

## BIOGRAPHICAL SKETCH

Provide the following information for the key personnel on page 1 of the Detailed Budget and Justification form for the initial budget period.

<b>NAME</b> Lund, Amanda W.	<b>POSITION TITLE</b> Assistant Professor of Cell, Developmental & Cancer Biology		
<b>EDUCATION/TRAINING</b> <small>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</small>			
<b>INSTITUTION AND LOCATION</b>	<b>DEGREE</b>	<b>YEAR(s)</b>	<b>FIELD OF STUDY</b>
Rensselaer Polytechnic Institute, Troy, NY	BS	12/05	Biology
Rensselaer Polytechnic Institute, Troy, NY	MS	12/08	Management
Rensselaer Polytechnic Institute, Troy, NY	Ph.D.	05/09	Biology
Ecole Polytechnique Federale de Lausanne, Switzerland	Postdoc	07/09-10/13	Tumor Immunology

### RESEARCH AND PROFESSIONAL EXPERIENCE

#### POSITIONS

- 2014-present Assistant Professor, Dept. Cell, Developmental & Cancer Biology, Oregon Health & Science University, Portland, OR
- 2014-present Affiliated Faculty, Dept. Molecular Microbiology & Immunology, Dept. Dermatology, Oregon Health & Science University, Portland, OR
- 2014-present Member, Knight Cancer Institute, Oregon Health & Science University, Portland, OR
- 2014-present Member, Oregon Center for Spatial Systems Biomedicine, Oregon Health & Science University, Portland, OR

#### HONORS

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|------|--|----------------------------------|
| 2004 | School of Science Accelerated B.S./Ph.D. Program                                 | Rensselaer Polytechnic Institute |
| 2005 | Founder's Award of Excellence, School of Science                                 | Rensselaer Polytechnic Institute |
| 2007 | School of Science Most Outstanding Graduate Student                              | Rensselaer Polytechnic Institute |
| 2008 | 3 <sup>rd</sup> Place Joe Rivers Prize (Business Plan Biotech Startup)           | Rensselaer Polytechnic Institute |
| 2009 | Karen and Lester Gerhardt Prize (1982) for top Ph.D. thesis in School of Science | Rensselaer Polytechnic Institute |

#### Selected Peer-reviewed Publications

1. Batorsky, A., Liao, J., **Lund, A.W.**, Plopper, G.E., Stegemann, J.P. Encapsulation of Adult Mesenchymal Stem Cells within Collagen-Agarose Microenvironments. *J. Biotechnology and Bioengineering*. 2005 Vol 92, 492-500.
2. **Lund, A.W.**, Bush, J.A., Plopper, G.E., Stegemann, J.P. Osteogenic Differentiation of Mesenchymal Stem Cells in Defined Protein Beads. *J. Biomed Mater Res B Appl Biomater*. 2008 Oct;87(1):213-21.
3. **Lund, A.W.**, Stegemann, J.P., Plopper, G.E. Inhibition of ERK Promotes Remodeling to Amplify the Osteogenesis of Human Mesenchymal Stem Cells in Three Dimensional Collagen I Culture. *Stem Cells Dev*. 2009 Mar; 18(2):331-41.
4. **Lund, A.W.**, Stegemann, J.P., Plopper, G.E. Mesenchymal Stem Cells Sense Three Dimensional Type I Collagen through Discoidin Domain Receptor 1. *TOASCJ* 2009. 1:40-53.
5. **Lund, A.W.**, Yener, B., Stegemann, J.P., Plopper, G.E. The natural and engineered 3D microenvironment as a regulatory cue during stem cell fate determination. *Tissue Eng. Part B Rev*. 2009 Sep; 15(3):371-80.
6. **Lund, A.W.**, Bilgin, C.C., Hasan, M.A., McKeen, L.M, Stegemann, J.P., Yener, B., Zaki, M.J., Plopper, G.E. Quantification of Spatial Parameters in 3D Cellular Constructs Using Graph Theory. *J. Biomed. And Biotech*. 2009;20.09:928286

7. Bilgin, C.C., **Lund, A.W.**, Can, A., Plopper, G.E., Yener, B. Quantification of three-dimensional cell-mediated collagen remodeling using graph theory. *PLoS ONE*. 2010 Sep 30;5(9).
8. **Lund, A.W.**, Swartz, M.A. Role of Lymphatic Vessels in Immunity: Passive Conduits or Active Participants. *J. Mammary Gland Bio & Neoplasia*. 2010 Sep;15(3):341-52.
9. Solorio, L., Zwolinski, C., **Lund, A.W.**, Farrell, M., Stegemann, J.P. Gelatin Microspheres Crosslinked with Genipin for Local Delivery of Growth Factors. *JTERM*. 2010 Oct;4(7):514-23.
10. **Lund, A.W.**, Duraes, F.V., Hirosue, S., Raghavan, V.R., Thomas, S.N., Nembrini, C., Issa, A., Hugues, S., Swartz, M.A. VEGF-C Promotes Immune Tolerance in B16 Melanomas and Cross-Presentation of Tumor Antigen by Lymph Node Lymphatics. *Cell Reports*. 2012 Feb 1(3):191-199.
11. **Selected as Best of 2012, Cell Reports.**  
**Highlighted in Cancer Research 2012;72:1589-1590.**
12. M.A. Swartz and **Lund, A.W.**. Lymphatic and Interstitial Flow in the Tumor Microenvironment: Linking Tumor Mechanobiology with Lymph Node Immunity. *Nat Rev Cancer*. 2012 Feb 24;12(3):201-9.
13. Kilariski, W.W., Guc, E., Teo, J.C.M., Oliver, S.R., **Lund, A.W.** and Swartz, M.A. Intravital Immunofluorescence for Visualization of the Microcirculatory and Immune Microenvironment in the Mouse Ear Dermis. *PLoS One*. 2013;8(2).  
**Image (Kilariski and Lund) using technique selected for cover image of Nature Technology Feature, Marx, V. Tracking Metastasis and Tricking Cancer. Nature 2013 Feb 494: 131-136.**
14. Guc E., Fankhauser, M., **Lund, A.W.**, Swartz, M.A., Kilariski, W.W. Long-term intravital imaging of tissue matrix components with epifluorescence and two-photon microscopy. *JOVE* accepted October 2013.
15. Thomas S.N., Vokali, E., **Lund, A.W.**, Hubbell, J.A., Swartz, M.A. Targeting the tumor draining lymph node with adjuvanted nanoparticles reshapes the anti-tumor immune response. *Biomaterials*. 2014 Jan;35(2):814-24.
16. Hirosue, S., Vokali, E., Raghavan, V., Rincon-Restrepo, M., **Lund, A.W.** et al. Steady-state antigen scavenging, cross-presentation and CD8<sup>+</sup> T cell priming: a new role for lymphatic endothelial cells. *J Immunol*. 2014 June 1;192(11):5002-11.