genetic model for hemostasis and thrombosis, 2003
43. University of Alaska, Fairbanks: Zebrafish: A novel genetic model for hemostasis and thrombosis, 2003
44. National Institutes of Health: Zebrafish: A novel genetic model for hemostasis and thrombosis, 2003
45. University of Texas Health Center at Tyler, Department of Biochemistry, Zebrafish as a genetic model for hemostasis, 2004
46. Brigham Women-Harvard Medical School, Department of Medicine, Zebrafish as a genetic model for hemostasis, 2005
47. University of Kentucky, Department of Biochemistry, Zebrafish: A novel model to study mammalian hemostasis and thrombosis, 2005
48. University of Delaware, Department of Biology, Zebrafish hemostasis and thrombosis, 2005
49. University of Texas Health Science Center at San Antonio, Department of Cellular and Structural Biology, Zebrafish: A novel model to study mammalian hemostasis and

- thrombosis, 2005
50. University of Texas MD Anderson Cancer Center, Department of Pediatrics, Pediatric grand rounds, Zebrafish hemostasis and thrombosis, 2005
 51. University of North Texas Health Science Center, Department of Cell Biology, Zebrafish: A novel model to study mammalian hemostasis and thrombosis, 2006
 52. University of Arkansas Medical School, Little Rock, Department of Physiology, Zebrafish hemostasis and thrombosis 2006
 53. University of Mississippi, Oxford, Department of Pharmacology, Zebrafish: From Bloody Mess to Pure Water. 2007
 54. University of Texas Southwestern, Department of Pediatrics, Grand Rounds, Zebrafish: From Hematology to Hydrology, 2007
 55. SMU, Da Vince Seminar Series, Why River Ganges Water is sacred?, 2007
 56. SV University, Department of Zoology, Zebrafish: From Hematology to Hydrology, 2007
 57. Indian Institute of Science, Department of Microbiology and Cell Biology, Zebrafish: From Hematology to Hydrology, 2007
 58. Bangalore University, Department of Biotechnology, Zebrafish: From Hematology to Hydrology, 2007
 59. Jain College, Bangalore, Why River Ganges Water is sacred?, 2007
 60. BRK College, Vizag, Why River Ganges Water is sacred?, 2008
 61. University of Utrecht NL, Hubrecht Institute for Developmental Biology, Zebrafish: From Hematology to Hydrology 2008

PRESENTATIONS AT NATIONAL/INTERNATIONAL MEETINGS:

1. Association of Microbiologists (India), Separation of nucleotides by hydrodynamic flow, 1974
2. Society of Biological Chemists (India), Purification and partial characterization of 5S RNA from Mycobacterium Smegmatis, 1975
3. Society of Biological Chemists (India), Purification of tRNAs from Mycobacterium Smegmatis, 1976
4. All India Cell Biology Conference (India), 5S RNA sequence from M. Smegmatis, 1977

5. Society of Biological Chemists (India), Computer Method to predict sequence based on secondary structure, 1978
6. ICN-UCLA Symposium, Characterization of Human Globin Gene Cluster, 1981.
7. Cold Spring Harbor Meetings, Molecular Evolution of Globin Genes, 1982.
8. Miami Winter Symposium, Cloning of human factor IX gene, 1984
9. Gordon Research Conferences, Cloning of Human Factor IX cDNA and Chromosomal Localization, 1984.
10. Gordon Research Conference, Molecular Cloning of Human Factor X cDNA, 1986.
11. ICN-UCLA Symposium, Transcriptional Regulation of Human Factor IX gene, 1986.
12. American Society of Hematology meetings, Expression of Human Factor XIII in Yeast, 1988.
13. American Society of Human Genetics meetings, Structure of human factor X gene, 1988.
14. American Society of Biochemistry and Molecular Biology, Expression of Human Factor XIII in Yeast, 1989.
15. XIIth International Congress on Haemostasis and Thrombosis, Characterization of Factor X deficiency, 1989.
16. Miami Winter Symposium, Molecular Basis for factor IX and X deficiencies, 1991
17. American Society of Experimental Biologists, Method for isolation of coding sequences from genomic DNA, 1993
18. Third International Workshop on Transcribed Sequences, Novel Strategy for Isolating Unknown Coding Sequences from Genomic DNA, 1993.
19. Fifth International Workshop on Transcribed Sequences, Selecting coding sequences from genomic DNA, 1995.
20. Cold Spring Harbor Meetings on Zebrafish Development & Genetics, Cloning and Expression of Prothrombin in zebrafish, 1996
21. Cold Spring Harbor Meetings on Zebrafish development & Genetics, Introduction of hemophilic state in zebrafish, 1998
22. Gordon Research Conference on Hemostasis, Characterization of zebrafish hemostasis, 1998
23. First European Meeting on Zebrafish Genetics and Development, Coagulation Mutants in

zebrafish, 1999

24. XVIIth International Congress on Hemostasis and Thrombosis, Blood coagulation mutants, in zebrafish, 1999
25. Cold Spring Harbor Meetings on Zebrafish Development & Genetics, Hemostatic Mutants in zebrafish, 2000
26. Gordon Research Conference on Hemostasis, Genetic Analysis of zebrafish hemostasis, 2002
27. Wisconsin Meetings on Zebrafish Development & Genetics, Hemostasis in zebrafish, 2002
28. Texas Zebrafish Development and Genetics , 2003.
29. Gordon Research Conference on Hemostasis 2004
30. Wisconsin Meetings on Zebrafish Development & Genetics, Hemostasis in zebrafish, 2004
31. Gordon Research Conference on Cell Biology of Megakaryocytes and Platelets, 2005
32. Texas Zebrafish Development and Genetics, 2005
33. International Society of Thrombosis and Hemostasis conference, Sydney, 2005
34. International Meeting on Zebrafish Development and Genetics, 2006
35. Gordon Resarch Conference on Hemostasis 2006
36. Gordon Research Conference on Cell Biology of Megakaryocytes and Platelets, 2007
37. Gordon Research Conference on Hemostasis 2008

INVITED TALKS IN NATIONAL/INTERNATIONAL MEETINGS:

1. Invited Speaker for FASEB Summer Research Conference on the Synthesis and Functions of Vitamin K-dependent Proteins, 1990.
2. Invited Speaker for Science Innovation on Automation of Maxam and Gilbert Sequencing Reactions, 1992.
3. Invited Speaker for Genome Sequencing workshop in Hilton Head, 1993.
4. Invited Speaker and co-chair for Animal Models for Hemostasis and Thrombosis session in International Society of Thrombosis and hemostasis 2000
5. Invited Speaker (presented by graduate student) and Chair for Animal Models and

- Disease minisymposium session in FASEB meetings (Orlando, FL) 2001
6. Invited Speaker and co-chair for Animal Models for Hemostasis and Thrombosis session in International Society of Thrombosis and hemostasis 2001
 7. Invited Speaker and co-chair for Thrombosis session in Arteriosclerosis, Thrombosis and Vascular Biology meeting, AHA 2002
 8. Invited Speaker and co-chair for Animal Models for Hemostasis and Thrombosis session in International Society of Thrombosis and hemostasis 2002
 9. Invited Speaker and Chair for Animal Models for Hemostasis and Thrombosis session in International Society of Thrombosis and hemostasis 2003
 10. Invited Speaker, Gordon Research Conference on Hemostasis 2004
 11. Invited Speaker and Chair for Animal Models for Hemostasis and Thrombosis session in SSC meetings of International Society of Thrombosis and hemostasis 2004
 12. Selected speaker for Hot Topics session and converted to the main talk, Gordon Research Conference on Cell Biology of Megakaryocytes and Platelets 2005
 13. Invited as a Keynote Speaker for UK-Ireland Platelet Conference to be held in September 2005.
 14. Invited Speaker and Chair in Hemostasis and Thrombosis sessions in International Society of Thrombosis and hemostasis 2005
 15. Invited Speaker and Chair for Animal Models for Hemostasis and Thrombosis session in SSC meetings of International Society of Thrombosis and hemostasis 2006
 16. Discussion leader, Gordon Research Conferences on Hemostasis 2006
 17. Invited speaker for the State of the Art sessions in International Society of Thrombosis and Hemostasis, Zebrafish: From Hematology to Hydrology in 2007
 18. Invited presentation for the Indian Science Congress in 2007
 19. Invited plenary talk for the Indian Science Congress in 2008
 20. Invited talk in International Meeting in Pharmacology 2008

MEETING ORGANIZATION:

- | | |
|------|---|
| 2001 | Organized the first Texas zebrafish development and genetics meeting in San Antonio (a total of 70 individuals participated in the meeting) |
| 2005 | Organized the First National Meeting for ASIOA |

- 2006 Organized International conference on zebrafish development and genetics
- 2007 Organized the Second National Meeting for ASIOA
- 2009 Organized the fifth Texas zebrafish development and genetics meeting in Denton (a total of 60 individuals participated in the meeting)

B. Areas of Research Interest:

My major interests are using molecular genetic tools to study hemostasis, a vertebrate specific function of paramount importance. Over the past one and half decades we have characterized a few human coagulation factor genes, identified a number of hemophilia B and factor X deficiency mutations and studied the functional roles of some mutations. In this pursuit, we developed a transgenic mouse model to study human factor IX Leyden promoter. However, the magnitude of the problem was too complex to obtain answers using a transgenic mouse model. We then thought that the zebrafish model could address this type of complex but unresolved problems in hemostasis such as regulation of threshold levels of coagulation factors (for example transcription factors and signal traducers similar to the factor IX Leyden promoter work), because it has been shown to be the *Drosophila* of vertebrates for developmental studies. However, whether the zebrafish model can be used to study mammalian hemostasis was questionable. Therefore, we undertook the characterization of zebrafish hemostasis and demonstrated that zebrafish hemostatic pathways are essentially similar to those that are found in mammals. We then developed screening tools to identify hemostatic mutants in a population of mutants generated by saturation chemical mutagenesis methods and isolated several hemostatic defective mutants. We are now employing mapping and positional cloning methods to identify novel genes not only such as those involved in coagulation factor gene regulation but also genes such as vitamin K-dependent epoxide-reductase gene that could not be characterized by standard approaches. Our recent studies on zebrafish hemostasis mutants have already led to the identification of novel factor VII like gene. Thus, we are currently isolating more number of hemostatic mutants to saturate the hemostatic pathways to discover additional novel mutants such as the one shown above. These include mutants of cellular interactions, blood flow affecting thrombus formation, gene regulatory mutants etc. Once we identify the novel genes by this functional genomics approach using zebrafish model, our goals are to retrieve the homologous human genes by GenBank searches and use the information to develop novel target drugs for hemostatic disorders. We have also generated transgenic zebrafish embryos using the green fluorescent protein as marker driven under a coagulation factor gene promoter. These studies will provide yet another approach to identify the regulators of hemostasis. Another interest stemming from our zebrafish model is its application to discover antithrombotic drugs by screening natural products and small molecular weight compounds. We have already discovered by such a screen an inhibitor for ristocetin-mediated adhesion of thrombocytes. In addition, we have recently identified two types of thrombocytes in adult zebrafish and also identified only one kind participated in initiation of vascular occlusion in artery. We wish to identify novel genes associated with arterial thrombosis. The effect of thrombus on endothelium is another aspect of the zebrafish program. Furthermore, the role of thrombocyte microparticles is also being investigated.

C. Current Projects:

1. Comprehensive screening for hemostatic mutants in zebrafish.
2. Developmental role of thrombin
3. Physiology of thrombus formation in laser induced thrombosis
4. Identification of novel anticoagulants from natural products

5. Functional differences between reticulated platelets and mature platelets
6. Platelet microparticles
7. Transcription regulation in thrombocytes
8. Annual fish as genetic model for aging

D. Research Support:

National:

Source:	NSF
Title:	Role of trypsin in hemostasis
Period:	2009-2012
Role:	Principal Investigator
Source:	NIH (R01)
Title:	Role of Thrombocyte Microparticles in Zebrafish
Period:	2005-2010
Role:	Principal Investigator
Source:	NIH (R01)
Title:	Saturation Mutagenesis of Zebrafish Coagulation Pathway
Period:	2000-2005
Role:	Principal Investigator
Source:	NIH (R03)
Title:	Annual fish as genetic models for aging research
Period:	2002-2004
Role:	Principal Investigator
Source:	NIH (R42)
Title:	Selecting New Coding Sequences From Genomic DNA (Zebrafish)
Period:	1998-2001
Role:	Principal Investigator
Source:	NIH (T32)
Title:	Training Program in Molecular Basis of Aging
Period:	2000-2003
Role:	Participating Faculty
Source:	NIH (R42)
Title:	Selecting New Coding Sequences From Genomic DNA
Period:	1996-1997
Role:	Principal Investigator
Source:	NIH (P01)
Title:	Human Factor IX Gene Regulation During Aging
Period:	1991-1996
Role:	Project Leader

Source: NIH (R01)
Title: Molecular Basis for Factor X Deficiency
Period: 1987-1990
Role: Principal Investigator

Source: NIH (R01)
Title: Molecular Basis for Hemophilia B
Period: 1984-1987
Role: Principal Investigator

Source: March of Dimes
Title: Molecular Basis for Hemophilia B
Period: 1984-1987
Role: Principal Investigator

State:

Source: Chicago Heart Association
Title: Molecular Basis for Factor XIII Deficiency
Period: 1985-1987
Role: Sponsor for Postdoctoral Fellowship

University:

Source: Interdepartmental Collaborative Program
Title: Identification of Genetic Markers for Thrombosis in Zebrafish
Period: 1998-1999
Role: Collaborator

Source: BRSG
Title: Molecular Basis for Hemophilia B
Period: 1984
Role: Principal Investigator

Source: BRSG
Title: Evolution of Globin Genes
Period: 1983
Role: Principal Investigator

Other:

Source: Nathan Shock Center for Excellence
Title: Annual fish as genetic models for aging research
Period: 2001-2002
Role: Principal Investigator

Source: Howard Hughes Research Resources Program
Title: First Texas meeting on Zebrafish Development and Genetics

Period: 2000-2001
 Role: Principal Investigator

Source: Howard Hughes Research Resources Program
 Title: Molecular Genetics of Vertebrate Development (Hemostasis)
 Period: 1996-1998
 Role: Principal Investigator

Source: National Scientific Supplies
 Title: Development of chromatographic Columns to automated workstation
 Period: 1992-1995
 Role: Principal Investigator

Source: Miles
 Title: Cloning of Coagulation Factor VIII Gene
 Period: 1984-1986
 Role: Principal Investigator

IV. SERVICE

A. Professional Affiliations:

1. Current Professional and Scientific Organizations and Societies:

2001-present	American Society of Hematology
2000-Present	American Association of Anatomists
2000-Present	International Society of Thrombosis and Hemostasis*
1989-Present	American Society of Biochemistry*
1988-1990	Texas Genetics Society
1984-1989	American Society of Human Genetics

2. Past and Current Positions and or Offices held in Professional Organizations:

1999-2002	Co-chair Scientific and Standardization Committee- International Society of Thrombosis and Hemostasis
2003-2006	Chair Scientific and Standardization Committee- International Society of Thrombosis and Hemostasis

3. Other Professional Activities:

2009	Reviewer, J. Thrombosis and Hemostasis
2008	Reviewer, ATVB
2008	Reviewer, Journal of Gerontology
2008	Founding member of ZFBiopharama
2007	Member, ThromBiogen Inc.
2007	Reviewer, J. Thrombosis and Hemostasis
2006	Reviewer, J. Thrombosis and Hemostasis
2005	Reviewer, J. Thrombosis and Hemostasis
2005	Reviewer, Blood

2004	Reviewer, Blood
2004	Reviewer, Nature Medicine
2003	Reviewer, Mechanism of Aging and Development
2003	Reviewer, Current Opinion in Drug Discovery & Development
2003	Reviewer, Mechanism of Development
2003	Reviewer, Bioessays
2002-present	Consultant DGI
2002	Grant Reviewer, NSF equivalent of Austria
2002	Reviewer, Journal of Hemostasis and Thrombosis
2002	Reviewer, American journal of Physiology
2002	Reviewer, Blood
2002-2006	Member, NIH Study Section (NHLBI Hem2-review group)
2001	Member, (ad-hoc) NIH Study Section (NHLBI Hem2-review group)
2001	Invitation to organize animal models and disease minisymposium in FASEB meetings
2000-2004	Member, AHA-Western Review Consortium, Peer Review Committee
2000	Member, (ad-hoc) NIH Study Section (NHLBI Hem2-review group)
2000-present	Managing Editor, Frontiers in Bioscience
2000	Co-chair Scientific and Standardization Committee-International Society of Thrombosis and Hemostasis
2000	Reviewer, for Human Genetics
1999	Member (ad-hoc), NIH Study Section (NIAAA AA1-review group)
1997-99	Grant Reviewer, - Wellcome Research Trust (London)
1994-1997	Member, Editorial Board of Analytical Biochemistry
1995-2005	Consultant, KalGen Inc. TX
1993-1997	Reviewer, Analytical Biochemistry
1989-1994	Reviewer, Biotechniques
1993	Consultant, Clontech Inc., CA
1991-1995	Consultant, National Scientific Supply CA
1987	Member, Biorad Focus Committee
1989-1990	Reviewer, American J. Medical Genetics
1988-1990	Grant Reviewer, USDA Animal Genetics Biotechnology program
1986	Reviewer, Nature
1986	Reviewer, Somatic and Molecular Genetics

4. Community Activities:

2008	Mentor for two TAMS students
2007	Mentor for two TAMS students
2006	Mentor for six TAMS students
2005	Mentor for a High School student (Ali Palewala)

- 2004 Mentor for an undergraduate student (Mandeep Mangat)
Delineation of half-life of thrombocytes
- 2003 Mentor for a High School student (Lauren)
- 2002 Seminar at Health Careers High School in San Antonio,
given to Biology Class on Zebrafish a model for
Hemostasis
- 2002 Mentor for an undergraduate student (Denise Ayo)
Characterization of Amphioxus coagulation proteins
- 2002 Mentor for a High School student (Stepahnie Narvaez)
Calcium signaling in zebrafish thrombocytes
- 2001 Mentor for MD student (David Benglis). This student has
been selected for Howard Hughes fellowship
- 2001 Mentor for two High School students (Jahnavi Rajagopal
and David Vijil) Thrombocyte assays and Identification of
anticoagulant from natural products and sequencing of
protein C
- 2001 Participant in fund raising for March of Dimes Birth
Defects Foundation.
- 2000 Seminar at Health Careers High School in San Antonio,
given to Diagnosis Class on Zebrafish a model for
Hemostasis
- 2000 Seminar at Health Careers High School in San Antonio,
given to Biology Class on Zebrafish a model for
Hemostasis
- 2000 Participant in fund raising for March of Dimes Birth
Defects Foundation.
- 1998-Present Advisor, K12 Program on Zebrafish to answer questions
regarding zebrafish for High School students
- 1992-Present Member Bio-safety Committee of Trinity University
- 1999 Participant in fund raising for March of Dimes Birth
Defects Foundation.
- 1999 Seminar at Health Careers High School in San Antonio,
given to Biology Class on Zebrafish a model for
Hemostasis

- 1999 Mentor for two High School students (Kimi Johnson and Lam Mays), Thrombocyte assays and Identification of Anticoagulant from natural products
- 1998 Participant in fund raising for March of Dimes Birth Defects Foundation.
- 1998 Judge for Science fair, San Antonio
- 1998 Participant in fund raising for KLRN public television
- 1998 Mentor for two High School students (Praveen Mammen and Kristal Garcia). Praveen Mammen went to state level competition with his project on effect of temperature on zebrafish coagulation.
- 1997 Mentor for an undergraduate student (Louis Alfonso Garcia) from UTSA, zebrafish facility
- 1997 Mentor for four High School (Health Careers) students (Oscar Garza, Michael Delavega, Quynh Le and Alex Zimmerle), zebrafish facility
- 1997 Mentor for a High School Student from Uvalde on zebrafish vision (Ashwin Gaitonde). This project won the second prize in the competition
- 1996 Mentor for a High school (Health Careers) student (Ian Thompson III), Effect of copper chloride on zebrafish coagulation
- 1995 Mentor for a College student from Mississippi. (Susuma Bhakta), Analysis of prothrombin sequences from teleosts.
- 1994 Mentor for a College student (Sujatha Ramamurthy) from Haverford. (Levels of Vitamin K dependent coagulation factor mRNAs during aging in mice)
- 1993 Mentor for High School Science Fair Project, Optimization of heteroduplex formation in various complexities (Priya Nair). This won the first place in the High school and selected for state level competition
- 1992 Mentor for an MD student (Manesh Sagar) from John's Hopkins University on DNA purification methods. This student has been selected for Howard Hughes Fellowship.
- 1991 Mentor for a High School Science Fair Project in San

Antonio. Converting Biomek to do PCR (Abhijit Koli).
This won the second place in Biochemistry category.

B. Patient Service: N/A

C. Committees

Department

2004-2005	Chair, Tenure and Promotions Committee
1999-2001	Member Graduate Admissions Committee
1996-1999	Member of Seminar Committee
1991-1996	Chair, Seminar Committee

In my tenure as a chair of the seminar program we have obtained funds from the George Brackenridge Foundation and from the Amy Shelton McNutt Foundation to invite seminar speakers. This gave the students, postdoctoral fellows and faculty the opportunity to listen to more than the usual number of outstanding speakers. The speakers' list consisted of Nobel laureates and several members of the prestigious National Academy of Science (NAS). The following are the names of some representative speakers.

1. Dr. Paul Berg (Nobel Laureate)
2. Dr. Sherman Weissman (Member of NAS)
3. Dr. David Housman (Member of NAS)
4. Dr. Mario Capecchi (Member of NAS)

1988-1989	Chair Graduate Admissions Committee
1986-1989	Member Graduate Admissions Committee

School

2002	Member, Graduate School Teaching Award Committee
2000-2003	Member Medical School Admissions Committee

University

1997-2000	Member Institutional Animal Care and Utilization Committee
1995-1998	Member, Book Store Committee
2003-2005	Member Institutional Animal Care and Utilization Committee
2006-Present	Member, Graduate Research Committee
2006-2009	Member, Faculty Senate

2007-Present

Member, Institutional Patent Committee

C. Administrative Responsibilities

1. Department, Division, Clinical Service, Coordinator, etc.:

Faculty Search Committee –Kinesiology 2009

Graduate student association advisory committee 2005-present

Nature News Club coordinator, 2005-present

Journal Club Coordinator, 1985-1989

2. Staff and Personnel currently supervised

Five Graduate Students (Maira Carillo, Vrinda Kulkarni, Angela Hutson
Uvaraj Pulipakam, Gauri Khandekar)

Two post doctoral fellows (Kim Seongcheol, Raj Purohit)

Two undergraduate students (Marey, Lala)

Two TAMS students (Subhada, Meera)

V. OTHER PERTINENT INFORMATION

None