BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.
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NAME	POSITION TITLE
Peter P. Sayeski	Assistant Professor
eRA COMMONS USER NAME psayeski	

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	YEAR(s)	FIELD OF STUDY
University of California, Berkeley, CA	B.A.	1988	Physiology & Anatomy
University of Alabama at Birmingham, Birmingham, AL	Ph.D.	1996	Physiology & Biophysics
Emory University, Atlanta, GA	Post Doctoral	1996-2000	Vascular Biology & Signal Transduction

EXPERIENCE-

1986-1988 Student Researcher, Department of Biology/Reproductive Endocrinology, The University of California at Berkeley, Berkeley, California.
1988-1990 Research Technician, Department of Psychiatry and Behavioral Sciences, Stanford University Medical Center, Stanford, California.
1990-1996 Graduate Student, Department of Physiology & Biophysics, The University of Alabama at Birmingham, Birmingham, Alabama.
1996- 2000 Post Doctoral Fellow, Dept. of Pathology, Emory University School of Medicine, Atlanta, Georgia.
2000- present Assistant Professor, Department of Physiology, University of Florida College of Medicine, Gainesville, Florida.

HONOR AWARDS-

Veterans of Foreign Wars Scholarship, The University of California at Berkeley, 1983-1987.
Sophus C. Gothe Honor Award, Tau Kappa Epsilon Fraternity, University of California at Berkeley, 1985.
Top Teke Merit Award, Tau Kappa Epsilon Fraternity, University of California at Berkeley, 1986.
William C. Dement Research Award, Stanford University Medical Center, Stanford, CA, 1989.
Dean's Award, UAB Dean of Student Affairs, University of Alabama at Birmingham, 1994.
Samuel B. Barker Research Award, Dept. of Medicine, University of Alabama at Birmingham, 1995.
Trainee Investigator Award, The Clinical Research Meetings, San Diego, CA, 1995.
Second Place Award, Sigma Xi Research Competition, University of Alabama at Birmingham, 1995.
Dean's Award, UAB Dean of the Graduate School, University of Alabama at Birmingham, 1995.
National Graduate Achievement Award, The National Graduate Council, Washington D.C., 1995.
Trainee Investigator Award, Keystone Symposia on the Molecular Biology of the Cardiovascular System, Snowbird, Utah, 2000.
Fellow, Council for High Blood Pressure Research of the American Heart Association, 2001.
Young Investigator Travel Award, Cardiovascular Section of the American Physiology Society, Experimental Biology Meetings, New Orleans, Louisiana, 2002.
Travel Award to the 14th Annual European Society of Hypertension, Mentor to Eric Sandberg, Paris, France, 2004.
Exemplary Teacher Award, University of Florida College of Medicine, 2005.
Best Basic Science Poster Award, Mentor to Michael D. Godeny, University of Florida College of Medicine Research Day, 2005.

STUDY SECTIONS AND COUNCILS-

American Heart Association Southern and Ohio Valley Research Consortium, Committee 5A, Cellular Cardiovascular Physiology, Pharmacology, Molecular Genetics & Molecular Signaling, July 2001 - June 2004.

University of Florida Shands Cancer Center, Pilot Project Committee Study Section, University of Florida College of Medicine, 2003.

Philip Morris External Research Program, *Ad Hoc* Reviewer, 2004.

Minority Biomedical Research Support (MBRS) Program, Morehouse School of Medicine, *Ad Hoc* Reviewer, 2005.

PROFESSIONAL SOCIETIES-

North American Vascular Biology Organization, American Physiological Society, American Heart Association.

REVIEWER AND EDITORIAL BOARDS-

Editorial Board Member: Regulatory Peptides

Ad Hoc Reviewer: Journal of Clinical Investigation, EMBO Journal, AJP-Cell Physiology, AJP-Renal Physiology, American Journal of Pathology, Journal of Medicinal Chemistry, Journal of Cellular Physiology, Current Medicinal Chemistry, Physiological Genomics and Regulatory Peptides.

PUBLICATIONS (selected publications from 33 total)-

5. **Sayeski PP** and Kudlow JE. Glucose metabolism to glucosamine is necessary for glucose stimulation of transforming growth factor-α gene transcription. *J. Biol. Chem*. 271(25): 15237-15243, 1996.

6. **Sayeski PP**, Wang D, Su K, Han IO and Kudlow JE. Cloning and partial characterization of the mouse glutamine:fructose-6-phosphate amidotransferase (GFAT) gene promoter. *Nucleic Acid Res*. 25(7):1458-1466, 1997.

8. Ali MS, **Sayeski PP**, Hayzer DJ, Dirksen LB, Marrero MB and Bernstein KE. Dependence of the motif YIPP for the physical association of Jak2 kinase with the intracellular carboxyl tail of the angiotensin II AT_1 receptor. *J. Biol. Chem*. 272(37):23382-23388, 1997.

10. **Sayeski PP**, Ali MS, Harp JB, Marrero MB and Bernstein KE. Phosphorylation of p130Cas by angiotensin II is dependent on c-Src, intracellular Ca^{++}, and protein kinase C. *Circulation Res.* 81(12):1279-1288, 1998.

12. **Sayeski PP**, Ali MS, Semeniuk DJ, Doan TN and Bernstein KE. Angiotensin II signal transduction pathways. (Review) *Regulatory Peptides* 78:19-29, 1998.

13. **Sayeski PP**, Ali MS, Hawks K, Frank SJ and Bernstein KE. The angiotensin II-dependent association of Jak2 and c-Src requires the N-terminus of Jak2 and the SH2 domain of c-Src. *Circulation Res*. 84:1332-1338, 1999.

14. **Sayeski PP**, Ali MS, Safavi A, Lyles M, Kim SO, Frank SJ and Bernstein KE. A catalytically active Jak2 is required for the angiotensin II-dependent activation of Fyn. *J. Biol. Chem*. 274:33131-33142, 1999.

15. Ali MS, **Sayeski PP** and Bernstein KE. Jak2 acts as both a Stat1 kinase and as a molecular bridge linking Stat1 to the angiotensin II AT_1 receptor. *J. Biol. Chem*. 275:15586-15593, 2000.

16. **Sayeski PP**, Ali MS and Bernstein KE. The role of Ca^{++} mobilization and heterotrimeric G protein activation in mediating tyrosine phosphorylation signaling patterns in vascular smooth muscle cells. *Mol. Cell. Biochem*. 212:91-98, 2000.

17. **Sayeski PP**, Ali MS, Frank SJ and Bernstein KE. The angiotensin II-dependent nuclear translocation of Stat1 is mediated by the Jak2 protein motif ^{231}YRFRR. *J. Biol. Chem*. 276:10556-10563, 2001.

20. VonDerLinden D, Ma X, Sandberg EM, Gernert K, Bernstein KE and **Sayeski PP**. Mutation of glutamic acid residue 1046 abolishes Jak2 tyrosine kinase activity. *Mol. Cell. Biochem*. 241:87-94, 2002.

23. Sandberg EM, Ma X, VonDerLinden D, Godeny MD and **Sayeski PP**. Jak2 tyrosine kinase mediates angiotensin II-dependent inactivation of ERK2 via induction of MAP kinase phosphatase 1 (MKP-1). *J. Biol. Chem.* 279:1956-1967, 2004.

24. Ma X and **Sayeski PP.** Vaccinia virus-mediated high level expression and single step purification of recombinant Jak2 protein. *Protein Expression and Purification* 35:181-189, 2004.

25. Sandberg EM and **Sayeski PP.** Jak2 tyrosine kinase mediates oxidative stress-induced apoptosis in vascular smooth muscle cells. *J. Biol. Chem.* 279:34547-34552, 2004.

26. Wallace TA, VonDerLinden D, and **Sayeski PP.** Microarray analyses identify Jak2 tyrosine kinase as a key mediator of ligand-independent gene expression. *Amer. J. Physiol.; Cell Physiol.* 287:C981-C991, 2004.

28. Sandberg EM, Wallace TA, Godeny MD, VonDerLinden D and **Sayeski PP.** Jak2 Tyrosine Kinase: A True Jak of All Trades? (Review) *Cell Biochem. and Biophys*. 41:207-232, 2004.

29. Sandberg EM, VonDerLinden D, Ostrov DA and **Sayeski PP.** Jak2 tyrosine kinase residues glutamic acid 1024 and arginine 1113 form a hydrogen bond interaction that is essential for Jak-STAT signal transduction. *Mol. Cell. Biochem.* 265:161-169, 2004.

30. Sandberg EM, Ma X, He K, Frank SJ, Ostrov DA and **Sayeski PP**. Identification of cyclohexane-1,2,3,4,5,6-hexabromo as a small molecule inhibitor of Jak2 tyrosine kinase autophosphorylation. *J. Med. Chem*. 48:2526-2533, 2005.

31. Wallace TA, Xia SL and **Sayeski PP**. Jak2 tyrosine kinase prevents angiotensin II-mediated inositol 1,4,5 trisphosphate receptor degradation. *Vascular Pharm*. 43:336-345, 2005.

32. Wallace TA and **Sayeski PP**. Jak2 tyrosine kinase: a mediator of both housekeeping and ligand-dependent gene expression? (Review) *Cell Biochem. and Biophys*. 44:213-222, 2006.

33. Godeny MD and **Sayeski PP**. Jak2 Tyrosine Kinase and Cancer: How Good Cells Get HiJAKed. (Review) *Current Medicinal Chemistry: Anti Cancer Agents*, *In Press*, 2006.

RESEARCH PROJECTS ONGOING OR COMPLETED DURING THE LAST THREE YEARS-

TITLE: Structure/Function Analysis of AT_1/Jak2 Co-association
PRINCIPAL INVESTIGATOR: Peter P. Sayeski, Ph.D.
AGENCY: American Heart Association (National)
TYPE: Scientist Development Grant (#0130041N)
TIME PERIOD: 01/01/01 - 12/31/04
DESCRIPTION: The major goal of this project is to understand the biochemical interactions that mediate the physical co-association of Jak2 tyrosine kinase with the AT_1 receptor.

TITLE: The Role of Jak2 in Angiotensin II Growth Responses
PRINCIPAL INVESTIGATOR: Peter P. Sayeski, Ph.D
AGENCY: National Institutes of Health
TYPE: Mentor Sponsored Research Award K01-DK60471
TIME PERIOD: 05/01/01 - 04/30/04
DESCRIPTION: The major goals of this project are to understand the mechanism by which Jak2 is activated by angiotensin II and the role of Jak2 in angiotensin II signal transduction.

TITLE: The Role of Jak2 in Angiotensin II Signaling
PRINCIPAL INVESTIGATOR: Peter P. Sayeski, Ph.D.
AGENCY: National Institutes of Health
TYPE: Independent Research Award R01-HL67277
TIME PERIOD: 04/01/02 - 03/31/07
DESCRIPTION: The major goals of this project are to understand the mechanism of AT1/Jak2 physical co-association and the role of Jak2 in angiotensin II signaling.

TITLE: Jak2 Phosphorylation Mapping and Protein Identification
PRINCIPAL INVESTIGATOR: Xianyue Ma, Ph.D.
SUPERVISOR: Peter P. Sayeski, Ph.D.
AGENCY: American Heart Association, Florida/Puerto Rico Affiliate
TYPE: Post Doctoral Award #0425378B
TIME PERIOD: 07/01/04 - 06/30/06
DESCRIPTION: The major goals of this project are to map Jak2 phosphorylation sites and identify a 55 kDa protein that co-purifies with Jak2.

TITLE: The Role of Jak2 in Mediating Angiotensin II-induced IP3 Receptor Degradation
PRINCIPAL INVESTIGATOR: Tiffany A. Wallace
SUPERVISOR: Peter P. Sayeski, Ph.D.
AGENCY: American Heart Association, Florida/Puerto Rico Affiliate
TYPE: Post Doctoral Award # 0515284B
TIME PERIOD: 07/01/05 - 06/30/06
DESCRIPTION: The major goal of this project is to define the role of Jak2 in Ang II-mediated IP3R degradation

TITLE: Mechanisms of Jak2 Tyrosine Kinase Activation and Pharmacological Inhibition
PRINCIPAL INVESTIGATOR: Peter P. Sayeski, Ph.D.
AGENCY: American Heart Association, Florida/Puerto Rico Affiliate
TYPE: Grant in Aid #0555359B
TIME PERIOD: 07/01/05 - 06/30/07
DESCRIPTION: The major goals of this project are to investigate the role of SHP-2 in Ang II-mediated Jak2 activation and characterize a putative Jak2 pharmacological inhibitor (Compound 7).

TITLE: The Role of c-Src/Yes/Fyn on ERK1/2 Cellular Function
PRINCIPAL INVESTIGATOR: Michael D. Godeny
SUPERVISOR: Peter P. Sayeski, Ph.D.
AGENCY: American Heart Association, Florida/Puerto Rico Affiliate
TYPE: Post Doctoral Award #0515138B
TIME PERIOD: 07/01/05 - 06/30/07
DESCRIPTION: The major goals of this project are to determine the role of c-Src/Yes/Fyn in Ang II-mediated ERK1/2 activation.

TITLE: Jak2 Cellular Function and Structural Determination
PRINCIPAL INVESTIGATOR: Peter P. Sayeski, Ph.D
AGENCY: National Institutes of Health
TYPE: Independent Research Award R01-HL75577
TIME PERIOD: *Pending Review*
DESCRIPTION: The major goals of this project are to determine the role of tubulin on Jak2 function and to determine the crystal structure of full length Jak2 protein.