



Yvonne Searls

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EDUCATION

- B.S., Biology, Benedictine College, Atchison, KS, 1984
- B.S., Physical Therapy, Rockhurst College, Kansas City, MO, 1987
- Ph.D., Anatomy and Cell Biology, University of Kansas Medical Center, Kansas City, KS, 2004

ACADEMIC / CLINICAL APPOINTMENTS

- University of Kansas Medical Center, Kansas City, KS.
 - Clinical Assistant Professor, Department of Physical Therapy and Rehabilitation Sciences

TEACHING RESPONSIBILITIES

- ACCE - Student Clinical Affiliations and appointments
 - PTRS 720
 - PTRS 730
 - PTRS 820
 - PTRS 830
 - PTRS 840
 - PTRS 920
- PTRS 873 - Research Practicum

RESEARCH INTERESTS

- The effects of endurance training on heart and blood vessel structure and ultrastructure of diabetic rats.
- The effects diabetes and hyperglycemia on intracellular calcium regulation.
- The effects of diabetes on the vascular vasopressin system.
- Calcium regulation of transcription factor (NFAT).

SELECTED PUBLICATIONS

- Fedoryak OD, **Searls Y**, Smirnova IV, Burns D, Stehno-Bittel L, Spontaneous nuclear Ca²⁺ oscillations in subcellular compartments of vascular smooth muscle cells rely on different Ca²⁺ pools, *Cell Research*, 2004 Oct; 14(5): 379-388.
- **Searls Y**, Smirnova IV, Fegley BR, Stehno-Bittel L, Exercise attenuates diabetes-induced ultrastructural changes in rat cardiac tissue, *Med Sci Sports Exerc*, 2004 Nov; 36(11):1863-70.
- **Searls Y**, Loganathan, R, Smirnova, I, Stehno-Bittel, L, Calcium regulating proteins in vascular smooth muscle cells are altered by hyperglycemia, under review, 2004.
- **Searls Y**, Bunag, R, Stehno-Bittel, L , Early ultrastructural changes in streptozocin-induced diabetic rat vessels are reduced by exercise, *Exp Diabetes Res.*, in press, 2005
- **Searls Y**, Stehno-Bittel L, Vasopressin-induced nuclear translocation of NFAT in vascular smooth muscle cells is impeded by hyperglycemia, in process 2005.
- **Searls, Y**, Stehno-Bittel L, The regulation of NFATc1 requires different calcium pools in vascular smooth muscle cells, in process 2005.

RECENT ABSTRACTS

- **Searls Y**, Burns D, Stehno-Bittel L. Diabetes Alters Vascular Smooth Muscle Nuclear Calcium Signaling, *Diabetes*. 51: Supplement 2: A621, 2002.
- Smirnova I, Kibiryeva N, **Searls Y**, Wolfe M, Stehno-Bittel L. Reversal of Diabetes-Induced Myocardial Fibrosis by Exercise Training, (poster presentation also) American Physical Therapy Association Combined Sections Meeting, Tampa, FL February 13, 2003, Abst. 301.
- **Searls, Y**, Calcium Regulating Proteins in Vascular Smooth Muscle Cells is Altered By Diabetes, *Diabetes*. 52: Supplement 1: A179-80, 2003.
- **Searls, Y**, Stehno-Bittel L. Vasopressin Induced Nuclear Transport of NFATc1 in vSMC is Impeded by Hyperglycemia, *Diabetes*, 52: Supplement 2, A197, 2004.

RECENT PROFESSIONAL & SCIENTIFIC PRESENTATIONS

- **2002** - Oral Presentation, **Searls Y**, Burns D, Stehno-Bittel L. "Diabetes Alters Vascular Smooth Muscle Nuclear Calcium Signaling", Student Research Forum, University of Kansas Medical Center.
- **2003** - Poster Presentation, **Searls Y**, Loganathan, R, Smirnova I, Stehno-Bittel "Calcium Regulating Proteins in Vascular Smooth Muscle Cells is Altered by Diabetes", Student Research Forum, University of Kansas Medical Center.
- **2003** - Poster Presentation, **Searls Y**, Loganathan R, Smirnova I, Stehno-Bittel "Calcium Regulating Proteins in Vascular Smooth Muscle Cells Altered by Hyperglycemia", 2nd Annual Kansas City Life Sciences Research Day.
- **2003** - Scientific Seminar, "Intracellular Calcium Regulating Proteins Are Altered By Diabetes", Anatomy and Cell Biology Department Seminar, Kansas City, KS.
- **2004** - Poster Presentation, Stehno-Bittel L, Smirnova I, Foecking J, **Searls Y**, Novikova L "Proteomic approach to study the beneficial effects of exercise on diabetic heart", American Physical Therapy Association's Combined Sections Meeting.
- **2004** - Poster Presentation, **Searls Y**, Stehno-Bittel L, "Vasopressin Induced Nuclear Transport of NFATc1 in vSMC is Impeded by Hyperglycemia", American Diabetes Association's Scientific Meeting.
- **2004** - Dissertation Defense, "Intracellular Calcium Regulation in Vascular Smooth Muscle Cells is Altered By Diabetes and Hyperglycemia", University of Kansas Medical Center.

PROFESSIONAL CERTIFICATIONS & LICENSES

- Physical Therapist: Missouri.
- Physical Therapist: Kansas.

PROFESSIONAL & SCIENTIFIC MEMBERSHIPS

- American Physical Therapy Association, member.
- American Association for the Advancement of Science, member.
- American Diabetes Association, member.
- Central ACCE Consortium, member.