Brynn R. Olden

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EDUCATION

University of Washington (UW), Seattle, WA **September 2013 - Present**

Graduate Student, Doctor of Philosophy of Bioengineering expected June 2018

- Thesis Advisor: Dr. Suzie H. Pun
- 3.88/4.00 cumulative GPA

Oregon State University (OSU), Corvallis, OR **September 2009 - June 2013**

B.S. Chemical Engineering, Biochemical Processes Concentration

- Summa Cum Laude: 3.97/4.00 cumulative GPA

RESEARCH EXPERIENCE

NSF Graduate Research Fellow, University of Washington **September 2013-Present**

Advisor: Dr. Suzie H. Pun, Bioengineering

- Developing novel biomaterials for use in adoptive T-cell therapy manufacturing
- Optimized synthetic ligand identification protocols using Next Generation Sequencing technology (In collaboration with UW Department of Laboratory Medicine)
- Mentored two bioengineering undergraduate students in independent research projects (Summer 2014-Present)

Technology R&D Graduate Intern, Juno Therapeutics **June – August 2016**

- Evaluated non-viral gene delivery methods to primary T cells
- Identified sources of variability in a quality control assay and recommended SOP change

Graduate Rotation, Fred Hutchinson Cancer Research Center **January – March 2014**

Advisor: Dr. Matthias Stephan

- Synthesized lipid nanoparticles for non-viral gene delivery for adoptive T-cell cancer immunotherapy applications

Senior Design Researcher, Oregon State University **February—June 2013**

Advisors: Dr. Phil Harding and EcNow Tech Inc.

- Collaborated with industry professionals and multiple OSU academic departments in a group of three students to manufacture and mechanically test pilot batches of biodegradable utensils utilizing locally-sourced filler materials

Undergraduate Researcher, Oregon State University **June 2010 – September 2012**

Advisor: Dr. Joseph McGuire, Bioengineering

- Investigated the molecular origins of surfactant stabilization of recombinant factor VIII, the standard protein therapy drug used in Hemophilia A care
- Collaborated with engineers from Department of Protein Formulations at Amgen, Inc. (Thousand Oaks, CA)

Undergraduate Researcher, University of Washington **June – August 2011**

Advisor: Dr. Shaoyi Jiang, Chemical Engineering
University of Washington Amgen Scholars Program (Seattle, WA)

- Fabricated and analyzed the ultra-low fouling capabilities of peptide self-assembled monolayers as biomaterial surface coatings for biocompatible medical devices

PUBLICATIONS

**Co-first authors*
Author's present surname is Olden, formerly Livesay

1. Liu, G.*, **Livesay, B.*,** Kacherovsky, N., Cieslewicz, M., Lutz, E., Waalkes, A., Jensen, M., Salipante, S., Pun, S.. Efficient identification of murine M2 macrophage peptide targeting ligands by phage display and next-generation sequencing. *Bioconjugate Chemistry* **26,** 1811-1817 (2015).
2. Kim, H. L., McAuley, A., **Livesay, B.,** Gray, W. D. & McGuire, J. Modulation of protein adsorption by poloxamer 188 in relation to polysorbates 80 and 20 at solid surfaces. *Journal of pharmaceutical sciences* **103,** 1043–9 (2014).

PRESENTATIONS

1. Liu, G.*, **Livesay, B.*,** Kacherovsky, N., Cieslewicz, M., Lutz, E., Waalkes, A., Jensen, M., Salipante, S., Pun, S.. (October 2015) Efficient identification of peptide targeting ligands by phage display and next-generation sequencing. Biomedical Engineering Society Annual Conference. (Poster Presentation)
2. Liu, G.*, **Livesay, B.*,** Kacherovsky, N., Cieslewicz, M., Lutz, E., Waalkes, A., Jensen, M., Salipante, S., Pun, S.. (September 2015) Efficient identification of peptide targeting ligands by phage display and next-generation sequencing. International Nanomedicine and Drug Delivery Symposium. (Poster Presentation)
3. **Livesay, B.,** Dill, J., Schilke, K., McGuire, J. (October 2012) Molecular Origins of Surfactant Stabilization of a Human Recombinant Factor VIII. American Institute of Chemical Engineers Annual Student Conference. (Poster Presentation)
4. **Livesay, B.,** Al-Khaledy, K. (October 2012) 10,000 a Year: How to Recruit the Next Generation of Engineers. American Institute of Chemical Engineers Annual Student Conference. (Oral Presentation)
5. **Livesay, B.,** Dill, J., Schilke, K., McGuire, J. (September 2012) Molecular Origins of Surfactant Stabilization of a Human Recombinant Factor VIII. OSU Howard Hughes Medical Institute Research Symposium. (Oral Presentation)
6. **Livesay, B.,** Nowinski, A., Jiang, S. (August 2011) Ultra-Low Fouling Peptide Self-Assembled Monolayers as Biomaterial Surface Coatings. University of Washington Undergraduate Research Symposium. (Oral and Poster Presentation)

HONORS AND AWARDS

Research

- 3rd Place Poster Prize – UW Bioengineering Departmental Retreat (October 2015)
- National Science Foundation Graduate Research Fellowship (March 2014)
- OSU University Research, Innovation, Scholarship, and Creativity Undergraduate Research Funding (Summer 2012)
- OSU Howard Hughes Medical Institute Research Funding (Summer 2012)

Academic Achievement

- OSU Schulein Memorial Outstanding Chemical Engineering Graduate Award (June 2013)
- OSU Chemical, Biological, and Environmental Engineering Department Industry Engagement Award (June 2013)
- American Institute of Chemical Engineers (AIChE) Donald Othmer National Scholarship (September 2012)
- Barry M. Goldwater National Scholarship Honorable Mention (March 2012)
- Tau Beta Pi Engineering Honor Society (January 2012)
- AIChE Sophomore Academic Excellence Award (October 2011)
- OSU Presidential Scholar (September 2009-13)
- OSU Chemical, Biological, and Environmental Engineering Department Johnson Scholar (September 2009-13)
- OSU College of Enigneering Dean's Scholar (September 2009-13)
- Wilsonville High School Valedictorian (June 2009)

Leadership

- UW Society of Women in Engineering Outstanding Graduate Female Departmental Award, Bioengineering (December 2015)
- Karena Dokken Memorial OSU College of Engineering Mentor Award (February 2013)

LEADERSHIP EXPERIENCE

Emerging Leaders in Science and Society Fellow, UW **Sept 2014-Dec 2015**

University of Washington, Seattle, WA

- Collaborative leadership program piloted by the American Association for the Advancement of Science (AAAS) to prepare graduate students for interdisciplinary careers that benefit science and society
- Planning local and national forums to bring professionals from many sectors together to discuss the role of social media in epidemic response and preparedness
- Training and experience in facilitation, meeting planning, informational interviews, organizational management, and multi-site collaboration

Student Advisory Board Member, UW **September 2014-Present**

Department of Bioengineering

- Survey graduate student population and meet quarterly with chair of department to strategically improve graduate student experience in department of bioengineering

Time to Invent After School Program Coordinator, UW **April 2014-June 2015**

Northgate Elementary, Seattle, WA

- Organize team of 30 female graduate students to lead monthly engineering activities with 15 4th grade girls

Bioengineering Graduate Student Representative, UW **September 2013-2015**

- Coordinate recruitment and retention programming for graduate students in department including PhD interview weekend and departmental retreat

College of Engineering Ambassador, OSU **May 2010-September 2013**

Engineering Undergraduate Programs

- Facilitated recruitment and retention of engineering students, and maintained alumni relations, through presentations, tours, and programing in both one-on-one and large group (300+) settings
- Coordinated women in engineering Mentor and Mentees program and "Women Engineering Their Future" orientation course for over 50 female first year students
- Met with state representatives to lobby for higher education funding at "OSU Day at the Capitol"(Salem, OR)

Joint Interim Task Force on STEM Access and Success **Aug 2012-Feb 2013**

University Student Representative to State of Oregon Legislative Task Force, Salem, OR

- Participated in bi-weekly conference calls and in-person meetings with task force comprised of government officials, industry members, and academic administrators
- Testified in public hearing for House Bill 2636: Establishes STEM Investment Council (February 2013)
- House Bill 2636 was signed into law on August 14, 2013 (2013 Oregon Laws Ch. 739)

American Institute of Chemical Engineers, OSU Student Chapter **Sept 2009-2013**

- Co-President: 2012-Present, Secretary: 2011-12, Class Representative: 2009-11
- Coordinated industry visits, student conferences, and professional development workshops for 20-150 students

Phi Sigma Rho, Engineering Sorority, OSU Sigma Chapter **September 2009-2013**

- Alumni Chair: March 2012- 2013, President: March 2011-12, Vice President of Social Events: March 2010-11
- Fostered scholarship and community through social and professional development programing for 60 female undergraduate engineering students

Mentors and Mentees Program, OSU **September 2009-2013**

Women and Minorities in Engineering Programs

- Program Coordinator: September 2010-2013, Mentor: September 2010-2013