

**Gabrielle Mercedes Curinga, Ph.D.**  
CURRICULUM VITAE:

---

Work Address

Department of Bioengineering  
Box 351720  
University of Washington  
Seattle, WA 98195  
206-543-8371

Home Address

12226 Ashworth Avenue North  
Seattle, WA 98133  
206-448-6351  
gcuringa@u.washington.edu

**EDUCATION**

2004- Present Post-doctoral Fellow, Bioengineering Department  
University of Washington School of Medicine, Seattle, Washington.  
Advisor: Cecilia M. Giachelli, Ph.D.

1997-2003 Ph.D., Pathology Department  
University of Washington School of Medicine, Seattle, Washington.  
Advisor: Cecilia M. Giachelli, Ph.D.

1990-1994 B.S., Major: Biology Minors: Chemistry, Psychology  
LeMoyne College, Syracuse, New York.

**WORK EXPERIENCE**

1994-1996 Laboratory Technician, Quality Control Department,  
Bristol-Myers Squibb, Syracuse, New York.

1994 Intern, Genetic Engineering Department,  
Bristol-Myers Squibb, Syracuse, New York

**RESEARCH EXPERIENCE**

2004- Present Post-doctoral Fellowship, University of Washington, Seattle, WA  
Advisor, Dr. Cecilia Giachelli

*Project:* Use RNA interference technology to generate smooth muscle cells with diminished capacity to up-regulate Runx2.

1997-2003 Research Assistant, University of Washington, Seattle, WA  
*Thesis:* The role of Runx2 in arterial smooth muscle cell mineralization.

*Project:* Generated and characterized in vitro vascular calcification model.

- Established primary smooth muscle culture from bovine thoracic aorta. Determined culture conditions that resulted in cell-mediated mineralization via calcium and phosphate dose-response and time-course experiments.

Project: Demonstrated down-regulation of smooth muscle cell related genes and up-regulation of osteogenic related genes concomitant with mineralization.

- Used Northern and Western blotting and reverse transcriptase PCR to examine gene expression in mineralizing cells.

Project: Determined osteogenic transcription factor Runx2 inhibits phosphate induced mineralization of smooth muscle cells.

- Investigated functional role for Runx2 in regulation of smooth muscle cell mineralization via stable expression of dominant negative and wild type Runx2 retroviral vectors in smooth muscle cells.

### **LABORATORY/RESEARCH SKILLS**

- Extensive expertise in molecular biology techniques: RNA interference, real-time PCR, retroviral and protein expression systems, recombinant DNA and cloning technology, Northern/Western blotting, and reverse transcriptase PCR.
- Proficient in sterile cell culture technique, generation of cell lines from tissue, flow cytometry, immunohistochemistry, and in situ hybridization.
- Experienced in microscopy including bright field, fluorescence, and phase.
- Participated in preparation of successfully funded NIH training grant.

### **AWARDS/SUPPORT**

1997-2002	NIH Training Grant Genetic Aspects of Aging
2000	University of Washington Department of Pathology Poster Competition Award
1994	Chi Pi Chapter of Beta Beta Beta Biological Honor Society

### **PUBLICATIONS**

**Curinga G.**, and Giachelli C.M. Runx2 Inhibits Phosphate Induced Smooth Muscle Cell Matrix Mineralization *in vitro*. *Arteriosclerosis Thrombosis and Vascular Biology*. Submitted.

Yang H., **Curinga G.**, and Giachelli C.M. Elevated Extracellular Calcium Levels Induce Smooth Muscle Cell Matrix Mineralization *in vitro*. *Kidney International*. Submitted.

Steitz S.A., Speer M.Y., **Curinga G.**, Yang H.Y., Haynes P., Aebersold R., Schinke T., Karsenty G., and Giachelli C.M. Smooth muscle cell phenotypic transition associated with calcification: upregulation of Cbfa1 and downregulation of smooth muscle lineage markers. *Circ. Res.* **89(12)**: 1147-54, 2001.

## **PRESENTATIONS**

**Curinga G.**, and Giachelli CM. Mechanisms for Vascular Calcification. Invited lecture for Genzyme Corporation Renagel® Phase II Training. Genzyme Corporation, Boston, MA 2004.

**Curinga G.**, and Giachelli CM. The Role of Runx 2 in Arterial Smooth Muscle Cell Mineralization. Podium Presentation Experimental Biology Conference, San Diego, CA 2003.

**Curinga G.**, Steitz SA, Karsenty G, and Giachelli CM. Regulation of Arterial Smooth Muscle Cell Calcification *In Vitro*. Poster Presentation Experimental Biology Conference, New Orleans, LA 2002.

**Curinga G.**, Jono S, Steitz SA, Karsenty G, and Giachelli CM. Molecular Mechanisms of Arterial Smooth Muscle Cell Calcification. Poster Presentation at the 1<sup>st</sup> Annual Conference on Arteriosclerosis, Thrombosis and Vascular Biology, Denver, CO 2000.