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## 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 Andrew J. Ewald	POSITION TITLE Assistant Professor
eRA COMMONS USER NAME AEWALD2	Dept. of Cell Biology & Center for Cell Dynamics Johns Hopkins School of Medicine

EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Haverford College	BS	1993-1997	Physics/Biophysics
California Institute of Technology	PhD	1997-2003	Biophysics & Embryology
UCSF	Postdoc	2003-2008	Epithelial Biology & Cancer

Please refer to the application instructions in order to complete sections A, B, and C of the Biographical Sketch.

### A. Positions and Honors

#### Positions and Employment:

2003-2008 Postdoctoral Fellow, Zena Werb's Lab, University of California, San Francisco

2008- **Assistant Professor, Johns Hopkins School of Medicine, Baltimore, MD**

*Primary Appt:* Dept of Cell Biology and Center for Cell Dynamics

*Secondary Appts:*

- 2009- Member, Breast Cancer Research Program, Sidney Kimmel Comprehensive Cancer Center
- 2009- Assistant Professor, Department of Oncology

*Training Programs:*

- 2008- Biochemistry, Cell and Molecular Biology Graduate Program
- 2009- Bioengineering PhD Program Committee

#### Honors

- National Merit Scholar, 1993.
- Howard Hughes Biomedical Research Scholar: Haverford College, 1996-1997.
- Honors in Physics: Haverford College 1997.
- Burroughs Welcome Fund Graduate Fellowship: Caltech Initiative in Computational Molecular Biology, 1997-2002.
- Burroughs Welcome Fund Pilot Research Grant: \$25,000, 1998.
- Best Graduate Student: West Coast Mtg, Society for Developmental Biology, 2001.
- Student Travel Award: National Meeting of the Society for Developmental Biology, 2002.
- Beckman Institute Executive Committee Grant: \$25,000, 2002.
- Student Travel Award & Contributed Talk: American Association of Anatomists, 2003.
- NIH Institutional Postdoctoral Fellowship: CVRI, UCSF, 2003-2005.
- California Breast Cancer Research Program: Postdoctoral Fellow, 2005-2008.
- UCSF School of Medicine Dean's Postdoctoral 2<sup>nd</sup> Prize 2008.
- UCSF School of Medicine Postdoctoral Travel Award 2008.
- Johns Hopkins 2009 Breast Cancer Retreat: 1<sup>st</sup> Place in Basic Science Research.
- Distinguished Lecturer, Breast Cancer Lectureship Series Braman Family Breast Cancer Institute (BFBCI), Sylvester CCC, University of Miami (06/24/10)

### **Other Experience and Professional Memberships**

Member, American Association for Cancer Research, Society for Developmental Biology, Member, American Society for Cell Biology

### **Reviewer:**

Developmental Biology (2001-), MBoC (2004-), Cancer Research (2004-), Clinical Cancer Research (2004-), Breast Cancer Research (2005-), Cold Spring Harbor Press (2005-), Journal of Cell Biology (2005-), Nature Cell Biology (2006-), Science (2008-).

### **Study Sections:**

2009 Congressionally Directed Medical Research Programs, Breast Cancer Research Program, Training-Cell Biology-A Peer Review Meeting, May 3-5, 2009.

### **Invited Talks:**

08/05/2000, CSU at Stanislaus Confocal Course.  
11/07/2007, Five Prime Therapeutics, San Francisco, CA.  
11/16/2007, UCSF Comprehensive Cancer Center Seminar Series.  
01/17/2008, Program in Cell Biology, Memorial Sloan Kettering  
01/28/2008, Department of Molecular and Cell Biology, University of California at Berkeley.  
02/21/2008, Department of Biological Sciences, Carnegie Mellon.  
02/27/2008, Department of Pathology, Yale Medical School.  
03/19/2008, Center for Cell Dynamics, Johns Hopkins Medical School.  
10/04/2008, 50th Symposium of the Society for Histochemistry, Interlaken, Switzerland.  
12/13/2008, Member Organized Symposia, American Society for Cell Biology.  
01/28/2009, Department of Molecular Biology and Genetics, Johns Hopkins Medical School.  
02/12/2009, 2009 Gordon Conference on Salivary Glands and Exocrine Secretion", 02/08-13/09.  
03/11/2009, University of Virginia, Cell Biology Seminar Series.  
09/17/2009, NIH, National Heart Lung and Blood Institute.  
09/25/2009, Max Planck Institute of Molecular Cell Biology and Genetics, Dresden.  
09/30/2009, Carl Zeiss Microimaging Biosciences Division: SPIM Development Group.  
10/04/2009, EMBO Conference on Morphogenesis and Dynamics of Multicellular Systems, EMBL.  
04/17/2010, American Association of Cancer Research, Methods Workshop.  
06/24/2010, Distinguished Lecturer, Breast Cancer Lectureship Series Braman Family Breast Cancer Institute (BFBCI), Sylvester CCC, University of Miami.

### **C. Peer-reviewed publications**

1. Wallingford, JB, **Ewald, AJ**, Harland, RM and Fraser, SE, "Calcium signaling during convergent extension in *Xenopus*," **Current Biology**, 2001, May 1; 11(9):652-661.
  2. **Ewald, AJ**, McBride, H, Reddington, M, Fraser, SE, and Kerschman R, "Surface imaging microscopy, an automated method for visualizing whole embryo samples in three dimensions at high resolution," **Developmental Dynamics**, 2002, Nov; 225(3): 369-375.
  3. Chen, H, Detmer, SA, **Ewald AJ**, Griffin, EE, Fraser SE, and Chan, DC, "Mitofusins Mfn1 and Mfn2 coordinately regulate mitochondrial fusion and are essential for embryonic development," **Journal of Cell Biology**, 2003, Jan 20; 160(2): 189-200.
  4. **Ewald, AJ**, Peyrot, S, Tyszka, JM, Fraser, SE, Wallingford, J, "Regional requirements for Dishevelled signaling during *Xenopus* gastrulation: Separable effects on blastopore closure, mesendoderm internalization, and archenteron formation," **Development**, 2004, Dec Part 2; 131(24): 6195-6209.
  5. Song S, **Ewald, AJ**, Stallcup B, Werb, Z. and G. Bergers, "PDGFRb+ perivascular progenitor cells in tumors regulate pericyte differentiation and vascular survival", **Nature Cell Biology**, 2005, Sep; 7(9) :870-9.
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6. Page-McCaw\*, A, **Ewald\*, AJ**, Werb, Z, “Matrixmetalloproteinases and the regulation of tissue remodeling”, **Nature Reviews Molecular Cell Biology**, 2007, Mar; 8(3): 221-33.  
\* = **Co-First Authors**
  7. Wei, Y, Fang, X, **Ewald, AJ**, Hunt, A, Werb, Z, Mathay, M, Mostov, K, “Formation of cysts by alveolar type II cells in three-dimensional culture reveals a novel mechanism for epithelial morphogenesis”, **Molecular Biology of the Cell**, 2007, May; 18: 1693-1700.
  8. Levin, M, **Ewald, AJ**, McMahon, M, Werb, Z, Mostov, K, “A model for intussusceptive angiogenesis”, **Vascular Development**, Wiley, Chichester, **Novartis Foundation Symposium**, 2007, 283: 37-45.
  9. Page-McCaw\*, A, **Ewald\*, AJ**, Werb, Z, “Matrixmetalloproteinases and the regulation of tissue remodeling”, **Nature Reviews Molecular Cell Biology**, 2007, Mar; 8(3): 221-33.  
\* = **Co-First Authors**
  10. Wei, Y, Fang, X, **Ewald, AJ**, Hunt, A, Werb, Z, Mathay, M, Mostov, K, “Formation of cysts by alveolar type II cells in three-dimensional culture reveals a novel mechanism for epithelial morphogenesis”, **Molecular Biology of the Cell**, 2007, May; 18: 1693-1700.
  11. Fata, J, Mora, H, **Ewald, AJ**, Zhang, H, Yao, E, Werb, Z, Bissell, M, “The MAPK ERK-1,2 pathway integrates distinct and antagonistic signals from TGF $\alpha$  and FGF7 in morphogenesis of mouse mammary epithelium”, **Developmental Biology**, 2007, Jun 1; 306(1):193-207.
  12. Kouros-Mehr, H, Bechis, SK, Slorach, EM, Littlepage, LE, Egeblad, M, **Ewald, AJ**, Pai, SY, Ho, IC, Werb, Z, “Gata-3 links tumor differentiation and dissemination in a luminal breast cancer model”, **Cancer Cell**, 2008, Feb; 13(2): 141-52.
  13. **Ewald, AJ**, Brenot, A, Duong, M, Chan, BC, Werb, Z, “Collective epithelial migration and cell rearrangements drive mammary branching morphogenesis”, **Developmental Cell**, 2008 Apr; 14(4): 570-81.
  14. Martin-Belmonte, H, Yu, W, Rodriguez-Fraticelli, AE, **Ewald, AJ**, Werb, Z, Alonso, MA, Mostov, K, “Cell polarity dynamics controls the mechanism of lumen formation in epithelial morphogenesis”, **Current Biology**. 2008 Apr 8; 18(7): 507-13.
  15. **Ewald, AJ**, Wallingford JB, “Vertebrate Gastrulation: Sticky or Tense?”, **Current Biology**. 2008 Jul 22; 18(14): R615-617.
  16. Lu, PF, **Ewald, AJ**, Werb, Z, Martin, G, “Genetic mosaic analysis reveals FGF receptor 2 is required in terminal end buds during mammary gland branching morphogenesis”, **Developmental Biology**, 2008 Sep 1; 321(1):77-87.
  17. Egeblad\*, M, **Ewald\*, AJ**, Asketrad, HA, Truitt, M, Welm, B, Bainbridge, E, Peeters, G, Krummel, M, Werb, Z, “Imaging stromal cells in intact tumor microenvironments”, \* = **Co-First Authors. Disease Models and Mechanisms**. 2008 Sep/Oct; 1(2/3): 155-67.
  18. **Ewald, AJ**, Werb, Z, Egeblad, M, “In vivo imaging of tumor – immune cell interactions”, **In Press for Live Cell Imaging 2<sup>nd</sup> Edition**, Cold Spring Harbor Laboratory Press, 2009.
  19. Andrew, DJ and **Ewald, AJ**, “Morphogenesis of epithelial tubes: Insights into tube formation, elongation, and elaboration”, **Developmental Biology**, In Press, Online as of 9/22/2009.
  20. **Ewald, AJ**, “Imaging the Cell Behavioral Basis of Branching Morphogenesis in 3D Organotypic and Whole Organ Cultures” *Invited Book Chapter for Imaging in Developmental Biology, A Laboratory Manual*, In Press, Cold Spring Harbor Laboratory Press, 2010.
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