

## **Katharine Diehl, Ph.D.**

University of Utah  
College of Pharmacy  
Medicinal Chemistry

### **CONTACT INFORMATION**

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### **EDUCATION**

<b><u>Years</u></b>	<b><u>Degree</u></b>	<b><u>Institution (Area of Study)</u></b>
2010 - 2015	Ph.D.	University of Texas at Austin (Chemistry) Austin, TX
2006 - 2010	B.S.	University of North Carolina at Chapel Hill (Chemistry) Chapel Hill, NC

### **UNIVERSITY OF UTAH ACADEMIC HISTORY**

#### **Medicinal Chemistry, 09/01/2019 - Present**

09/01/2019                      Assistant Professor

### **PROFESSIONAL EXPERIENCE**

#### **Full-Time Positions**

2019 - Present              Assistant Professor of Medicinal Chemistry, University of Utah, Salt Lake City, UT

2018 - 2019                Associate Research Scholar, Princeton University, Princeton, NJ

2015 - 2018                Postdoctoral Research Fellow, Princeton University, Princeton, NJ

### **HONORS AND AWARDS**

2016 - 2019              National Institutes of Health Ruth L. Kirschstein National Research Service Award. This award is intended to support research training of highly promising postdoctoral candidates who have the potential to become productive, independent investigators in scientific health-related research fields.

2014                        Dorothy B. Banks Fellowship, University of Texas at Austin. This award is given to an outstanding female graduate student in the chemistry department.

2011                        Henze Teaching Excellence Award, University of Texas at Austin. This award is given to exceptional graduate teaching assistants.

2010                        David L. Stern Scholar Award, University of North Carolina at Chapel Hill. Top students from upper division lab courses are chosen for this award.

2008                        James H. Maguire Memorial Award, University of North Carolina at Chapel Hill. This award goes to an outstanding and academically gifted junior student majoring in chemistry.

2006 - 2010 James M. Johnston Scholarship, University of North Carolina at Chapel Hill. This scholarship is awarded to incoming first year students based on academic excellence and financial need.

### **ADMINISTRATIVE EXPERIENCE**

#### **Symposium/Meeting Chair/Coordinator**

2014 Co-Chair, Symposium title: "Elements in Transition: Is Chemistry Facing Revolution or Recession?", American Chemical Society Graduate Student Symposium Planning Committee (GSSPC), Dallas, TX

### **UNIVERSITY COMMUNITY ACTIVITIES**

#### **College Level**

2020 - Present Committee Member, College of Pharmacy Academic Awards Committee, Review scholarship applications of pharmacy students and select awardees

#### **Programs, Centers & Institutes**

2020 - Present Committee Member, Biological Chemistry Graduate Program, Admissions Committee

2020 - Present Associate Member, Huntsman Cancer Institute, Cancer Center

2020 - Present Member, Molecular Biology Program

2019 - Present Member, Biological Chemistry Graduate Program

### **PROFESSIONAL ORGANIZATION MEMBERSHIPS**

2012 - Present American Chemical Society: Division of Organic Chemistry

### **FUNDING**

#### **Past Grants**

04/01/16 - 03/31/19 Epigenetic Mechanisms of Oncohistone Detoxification (5F32CA206418-03)  
National Institutes of Health  
Role: Awardee/Postdoctoral Fellow

02/01/14 - 04/01/14 Elements in Transition: Is Chemistry Facing a Revolution or a Recession? (R13)  
National Institutes of Health  
Role: Co-Organizer/Writer

### **TEACHING RESPONSIBILITIES/ASSIGNMENTS**

#### **Course Lectures**

Fall 2020 PHARM-5110: Foundations of Biochem, University of Utah, College of Pharmacy

Spring 2020 PHARM-6253: Integrated Pharma II, University of Utah, PH, Medicinal chemistry of pulmonary drugs and of anxiolytic/sedative drugs

### **PEER-REVIEWED JOURNAL ARTICLES**

1. **Diehl KL**, Muir TW (2020). Chromatin as a key consumer in the metabolite economy. *Nat Chem Biol*, 16(6), 620-629.
2. **Diehl KL**, Ge EJ, Weinberg DN, Jani KS, Allis CD, Muir TW (2019). PRC2 engages a bivalent H3K27M-H3K27me3 dinucleosome inhibitor. *Proc Natl Acad Sci U S A*, 116(44), 22152-22157.

3. Ge EJ, Jani KS, **Diehl KL**, Müller MM, Muir TW (2019). Nucleation and Propagation of Heterochromatin by the Histone Methyltransferase PRC2: Geometric Constraints and Impact of the Regulatory Subunit JARID2. *J Am Chem Soc*, 141(38), 15029-15039.
4. Jain SU, Do TJ, Lund PJ, Rashoff AQ, **Diehl KL**, Cieslik M, Bajic A, Juretic N, Deshmukh S, Venneti S, Muir TW, Garcia BA, Jabado N, Lewis PW (2019). PFA ependymoma-associated protein EZHIP inhibits PRC2 activity through a H3 K27M-like mechanism. *Nat Commun*, 10(1), 2146.
5. Jani KS, Jain SU, Ge EJ, **Diehl KL**, Lundgren SM, Müller MM, Lewis PW, Muir TW (2019). Histone H3 tail binds a unique sensing pocket in EZH2 to activate the PRC2 methyltransferase. *Proc Natl Acad Sci U S A*, 116(17), 8295-8300.
6. Liszczak G,\* **Diehl KL**,\* Dann GP, Muir TW (2018). Acetylation blocks DNA damage-induced chromatin ADP-ribosylation. *Nat Chem Biol*, 14(9), 837-840.
7. Dann GP, Liszczak GP, Bagert JD, Müller MM, Nguyen UTT, Wojcik F, Brown ZZ, Bos J, Panchenko T, Pihl R, Pollock SB, **Diehl KL**, Allis CD, Muir TW (2017). ISWI chromatin remodellers sense nucleosome modifications to determine substrate preference. *Nature*, 548(7669), 607-611.
8. **Diehl KL**, Bachman JL, Anslyn EV (2017). Tuning thiol addition to squaraines by ortho-substitution and the use of serum albumin. *Dyes and Pigments*, 141, 316-324.
9. Li X, Zamora-Olivares D, **Diehl KL**, Tian W, Anslyn EV (2016). Differential sensing of oils by conjugates of serum albumins and 9,10-distyrylanthracene probes: a cautionary tale. *Supramolecular Chemistry*, 29(4), 308-314.
10. **Diehl KL**, Kolesnichenko IV, Robotham SA, Bachman JL, Zhong Y, Brodbelt JS, Anslyn EV (2016). Click and chemically triggered declick reactions through reversible amine and thiol coupling via a conjugate acceptor. *Nat Chem*, 8, 968-973.
11. **Diehl KL**, Ivy MA, Rabidoux S, Petry SM, Müller G, Anslyn EV (2015). Differential sensing for the regio- and stereoselective identification and quantitation of glycerides. *Proc Natl Acad Sci U S A*, 112(30), E3977-86.
12. Barman S, **Diehl KL**, Anslyn EV (2014). The effect of alkylation, protonation, and hydroxyl group substitution on reversible alcohol and water addition to 2- and 4-formyl pyridine derivatives. *RSC Advances*, 4(55), 28893-28900.
13. **Diehl KL**, Anslyn EV (2013). Array sensing using optical methods for detection of chemical and biological hazards. *Chem Soc Rev*, 42(22), 8596-611.

### **BOOK CHAPTERS**

1. **Diehl KL**, Bachman JL, Chapin BM, Edupuganti R, Escamilla PR, Gade AM, Hernandez ET, Jo HH, Johnson AM, Kolesnichenko IV, Lim J, Lin C-Y, Meadows MK, Seifert HM, Zamora-Olivares D, Anslyn EV (2015). Design and Synthesis of Synthetic Receptors for Biomolecule Recognition. In Bradley Smith (Ed.), *Synthetic Receptors for Biomolecules: Design Principles and Applications* (pp. 39-85). The Royal Society of Chemistry.

### **POSTER PRESENTATIONS**

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|------|---|
| 2014 | “Serum albumin cross-reactive arrays for differentiating glycerides.” Proctor & Gamble Poster Competition (Finalist). University of Texas at Austin. Austin, TX |
| 2014 | “Serum albumin cross-reactive arrays for differentiating glycerides.” Mardi Gras Supramolecular Chemistry Symposium. Tulane University. New Orleans, LA.        |

### **ORAL PRESENTATIONS**

## Meeting Presentations

### International

2018

"Acetylation blocks DNA-damage induced chromatin ADP-ribosylation." 10th EMBO Chemical Biology Conference. Heidelberg, Germany

### Local/Regional

2019

"Acetylation blocks DNA damage-induced chromatin ADP-ribosylation." Chemical Biology at the U Symposium. University of Utah. Salt Lake City, UT.