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EDUCATION:

Ph.D. Biological Sciences

December 2007. University of California Irvine, California

B.S. Biology Graduated with Honors

December 2001. University of Portland, Oregon

RESEARCH EXPERIENCE:

Ph.D. Graduate Student, University of California, Irvine, CA, Fall 2002 – Present
Identification of a novel family of spatially and temporally regulated molecules that differentially modulate sprouting, migration and proliferation of endothelial cells during vascular remodeling.

Research Intern, Bayer Pharm., Emeryville, CA, June 2001 – August 2001 and March 2002 – June 2002. Using phage display libraries and BIACORE to design recombinant, humanized antibodies targeted to several tumor and other pathological antigens.

Undergraduate Researcher, University of Portland, OR, August 2000 – December 2001.
Undergraduate work contributed towards several projects addressing a lysosomal storage disorder as well as one population genetics study of a threatened avian species on the coast of Oregon.

RELEVANT SKILLS AND TECHNIQUES:

Molecular Biology: RT-PCR, quantitative RT-PCR, microarray analysis, RNA amplification, molecular cloning, site directed mutagenesis, electro mobility shift assay.

Biochemistry: western blot, affinity purification techniques, BIA-Core protein interaction kinetics analysis, ELISA, immuno-precipitation.

Cell Biology: tissue culture, mouse embryonic stem cell culture, immunohistochemistry, flow cytometry, laser microdissection, several *in vitro* angiogenesis assays, viral gene expression techniques, various reporter assays.

TEACHING EXPERIENCE:

Teaching Assistant, Molecular Biology Lab

University of California, Irvine

Prepared and delivered weekly lectures, prepared weekly labs, held weekly office hours, and conducted all grading for the course.

Teaching Assistant, Cell Biology

University of California, Irvine

Held weekly office hours, facilitated study sections, delivered review lectures, and conducted all grading for the course.

Teaching Assistant, Molecular Biology

University of California, Irvine

Held weekly office hours, facilitated study sections, delivered review lectures, and conducted all grading for the course.

HONORS AND AWARDS:

Tri-Beta Biological Honors Society Member
2000 United Parcel Service Annual Foundation Scholarship

PUBLICATIONS:

Matthew T. Holderfield, Christopher C.W. Hughes (2008). Expression of IFITMs regulates the migration and proliferation of endothelial cells during vascular remodeling. In preparation.

Matthew T. Holderfield, Christopher C.W. Hughes (2008). Crosstalk between VEGF, notch, and TGF-beta in vascular morphogenesis. *Circ Res*.

Richard C.A. Sainson, Douglas A. Johnston, Henry C. Chu, **Matthew T. Holderfield**, Martin N. Nakatsu, Steven P. Crampton, Jaeger Davis, Erin Conn, Christopher C.W. Hughes (2008). TNF induces Jagged-1 expression in endothelial cells and promotes development of an angiogenic tip cell phenotype. *Blood*.

Matthew T. Holderfield, April M Henderson Anderson, Hiroki Kokubo, Michael T Chin, Randy L Johnson, Christopher CW Hughes (2006). HESR1/CHF2 suppresses VEGFR2 transcription independent of binding to E-boxes. *BBRC*.

Richard Sainson, Jason Aoto, Martin Nakatsu, **Matthew Holderfield**, Erin Conn, Erich Koller, Christopher C.W. Hughes (2005). Cell autonomous Notch signaling regulates endothelial cell branching and proliferation during vascular tubulogenesis. *FASEB Journal*.