

**CURRENT POSITIONS:**

CEO and Medical Director, Connective Tissue Gene Tests, LLC, Allentown, PA

**EDUCATION:**

M.D.	June 1993	Jefferson Medical College
Ph.D.	May 1985	Biology, Temple University
M.A.	January 1982	Biology, Temple University
B.A.	August 1974	Biology, Temple University

**BOARD CERTIFICATIONS:**

October 1999	Anatomic/Clinical Pathology
September 2000	Hematology

**PROFESSIONAL MEMBERSHIPS:**

American College of Pathologists  
American Society of Clinical Pathologists  
American Society of Human Genetics  
Association for Molecular Pathology  
Pennsylvania Medical Society

**PROFESSIONAL EXPERIENCE:**

August 1, 2004 – Present	Medical Director, Connective Tissue Gene Tests, LLC, Allentown, PA
Sept 1, 2004 – Mar 31, 2006	Staff Hematopathologists, Lehigh Valley Hospital, Allentown, PA.
July 1, 2000 – June 15, 2004	Assistant Professor of Clinical Pathology, Department of Pathology and Laboratory Medicine and Director of Molecular Diagnostics, Martix DNA Diagnostics, Tulane University Medical Center, New Orleans, LA

- Hematopathology coverage: Medical Center of Louisiana, New Orleans, Charity Hospital, New Orleans, LA.
- July 1, 1998-June 30, 2000 Hematopathology Fellow, Thomas Jefferson University Hospital, Jefferson Health System, Philadelphia, PA.
- July 1, 1994-June 30, 1998 Resident, AP/CP Program, Thomas Jefferson University Hospital, Philadelphia, PA
- July 1, 1993-June 30, 1994 Transition Resident, Chestnut Hill Hospital, Philadelphia, Penna. 19118
- March 1, 1993- June 1, 1993 Department of Dermatology, Jefferson Medical College, Thomas Jefferson University, Philadelphia, PA.
- September 1991- August 1992 Visiting Scientist, Department of Medical Biochemistry, University of Oulu, Oulu, Finland.
- January 1989- September 1989 Consultant, Department of Biochemistry and Molecular Biology, Jefferson Institute of Molecular Medicine, Thomas Jefferson University, Philadelphia, PA.
- January 1986- January 1989 Research Associate, Department of Biochemistry and Molecular Biology, Jefferson Institute of Medicine, Thomas Jefferson University and Post-doctoral Fellow, Department of Biochemistry, Robert Wood Johnson Medical School Piscataway, NJ.
- March 1985- December 1985 Research Specialist, Cancer Center, Department of Medicine University of Pennsylvania, Philadelphia. PA.
- September 1979-March 1985 Graduate Student, Department of Biology, Temple University, Philadelphia PA.
- January 1979- April 1979 Instructor in Biology, Temple University, Philadelphia, PA.

**GRANTS AND AWARDS**

First Prize 1998, Residents Forum, AFIP- American Registry of Pathology. Best submitted publication.

Fogarty International Fellowship, September 1991-August 1992.

Public Health Service Training Grant, 27 months at Jefferson Medical College. Various Research and Teaching Assistantships at Temple University.

**RECENT CONFERENCES/  
PRESENTATIONS**

6<sup>th</sup> International Symposium on the Marfan Syndrome.  
Seattle, WA, 2001

ASCP/CAP Joint Annual Meeting Philadelphia, PA. 2001

Tutorial on Neoplastic Hematopathology Miami, FL 2003

Collagen Gordon Research Conference. New London NH. Poster Presentation. 2003

6<sup>th</sup> International Skeletal Dysplasia Society Conference. Warrenton, VA. Poster Presentation. 2003

Annual Meeting of the American Society of Human Genetics, Salt Lake, UT, 2005

Annual Meeting of the American Society of Human Genetics, New Orleans, LA, 2006

Annual Meeting of the Association for Molecular Pathology, Los Angeles, CA, 2007

Annual Meeting of the Canadian Collage of Medical Genetics, St. John's, NL, Canada - 2008

The American Society of Human Genetics, Philadelphia PA - 2008

The American College of Medical Genetics, Tampa, FL, Poster – 2009

9<sup>th</sup> International Skeletal Dysplasia Society Conference, Boston, MA - 2009

The American Society of Human Genetics, Honolulu, HI - 2009

The American College of Medical Genetics, Albuquerque, NM – 2010

The American College of Medical Genetics, Vancouver, Canada – 2011

The American Society of Human Genetics, Montreal, Canada - 2011

The American College of Medical Genetics, Charlotte, NC – 2012

The American Society of Human Genetics, Boston, MA - 2013

The American Society of Human Genetics, San Diego, CA - 2014

#### **ADDITIONAL TRAINING**

Two Months at AFIP-Studied Molecular Biology of Testicular Lymphoma.

**PUBLICATIONS:**

- 1 Rovera G, Hyland J, Ming P-M (1977) . Temperature-Sensitive Variants for Saturation Density and Anchorage Dependency of a Simian Virus 40- Transformed Human x Mouse Hybrid Cell Line. *J Natl Cancer Inst* 58:711.
- 2 Hyland J, Conner C, Putzrath R, Brownstein B (1980). Alterations in the Cell Surface of a Cytochalazin B-Resistant Rat Liver Epithelial Cell Line. *Eur J Cell Biol* 22:264.
- 3 Hyland J, (1984). Differentiated and Non-Differentiated Mouse 3T3-F442A Cells Exhibit the Same Heat Shock Response. *Federation Proc* 43:2052.
- 4 Hyland J, The Expression of Heat Shock Genes in Differentiated and Non-Differentiated 3T3-F442A Cells Exhibit the Same Heat Shock Response. Dissertation May 19<sup>th</sup>, 1985.
- 5 Ala-Kokko L, Kontusaari S, Olsen A, Hyland J, Jimenez SA, Prockop DJ (1989) Expression of Human Type II Procollagen Genes in Mouse Fibroblasts Transfected with a Chimeric Gene Construct Containing the Promoter of the Type I Pro-collagen Gene. *Arthritis Rheum* 32:384.
- 6 Prockop DJ, Olsen A, Kontusaari S, Hyland J, Ala-Kokko L, Vasan NS, Barton E, Buck S, Harrison K, Brent RL (1990) Mutations in Procollagen Genes. Consequences of the Mutations in Man and in Transgenic Mice. *Ann NY Acad Sci Feb.* 19:330
- 7 Ala-Kokko L, Hyland J, Jimenez SA, Prockop DJ, (1990) Expression of the Human Type II Procollagen Gene in Mouse NIH 3T3 Cells by the Use of a Vector Containing the Promoter Region, The First Exon and The First Intron of the Pro  $\alpha$ 1 Chain for the Human Type I Procollagen. *Matrix Coll Rel Res* 10
- 8 Geddis AL, Hyland J, Ala-Kokko L, Fertala A, Prockop DJ, (1991) Expression of a Human  $\alpha$ 1 Collagen in Stably Transfected mouse 3T3 Fibroblasts. The Effect of Amino Acid Substitution on Thermal Stability. East Coast Connective Tissue Society. Eleventh Annual Meeting. Piscataway, N.J. USA.
- 9 Ala-Kokko L, Hyland J, Smith C, Kivirikko KI, Jimenez SA, Prockop DJ (1991) Expression of a Human Cartilage Procollagen Gene (COL2A1) in Mouse 3T3 Cells. *J Biol Chem* 266:14175.
- 10 Hyland J, Ala-Kokko L, Royce P, Steinman B, Kivirikko KI, Myllyla R (1992) A Homozygous Mutation Creating a Stop Codon in the Lysyl Hydroxylase Gene in a Family with Ehlers-Danlos Syndrome Type VI. Thirteenth FECTS Meeting, Davos- Platz, Switzerland.
- 11 Hyland J, Ala-Kokko L, Royce P, Steinman B, Kivirikko KI, Myllyla R (1992) A Homozygous Stop Codon in the Lysyl Hydroxylase Gene in Two Siblings with Ehlers-Danlos Syndrome Type VI. *Nature Genetics* 2:228
- 12 Ritvaniemi P, Hyland J, Ignatius J, Kivirikko KI, Prockop DJ, Ala-Kokko L (1993) A Fourth Example Suggests Premature Termination Codons in the COL2A1 Gene Are a Common Cause of the Stickler Syndrome: Analysis of the COL2A Gene by Denaturing Gradient Gel Electrophoresis. *Genomics* 17:218

- 13 Hautala T, Hyland J, Heikkinen J, Krieg T, Kivirikko KI, Mylly R (1993) A Case of Type VI Ehlers-Danlos Syndrome Caused by a Homozygous Deletion of Two Exons in the mRNA for Lysyl Hydroxylase. *Mutations in the Human Genome Orta San Giulio, Italy.*
- 14 Ignatius J, Ritvaniemi P, Korkko J, Hyland J, Haataja L, Kivirikko KI, Prockop DJ, Ala-Kokko L (1993) Phenotype Variation in Stickler/Wager Syndrome Due to Different Mutations in the Type II Procollagen (COL2A1) Gene. Twenty-fifth Annual Meeting. European Society Human Genetics.
- 15 Tromp G, Kuivaniemi H, Raphael S, Ala-Kokko L, Christiano A, Considine E, Dhulipala R, Hyland J, Jokinen A, Kivirikko S, Korn R, Madhatheri S, McCarron S, Pulkkinen I, Punnett H, Shimoya K, Spotila L, Tate A, Williams CJ, (1994) Molecular Characterization of Blau Syndrome Genetic Linkage to Chromosome 16. American Society of Human Genetics, Montreal, Canada
- 16 Ritvaniemi P, Korkko J, Bonaventure J, Vikkula M, Hyland J, Passilta P, Kaitila I, Kaarianen H, Sokolov BP, Hakala M. et. al. (1995) Identification of COL2A1 Gene Mutation in Patients with Chondrodysplasias and Familial Osteoarthritis. *Arthritis Rheum* 38:999
- 17 Tromp G, Kuivaniemi H, Raphael S, Ala-Kokko L, Christiano A, Considine E, Dhulipala R, Hyland J, Jokinen A, Kivirikko S, et. al. (1996) Genetic Linkage of Familial Granulomatous Inflammatory Arthritis, Skin Rash and Uveitis to Chromosome 16. *Am J Hum Genet* 59:1097
- 18 Pousi B, Hautala T, Hyland J, Schroter J, Eckes B, Kivirikko K, Mylly R (1998) A Compound Heterozygote Patient with Ehlers-Danlos Syndrome Type VI has a Deletion in One Allele and a Splicing Defect in the Other Allele of the Lysyl Hydroxylase Gene. *Human Mutation* 11: 55
- 19 Hyland J, Lasota J, Jasinski M, Petersen R.O, Nordling S, Miettinen M. (1998) Molecular Pathological Analysis of Primary Testicular Diffuse Large Cell Lymphomas Shows Differences From Nodal Large Cell Lymphomas. *Human Pathology* 29:1231
- 20 Murphy TJ, Mowad CM, Feig SA, Nussbaum SA, Hyland JC. (1998) Breast imaging case of the day. Dermatopathic lymphadenopathy. *Radiographics* 18:536
- 21 Schafer A, Stein J, Hyland J, Schwarze U, Byers P, Clark A. (2002) Single Nucleotide Substitution in the COL1A1 gene (IVS13-10T>A) Results in use of a New Splice Acceptor Site, mRNA Instability, and Mild Osteogenesis Imperfecta. *Am J Hum Genet* 71:4
- 22 Collod-Bérout G, Le Bourdelles S, Ades L, Ala-Kokko L, Booms P, Boxer M, Child A, Comeglio P, De Paepe A, Hyland JC, Holman K, Kaitila I, Loeys, B, Matyass G, Nuytinck, L, Peltonen L, Rantamaki T, Robinson P, Steinmann B, Junien C, Bérout C, Boileau C (2003) Update of the UMD-FBN1 Mutation Database and Creation of an FBN1 Polymorphism Database. *Hum Mutat* 22:199.
- 23 Schafer IA, Stein J, Hyland JC, Clark B. (2004) Gene symbol: COL1A1. Disease: Osteogenesis imperfecta type 1. *Hum Genet* 114:404.
- 24 Hartikka H, Kuurila K, Körkkö J, Kaitila I, Grénman R, Pynnönen S, Hyland JC, Ala-Kokko L. (2004) Lack of correlation between the type of COL1A1 or COL1A2 mutation and hearing loss in osteogenesis imperfecta patients. *Hum Mutat* 24, 147.

- 25 Hyland J, Ala-Kokko L. Prenatal Diagnosis of Connective Tissue Disorders. (2004) In: Milunsky A. editor. Genetic Disorders and the Fetus 5<sup>th</sup> edition. Baltimore. John Hopkins University Press, pp 700-718.
- 26 Sutton VR, Hyland JC, Phillips WA, Schlessinger AE, Brill PW. (2005) A dominantly inherited spondylometaphyseal dysplasia with "corner fractures" and congenital scoliosis. *Am J Med Genet* 133, 209.
- 27 Leung L, Hyland JC, Young A, Goldberg MF, Handa JT. (2006) A novel mutation in intron 11 of the COL2A1 gene in a patient with type 1 Stickler syndrome. *Retina* 26:106-109.
- 28 Hyland J. Skin and Connective Tissue Disorders. (2007) In: Leonard D. editor. Molecular Pathology in Clinical Practice. New York: Springer Science and Business Media, pp. 191-203.
- 29 Walter K, Tansek M, Tobias M T, Ikegawa S, Coucke P, Hyland J, Mortier G, Iwaya T, Nishimura G, Superti-Furga A, Unger S. (2007) COL2A1-related skeletal dysplasias with predominant metaphyseal involvement. *Am J Med Genet* 134A, 161.
- 30 Sutherell J, Zarate Y, Tinkle BT, Markham LW, Cripe LH, Hyland JC, Witte D, Hopkin RJ, Hinton RB. (2007) Novel fibrillin 1 mutation in a case of neonatal Marfan syndrome: the increasing importance of early recognition. *Congenit Heart Dis* 2342-346.
- 31 Marini JC, Forlino A, Cabral WA, Barnes AM, San Antonio JD, Milgrom S, Hyland JC, Körkkö J, Prockop DJ, De Paepe A, Coucke P, Symoens S, Glorieux FH, Roughley PJ, Lund AM, Kuurila-Svahn K, Hartikka H, Cohn DH, Krakow D, Mottes M, Schwarze U, Chen D, Yang K, Kuslich C, Troendle J, Dalglish R, Byers PH. Consortium for osteogenesis imperfecta mutations in the helical domain of type I collagen: regions rich in lethal mutations align with collagen binding sites for integrins and proteoglycans. (2007) *Hum Mutat* 28: 209-221.
- 32 Schievink WI, Gordon OK, Hyland JC, Ala-Kokko L. (2008) Absence of TGFBR2 mutations in patients with spontaneous spinal CSF leaks and intracranial hypotension. *J Headache Pain* 9: 99-102.
- 33 Milewicz DM, Ostergaard JR, Ala-Kokko LM, Khan N, Grange DK, Mendoza-Londono R, Bradley TJ, Olney AH, Adès L, Maher JF, Guo D, Buja LM, Kim D, Hyland JC, Regalado ES. De novo ACTA2 mutation causes a novel syndrome of multisystemic smooth muscle dysfunction. *Am J Med Genet A* 152A:2437-2443, 2010.
- 34 Dwyer E, Hyland J, Modaff P, Pauli RM. Genotype – phenotype correlation in *DTDST* dysplasias: atelosteogenesis type II and diastrophic dysplasia variant in one family. *Am J Med Genet A* 152A:3043-3050, 2010.
- 35 Hyland J. Osteogenesis Imperfecta. In: Lang F. editor Encyclopedic Reference of Molecular Mechanisms of Disease Heidelberg. Springer –Verlag. In Press.
- 36 Baker S, Booth C, Fillman C, Shapiro M, Blair MP, Hyland JC, Ala-Kokko L. 2011. A loss of function mutation in the COL9A2 gene causes autosomal recessive Stickler syndrome. *Am J Med Genet Part A* 155:1668–1672, 2011.
- 37 Kannu P, O’Rielly DD, Hyland JC, Ala Kokko L. 2011. Avascular necrosis of the femoral head due to a novel C propeptide mutation in COL2A1. *Am J Med Genet Part A* 155:1759-1762, 2011.

- 38 Zadeh N, Bernstein JA, Niemi AK, Dugan S, Kwan A, Liang D, Hyland JC, Hoyme HE, Hudgins L, Manning MA. Ectopia lentis as the presenting and primary feature in Marfan syndrome. *Am J Med Genet Part A* 155:2661-2668, 2011.
- 39 Khalifa O, Imtiaz F, Allam R, Al-Hassnan Z, Al-Hemidan A, Al-Mane K, Abuharb G, Balobaid A, Sakati N, Hyland J, Al-Owain M. A recessive form of Marshall syndrome is caused by a mutation in the COL11A1 gene. *J Med Genet* 49: 246-248, 2012.
- 40 Kochhar A, Kirmani S, Cetta F, Younge B, Hyland JC and Michels V. Similarity of geleophysic dysplasia and Weill–Marchesani syndrome. *Am J Med Genet Part A* 161:3130-3132, 2013.
- 41 Regalado E, Guo D-C, Prakash S, Bensend T, Flynn K, Estrera A, Safi H, Liang D, Hyland J, Child A, Arno G, Boileau C, Jondeau G, Moran R, Morisaki T, Morisaki H, Pyeritz R, Coselli J, LeMaire SA, Milewicz D. Aortic Disease Presentation and Outcome Associated with ACTA2 mutations. *Circulation*, in press.