BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed for Form Page 2.
Follow the sample format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME	POSITION TITLE
Sharon M. Moe, MD	

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
Illinois State University		1978-1980	Biology
University of Illinois at Champaign-Urbana	BS	1982	Physiology
University of Illinois at Chicago	MD	1986	
Loyola University Medical Ctr, Maywood, IL		1986-1989	Intern and Resident
University of Chicago		1989-1992	Nephrology Fellow

Professional Experience:

1992-1994 Clinical Assistant Professor of Medicine, Indiana University School of Medicine
1995-2001 Assistant Professor of Medicine, Indiana University School of Medicine
2001-present Associate Professor of Medicine (with tenure), Indiana University School of Medicine
2001-2003 Assistant Dean for Research Support, Indiana University School of Medicine
2003-2005 Associate Dean for Research Support, Indiana University School of Medicine
2005-present Vice-Chair for Research, Indiana University School of Medicine Department of Medicine

Professional Activities

1995-1997 Member, General Clinical Research Center Advisory Committee
1992-present Member, American Society of Nephrology (Post-Graduate Education Committee 1997-2000, Scientific Program Committee 2003, Co-chair, Professional Development Seminar 1999-2002)
1992-present Member, National Kidney Foundation (Scientific Planning Committee 1997, 2004, Chair 2005; Member, K/DOQI Bone and Mineral Working Group; Co-director, Global Bone and Mineral Initiative, 2004-present; Executive Committee, Kidney Dialysis Improving Global Outcomes (KDIGO), 2004- present)
1997-present Member, Women in Nephrology, Mentoring Committee
1998-1999 Ad Hoc Member, NIH Study Section SBIR/STTR Grants
2003-present Expert Reviewer Reserve for NIDDK, consulted to review selected proposals
2000-2005 Organizing Committee annual NIDDK "Training Investigators for Interventional Trials in Nephrology"
2002-present External Advisory Committee and DSMB for NIDDK sponsored HALT-PKD multi-center clinical trial
2000-present Member, Indiana University Institutional Review Board Expedited Review Committee
2006-present Chair, General Clinical Research Advisory Committee

Honors

Elected into Amercian Society for Clinical Investigation (ASCI), 2005
Trustee's Teaching Award, elected by medical students, 2004
Nephrology Teacher of the Year, elected by Nephrology Trainees, 2003
Outstanding Young Investigator: Department of Medicine, Indiana University School of Medicine, 2001
Chairman's Award for Dedication to Research: National Kidney Foundation of Indiana, 2001

Publications: Selected from a total of 85 manuscripts and textbook chapters.

Selected Manuscripts (peer reviewed publications)

1) **Moe SM**, Sprague SM. Beta 2-microglobulin induces calcium efflux from cultured neonatal mouse calvariae. *Am J of Phys*. 1992;263:F540-5.
2) **Moe SM**, Barrett SA, Sprague SM. β_2 microglobulin stimulates osteoclastic mediated bone mineral dissolution from neonatal mouse calvariae. In: DV Cohn, C Gennari, AH Tashijan, Jr., eds. *Calcium Regulating Hormones and Bone Metabolism*. Amsterdam: Elsevier Science Publishers, 1992.
3) **Moe SM**, Hack BK, Cummings SA, Sprague SM. Role of IL-1 beta and prostaglandins in beta 2-microglobulin-induced bone mineral dissolution. *Kidney Int*. 1995;47:587-91.
4) Ouseph R, Leiser JD, **Moe SM**. Calcitriol and the parathyroid hormone-ionized calcium curve: a comparison of methodologic approaches. *J Am Soc Neph*. 1996;7:497-505.
5) **Moe SM**, Kraus MA, Gassensmith CM, Fineberg NS, Gannon FH, Peacock M. Safety and efficacy of pulse and daily calcitriol in patients on CAPD: a randomized trial. *Nephrol Dial Transplant*. 1998;13:1234-41.

6) **Moe SM**, Bailey AM. A coculture model of synoviocytes and bone for the evaluation of potential arthritis therapies. *J Pharmacol Toxicol Methods*. 1999;41:127-34.
7) Brophy DF, Sowinski KM, Kraus MA, **Moe SM**, Klaunig JE, Mueller BA. Small and middle molecular weight solute clearance in nocturnal intermittent peritoneal dialysis. *Perit Dial Int*. 1999;19:534-9.
8) **Moe SM**, Singh GK, Bailey AM. Beta2-microglobulin induces MMP-1 but not TIMP-1 expression in human synovial fibroblasts. *Kidney Int*. 2000;57:2023-34.
9) Jaradat MI, Schnizlein-Bick CT, Singh GK, **Moe SM.**. β_2-Microglobulin increases the expression of vascular cell adhesion molecule on human synovial fibroblasts. *Kidney Int*. 2001;59:1951-9.
10) Ahmed S, O'Neill KD, Hood AF, Evan AP, **Moe SM**. Calciphylaxis is associated with hyperphosphatemia and increased osteopontin expression by vascular smooth muscle cells. *Am J Kidney Dis*. 2001;37:1267-76.
11) Chen NX, O'Neill KD, Niwa T, **Moe SM**. Signal transduction of beta2m-induced expression of VCAM-1 and COX-2 in synovial fibroblasts. *Kidney Int*. 2002;61(2):414-24.
12) **Moe SM**, O'Neill KD, Duan D, Ahmed S, Chen XN, Leapman SB, Fineberg N, Kopecky KK. Medial artery calcification in ESRD patients is associated with deposition of bone matrix proteins. *Kidney Int*. 2002;61:638-47.
13) O'Neill KD, Chen NX, Wang, M, Cocklin, R, **Moe SM**. Cellular uptake of B2M and AGE-B2M in synovial fibroblasts and macrophages. *Nephrol Dial Transplant*. 2003:18:46-53-8.
14) Chen NX, O'Neill KD, Duan D, **Moe SM**. Phosphorus and uremic serum upregulate osteopontin expression in vascular smooth muscle cells. *Kidney Int*. 2002;62(5):1724-31.
15) Reslerova M, **Moe SM**. Vascular calcification in dialysis patients: pathogenesis and consequences. *Am J Kidney Dis*. 2003;41(3, Suppl 1):S96-S99.
16) **Moe SM**, Duan D, Doehle BP, O'Neill KD, Chen NX. Uremia induces the osteoblast differentiation factor Cbfa1 in human blood vessels. *Kidney Int*. 2003;63(3):1003-1011.
17) **Moe SM**, O'Neill KD, Fineberg N, Persohn S, Ahmed S, Garrett P, Meyer C. Assessment of vascular calcification in ESRD patients using spiral CT. *Nephrol Dial Transplant.* 2003;18:1152-1158.
18) Cocklin RR, Zhang Y, Bidasee KR, O'Neill KD, Chen NX, **Moe SM**, Wang M. Identity and localization of advanced glycation end products on human B2-microglobulin using matrix-assisted laser desorption/ionization time-of-flight mass spectrometry. *Analytical Biochemistry*. 2003;15:322-325.
19) **Moe SM,** Chen NX. Calciphylaxis and vascular calcification*. Ped Neph* 2003; 18:969-975.
20) **Moe SM**. Calcific uremic arteriolopathy: a new look at an old disorder. *NEPHSAP*, 2004; 3:77-83.
21) Block GA, Martin KJ, deFrancisco ALM, Turner SA, Avram MM, Suranyi MG, Hercz G, Cunningham J, Abu-Alfa AK, Messa P, Coyne DW, Locatelli F, Cohen RM, Evenpoel P, **Moe SM**, Fournier A, Braun J, McCary LC, Zani VJ, Olson KA, Drueke TB, Goodman WG. Cinacalcet Hydrochloride for secondary hyperparathyroidism in patients receiving hemodialysis. *N Engl Jl Med* 2004;350:1520-1529.
22) **Moe SM**, O'Neill KD, Reselerova M, Fineberg N, Persohn S, Meyer CA. Natural history of vascular calcification in dialysis and transplant patients. *Nephrol Dial Transplant.* 2004; 19:2387-93
23) **Moe SM,** Chen NX. The pathophysiology of vascular calcification in CKD. *Circ Res* 2004; 95:560-567
24) **Moe SM.** Disorders of calcium (Ca), phosphorus (P), and magnesium (Mg): core curriculum in nephrology. *Am J Kidney Dis* 2005; 45:213-8
25) **Moe SM,** Chertow GM, Coburn JW, Quarles LD, Goodman WG, Block GA, Drüeke TB, Cunningham J, Sherrard DJ, McCary LC, Olson MS, Turner SA, Martin KJ. Achieving NKF-K/DOQI bone metabolism and disease treatment goals with cinacalcet HCI *Kidney Int* 2005, 67:760-71
26) **Moe SM,** Reslerova M, Ketteler M, O'Neill KD, Duan D, Koczman JJ, Westenfeld R, Jahnen-Dechent W, Chen NX. Role of calcification inhibitors in the pathogenesis of vascular calcification in chronic kidney disease. *Kidney Int* 2005, 67:2295-304
27) LaClair RE, Hellman RN, Karp SL, Kraus M, Ofner S, Li Q, Graves, KL**, Moe SM**. Prevalence of calcidiol deficiency in chronic kidney disease: a cross- sectional study across latitudes in the united states. Am J Kidney Dis, 45:1026-1033
28) **Moe SM,** Cunningham J, Adler S, Rosansky SJ, Urena-Torres P, Albizem MB, Guo MD, Zani VJ, Goodman WG, Sprague SM. Long-term treatment of secondary hyperparathyroidism with the calcimimetic cinacalcet HCI. In press, Neph Dial Transplant. 2005 20(10):2186-93
29) Friedman AN, **Moe SM**, Perkins SM, Li Q, Watkins BA. Fish consumption and omega-3 fatty acid status and determinants in long-term hemodialysis. Am J Kidney Dis. 2006 47(6):1064-71.
30) Chen NX, Duan D, O'Neill KD, **Moe SM**. High Glucose Increases the Expression of Cbfa1 and BMP-2 and Enhances the Calcification of Vascular Smooth Muscle Cells. Neph, Dialysis, Transpl 21:3435-42, 2006
31) Chen NX, Wolisi GO, Duan D, ONeill KD, Koczman JJ, Fang J, **Moe SM**. Cbfa1 and BMP-2 are both involved in uremic serum induced calcification in bovine vascular smooth muscle cells (BVSMC). Kidney International 70:1046-53, 2006
32) Chen NX, O'Neill K, Chen X, Duan D, Wang E, and **Moe SM**. Fetuin-A uptake in bovine vascular smooth muscle cells (BVSMC) is calcium dependent and mediated by annexins. Am J Physiol (Renal) 2006 Sep 12; epub

Ongoing Research Support
ACTIVE

Veterans Administration Merit Review 10/1/03-9/30/07
Principal Investigator
"The Role of Cbfa1 in Vascular Calcification in ESRD"
The major goals of this project are to define the mechanisms by which Cbfa1 induces vascular calcification and the potential cell signaling mechanisms by which human uremic serum induces vascular calcification. Dr. Moe oversees the conduct of this translational research project.

K24 DK02775 NIH/NIDDK 5/1/06-4/30/11
Principal Investigator
"Musculoskeletal Disorders in Dialysis Patients"
The purpose of this mentoring award is to provide salary support for Dr. Moe to mentor young investigators in clinical/translational research. It encompasses all of Dr. Moe's clinical research activities including musculoskeletal diseases and vascular calcification.

Genzyme, Inc. 06/01/04 to 06/30/07
Principal Investigator
"Prevention of bone disease and vascular calcification with sevelamer in a naturally occurring rodent model of polycystic kidney disease"
The goal of this project is to determine if sevelamer can prevent vascular calcification in a PKD rodent model. The role of Dr. Moe is to organize and coordinate cross-disciplinary work by three PhDs who are actually conducting the research and to provide reports to the sponsor.

Amgen, Inc. 06/01/04 to 06/30/07
Principal Investigator
"Prevention of bone disease and vascular calcification with cinaclacet in a naturally occurring rodent model of polycystic kidney disease"
The goal of this project is to determine if cinacalcet can prevent vascular calcification in a PKD rodent model. The role of Dr. Moe is to organize and coordinate cross-disciplinary work by three PhDs who are actually conducting the research and to provide reports to the sponsor.

GRANTS AS MENTOR:

NIH-NIDDK-K01 7/1/03 to 6/30/08
Role: Faculty Mentor (Principal Investigator Neal X. Chen, PhD, Nephrology Faculty)
"The Role of Cbfa1 in Vascular Calcification in Diabetes"

American Diabetes Association- Career Development Award 10/1/04-9/31/07
Role: Faculty Mentor (Principal Investigator: Anupama Mohanrum, MD, Nephrology Faculty)
"Anemia and progression of diabetic nephropathy"

NIH-NCRR-K23 7/1/05-6/30/10
Role: Faculty Mentor (Principal Investigator, Allon Friedman, MD, Nephrology Faculty)
"Effects of Obesity and Protein Intake on the Kidney"

NIH-GCRC-CREFF awards (internal grant funded through Indiana Unviersity GCRC) 3/1/06-2/28/08
And **National Kidney Foundation of Indiana Research Award** 2/1/06- 3/1/07
Role: Faculty Mentor (Principal Investigator, Akber Saifullah, Nephrology Trainee)
"A randomized trial of doxercalciferol compared to cholecalciferol for the treatment of secondary hyperparathyroidism in CKD stages 3 and 4."
These two grants support this research project together with funds from Dr. Moe's K24.