

Thomas Bearrood

Professional Address
4200 54th Ave S CMLS 130
St. Petersburg, FL 33711
727-864-8450
bearroodt@eckerd.edu

Education and Professional Experience	Eckerd College, Natural Sciences Collegium Assistant Professor of Chemistry Teaching and research in organic chemistry and chemical biology	St. Petersburg, FL 2025-present	
	Stanford University, Department of Chemical and Systems Biology American Cancer Society, Roaring Fork Valley Postdoctoral Fellow Advisor: Prof. James Chen Developing ALDH1B1 selective inhibitors and investigating the underlying role of ALDH1B1 in colorectal and pancreatic cancer stem cells.	Stanford, CA 2021-2025	
	University of Illinois at Urbana-Champaign, Department of Chemistry Ph.D., Chemistry. Advisor: Prof. Jeff Chan Designing, synthesizing, and applying analyte-responsive small molecule probes for studying cancer stem cells <i>in vivo</i> .	Urbana, IL 2015-2020	
	University of Washington, Department of Chemistry Amgen Scholar Advisor: Prof. AJ Boydston Synthesizing a mechanophore for the triggering of self-immolative polymer depolymerization.	Seattle, WA 2014	
	Universität Münster, Institut für Pharm. und Med. Chemie DAAD-RISE Scholar Advisor: Prof. Bernhard Wunsch Working on the synthesis of potential GluN2B-selective NMDA receptor antagonists.	Münster, Germany 2013	
	St. Olaf College B.A., Chemistry and Mathematics. Magna Cum Laude. Graduated with distinction in chemistry.	Northfield, MN 2011-2015	
Mentoring Experience	Stanford University, Department of Chemical and Systems Biology	Stanford, CA	
	17. Adrienne Kinsey	Graduate Student	2025
	16. Elizabeth Karas	Graduate Student	2024
	15. Michelle Tang	Graduate student	2023
	14. Kaan Tarhan	Graduate student	2023
	13. Riley Togashi	Graduate student	2023
	12. Audrey Kim	Undergraduate researcher	Jan 2023 – Jun 2025
	11. Jason Guo	Bio-X Undergraduate fellow (REU student)	Jun – Aug 2021
10. Nicholas White	LSRA (post-bacc)	Jun 2021 – Jul 2023	
9. Cody Marshall	LSRA (post-bacc)	Jan – Jun 2021	

Thomas Bearrood

Mentoring Experience	University of Illinois, Department of Chemistry		Urbana, IL
	8. Arnab Dutta	SN Bose scholar (visiting M.Sc. student)	May – Aug 2019
	7. Jamila Hedhli	Postdoctoral fellow	2018
	6. Guadalupe Aguirre	Undergraduate researcher	Jan 2018 – Dec 2019
	5. Lindsay Chatkewitz	Graduate student	2017
	4. Sara Dibrell	CB scholar (REU student)	May - Aug 2017
	3. Nicholas Pino	Graduate student	2016
	2. Samantha Steach	Undergraduate researcher	Feb 2016 – Oct 2017
1. Daven Feng	Undergraduate researcher	Jan 2016 – May 2018	
Teaching Experience	Eckerd College, Natural Sciences Collegium		St. Petersburg, FL
	Organic Chemistry 1 (CH221)		2025
	Advanced Organic Chemistry 1 (CH422)		2025
	Stanford University, Department of Chemical and Systems Biology		Stanford, CA
	Concepts and Applications in Chemical Biology, TA		2024
	San Jose State University, Department of Biological Sciences		San Jose, CA
	Integrative Physiology, Guest Lecture		2022
	University of Illinois, Department of Chemistry		Urbana, IL
	Structure and Spectroscopy, TA		2017
	Organic Chemistry 2, Head TA		2016
	Organic Chemistry 1, TA		2015
	St Olaf College, Chemistry and MSCS Departments		Northfield, MN
Inorganic and Physical Chemistry, Tutor and Grader		2014 – 2015	
Math of Biology, Grader		2014	
Introduction to Computer Science, TA		2013	
Linear Algebra, Tutor		2012 – 2013	
Publications	Feng Z, Hom ME, Bearrood TE , Rosenthal ZC, Fernández D, Ondrus AE, McCormick AK, Tomaske MG, Gu Y, Marshall CR, Kline T, Chen C, Mochly-Rosen D, Kuo CJ, Chen JK. “Targeting colorectal cancer with small-molecule inhibitors of aldehyde dehydrogenase 1B1” <i>Nature Chemical Biology</i> . 2022 . 18. 1065-1075.		
	Bearrood TE , Aguirre-Figueroa G, Chan J. “Rational Design of a Red Fluorescent Sensor for ALDH1A1 Displaying Enhanced Cellular Uptake and Reactivity” <i>Molecular Imaging Special Edition (invited)</i> . <i>Bioconjugate Chemistry</i> . 2020 . 31. 224-228.		
	Anorma C, [†] Hedhli J, [†] Bearrood TE , [†] Pino NW, Gardner SH, Inaba H, Zhang P, Li Y, Feng D, Dibrell SE, Kilian KA, Dobrucki LW, Fan TM, Chan J. “Surveillance of Cancer Stem Cell Plasticity Using an Isoform-Selective Fluorescent Probe for Aldehyde Dehydrogenase 1A1” <i>ACS Central Science</i> . 2018 . 4. 1045-1055. ([†] denotes equal contribution)		
	Bearrood TE , Chan J. “Disproportionate Impact of Named Reactions on Chemical Biology” <i>Aldrichimica Acta</i> . 2017 . 50. 31-42.		
Patents	Bearrood, TE , Anorma CD, Chan J. “Selective Fluorescent Probe for Aldehyde Dehydrogenase” 2020 . U. S. Patent Number US20200199092A1		

Thomas Bearrood

Awards	18. American Cancer Society, Roaring Fork Valley Postdoctoral Research Fellowship 17. Bio-X Mentorship Award 16. WMIC Highlight Lecture Finalist 15. WMIC Travel Award 14. Fuson Travel Award 13. Lester E. and Kathleen A. Coleman Fellowship 12. NSF Honorable Mention 11. Teaching Excellence Fellowship 10. Marvel Fellowship 9. Du Pont Science and Engineering Fellowship 8. Hannum Fellowship 7. Roger Adams Fellowship 6. Phi Lambda Upsilon 5. Phi Beta Kappa 4. Amgen Scholarship 3. DAAD-RISE Scholarship 2. Dean's List 1. Buntrock Scholarship	2024- 2021 2018 2018 2018 2017 2017 2016 2016 2016 2015 2015 2015 2015 2014 2013 2011-2014 2011
Presentations	<p><u>Bearrood TE</u>, Feng Z, White N, Chen J. "Probing ALDH1B1 loss of function in pancreatic cancer" Stanford Cancer Institute Members Retreat in Stanford, CA (Poster – Sep 2022) and CSB Retreat in Pacific Grove, CA (Poster – Oct 2022)</p> <p><u>Bearrood TE</u>, Feng Z, White N, Chen J. "Exploring the role of ALDH1B1 in gastrointestinal cancers" CSB Retreat in Santa Cruz, CA (Poster – Sep 2021)</p> <p><u>Bearrood TE</u>, Chan J. "New tools for imaging ALDH1A1 activity in cancer stem cells" Volcano Conference in Eatonville, WA. (Oral – Mar 2020)</p> <p><u>Bearrood TE</u>, Chan J. "Design of new tools for imaging ALDH1A1 activity in cancer stem cells" Novartis Mini-Talks in Urbana, IL. (Oral – Nov 2019)</p> <p><u>Bearrood TE</u>, Chan J. "Development and application of an ALDH1A1-selective fluorescent probe for visualizing cancer stem-like cells" World Molecular Imaging Congress 2018 in Seattle, WA. (Oral – Sept 2018)</p> <p><u>Bearrood TE</u>, Chan J. "ALDeSense: an ALDH1A1-selective fluorescent probe for visualizing cancer stem-like cells" Fuson Student Talks in Urbana, IL. (Oral – Aug 2018)</p> <p><u>Bearrood TE</u>, Anorma C, Pino NW, Dibrell SE, Chan J. "Targeting cancer stem cells with molecular imaging probes" 255th ACS National Meeting & Exposition in New Orleans, LA. (Oral - Mar 2018)</p> <p><u>Bearrood TE</u>, Chan J. "Exploring the Cancer Stem Cell Hypothesis Using a Probe for ALDH1A1" Beak-Pines Organic Area Allerton Conference in Monticello, IL. (Poster - Nov 2017)</p> <p><u>Bearrood TE</u>, Chan J. "Development of Light-responsive Metal Chelators and Fluorescent Indicators to Probe Calcium Oscillation" Beak-Pines Organic Area Allerton Conference in Monticello, IL. (Oral - Nov 2016)</p> <p><u>Bearrood TE</u>, Peterson G, Boydston AJ. "Synthesis of a Mechanophore for Triggering Self-immolative Polymer Depolymerization." UW Summer Undergraduate Research Presentations in Seattle, WA. (Oral and Poster - Aug 2014) and St Olaf Distinction Seminars in Northfield, MN. (Oral and Poster - May 2015)</p>	