

DAVID LOUIS STACHURA, Ph.D.

Education

- 1996-2000 Lehigh University, Bethlehem, PA.
B.S. Molecular Biology, Dean's List
- 2000-2006 University of Pennsylvania, Philadelphia, PA.
Ph.D. Cell and Molecular Biology

Positions and Honors

Positions and Employment

- 1999-2000 **Independent Undergraduate Researcher**, Lehigh University, Bethlehem, PA, Laboratory of Dr. Lynne Cassimeris
- 2002-2006 **Graduate Student Researcher**, University of Pennsylvania School of Medicine Graduate Group in Cellular and Molecular Biology, Philadelphia, PA, Laboratory of Dr. Mitchell Weiss
- 2006-2011 **Postdoctoral Fellow**, University of California at San Diego, Section of Cell and Developmental Biology, La Jolla, CA, Laboratory of Dr. David Traver
- 2011-2014 **Assistant Project Scientist**, University of California at San Diego Medical School, Department of Cellular and Molecular Medicine, La Jolla, CA, Laboratory of Dr. David Traver.
- 2014-2017 **Assistant Professor**, California State University, Chico, Department of Biological Sciences, Chico, CA.
- 2017-2022 **Associate Professor**, California State University, Chico, Department of Biological Sciences, Chico, CA.
- 2022-2024 **Full Professor**, California State University, Chico, Department of Biological Sciences, Chico, CA.
- 2021-current **Chief Scientific Officer**, Spec Bio, Chico, CA.
- 2021-current **Chief Scientific Officer**, FACTORFIVE skincare, Chico, CA.
- 2023-current **Chief Executive Officer and Founder**, Philanthropic Pharma, Chico, CA.

Other experience

- 2002-2006 **Mentor**, University of Pennsylvania Undergraduates, Children's Hospital of Philadelphia, Philadelphia, PA, Hematology Department
- 2005-2006 **Lab instructor**, University of Pennsylvania, College of Arts and Sciences, Philadelphia, PA
- 2005-2006 **Lab instructor**, University of Pennsylvania, College of General Studies, Philadelphia, PA
- 2005-2006 **Teaching assistant**, University of Pennsylvania, College of Arts and Sciences, Philadelphia, PA
- 2006-2014 **Mentor**, University of California at San Diego Undergraduates, La Jolla, CA
- 2006-2014 **Organizer**, Weekly building-wide laboratory social meetings, University of California San Diego, La Jolla, CA
- 2009 **Certified FACS Operator**, Completed BD FACSAria II Operator Course, San Jose, CA
- 2009-2014 **Participant**, Postdoctoral Association of UCSD Planning Committee, La Jolla, CA
- 2010 **Participant**, San Diego Lab Management Course, San Diego, CA.
- 2010-2011 **Editor and proofreader**, American Journal Experts
- 2011 **Instructor**, Summer Session II, Molecular Biology (BIMM100), University of California at San Diego Biology Department.
- 2011-present **Reviewer**, Experimental Hematology
- 2012-present **Reviewer**, Advances in Hematology
- 2012 **Participant**, Ethics in Scientific Research/Scientific Ethics Course, UCSD, La Jolla, CA
- 2013 **Instructor**, Advances in Stem Cell Biology Course, Institut Pasteur, Paris, France.

2014	Participant , The College Classroom Course, Center for Teaching Development, UCSD, La Jolla, CA.
2014	Participant , Sequencing Technology Education using Microbial Metagenomes (STEMM) faculty working group seminar, San Diego State University, San Diego, CA.
2014-present	Reviewer , Developmental Biology
2015-present	Reviewer , Journal of Biological Methods
2016-present	Reviewer , Stem Cells Translational Medicine
2016-present	Reviewer , Scientific Reports
2016-present	Reviewer , Stem Cell Reports
2016-present	Reviewer , Current Topics in Medicinal Chemistry
2016-present	Reviewer , Haematologica
2016-present	Reviewer , Stem Cells and Development
2016-present	Reviewer , Disease Models and Mechanisms
2018-present	Reviewer , Circulation Research
2018-present	Reviewer , Tissue and Cell
2017-present	Consultant , Finless Foods, Emeryville, CA
2019-2021	Consultant , Xytogen Biotech Inc., Chico, CA
2019	Reviewer , Developmental Biology, 12 th edition, by Barresi and Gilbert
2019	Reviewer , Immunology, by Parham
2019	Reviewer , European Research Council (ERC) 2019 Starting, Consolidator, Advanced and Synergy Grants
2020-current	Reviewer , Angiogenesis
2020	Reviewer , New Innovator in Food and Agriculture Research Award proposals for the Foundation for Food and Agriculture Research (FFAR)
2020	Reviewer , Immunology, by Juris
2022-current	Reviewer , eLIFE
2022-current	Editor , Scientific Reports
2023-current	Research and Medical Advisory Board Member , ZTTK SON-Shine Foundation
2024-current	Reviewer , Journal of Innovative Optical Health Sciences
2024-current	Reviewer , Cell & Bioscience

Professional Memberships

2007-2024	Member , International Society for Stem Cell Research
2008-2024	Member , International Society of Experimental Hematology
2009-2014	Associate Faculty Member , Faculty of 1000 scientific literature reviewer
2011-2014	Member , Center for Multiscale Imaging of Living Systems at UCSD
2012-2014	Associate Member , Clinical and Translational Research Institute at the University of California at San Diego
2014-2024	Member , Zebrafish Disease Models Society
2014-2022	Member , Center for Water and Environment at CSU, Chico
2018-2021	Board Member , CSU Chico Research Foundation Board of Directors
2019-2021	Board Member , CSU Chico Research Foundation Finance and Investment Committee
2020-2023	Chair , CSU Chico Institutional Animal Care and Use Committee (IACUC)

Honors

1995	Eagle Scout Award , Boy Scouts of America
1996-2000	Asa Packer Scholar , the most prestigious and competitive scholar award at Lehigh
1999-2000	Undergraduate Research Grant Recipient , Howard Hughes Medical Institute
2002-2006	Training Grant , Ruth L. Kirschstein National Research Service Award
2005	Travel Award , American Society of Hematology
2008	Best Scientific Poster , International Society for Experimental Hematology 37 th Annual Meeting
2008	Travel Award , 8 th International Meeting on Zebrafish Development and Genetics
2007-2009	Fellowship Recipient , Prevent Cancer Foundation

2009-2011 **Training Grant Recipient**, Ruth L. Kirschstein National Research Service Award
 2010 **Travel Award**, International Society for Experimental Hematology 39th Annual Meeting
 2010-2012 **Grant Recipient**, Competitive National Institutes of Health Extramural Loan Repayment Program (LRP) Award
 2011-2016 **Grant Recipient**, Mentored Career Development Award (K01) from the National Institutes of Health, NIDDK
 2011 **Best Scientific Poster**, UCSD Division of Biological Sciences/Salk Institute Annual Retreat
 2013 **Chair**, Hematopoiesis Session 3, Zebrafish Disease Models 6 Meeting
 2014 **Poster and Presentation Judge**, American Society for Cell Biology Local Meeting: Stem Cell Biology in Regeneration- Mechanistic Insights from the Zebrafish
 2015 **Poster Judge**, 8th Annual Zebrafish Disease Models Conference (ZDM8)
 2016 **Outstanding New Investigator Award**, University Office of Research and Sponsored Programs, California State University, Chico
 2017 **Myles Tracy Advisor of the Year Award**, Student Organizations and Leadership Education (SOLE), California State University, Chico
 2017 **Poster Judge**, 2nd Annual Northern California Fish Research Symposium
 2018 **Shared Governance Award**, California State University, Chico
 2018 **Distinguished Alumni Award**, Bensalem High School
 2018 **Advisor of the Year Nominee**, Student Organizations and Leadership Education (SOLE), California State University, Chico
 2019 **Lantis Endowed Chair**, California State University, Chico
 2019 **Advisor of the Year Nominee**, Student Organizations and Leadership Education (SOLE), California State University, Chico
 2019 **Session Chair**, Hematopoiesis Session 2, Zebrafish Disease Models 12 Meeting
 2021 **Outstanding Professor Award**, California State University, Chico

Certifications

2023-current **Bloodborne Pathogens Certification**, OSHA code 29 CFR 1910.1030, National OSHA Foundation

Peer-reviewed publications (in chronological order)

Journal Articles

Wang Q, Miyakoda M, Yang W, Khillan J, **Stachura DL**, Weiss MJ, Nishikura K. **2004**. Stress-induced apoptosis associated with null mutation of ADAR1 RNA editing deaminase gene. *J Biol Chem*. 2004, Feb 6; 279(6): 4952-61.

Stachura DL, Chou ST, Weiss MJ. **2006**. An early block to erythro-megakaryocytic development conferred by loss of transcription factor GATA-1. *Blood*. 2006, Jan. 1; 107(1): 87-97.

Bertrand JY*, Kim AD*, Violette EP, **Stachura DL**, Cisson JL, Traver D. **2007**. Definitive hematopoiesis initiates through a committed erythromyeloid progenitor in the zebrafish embryo. *Development*. 2007, Dec; 134(23): 4147-56

Stachura DL, Reyes JR, Bartunek P, Paw BH, Zon LI, Traver D. **2009**. Zebrafish kidney stromal cell lines support multilineage hematopoiesis. *Blood*. 2009 Jul 9; 114(2): 279-89.

Cisson J*, Bertrand JY*, **Stachura DL**, Traver, D. **2010**. Notch signaling distinguishes two waves of definitive hematopoiesis in the zebrafish embryo. *Blood*. 2010, Apr 8; 115(14): 2777-83.

Lugo-Villarino G*, Balla KM*, **Stachura DL**, Banuelos K, Werneck MB, Traver D. **2010**. Identification of dendritic antigen-presenting cells in zebrafish. *Proc Natl Acad Sci U S A*. 2010, Sep 7;107(36): 15850-5.

Balla KM*, Lugo-Villarino G*, Spitsbergen JM, **Stachura DL**, Hu Y, Banuelos K, Romo-Fewell O, Aroian RV, Traver D. **2010**. Eosinophils in the zebrafish: prospective isolation, characterization, and eosinophilia induction by helminth determinants. *Blood*. 2010 Nov 11;116(19):3944-54.

Feng H, **Stachura DL**, White RM, Gutierrez A, Zhang L, Sanda T, Jette CA, Testa JR, Neuberger DS, Langenau DM, Kutok JL, Zon LI, Traver D, Fleming MD, Kanki JP, Look AT. **2010**. T-Lymphoblastic lymphoma cells express high levels of BCL2, S1P1 and ICAM1 leading to a blockade of tumor cell intravasation. *Cancer Cell*. 2010 Oct 19;18(4):353-66.

Stachura DL, Svoboda O, Lau RP, Balla KM, Zon LI, Bartunek P, Traver D. **2011**. Clonal analysis of hematopoietic progenitor cells in the zebrafish. *Blood*. 2011 Aug 4;118(5):1274-82.

Stachura DL*, Svoboda O*, Campbell C, Espin-Palazon R, Lau RP, Zon LI, Bartunek P, Traver D. **2013**. The zebrafish granulocyte colony stimulating factors (Gcsfs): two paralogous cytokines and their roles in hematopoietic development and maintenance. *Blood*. 2013 Dec 5;122(24):3918-28.

Svoboda O*, **Stachura DL***, Machonova O, Pajer P, Brynda J, Zon LI, Traver D, Bartunek P. **2014**. Dissection of vertebrate hematopoiesis using zebrafish thrombopoietin. *Blood*. 2014 Jul 10;124(2):220-8.

Ouyang K*, Leandro Gomez-Amaro R*, **Stachura DL***, Tang H, Peng X, Fang X, Traver D, Evans SM, Chen J. **2014**. Loss of IP3R-dependent Ca²⁺ signaling in thymocytes leads to aberrant development and acute lymphoblastic leukemia. *Nature Communications*. 2014 Sep 12;5:4814.

Kim AD, Melick CH, Clements WK, **Stachura DL**, Distel M, Panáková D, MacRae C, Mork LA, Crump JG, Traver D. **2014**. Discrete Notch signaling requirements in the specification of hematopoietic stem cells. *EMBO J*. 2014 Oct 16;33(20):2363-73.

Espín-Palazón R, **Stachura DL**, Campbell CA, García-Moreno D, Del Cid N, Kim AD, Candel S, Meseguer J, Mulero V, and Traver D. **2014**. Proinflammatory signaling regulates hematopoietic stem cell emergence. *Cell*. 2014 Nov 20;159(5):1070-85.

Lee Y, Manegold J, Kim A, Pouget C, **Stachura DL**, Clements W, and Traver. **2014**. FGF signaling specifies hematopoietic stem cells through its regulation of somitic Notch signaling. *Nat Commun*. 2014 Nov 27;5:5583.

Butko E, Distel M, Pouget C, Weijts B, Kobayashi I, Ng K, Mosimann C, Poulain FE, McPherson A, Ni CW, **Stachura DL**, Del Cid N, Espín-Palazón R, Lawson ND, Dorsky R, Clements WK, Traver D. **2015**. Gata2b is a restricted early regulator of hemogenic endothelium in the zebrafish embryo. *Development*. 2015 Mar 15;142(6):1050-61.

Campbell C, Su T, Lau RP, Shah A, Laurie PC, Avalos B, Aggio J, Harris E, Traver D, **Stachura DL**. **2015**. Zebrafish embryonic stromal trunk (ZEST) cells support hematopoietic stem and progenitor cell (HSPC) proliferation, survival, and proliferation. *Experimental Hematology*. 2015 Dec;43(12):1047-61.

Harris EY, Keller D, **Stachura D**, Wolfe G. **2016**. Bioinformatics sister courses: an interdisciplinary collaborative learning framework to teach bioinformatics. *Computer Science and Computational Intelligence*. 2016.

Svoboda O, **Stachura DL**, Machonova O, Zon LI, Traver D, Bartunek P. **2016**. *Ex vivo* tools for the clonal analysis of zebrafish hematopoiesis. *Nature Protocols*. 2016 Apr 28;11:1007-20.

Kim JH, Shinde DN, Reijnders MRF, Hauser NS, Belmonte RL, Wilson GR, Bosch DGM, Bubulya PA, Shashi V, Petrovski S, Stone JK, Park EY, Veltman JA, Sinnema M, Stumpel C, Draaisma JM, Nicolai J, Yntema HG, Lindstrom K, de Vries BBA, Jewett T, Santoro SL, Vogt J, Bachman KK, Seeley AH, Krokosky A, Turner C, Rohena L, Hempel M, Kortüm F, Lessel D, Neu A, Strom TM, Wiczorek D, Bramswig N, Laccone FA,

Behunova J, Rehder H, Gordon CT, Rio M, Romana S, Tang S, El-Khechen D, Cho MT, McWalter K, Douglas G, Baskin B, Begtrup A, Funari T, Schoch K, Stegmann APA, Stevens SJC, Zhang DE, Traver D, Yao X, MacArthur DG, Brunner HG, Mancini GM, Myers RM, Owen LB, Lim ST, **Stachura DL**, Vissers L, Ahn EY. **2016**. *De novo* loss-of-function mutations in *SON* disrupt RNA-splicing of genes essential for brain development and metabolism, causing an intellectual disability syndrome. *The American Journal of Human Genetics*. 2016 Sep 1;99(3):711-9.

Cortes M, Chen MJ, **Stachura DL**, Liu SY, Kwan W, Wright F, Vo LT, Theodore LN, Esain V, Frost IM, Schlaeger TM, Goessling W, Daley GQ, North TE. **2016**. Developmental vitamin D availability impacts hematopoietic stem cell production. *Cell Rep*. 2016 Oct 4;17(2):458-468.

Gansner JM, Leung AD, Superdock M, Blair MC, Ammerman MB, Durand EM, Barut B, Handin RI, **Stachura DL**, Lu C, Springer TA, Zon LI. **2017**. Sorting zebrafish thrombocyte lineage cells with a cd41 monoclonal antibody enriches hematopoietic stem cell activity. *Blood*. 2017 Mar 9;129(10):1394-1397.

Wolf A*, Aggio J*, Campbell C, Wright F, Marquez G, Traver D, **Stachura DL**. **2017**. Zebrafish caudal haematopoietic embryonic stromal tissue (CHEST) cells support haematopoiesis. *Sci Rep*. 2017 Mar 16;7:44644.

Kasheta M, Painter CA, Moore FE, Lobbardi R, Bryll A, Freiman E, **Stachura D**, Rogers AB, Houvras Y, Langenau DM, Ceol CJ. **2017**. Identification and characterization of T reg-like cells in zebrafish. *J Exp Med*. 2017 Dec 4;214(12):3519-3530.

Berrun AC, **Stachura DL**. **2017**. Development of an in vitro assay to quantitate hematopoietic stem and progenitor cells (HSPCs) in developing zebrafish embryos. *J Vis Exp*. 2017 Nov 30;(129).

Liu C, Han T, **Stachura DL**, Wang H, Vaisman BL, Kim J, Klemke RL, Remaley AT, Rana TM, Traver D, Miller YI. **2018**. Lipoprotein lipase regulates hematopoietic stem progenitor cell maintenance through DHA supply. *Nat Commun*. 2018 Apr 3;9(1):1310.

Berrun AC, Harris E, **Stachura DL**. **2018**. *isthmin 1 (ism1)* is required for normal hematopoiesis in developing zebrafish. *PLoS One*. 2018 May 14;13(5):e0196872.

Rost MS, Shestopalov I, Liu Y, Vo AH, Richter CE, Emly SM, Barrett FG, **Stachura DL**, Holinstat M, Zon LI, Shavit JA. **2018**. *Nfe2* is dispensable for early but required for adult thrombocyte formation and function in zebrafish. *Blood Adv*. 2018 Dec 11;2(23):3418-3427.

Kim JH, Park EY, Chitayat D, **Stachura DL**, Schaper J, Lindstrom K, Jewett T, Wieczorek D, Draaisma JM, Sinnema M, Hoeberigs C, Hempel M, Bachman KK, Seeley AH, Stone JK, Kong HK, Vukadin L, Richard A, Shinde DN, McWalter K, Si YC, Douglas G, Lim ST, Vissers LELM, Lemaire M, Ahn EE. **2019**. *SON* haploinsufficiency causes impaired pre-mRNA splicing of *CAKUT* genes and heterogeneous renal phenotypes. *Kidney Int*. 2019 Mar 15. pii: S0085-2538(19)30167-X.

Cajias I*, Belmonte B*, Maciel S*, Thapa S*, Tomasetti S, Aggio J, **Stachura DL**. **2019**. Different wavelengths of light have no effect on zebrafish fecundity. *Science Matters*. 2019 Apr 18. 10.19185/matters.201904000001

Lewis TR, Smith J, Griffin K, Aguiar S, Rueb KF, Holmberg-Douglas N, Sampson EM, Tomasetti S, Rodriguez S, **Stachura DL***, Arpin CC*. **2020**. NHD2-15, a novel antagonist of Growth Factor Receptor-Bound Protein-2 (GRB2), inhibits leukemic proliferation. *PLoS One*. 2020 Aug 11.

Belmonte RL, Engbretson I, Kim JH, Cajias I, Ahn EY, **Stachura DL**. **2021**. *son* is necessary for proper vertebrate blood development. *PLoS One*. 2021 Feb 25;16(2):e0247489.

Rueb KF, **Stachura DL**. 2021. Using Flow Cytometry to Detect and Quantitate Altered Blood Formation in the Developing Zebrafish. *J Vis Exp*. 2021 Apr 29.

Thapa S, **Stachura DL**. 2021. Deep learning approach for quantification of fluorescently labeled blood cells in *Danio rerio* (zebrafish). *Bioinformatics and Biology Insights*. 2021 Jul 15; 15: 1-9.

Namit A*, Dowell W*, Matiassek S, Webster J, **Stachura DL**. 2022. Pentachlorophenol has significant adverse effects on hematopoietic and immune system development in zebrafish (*Danio rerio*). *PLoS One*. 2022 Mar 25;17(3):e0265618.

*These authors contributed equally

Review Articles

Olsen A, **Stachura DL**, Weiss MJ. 2006. Designer blood: creating hematopoietic lineages from embryonic stem cells. *Blood*. 2006, Feb 15. Vol 107, No. 4, 1265-1275.

Stachura DL and Traver D. 2009. Cellular dissection of zebrafish hematopoiesis, Chapter 11 in *Essential Zebrafish Methods: Cell and Developmental Biology*. Academic Press for Elsevier Life Sciences, San Diego, CA. Edited By Monte Westerfield, Leonard Zon, and H. Detrich, III. ISBN-13: 978-0-12-374599-6

Stachura DL and Traver D. 2011. Cellular dissection of zebrafish hematopoiesis. *Methods Cell Biol*. 2011;101:75-110.

Stachura DL and Traver D. 2014. Hematopoietic ontogeny in the axolotl. *Blood*. 2014 Aug 21;124(8):1204-6.

Kim AD, **Stachura DL**, Traver D. 2014. Cell signaling pathways involved in hematopoietic stem cell specification. *Experimental Cell Research*. 2014 Dec 10; 329(2):227-233.

Stachura DL and Traver D. 2016. Cellular dissection of zebrafish hematopoiesis. *Methods Cell Biol*. 2016;133:11-53.

Griffin K, Cajias I, Aguiar S, Tomasetti S, **Stachura DL**. 2019. How can you tell that stem cells are good at math? You can watch them multiply and divide! *Atlas of Science*. 2019 Jan 15.

Rubio N, Datar I, **Stachura D**, Kaplan D, Krueger K. 2019. Cell-based fish: A novel approach to seafood production and an opportunity for cellular agriculture. *Frontiers in Sustainable Food Systems*, 11 June 2019.

Other Articles

Stachura D. 2022. Stem cells and skin rejuvenation after resurfacing treatments. *Lipgloss and Aftershave*. 2022 Sep 13.

Stachura D. 2022. Flora vs. Fauna. *Dermascope*. 2022 Dec 20; 9:13.

Rueb KF and **Stachura DL**. 2023. Science²: retinol and stem cell factors. *Lipgloss and Aftershave*. 2023 May 19.

Stachura DL and Rueb KF. 2024. Human stem cell proteins: tools to fight the negative effects of aging skin. *Medium*. 2024 Apr 3.

Metzger H, Thapa S, **Stachura DL**. 2024. Impact of using *Danio rerio* (zebrafish) in the middle school classroom to engage students in authentic novel scientific research investigating unknown effects of e-cigarettes. *Medium*. 2024 May 21.

Stachura DL and Rueb K. **2024**. What's in my skincare product? Cosmetic INCI ingredient lists explained for the consumer. *Medium*. 2024 Jun 13.

Stachura DL and Rueb K. **2024**. Demystifying retinoids for skincare: Retinol? Retinal? Retinoic Acid? Retinoids? What's the difference, and what should I use in my skincare? *Medium*. 2024 Oct 7.

Patents

Stachura DL, Rueb K, Aylworth J. **2023**. Compositions and methods for culturing and isolating adipose-derived mesenchymal stem cell secretions for therapeutic use. USPTO Provisional # 63/614,575.

Stachura DL, Rueb K, Aylworth J. **2023**. Therapeutic use of compositions and methods for epidermal treatment comprising adipose-derived mesenchymal stem cell secretion compositions. USPTO Provisional # 63/614,576.

Stachura DL, Rueb K, Aylworth J. **2023**. Compositions and methods for therapeutic use for treating skin wounds comprising adipose-derived mesenchymal stem cell secretions. USPTO Provisional # 63/614,578.

Abstracts

Chen Y, **Stachura D**, Letting D, Weiss MJ, Blobel GA. **2003**. Direct repression of c-myc by GATA-1: coordination of differentiation and cell cycle arrest. *Blood*, Vol 102, Issue 11, Dec 2003.

Stachura DL, Chou ST, Weiss MJ. **2005**. An early block to erythro-megakaryocytic development conferred by loss of transcription factor GATA-1. *Blood*, Vol 106, Issue 11, Dec 2005.

Stachura DL, Reyes J, Purohit S, Traver D. **2008**. In vitro culture of zebrafish hematopoietic progenitors. 8th International Conference on Zebrafish Development and Genetics, June 2008.

Stachura DL, Reyes J, Purohit S, Traver D. **2008**. In vitro culture of zebrafish hematopoietic progenitors. *Experimental Hematology*, Volume 36, Number 7, Supplement 1, July 2008.

Stachura DL, Traver D. **2008**. In vitro culture of zebrafish hematopoietic progenitors. 15th Annual UCSD/Salk Institute Division of Biological Sciences Retreat, Sept 2008.

Bertrand JY, Kim AD, Cisson J, **Stachura DL**, Traver D. **2008**. The ontogeny of definitive hematopoiesis in the zebrafish. 50th American Society of Hematology Annual Meeting, San Francisco, CA, Dec 6, 2008.

Stachura DL, Lau RP, Traver D. **2009**. Characterization of zebrafish hematopoietic stem and progenitor cells. *Experimental Hematology*, Volume 37, Number 9, Supplement 1, Sept 2009.

Stachura DL, Lau RP, Traver D. **2009**. Characterization of zebrafish hematopoietic stem and progenitor cells. 16th Annual UCSD/Salk Institute Division of Biological Sciences Retreat, Sept 2009.

Balla K*, Lugo-Villarino G*, Spitsbergen J, **Stachura DL**, Aroian R, Traver D. **2010**. Eosinophils in the zebrafish: prospective isolation, characterization and eosinophilia induction by helminth determinants. 9th International Conference on Zebrafish Development and Genetics, Madison, WI, June 17, 2010.

Cisson J*, Bertrand J*, **Stachura DL**, Traver D. **2010**. Origins of embryonic granulopoiesis. 9th International Conference on Zebrafish Development and Genetics, Madison, WI, June 17, 2010.

Feng H, **Stachura DL**, Gutierrez A, White R, Zhang L, Sanda T, Jette C, Testa J, Neuberg D, Langenau D, Kutok J, Zon L, Traver D, Fleming M, Kanki J, Look AT. **2010**. T-cell lymphoblastic lymphoma cells express

high levels of both Bcl2 and S1P1 leading to a blockade of intravasation and leukemic dissemination. 9th International Conference on Zebrafish Development and Genetics, Madison, WI, June 18, 2010.

Page D, Pratt D, Delgado N, Scott A, Jacobsen B, **Stachura DL**, Magor B, Traver D. **2010**. Creation of IgM:GFP zebrafish reporter lines. 9th International Conference on Zebrafish Development and Genetics, Madison, WI, June 18, 2010.

Stachura DL, Bartunek P, Lau R, Balla KM, Zon L, Traver D. **2010**. Zebrafish granulocyte colony stimulating factor (Gcsf) allows in vitro clonal analysis of zebrafish stem and progenitor cells. 9th International Conference on Zebrafish Development and Genetics, Madison, WI, June 19, 2010.

Stachura DL, Feng H, Bartunek P, Zon LI, Look AT, Traver D. **2010**. Short-term in vitro zebrafish hematopoietic assays are useful for modeling human hematopoietic disease and dysregulation. Zebrafish Disease Modeling III: Cancer, Blood Development, and Immune Responses, Boston, MA, June 22, 2010.

Stachura DL, Bartunek P, Lau RP, Balla K, Zon LI, Traver D. **2010**. Zebrafish granulocyte colony stimulating factor (Gcsf) allows in vitro clonal analysis of zebrafish stem and progenitor cells. *Experimental Hematology*, Volume 38, Number 9, Supplement 1, Sept 2010.

Stachura DL, Bartunek P, Zon LI, Traver D. **2011**. Clonal analysis of hematopoietic progenitor cells in the zebrafish. Keystone Symposia on Hematopoiesis, Big Sky, Montana, March 30, 2011.

Stachura DL, Svoboda O, Bartunek P, Zon LI, Traver D. **2011**. Clonal analysis of hematopoietic stem and progenitor cells in the zebrafish. 7th European Zebrafish Meeting, Edinburgh, Scotland, July 8, 2011.

Svoboda O, **Stachura DL**, Zon LI, Bartunek P. **2011**. Zebrafish thrombopoietin expands multipotent progenitor cells in vitro. 7th European Zebrafish Meeting, Edinburgh, Scotland, July 7 and 8, 2011.

Stachura DL, Svoboda O, Bartunek P, Zon LI, Traver D. **2011**. Clonal analysis of hematopoietic stem and progenitor cells in the zebrafish (and the utility of these assays in modeling hematopoietic disease). Zebrafish Disease Models 4; Blood, Immunity, Cancer, and Endothelial Workshop, Edinburgh, Scotland, July 11, 2011.

Svoboda O, **Stachura DL**, Zon LI, Bartunek P. **2011**. Zebrafish thrombopoietin expands multipotent progenitor cells in vitro. Zebrafish Disease Models 4; Blood, Immunity, Cancer, and Endothelial Workshop, Edinburgh, Scotland, July 11, 2011.

Stachura DL, Svoboda O, Bartunek P, Zon LI, Traver D. **2011**. Clonal analysis of hematopoietic progenitor cells in the zebrafish. UCSD Division of Biological Sciences/Salk Institute Annual Retreat, Lake Arrowhead, CA, September 19, 2011.

Stachura DL, Svoboda O, Campbell C, Zon LI, Bartunek P, Traver D. **2012**. The zebrafish granulocyte colony stimulating factors (Gcsfs): two paralogous cytokines and their roles in hematopoietic development and maintenance. 10th International Conference on Zebrafish Development and Genetics, Madison, WI, June 21, 2012.

Espin R, **Stachura DL**, Candel S, Garcia D, Traver D, Mulero V. **2012**. Tumor necrosis factor alpha (Tnfa) plays an important role in zebrafish embryonic and adult hematopoiesis. 10th International Conference on Zebrafish Development and Genetics, Madison, WI, June 22, 2012.

Stachura DL, Svoboda O, Campbell C, Zon LI, Bartunek P, Traver D. **2012**. The zebrafish granulocyte colony stimulating factors (Gcsfs): two paralogous cytokines and their roles in hematopoietic development and maintenance. *Experimental Hematology*, Volume 40, Number 8, Supplement 1, August 2012.

Stachura DL, Svoboda O, Campbell C, Zon LI, Bartunek P, and Traver D. **2012**. The zebrafish granulocyte colony stimulating factors (Gcsfs): two paralogous cytokines and their roles in hematopoietic stem and progenitor cell specification and maintenance. 19th Annual UCSD/Salk Institute Division of Biological Sciences Retreat, Sept 2012.

Stachura DL, Svoboda O, Campbell C, Zon LI, Bartunek P, Traver D. **2013**. Zebrafish granulocyte colony stimulating factors (Gcsfs) stimulate hematopoietic stem cell (HSC) specification and expansion. Keystone Symposia on Hematopoiesis, Steamboat Springs, CO, Jan. 17, 2013.

Svoboda O, **Stachura DL**, Machonova O, Pajer P, Zon LI, Traver D, Bartunek P. **2013**. Dissection of vertebrate hematopoiesis using zebrafish thrombopoietin. Keystone Symposia on Hematopoiesis, Steamboat Springs, CO, Jan. 17, 2013.

Butko E, Smith T, **Stachura D**, Clements W, Lawson N, Traver D. **2013**. Notch signaling establishes the hemogenic potential of the dorsal aorta through Gata2b. 8th European Zebrafish Meeting, Barcelona, Spain, July 10, 2013.

Svoboda O, **Stachura DL**, Machonova O, Pajer P, Zon LI, Traver D, Bartunek P. **2013**. Dissection of vertebrate hematopoiesis using zebrafish thrombopoietin. 8th European Zebrafish Meeting, Barcelona, Spain, July 10, 2013.

Stachura DL, Campbell C, Su T, Lau R, Traver D. **2013**. Zebrafish embryonic stromal trunk (ZEST) cells support multilineage hematopoiesis. 8th European Zebrafish Meeting, Barcelona, Spain, July 12, 2013.

Stachura DL, Wittamer V, Bertrand J, Svoboda O, Bartunek P, Traver D. **2013**. Clonal analysis and characterization of zebrafish hematopoietic stem and progenitor cells (HSPCs). 8th European Zebrafish Meeting, Barcelona, Spain, July 11, 2013.

Stachura DL, Wittamer V, Bertrand J, Svoboda O, Bartunek P, Traver D. **2013**. Clonal analysis and characterization of zebrafish hematopoietic stem and progenitor cells (HSPCs). Zebrafish Disease Models 6; Hematopoiesis, Inflammation, Immunity, Infection, Cancer, and Vascular Biology Workshop, Murcia, Spain, July 14, 2013.

Espin-Palazon R, **Stachura DL**, Garcia-Moreno D, Campbell C, Candel S, Meseguer J, Traver D, Mulero V. **2013**. TNF signaling is critical for hematopoietic stem cell survival and expansion in the developing embryo. Zebrafish Disease Models 6; Hematopoiesis, Inflammation, Immunity, Infection, Cancer, and Vascular Biology Workshop, Murcia, Spain, July 14, 2013.

Svoboda O, **Stachura DL**, Machonova O, Pajer P, Zon LI, Traver D, Bartunek P. **2013**. Dissection of vertebrate hematopoiesis using zebrafish thrombopoietin. Zebrafish Disease Models 6; Hematopoiesis, Inflammation, Immunity, Infection, Cancer, and Vascular Biology Workshop, Murcia, Spain, July 16, 2013.

Stachura DL, Campbell C, Su T, Lau R, Traver D. **2013**. Zebrafish embryonic stromal trunk (ZEST) cells support multilineage hematopoiesis. Zebrafish Disease Models 6; Hematopoiesis, Inflammation, Immunity, Infection, Cancer, and Vascular Biology Workshop, Murcia, Spain, July 16, 2013.

Stachura DL, Campbell C, Traver D. **2014**. Zebrafish embryonic stromal trunk (ZEST) cells support multilineage hematopoiesis. 11th International Conference on Zebrafish Development and Genetics, Madison, WI, June 27, 2014.

Lee Y, Manegold J, Kim A, **Stachura D**, Clements W, Traver D. **2014**. FGF signaling specifies hematopoietic stem cells through its regulation of somitic Notch signaling. 11th International Conference on Zebrafish Development and Genetics, Madison, WI, June 28, 2014.

Stachura DL, Campbell C, Traver D. **2014**. Using zebrafish stromal cells to investigate hematopoietic dysregulation. Zebrafish Disease Models 7, Madison, WI, June 30, 2014.

Svoboda O, **Stachura DL**, Machonova O, Pajer P, Brynda J, Zon LI, Traver D, Bartunek P. **2014**. Dissection of vertebrate hematopoiesis using zebrafish thrombopoietin. *Zebrafish Disease Models* 7, Madison, WI, June 30, 2014.

Cortes M, Chen M, Liu S, **Stachura D**, Schlaeger T, Traver D, Daley G, Goessling W, North T. **2014**. Vitamin D regulates hematopoietic stem cell maintenance by two distinct mechanisms. *Experimental Hematology*, Vol. 42, Issue 8, Supplement 13, August 2014.

Kim A, Melick C, Clements W, **Stachura D**, Distel M, Traver D. **2014**. Notch3 is required in the somitic microenvironment for the specification of hematopoietic stem cells. *Experimental Hematology*, Vol. 42, Issue 8, Supplement 19, August 2014.

Espin-Palazon R, **Stachura D**, Campbell C, Garcia-Moreno D, Del Cid N, Candel S, Meseguer J, Mulero V, Traver D. **2014**. Proinflammatory signaling is required for hematopoietic stem cell emergence. *Experimental Hematology*, Vol. 42, Issue 8, Supplement 6, August 2014.

Stachura DL, Campbell CA, Smith JS, Aggio J, Traver D. **2015**. Zebrafish caudal hematopoietic embryonic stromal trunk (CHEST) cells support hematopoietic stem and progenitor cell (HSPC) expansion. *Zebrafish Disease Models* 8, Boston, MA, August 27, 2015.

Cortes M, Chen MJ, Liu SY, Kwan W, **Stachura DL**, Schlaeger TM, Goessling W, Daley GQ, North TE. **2015**. Vitamin D3 modulates vertebrate hematopoietic stem cell homeostasis. *Zebrafish Disease Models* 8, Boston, MA, August 26, 2015.

Smith J, Arpin C, **Stachura DL**. **2015**. Growth receptor bound protein 2 (GRB2) overexpression in acute myeloid leukemia. College of Natural Sciences 11th Annual Poster Session, Chico, CA, May 6, 2015.

Laurie P, Avalos B, Metzger H, **Stachura D**. **2015**. Zebrafish embryonic stromal trunk cells and their support of hematopoietic stem and progenitor cell proliferation and differentiation. College of Natural Sciences 11th Annual Poster Session, Chico, CA, May 6, 2015.

Aggio J, Avalos B, Stachura D. **2015**. Sex in the dark? Or leave the lights on? College of Natural Sciences 11th Annual Poster Session, Chico, CA, May 6, 2015.

Smith J, Arpin C, **Stachura DL**. **2015**. Growth receptor bound protein 2 (GRB2) overexpression in acute myeloid leukemia. 19th Annual Student Research Poster Symposium, Chico, CA, May 8, 2015.

Laurie P, Avalos B, Metzger H, **Stachura D**. **2015**. Zebrafish embryonic stromal trunk cells and their support of hematopoietic stem and progenitor cell proliferation and differentiation. 19th Annual Student Research Poster Symposium, Chico, CA, May 8, 2015.

Aggio J, Avalos B, Stachura D. **2015**. Sex in the dark? Or leave the lights on? 19th Annual Student Research Poster Symposium, Chico, CA, May 8, 2015.

Aggio J, Brown AJ, Wright F, Marquez G, Berrun A, Shah A, Harris E, **Stachura DL**. **2016**. Zebrafish caudal hematopoietic embryonic stromal trunk (CHEST) cells support hematopoietic stem and progenitor cell (HSPC) expansion. 28th Annual CSU Biotechnology Symposium, Anaheim, CA, January 8, 2016.

Rost M, Shestopalov I, Liu Y, Vo A, **Stachura D**, Zon L, Shavit J. **2016**. Nfe2 is dispensable for early, but required for adult thrombocyte formation and function in zebrafish. Hemostasis and Thrombosis Gordon Research Conference, Stowe, VT, July 24-29, 2016.

Gansner J, Leung A, Superdock M, Ammerman M, Blair M, **Stachura DL**, and Zon L. **2016**. Evolutionary conservation of CD41 and the genetic program for the platelet lineage. American Society of Hematology 58th Annual meeting, San Diego, CA, July 20, 2016.

Rost M, Shestopalov I, Liu Y, Vo A, **Stachura DL**, Zon L, Shavit J. **2016**. Nfe2 is dispensable for early, but required for adult thrombocyte formation and function in zebrafish. American Society of Hematology 58th Annual meeting, San Diego, CA, July 20, 2016.

Berrun A, **Stachura DL**. **2016**. Novel genes in vertebrate hematopoiesis. College of Natural Sciences 12th Annual Poster Session, Chico, CA, May 10, 2016.

Metzger H, **Stachura DL**. **2016**. Differential effects of Bcl-2 over-expression in multiple hematopoietic cell lineages. College of Natural Sciences 12th Annual Poster Session, Chico, CA, May 10, 2016.

Smith JS, Arpin C, **Stachura DL**. **2016**. The role of growth receptor bound protein-2 (GRB2) in acute myeloid leukemia (AML). College of Natural Sciences 12th Annual Poster Session, Chico, CA, May 10, 2016.

Aggio J, Brown A, Wright F, Marquez G, Berrun A, Shah A, Harris E, **Stachura DL**. **2016**. Zebrafish caudal hematopoietic embryonic stromal tissue (CHEST) cells support hematopoietic stem and progenitor (HSPC) expansion. College of Natural Sciences 12th Annual Poster Session, Chico, CA, May 10, 2016.

Wright F, **Stachura DL**. **2016**. Vitamin D increases hematopoietic stem and progenitor cells. College of Natural Sciences 12th Annual Poster Session, Chico, CA, May 10, 2016.

Marquez-Arreguin G, **Stachura DL**. **2016**. Regulatory effects of cannabinoid receptor-2 on proliferation of hematopoietic stem cells via AM1241 and AM630. College of Natural Sciences 12th Annual Poster Session, Chico, CA, May 10, 2016.

Holmberg-Douglas N, Sampson E, Arpin C, **Stachura DL**. **2016**. Development of potential anti-cancer drugs. College of Natural Sciences 12th Annual Poster Session, Chico, CA, May 10, 2016.

Belmonte RL, Wilson GR, **Stachura DL**. **2016**. Modeling human brain malformations with zebrafish. College of Natural Sciences 12th Annual Poster Session, Chico, CA, May 10, 2016.

Aggio J, **Stachura DL**. **2016**. Effect of lighting conditions on zebrafish reproductive efficiency. College of Natural Sciences 12th Annual Poster Session, Chico, CA, May 10, 2016.

Berrun A, **Stachura DL**. **2016**. Novel genes in vertebrate hematopoiesis. 20th Annual Student Research Poster Symposium, Chico, CA, May 13, 2016.

Metzger H, **Stachura DL**. **2016**. Differential effects of Bcl-2 over-expression in multiple hematopoietic cell lineages. 20th Annual Student Research Poster Symposium, Chico, CA, May 13, 2016.

Smith JS, Arpin C, **Stachura DL**. **2016**. The role of growth receptor bound protein-2 (GRB2) in acute myeloid leukemia (AML). 20th Annual Student Research Poster Symposium, Chico, CA, May 13, 2016.

Aggio J, Brown A, Wright F, Marquez G, Berrun A, Shah A, Harris E, **Stachura DL**. **2016**. Zebrafish caudal hematopoietic embryonic stromal tissue (CHEST) cells support hematopoietic stem and progenitor (HSPC) expansion. 20th Annual Student Research Poster Symposium, Chico, CA, May 13, 2016.

Wright F, **Stachura DL**. **2016**. Vitamin D increases hematopoietic stem and progenitor cells. 20th Annual Student Research Poster Symposium, Chico, CA, May 13, 2016.

Marquez-Arreguin G, **Stachura DL**. **2016**. Regulatory effects of cannabinoid receptor-2 on proliferation of hematopoietic stem cells via AM1241 and AM630. 20th Annual Student Research Poster Symposium, Chico, CA, May 13, 2016.

Belmonte RL, Wilson GR, **Stachura DL**. **2016**. Modeling human brain malformations with zebrafish. 20th Annual Student Research Poster Symposium, Chico, CA, May 13, 2016.

Aggio J, **Stachura DL**. 2016. Effect of lighting conditions on zebrafish reproductive efficiency. 20th Annual Student Research Poster Symposium, Chico, CA, May 13, 2016.

Aggio J, Brown A, Wright F, Marquez G, Campbell C, Traver D, **Stachura DL**. 2016. Zebrafish caudal hematopoietic embryonic stromal cells support hematopoietic stem and progenitor cell proliferation and differentiation. *Experimental Hematology*, Volume 44, Number 9, Supplement 1, Sept 2016.

Harris EY, Keller D, **Stachura D**, Wolfe G. 2016. Bioinformatics sister courses: an interdisciplinary collaborative learning framework to teach bioinformatics. 2016 International Conference on Computational Science and Computational Intelligence (CSCI). December 17, 2016.

Berrun A, Laurie P, **Stachura DL**. 2017. *ism1* depletion negatively affects vertebrate hematopoiesis. 29th Annual CSU Biotechnology Symposium, Santa Clara, CA, January 7, 2017.

Smith J, Arpin C, **Stachura DL**. 2017. Growth receptor bound protein-2 (GRB2) overexpression increases proliferation of myeloid cells in acute myeloid leukemia (AML). 29th Annual CSU Biotechnology Symposium, Santa Clara, CA, January 6, 2017.

Wolf A, Aggio J, Campbell C, Wright F, Marquez G, Shah A, Traver D, Harris E, **Stachura DL**. 2017. Zebrafish embryonic endothelial cells support hematopoiesis. 7th Strategic Conference of Zebrafish Investigators, Asilomar, CA, January 15, 2017.

Barton-Wechsler S, **Stachura DL**, Ho E, Housley L. 2017. Effects of zinc supplementation on carnitine and lactate concentrations in cultured liver cells. College of Natural Sciences 13th Annual Poster Session, Chico, CA, May 10, 2017.

Metzger H, **Stachura DL**. 2017. Differential effects of *bcl2* overexpression in various B lymphocyte populations. College of Natural Sciences 13th Annual Poster Session, Chico, CA, May 10, 2017.

Berrun A, **Stachura DL**. 2017. *ism-1* depletion negatively affects vertebrate hematopoiesis. College of Natural Sciences 13th Annual Poster Session, Chico, CA, May 10, 2017.

Schmidt T, Boice M, Pulido O, **Stachura DL**. 2017. *kal1b* reduction decreases vertebrate blood cells. College of Natural Sciences 13th Annual Poster Session, Chico, CA, May 10, 2017.

Aguiar S, Rodriguez S, Hanson T, Arpin C, **Stachura DL**. 2017. Analysis of novel inhibitors of the GRB2 SH2 domain that decrease proliferation in chronic myeloid leukemia. College of Natural Sciences 13th Annual Poster Session, Chico, CA, May 10, 2017.

Aguiar S, Rodriguez S, Hanson T, Arpin C, **Stachura DL**. 2017. Analysis of novel inhibitors of the GRB2 SH2 domain that decrease proliferation in chronic myeloid leukemia. 21st Annual Student Research Poster Symposium, Chico, CA, May 12, 2017.

Tinsley B, Berrun A, **Stachura DL**. 2017. *mustn1a* depletion negatively affects vertebrate hematopoiesis. 21st Annual Student Research Poster Symposium, Chico, CA, May 12, 2017.

Schmidt T, Boice M, Pulido O, **Stachura DL**. 2017. *kal1b* reduction decreases vertebrate blood cells. 21st Annual Student Research Poster Symposium, Chico, CA, May 12, 2017.

Metzger H, **Stachura DL**. 2017. Differential effects of *bcl2* overexpression in various B lymphocyte populations. 21st Annual Student Research Poster Symposium, Chico, CA, May 12, 2017.

Berrun A, **Stachura DL**. 2017. *ism-1* depletion negatively affects vertebrate hematopoiesis. 21st Annual Student Research Poster Symposium, Chico, CA, May 12, 2017.

Rice C, **Stachura DL**, Schierenbeck K. 2017. Serpentine adaptation gene expression in *Mimulus*

glaucescens. 21st Annual Student Research Poster Symposium, Chico, CA, May 12, 2017.

Berrun A, **Stachura DL. 2017.** *ism-1* depletion negatively affects vertebrate hematopoiesis. 2nd Annual Northern California Fish Research Symposium, UC Davis, Davis, CA, August 22, 2017.

Belmonte R, **Stachura DL. 2017.** The role of *SON* in hematopoiesis. 2nd Annual Northern California Fish Research Symposium, UC Davis, Davis, CA, August 22, 2017.

Wright F, **Stachura DL. 2017.** Zebrafish interleukin 7 (IL-7) encourages lymphoid development. 2nd Annual Northern California Fish Research Symposium, UC Davis, Davis, CA, August 22, 2017.

Laurie P, Harris E, **Stachura DL. 2018.** *ccl44* depletion negatively affects vertebrate hematopoiesis. 30th Annual CSU Biotechnology Symposium, Santa Clara, CA, January 12, 2018.

Rodriguez S, Aguiar S, Hanson T, Arpin C, **Stachura DL. 2018.** Analysis of novel inhibitors of the GRB2 SH2 domain that decrease proliferation in chronic myeloid leukemia. 30th Annual CSU Biotechnology Symposium, Santa Clara, CA, January 12, 2018.

Pulido O, Harris E, **Stachura DL. 2018.** Characterization of *rapunzel5* in blood formation. 30th Annual CSU Biotechnology Symposium, Santa Clara, CA, January 12, 2018.

Boice M, Kure P, **Stachura DL. 2018.** *kal1b* plays a role in thrombocyte (platelet) production. College of Natural Sciences 14th Annual Poster Session, Chico, CA, April 30, 2018.

Laurie P, **Stachura DL. 2018.** *ccl44* plays a key role in hematopoietic stem and progenitor cell proliferation. College of Natural Sciences 14th Annual Poster Session, Chico, CA, April 30, 2018.

Belmonte R, Ahn E, **Stachura DL. 2018.** *SON* is necessary for proper blood maturation. College of Natural Sciences 14th Annual Poster Session, Chico, CA, April 30, 2018.

Hanson T, Aguiar S, Tomasetti S, Griffin K, Rodriguez S, Smith J, **Stachura DL, Arpin C. 2018.** Analysis of novel inhibitors of the GRB2 SH2 domain that decrease proliferation in chronic myeloid leukemia. College of Natural Sciences 14th Annual Poster Session, Chico, CA, April 30, 2018.

Stroup D, Arca K, **Stachura DL. 2018.** Generation of fluorescent zebrafish kidney cell lines. 22nd Annual Student Research Poster Symposium, Chico, CA, May 11, 2018.

Stroup D, Arca K, **Stachura DL. 2018.** Stem cells- it's what's for dinner. 22nd Annual Student Research Poster Symposium, Chico, CA, May 11, 2018.

Boice M, Kure P, **Stachura DL. 2018.** *kal1b* plays a role in thrombocyte production. 22nd Annual Student Research Poster Symposium, Chico, CA, May 11, 2018.

Laurie P, **Stachura DL. 2018.** *ccl44* plays a key role in hematopoietic stem and progenitor cell proliferation. 22nd Annual Student Research Poster Symposium, Chico, CA, May 11, 2018.

Belmonte R, Ahn E, **Stachura DL. 2018.** *son* is necessary for proper blood maturation. 22nd Annual Student Research Poster Symposium, Chico, CA, May 11, 2018.

Hanson T, Aguiar S, Griffin K, Tomasetti G, Rodriguez S, Arpin C, **Stachura DL. 2018.** Analysis of novel inhibitors of the GRB2 SH2 domain that decrease proliferation in chronic myeloid leukemia. 22nd Annual Student Research Poster Symposium, Chico, CA, May 11, 2018.

Berrun A, **Stachura DL. 2018.** *isthmin 1 (ism1)* is required for normal hematopoiesis in developing zebrafish. 13th International Zebrafish Conference, Madison, WI, June 20-24, 2018.

Belmonte R, **Stachura DL. 2018.** SON is necessary for proper blood maturation. 13th International Zebrafish Conference, Madison, WI, June 20-24, 2018.

Laurie P, **Stachura DL. 2018.** *ccl44* plays a key role in hematopoietic stem and progenitor cell proliferation. 13th International Zebrafish Conference, Madison, WI, June 20-24, 2018.

Stachura DL. 2019. Using zebrafish to understand the molecular control of blood development. 31st Annual CSU Biotechnology Symposium, Anaheim, CA, January 4, 2019.

Laurie P, **Stachura DL. 2019.** *ccl44*: a necessary gene for hematopoietic progenitor cells. 31st Annual CSU Biotechnology Symposium, Anaheim, CA, January 4, 2019.

Aguiar S, Griffin K, Arpin C, **Stachura DL. 2019.** Novel antagonists of growth factor receptor-bound protein 2 (GRB2) decrease proliferation of chronic myeloid leukemia (CML) cells. 31st Annual CSU Biotechnology Symposium, Anaheim, CA, January 4, 2019.

Cajias I, Maciel S, Belmonte B, Thapa S, Aggio J, Wolf A, Smith J, **Stachura DL. 2019.** Effects of different wavelengths of light on zebrafish fecundity. 31st Annual CSU Biotechnology Symposium, Anaheim, CA, January 4, 2019.

Aguiar S, Griffin, Arpin C, **Stachura DL. 2019.** Novel Antagonists of Growth Factor Receptor-bound Protein 2 (GRB2) Decrease Proliferation of Chronic Myeloid Leukemia (CML) Cells. College of Natural Sciences 15th Annual Poster Session, Chico, CA, April 29, 2019.

Laurie P, **Stachura DL. 2019.** *ccl44*: a chemokine critical for normal hematopoiesis. College of Natural Sciences 15th Annual Poster Session, Chico, CA, April 29, 2019.

Rueb K, Griffin K, **Stachura DL. 2019.** Using CRISPR/Cas9 Technology to Ablate the Critical Gene *ccl44* During Embryonic Hematopoiesis. College of Natural Sciences 15th Annual Poster Session, Chico, CA, April 29, 2019.

Cajias I, Maciel S, Tomasetti S, **Stachura DL. 2019.** Isolation and characterization of hematopoietic stem and progenitor cells. College of Natural Sciences 15th Annual Poster Session, Chico, CA, April 29, 2019.

Cajias I, Maciel S, Belmonte R, Thapa S, **Stachura DL. 2019.** Effects of Different Wavelengths of Light on Zebrafish Fecundity. College of Natural Sciences 15th Annual Poster Session, Chico, CA, April 29, 2019.

Aguiar S, Griffin, Arpin C, **Stachura DL. 2019.** Novel Antagonists of Growth Factor Receptor-bound Protein 2 (GRB2) Decrease Proliferation of Chronic Myeloid Leukemia (CML) Cells. 23rd Annual Student Research Poster Symposium, Chico, CA, May 10, 2019.

Laurie P, **Stachura DL. 2019.** *ccl44*: a chemokine critical for normal hematopoiesis. 23rd Annual Student Research Poster Symposium, Chico, CA, May 10, 2019.

Rueb K, Griffin K, **Stachura DL. 2019.** Using CRISPR/Cas9 Technology to Ablate the Critical Gene *ccl44* During Embryonic Hematopoiesis. 23rd Annual Student Research Poster Symposium, Chico, CA, May 10, 2019.

Cajias I, Maciel S, Tomasetti S, **Stachura DL. 2019.** Isolation and characterization of hematopoietic stem and progenitor cells. 23rd Annual Student Research Poster Symposium, Chico, CA, May 10, 2019.

Cajias I, Maciel S, Belmonte R, Thapa S, **Stachura DL. 2019.** Effects of Different Wavelengths of Light on Zebrafish Fecundity. 23rd Annual Student Research Poster Symposium, Chico, CA, May 10, 2019.

Laurie P, Rueb K, Griffin K, **Stachura DL. 2019.** *ccl44*: a chemokine critical for normal hematopoiesis. Zebrafish Disease Models 12, Boston, MA, July 17, 2019.

Benavidez A, Maciel, S, **Stachura DL. 2019.** *kal1b* is necessary for normal myeloid and thrombocyte formation. 1st Annual CSC² Undergraduate Research Poster Symposium, Chico, CA, September 13, 2019.

Griffin K, Engbretson I, Arpin C, **Stachura DL. 2020.** Proliferation of chronic myeloid leukemia cells is prevented by antagonizing growth receptor bound protein 2 (GRB2). 32nd Annual CSU Biotechnology Symposium, Santa Clara, CA, January 17, 2020.

Rueb K, **Stachura DL. 2020.** CRISPR/Cas9 technology indicates that *ccl44* is essential for normal embryonic hematopoiesis. 32nd Annual CSU Biotechnology Symposium, Santa Clara, CA, January 18, 2020.

Namit A, Dowell W, Matiasek S, Webster J, **Stachura DL. 2020.** Examining the effects of pentachlorophenol on the development of zebrafish. 24th Annual Student Research Poster Symposium, Chico, CA, May 8, 2020.

Benevidez A, **Stachura DL. 2020.** The necessity of the *kal1b* gene in the development of myeloid, thrombocyte, and erythrocyte cell formation. 24th Annual Student Research Poster Symposium, Chico, CA, May 8, 2020.

Thapa S, **Stachura DL. 2020.** Characterization of *rapunzel5* in zebrafish hematopoiesis. 24th Annual Student Research Poster Symposium, Chico, CA, May 8, 2020.

Engbretson I, **Stachura DL. 2020.** *son* is necessary for proper vertebrate development. 24th Annual Student Research Poster Symposium, Chico, CA, May 8, 2020.

Rueb K, Laurie P, **Stachura DL. 2020.** *ccl44* is essential for normal embryonic zebrafish hematopoiesis. 24th Annual Student Research Poster Symposium, Chico, CA, May 8, 2020.

Metzger H, **Stachura DL. 2020.** Differential Effects of E-Cigarette Fluid Flavors on Development. 24th Annual Student Research Poster Symposium, Chico, CA, May 8, 2020.

Rueb K, **Stachura DL. 2021.** *ccl44* is essential for normal embryonic hematopoiesis. CSU Chico 35th Annual Student Research Competition, Chico, CA, March 8, 2021.

Benavidez A, **Stachura DL. 2021.** The necessity of the *kal1b* gene in the development of myeloid, thrombocyte, and erythrocyte cell formation. CSU Chico 35th Annual Student Research Competition, Chico, CA, March 8, 2021.

Namit A, Dowell W, Matiasek S, Webster J, **Stachura DL. 2021.** Pentachlorophenol has significant adverse effects on hematopoietic and immune system development in zebrafish (*Danio rerio*). CSU Chico 35th Annual Student Research Competition, Chico, CA, March 8, 2021.

Namit A, **Stachura DL. 2021.** *mustn1a* is Essential for Normal Vertebrate Hematopoiesis. CSU Chico 35th Annual Student Research Competition, Chico, CA, March 8, 2021.

Namit A, Dowell W, Matiasek S, Webster J, **Stachura DL. 2021.** Pentachlorophenol has significant adverse effects on hematopoietic and immune system development in zebrafish (*Danio rerio*). CSU Chico Center for Water and the Environment (CWE) Virtual Student Research Symposium, Chico, CA, April 30, 2021.

Rueb K, **Stachura DL. 2021.** *ccl44* is essential for normal embryonic hematopoiesis. College of Natural Sciences 17th Annual Poster Session, Chico, CA, May 3, 2021.

Benavidez A, **Stachura DL. 2021.** The necessity of the *kal1b* gene in the development of myeloid, thrombocyte, and erythrocyte cell formation. College of Natural Sciences 17th Annual Poster Session, Chico, CA, May 3, 2021.

Vasquez K, **Stachura DL. 2021.** Discovering Novel Genes Involved in Hematopoiesis. College of Natural Sciences 17th Annual Poster Session, Chico, CA, May 3, 2021.

Namit A, Dowell W, Matiasek S, Webster J, **Stachura DL. 2021.** Pentachlorophenol has significant adverse effects on hematopoietic and immune system development in zebrafish (*Danio rerio*). College of Natural Sciences 17th Annual Poster Session, Chico, CA, May 3, 2021.

Namit A, **Stachura DL. 2021.** *mustn1a* is Essential for Normal Vertebrate Hematopoiesis. College of Natural Sciences 17th Annual Poster Session, Chico, CA, May 3, 2021.

Rueb K, **Stachura DL. 2021.** *ccl44* is essential for normal embryonic hematopoiesis. 25th Annual Student Research Poster Symposium, Chico, CA, May 14, 2021.

Benavidez A, **Stachura DL. 2021.** The necessity of the *kal1b* gene in the development of myeloid, thrombocyte, and erythrocyte cell formation. 25th Annual Student Research Poster Symposium, Chico, CA, May 14, 2021.

Vasquez K, **Stachura DL. 2021.** Discovering Novel Genes Involved in Hematopoiesis. 25th Annual Student Research Poster Symposium, Chico, CA, May 14, 2021.

Namit A, Dowell W, Matiasek S, Webster J, **Stachura DL. 2021.** Pentachlorophenol has significant adverse effects on hematopoietic and immune system development in zebrafish (*Danio rerio*). 25th Annual Student Research Poster Symposium, Chico, CA, May 14, 2021.

Namit A, **Stachura DL. 2021.** *mustn1a* is Essential for Normal Vertebrate Hematopoiesis. 25th Annual Student Research Poster Symposium, Chico, CA, May 14, 2021.

Dowell W, Namit A, **Stachura DL. 2021.** Pentachlorophenol has significant adverse effects on hematopoietic and immune system development in zebrafish (*Danio rerio*). *Adelante; a Journal of Student Research and Creative Work*. Vol 1, Issue 1, Fall 2021.

Namit A, **Stachura DL. 2021.** *mustn1a* is essential for normal vertebrate hematopoiesis. *Adelante; a Journal of Student Research and Creative Work*. Vol 1, Issue 1, Fall 2021.

Rueb K, Laurie P, **Stachura DL. 2022.** *ccl44* is Essential for Normal Embryonic Zebrafish Hematopoiesis. Keystone Symposia- Innate Immunity: Complement and Beyond, Snowbird, UT, April 4, 2022.

Namit A and **Stachura DL. 2022.** *mustn1a* is Essential for Normal Vertebrate Hematopoiesis. Keystone Symposia- Innate Immunity: Complement and Beyond, Snowbird, UT, April 4, 2022.

Kitts R, Rueb K, **Stachura DL. 2022.** Inducing gene expression in Zebrafish Kidney Stromal cell lines to produce lab grown fish fillets. College of Natural Sciences 18th Annual Poster Session, Chico, CA, May 2, 2022.

Rodriguez SV and **Stachura DL. 2022.** The effect of treated wastewater on zebrafish immune development. College of Natural Sciences 18th Annual Poster Session, Chico, CA, May 2, 2022.

Bolinas T, Brewer A, Garcia, K, Shahla HA, Rueb KF, **Stachura DL, Aylworth J. 2022.** Stem cell conditioned media aids the successful treatment of androgenetic alopecia (AGA). College of Natural Sciences 18th Annual Poster Session, Chico, CA, May 2, 2022.

Vasquez KA and **Stachura DL. 2022.** Discovering novel genes involved in hematopoiesis. College of Natural Sciences 18th Annual Poster Session, Chico, CA, May 2, 2022.

Namit A and **Stachura DL. 2022.** *mustn1a* is Essential for Normal Vertebrate Hematopoiesis. College of Natural Sciences 18th Annual Poster Session, Chico, CA, May 2, 2022.

Payne M and **Stachura DL. 2022.** Aluminum Nitrate has significant adverse effects on zebrafish (*Danio rerio*) development. College of Natural Sciences 18th Annual Poster Session, Chico, CA, May 2, 2022.

Kitts R, Rueb K, **Stachura DL. 2022.** Inducing gene expression in Zebrafish Kidney Stromal cell lines to produce lab grown fish fillets. 26th Annual Student Research Poster Symposium, Chico, CA, May 13, 2022.

Rodriguez SV and **Stachura DL. 2022.** The effect of treated wastewater on zebrafish immune development. 26th Annual Student Research Poster Symposium, Chico, CA, May 13, 2022.

Bolinas T, Brewer A, Garcia, K, Shahla HA, Rueb KF, **Stachura DL, Aylworth J. 2022.** Stem cell conditioned media aids the successful treatment of androgenetic alopecia (AGA). 26th Annual Student Research Poster Symposium, Chico, CA, May 13, 2022.

Vasquez KA and **Stachura DL. 2022.** Discovering novel genes involved in hematopoiesis. 26th Annual Student Research Poster Symposium, Chico, CA, May 13, 2022.

Namit A and **Stachura DL. 2022.** *mustn1a* is Essential for Normal Vertebrate Hematopoiesis. 26th Annual Student Research Poster Symposium, Chico, CA, May 13, 2022.

Payne M and **Stachura DL. 2022.** Aluminum nitrate has significant adverse effects on zebrafish (*Danio rerio*) development. 26th Annual Student Research Poster Symposium, Chico, CA, May 13, 2022.

Rueb K, Payne M, **Stachura DL. 2023.** Mesenchymal stem cell (MSC) conditioned media facilitates wound healing. 35th Annual CSU Biotechnology Symposium, Santa Clara, CA, January 12, 2023.

Rodriguez S, **Stachura DL. 2023.** Treated wastewater effluent has no negative effect on zebrafish immune development. 35th Annual CSU Biotechnology Symposium, Santa Clara, CA, January 12, 2023.

Stachura DL, Rueb K, Aylworth J. 2023. Mesenchymal stem cell (MSC) conditioned media facilitates wound healing. AAD annual meeting, New Orleans, LA, March 17-21, 2023

Invited Presentations

Chen Y, **Stachura D, Letting D, Weiss MJ, Blobel GA. 2003.** Direct Repression of c-myc by GATA-1: coordination of differentiation and cell cycle arrest. Simultaneous Session on Regulation of Gene Transcription **Presentation**, American Society of Hematology 45th Annual Meeting and Exposition, Dec. 8, 2003.

Stachura DL, Weiss MJ. 2005. Role of GATA-1 in erythro-megakaryocytic differentiation. **Presentation.** Mt Sinai School of Medicine, Department of Gene and Cell Medicine, New York, NY, May 20, 2005.

Stachura DL, Chou ST, Weiss MJ. 2005. An early block to erythro-megakaryocytic development conferred by loss of transcription factor GATA-1. American Society of Hematology 47th Annual Meeting and Exposition **Poster** Session, Atlanta, GA, Dec 10, 2005.

Chou S, **Stachura D, Weiss M. 2006.** The leukemia-associated mutant GATA-1short fails to inhibit self-renewal in megakaryocytic erythroid progenitors. **Presentation.** American Society of Pediatric

Hematology/Oncology 19th Annual Meeting, San Francisco, CA, April 30, 2006.

Stachura DL, Reyes J, Purohit S, Traver D. **2008**. *In vitro* culture of zebrafish hematopoietic progenitors. **Poster** Presentation. 8th International Conference on Zebrafish Development and Genetics, Madison, WI, June 27, 2008.

Stachura DL, Reyes J, Purohit S, Traver D. **2008**. *In vitro* culture of zebrafish hematopoietic progenitors. **Poster** presentation. International Society for Experimental Hematology 37th Annual meeting, Boston, MA, July 10, 2008.

Feng H, Gutierrez A, **Stachura DL**, Fleming MD, Kutok JL, Jette CA, Langenau DM, Neuberg DS, Kanki JP, Look AT. **2008**. Metabolic stress and autophagy limit the progression of thymic lymphoma to leukemia. New Investigator Session **Presentation**, International Society for Experimental Hematology 37th Annual meeting, Boston, MA, July 11, 2008.

Stachura DL, Traver D. **2008**. *In vitro* culture of zebrafish hematopoietic progenitors. **Poster** Presentation. Fifteenth Annual UCSD/Salk Institute Division of Biological Sciences Retreat, Sept 8, 2008.

Bertrand JY, Kim AD, Cisson J, **Stachura DL**, Traver D. **2008**. The ontogeny of definitive hematopoiesis in the zebrafish. **Poster** Presentation. 50th American Society of Hematology Annual Meeting, San Francisco, CA, Dec 6, 2008.

Stachura DL, Lau RP, Traver D. **2009**. Characterization of zebrafish hematopoietic stem and progenitor cells. **Poster** Presentation. International Society for Experimental Hematology 38th Annual meeting, Athens, Greece, Sept 10, 2009.

Stachura DL, Lau RP, Traver D. **2009**. Characterization of zebrafish hematopoietic stem and progenitor cells. **Poster** Presentation. Sixteenth Annual UCSD/Salk Institute Division of Biological Sciences Retreat, Sept 21, 2009.

Feng H, **Stachura DL**, Gutierrez A, Fleming MD, Kutok JL, Zhang L, Jette CA, Neuberg DS, Testa JR, Traver D, Kanki JP, Look AT. **2010**. High BCL2 levels in thymic lymphoma inhibit vascular invasion and dissemination while promoting autophagy. **Poster** Presentation. Salk Institute for Biological Sciences Cancer and Stem Cell Symposium, La Jolla, CA, Feb 11, 2010.

Balla K*, Lugo-Villarino G*, Spitsbergen J, **Stachura DL**, Aroian R, Traver D. **2010**. Eosinophils in the zebrafish: prospective isolation, characterization and eosinophilia induction by helminth determinants. **Poster** Presentation. 9th International Conference on Zebrafish Development and Genetics, Madison, WI, June 17, 2010.

Cisson J*, Bertrand J*, **Stachura DL**, Traver D. **2010**. Origins of embryonic granulopoiesis. **Poster** Presentation. 9th International Conference on Zebrafish Development and Genetics, Madison, WI, June 17th, 2010.

Feng H, **Stachura DL**, Gutierrez A, White R, Zhang L, Sanda T, Jette C, Testa J, Neuberg D, Langenau D, Kutok J, Zon L, Traver D, Fleming M, Kanki J, Look AT. **2010**. T-cell lymphoblastic lymphoma cells express high levels of both Bcl2 and S1P1 leading to a blockade of intravasation and leukemic dissemination. Cancer and Growth Control Section **Presentation**. 9th International Conference on Zebrafish Development and Genetics, Madison, WI, June 18, 2010.

Page D, Pratt D, Delgado N, Scott A, Jacobsen B, **Stachura DL**, Magor B, Traver D. **2010**. Creation of IgM:GFP zebrafish reporter lines. **Poster** Presentation. 9th International Conference on Zebrafish Development and Genetics, Madison, WI, June 18, 2010.

Stachura DL, Bartunek P, Lau R, Balla KM, Zon L, Traver D. **2010**. Zebrafish granulocyte colony stimulating

factor (Gcsf) allows in vitro clonal analysis of zebrafish stem and progenitor cells. **Poster** Presentation. 9th International Conference on Zebrafish Development and Genetics, Madison, WI, June 19, 2010.

Stachura DL, Feng H, Bartunek P, Zon LI, Look AT, Traver D. **2010**. Short-term in vitro zebrafish hematopoietic assays are useful for modeling human hematopoietic disease and dysregulation. **Poster** Presentation. Zebrafish Disease Modeling III: Cancer, Blood Development, and Immune Responses, Boston, MA, June 22, 2010.

Stachura DL, Bartunek P, Lau RP, Balla K, Zon LI, Traver D. **2010**. Zebrafish granulocyte colony stimulating factor (Gcsf) allows in vitro clonal analysis of zebrafish stem and progenitor cells. Pluripotency to Blood Session **Presentation**. International Society for Experimental Hematology 39th Annual Meeting, Melbourne, Australia, September 16, 2010.

Stachura DL, Bartunek P, Zon LI, Traver D. **2011**. Clonal analysis of hematopoietic progenitor cells in the zebrafish. **Poster** Presentation. Keystone Symposia on Hematopoiesis, Big Sky, Montana, March 30, 2011.

Stachura DL, Svoboda O, Bartunek P, Zon LI, Traver D. **2011**. Clonal analysis of hematopoietic stem and progenitor cells in the zebrafish. Plenary Session 5; Cardiovascular Development and Hematopoiesis **Presentation**. 7th European Zebrafish Meeting, Edinburgh, Scotland, July 8, 2011.

Svoboda O, **Stachura DL**, Zon LI, Bartunek P. **2011**. Zebrafish thrombopoietin expands multipotent progenitor cells in vitro. **Poster** Presentation. 7th European Zebrafish Meeting, Edinburgh, Scotland, July 7 and 8, 2011.

Stachura DL, Svoboda O, Bartunek P, Zon LI, Traver D. **2011**. Clonal analysis of hematopoietic stem and progenitor cells in the zebrafish (and the utility of these assays in modeling hematopoietic disease). Session 5: Hematopoiesis Plenary **Presentation**. Zebrafish Disease Models 4; Blood, Immunity, Cancer, and Endothelial Workshop, Edinburgh, Scotland, July 11, 2011.

Svoboda O, **Stachura DL**, Zon LI, Bartunek P. **2011**. Zebrafish thrombopoietin expands multipotent progenitor cells in vitro. **Poster** Presentation. Zebrafish Disease Models 4; Blood, Immunity, Cancer, and Endothelial Workshop, Edinburgh, Scotland, July 10, 2011.

Stachura DL, Svoboda O, Bartunek P, Zon LI, Traver D. **2011**. Clonal analysis of hematopoietic progenitor cells in the zebrafish. **Poster** Presentation. UCSD Division of Biological Sciences/Salk Institute Annual Retreat, Lake Arrowhead, CA, September 19, 2011.

Stachura DL, Svoboda O, Campbell C, Zon LI, Bartunek P, Traver D. **2012**. The zebrafish granulocyte colony stimulating factors (Gcsfs): two paralogous cytokines and their roles in hematopoietic development and maintenance. **Poster** Presentation. 10th International Conference on Zebrafish Development and Genetics, Madison, WI, June 21, 2012.

Espin R, **Stachura DL**, Candel S, Garcia D, Traver D, Mulero V. **2012**. Tumor necrosis factor alpha (Tnfa) plays an important role in zebrafish embryonic and adult hematopoiesis. **Poster** Presentation. 10th International Conference on Zebrafish Development and Genetics, Madison, WI, June 22, 2012.

Stachura DL, Svoboda O, Campbell C, Zon LI, Bartunek P, Traver D. **2012**. The zebrafish granulocyte colony stimulating factors (Gcsfs): two paralogous cytokines and their roles in hematopoietic development and maintenance. **Poster** Presentation. International Society for Experimental Hematology 41st Annual Meeting, Amsterdam, Netherlands, August 25, 2012.

Stachura DL, Svoboda O, Campbell C, Zon LI, Bartunek P, and Traver D. **2012**. The zebrafish granulocyte colony stimulating factors (Gcsfs): two paralogous cytokines and their roles in hematopoietic stem and

progenitor cell specification and maintenance. **Poster** presentation. 19th Annual UCSD/Salk Institute Division of Biological Sciences Retreat, Lake Arrowhead, CA, Sept 24, 2012.

Stachura DL, Svoboda O, Campbell C, Bartunek P, Zon LI, Traver D. **2012**. Identification and characterization of hematopoietic stem and progenitor cells in the zebrafish. **Presentation**. Southern California Zebrafish Meeting, University of Southern California, November 9, 2012.

Stachura DL, Svoboda O, Campbell C, Zon LI, Bartunek P, Traver D. **2013**. Zebrafish granulocyte colony stimulating factors (Gcsfs) stimulate hematopoietic stem cell (HSC) specification and expansion. **Poster** presentation. Keystone Symposia on Hematopoiesis, Steamboat Springs, CO, Jan. 17, 2013.

Svoboda O, **Stachura DL**, Machonova O, Pajer P, Zon LI, Traver D, Bartunek P. **2013**. Dissection of vertebrate hematopoiesis using zebrafish thrombopoietin. **Poster** presentation. Keystone Symposia on Hematopoiesis, Steamboat Springs, CO, Jan. 17, 2013.

Stachura DL, Traver D. **2013**. Clonal analysis of zebrafish hematopoietic stem and progenitor cells. **Presentation**. Sanford Consortium for Regenerative Medicine Stem Cell Interest Group Seminar, La Jolla, CA, Jan. 23, 2013.

Stachura DL, Traver D. **2013**. Clonal analysis of zebrafish hematopoietic stem and progenitor cells (HSPCs). **Presentation**. Clinical and Translational Research Institute Emerging Investigator's Symposium, La Jolla, CA, Feb.15, 2013.

Butko E, Smith T, **Stachura D**, Clements W, Lawson N, Traver D. **2013**. Notch signaling establishes the hemogenic potential of the dorsal aorta through Gata2b. Cardiovascular Development Concurrent Session **Presentation**. 8th European Zebrafish Meeting, Barcelona, Spain, July 10, 2013.

Svoboda O, **Stachura DL**, Machonova O, Pajer P, Zon LI, Traver D, Bartunek P. **2013**. Dissection of vertebrate hematopoiesis using zebrafish thrombopoietin. **Poster** Presentation. 8th European Zebrafish Meeting, Barcelona, Spain, July 10, 2013.

Stachura DL, Campbell C, Su T, Lau R, Traver D. **2013**. Zebrafish embryonic stromal trunk (ZEST) cells support multilineage hematopoiesis. **Poster** Presentation. 8th European Zebrafish Meeting, Barcelona, Spain, July 12, 2013.

Stachura DL, Wittamer V, Bertrand J, Svoboda O, Bartunek P, Traver D. **2013**. Clonal analysis and characterization of zebrafish hematopoietic stem and progenitor cells (HSPCs). Stem Cells and Regeneration Concurrent Session **Presentation**. 8th European Zebrafish Meeting, Barcelona, Spain, July 11, 2013.

Stachura DL, Wittamer V, Bertrand J, Svoboda O, Bartunek P, Traver D. **2013**. Clonal analysis and characterization of zebrafish hematopoietic stem and progenitor cells (HSPCs). Hematopoiesis Session I **Presentation**. Zebrafish Disease Models 6; Hematopoiesis, Inflammation, Immunity, Infection, Cancer, and Vascular Biology Workshop, Murcia, Spain, July 14, 2013.

Espin-Palazon R, **Stachura DL**, Garcia-Moreno D, Campbell C, Candel S, Meseguer J, Traver D, Mulero V. **2013**. TNF signaling is critical for hematopoietic stem cell survival and expansion in the developing embryo. Hematopoiesis Session II **Presentation**. Zebrafish Disease Models 6; Hematopoiesis, Inflammation, Immunity, Infection, Cancer, and Vascular Biology Workshop, Murcia, Spain, July 14, 2013.

Svoboda O, **Stachura DL**, Machonova O, Pajer P, Zon LI, Traver D, Bartunek P. **2013**. Dissection of vertebrate hematopoiesis using zebrafish thrombopoietin. **Poster** Presentation. Zebrafish Disease Models 6; Hematopoiesis, Inflammation, Immunity, Infection, Cancer, and Vascular Biology Workshop, Murcia, Spain, July 16, 2013.

Stachura DL, Campbell C, Su T, Lau R, Traver D. **2013**. Zebrafish embryonic stromal trunk (ZEST) cells

support multilineage hematopoiesis. **Poster Presentation.** Zebrafish Disease Models 6; Hematopoiesis, Inflammation, Immunity, Infection, Cancer, and Vascular Biology Workshop, Murcia, Spain, July 16, 2013.

Stachura DL. 2013. Evolution and environmental instruction of hematopoietic progenitors. **Seminar Presentation.** Oklahoma University of Health Sciences Center, Oklahoma City, Oklahoma, Sept. 18, 2013.

Stachura DL, Campbell C, Traver D. 2014. Zebrafish embryonic stromal trunk (ZEST) cells support multilineage hematopoiesis. **Poster Presentation.** 11th International Conference on Zebrafish Development and Genetics, Madison, WI, June 27, 2014.

Lee Y, Manegold J, Kim A, **Stachura D**, Clements W, Traver D. **2014.** FGF signaling specifies hematopoietic stem cells through its regulation of somitic Notch signaling. Hematopoiesis Session **Presentation.** 11th International Conference on Zebrafish Development and Genetics, Madison, WI, June 28, 2014.

Stachura DL, Campbell C, Traver D. 2014. Using zebrafish stromal cells to investigate hematopoietic dysregulation. Hematopoiesis Session I **Presentation.** Zebrafish Disease Models 7; Hematopoietic and Vascular Disease Session, Madison, WI, June 30, 2014.

Svoboda O, **Stachura DL**, Machonova O, Pajer P, Brynda J, Zon LI, Traver D, Bartunek P. **2014.** Dissection of vertebrate hematopoiesis using zebrafish thrombopoietin. **Poster Presentation.** Zebrafish Disease Models 7, Madison, WI, June 30, 2014.

Cortes M, Chen M, Liu S, **Stachura D**, Schlaeger T, Traver D, Daley G, Goessling W, North T. **2014.** Vitamin D regulates hematopoietic stem cell maintenance by two distinct mechanisms. Session 3: Developmental Biology I **Presentation.** International Society for Experimental Hematology 43rd Annual Scientific Meeting, Montreal, Canada, August 22, 2014.

Kim A, Melick C, Clements W, **Stachura D**, Distel M, Traver D. **2014.** Notch3 is required in the somitic microenvironment for the specification of hematopoietic stem cells. Session 11: New Investigator Session **Presentation.** International Society for Experimental Hematology 43rd Annual Scientific Meeting, Montreal, Canada, August 22, 2014.

Espin-Palazon R, **Stachura D**, Campbell C, Garcia-Moreno D, Del Cid N, Candel S, Meseguer J, Mulero V, Traver D. **2014.** Proinflammatory signaling is required for hematopoietic stem cell emergence. Session 7: Developmental Biology II **Presentation.** International Society for Experimental Hematology 43rd Annual Scientific Meeting, Montreal, Canada, August 22, 2014.

Stachura DL. 2014. Utilizing the zebrafish to understand the molecular control of blood development. **Seminar Presentation.** California State University, Chico weekly Biology Seminar, Chico, CA, September 5, 2014.

Stachura DL. 2014. Zebrafish clonal assays allow careful examination of hematopoietic regeneration. Session 1: Regeneration in Cells, Organs, and Appendages **Presentation.** American Society for Cell Biology Local Meeting: Stem Cell Biology in Regeneration- Mechanistic Insights from the Zebrafish, La Jolla, CA, November 7, 2014.

Stachura DL, Campbell CA, Smith JS, Aggio J, Traver D. 2015. Zebrafish caudal hematopoietic embryonic stromal trunk (CHEST) cells support hematopoietic stem and progenitor cell (HSPC) expansion. Session 9: Inflammation and Hemostasis **Presentation.** Zebrafish Disease Models 8, Boston, MA, August 27, 2015.

Cortes M, Chen MJ, Liu SY, Kwan W, **Stachura DL**, Schlaeger TM, Goessling W, Daley GQ, North TE. **2015.** Vitamin D3 modulates vertebrate hematopoietic stem cell homeostasis. Session 7: Hematologic Diseases and Disorders **Presentation.** Zebrafish Disease Models 8, Boston, MA, August 26, 2015.

Smith J, Arpin C, **Stachura DL. 2015.** Growth receptor bound protein 2 (GRB2) overexpression in acute myeloid leukemia. **Poster Presentation.** College of Natural Sciences 11th Annual Poster Session, Chico,

CA, May 6, 2015.

Laurie P, Avalos B, Metzger H, **Stachura D. 2015.** Zebrafish embryonic stromal trunk cells and their support of hematopoietic stem and progenitor cell proliferation and differentiation. **Poster** Presentation. College of Natural Sciences 11th Annual Poster Session, Chico, CA, May 6, 2015.

Aggio J, Avalos B, Stachura D. 2015. Sex in the dark? Or leave the lights on? **Poster** Presentation. College of Natural Sciences 11th Annual Poster Session, Chico, CA, May 6, 2015.

Smith J, Arpin C, **Stachura DL. 2015.** Growth receptor bound protein 2 (GRB2) overexpression in acute myeloid leukemia. **Poster** Presentation. 19th Annual Student Research Poster Symposium, Chico, CA, May 8, 2015.

Laurie P, Avalos B, Metzger H, **Stachura D. 2015.** Zebrafish embryonic stromal trunk cells and their support of hematopoietic stem and progenitor cell proliferation and differentiation. **Poster** Presentation. 19th Annual Student Research Poster Symposium, Chico, CA, May 8, 2015.

Aggio J, Avalos B, Stachura D. 2015. Sex in the dark? Or leave the lights on? **Poster** Presentation. 19th Annual Student Research Poster Symposium, Chico, CA, May 8, 2015.

Aggio J, Brown AJ, Wright F, Marquez G, Berrun A, Shah A, Harris E, **Stachura DL. 2016.** Zebrafish caudal hematopoietic embryonic stromal trunk (CHEST) cells support hematopoietic stem and progenitor cell (HSPC) expansion. **Poster** Presentation. 28th Annual CSU Biotechnology Symposium, Anaheim, CA, January 8, 2016.

Berrun A, **Stachura DL. 2016.** Novel genes in vertebrate hematopoiesis. **Poster** Presentation. College of Natural Sciences 12th Annual Poster Session, Chico, CA, May 10, 2016.

Metzger H, **Stachura DL. 2016.** Differential effects of Bcl-2 over-expression in multiple hematopoietic cell lineages. **Poster** Presentation. College of Natural Sciences 12th Annual Poster Session, Chico, CA, May 10, 2016.

Smith JS, Arpin C, **Stachura DL. 2016.** The role of growth receptor bound protein-2 (GRB2) in acute myeloid leukemia (AML). **Poster** Presentation. College of Natural Sciences 12th Annual Poster Session, Chico, CA, May 10, 2016.

Aggio J, Brown A, Wright F, Marquez G, Berrun A, Shah A, Harris E, **Stachura DL. 2016.** Zebrafish caudal hematopoietic embryonic stromal tissue (CHEST) cells support hematopoietic stem and progenitor (HSPC) expansion. **Poster** Presentation. College of Natural Sciences 12th Annual Poster Session, Chico, CA, May 10, 2016.

Wright F, **Stachura DL. 2016.** Vitamin D increases hematopoietic stem and progenitor cells. **Poster** Presentation. College of Natural Sciences 12th Annual Poster Session, Chico, CA, May 10, 2016.

Marquez-Arreguin G, **Stachura DL. 2016.** Regulatory effects of cannabinoid receptor-2 on proliferation of hematopoietic stem cells via AM1241 and AM630. **Poster** Presentation. College of Natural Sciences 12th Annual Poster Session, Chico, CA, May 10, 2016.

Holmberg-Douglas N, Sampson E, Arpin C, **Stachura DL. 2016.** Development of potential anti-cancer drugs. **Poster** Presentation. College of Natural Sciences 12th Annual Poster Session, Chico, CA, May 10, 2016.

Belmonte RL, Wilson GR, **Stachura DL. 2016.** Modeling human brain malformations with zebrafish. **Poster** Presentation. College of Natural Sciences 12th Annual Poster Session, Chico, CA, May 10, 2016.

Aggio J, Stachura DL. 2016. Effect of lighting conditions on zebrafish reproductive efficiency. **Poster**

Presentation. College of Natural Sciences 12th Annual Poster Session, Chico, CA, May 10, 2016.

Berrun A, **Stachura DL. 2016.** Novel genes in vertebrate hematopoiesis. **Poster** Presentation. 20th Annual Student Research Poster Symposium, Chico, CA, May 13, 2016.

Metzger H, **Stachura DL. 2016.** Differential effects of Bcl-2 over-expression in multiple hematopoietic cell lineages. **Poster** Presentation. 20th Annual Student Research Poster Symposium, Chico, CA, May 13, 2016.

Smith JS, Arpin C, **Stachura DL. 2016.** The role of growth receptor bound protein-2 (GRB2) in acute myeloid leukemia (AML). **Poster** Presentation. 20th Annual Student Research Poster Symposium, Chico, CA, May 13, 2016.

Aggio J, Brown A, Wright F, Marquez G, Berrun A, Shah A, Harris E, **Stachura DL. 2016.** Zebrafish caudal hematopoietic embryonic stromal tissue (CHEST) cells support hematopoietic stem and progenitor (HSPC) expansion. **Poster** Presentation. 20th Annual Student Research Poster Symposium, Chico, CA, May 13, 2016.

Wright F, **Stachura DL. 2016.** Vitamin D increases hematopoietic stem and progenitor cells. **Poster** Presentation. 20th Annual Student Research Poster Symposium, Chico, CA, May 13, 2016.

Marquez-Arreguin G, **Stachura DL. 2016.** Regulatory effects of cannabinoid receptor-2 on proliferation of hematopoietic stem cells via AM1241 and AM630. **Poster** Presentation. 20th Annual Student Research Poster Symposium, Chico, CA, May 13, 2016.

Belmonte RL, Wilson GR, **Stachura DL. 2016.** Modeling human brain malformations with zebrafish. **Poster** Presentation. 20th Annual Student Research Poster Symposium, Chico, CA, May 13, 2016.

Aggio J, **Stachura DL. 2016.** Effect of lighting conditions on zebrafish reproductive efficiency. **Poster** Presentation. 20th Annual Student Research Poster Symposium, Chico, CA, May 13, 2016.

Aggio J, Brown A, Wright F, Marquez G, Campbell C, Traver D, **Stachura DL. 2016.** Zebrafish caudal hematopoietic embryonic stromal cells support hematopoietic stem and progenitor cell proliferation and differentiation. **Poster** Presentation. 45th International Society for Experimental Hematology meeting, San Diego, CA, Aug 26, 2016.

Harris EY, Keller D, **Stachura D, Wolfe G. 2016.** Bioinformatics sister courses: an interdisciplinary collaborative learning framework to teach bioinformatics. 2016 International Conference on Computational Science and Computational Intelligence (CSCI). Session 3I-ISED, **Presentation**, December 17, 2016.

Berrun A, Laurie P, **Stachura DL. 2017.** *ism1* depletion negatively affects vertebrate hematopoiesis. **Poster** Presentation. 29th Annual CSU Biotechnology Symposium, Santa Clara, CA, January 7, 2017.

Smith J, Arpin C, **Stachura DL. 2017.** Growth receptor bound protein-2 (GRB2) overexpression increases proliferation of myeloid cells in acute myeloid leukemia (AML). **Poster** Presentation. 29th Annual CSU Biotechnology Symposium, Santa Clara, CA, January 6, 2017.

Smith J, Arpin C, **Stachura DL. 2017.** Growth receptor bound protein-2 (GRB2) overexpression increases proliferation of myeloid cells in acute myeloid leukemia (AML). Eden Graduate Student Finalist **Presentation**. 29th Annual CSU Biotechnology Symposium, Santa Clara, CA, January 7, 2017.

Wolf A, Aggio J, Campbell C, Wright F, Marquez G, Shah A, Traver D, Harris E, **Stachura DL. 2017.** Zebrafish embryonic endothelial cells support hematopoiesis. **Poster** Presentation. 7th Strategic Conference of Zebrafish Investigators, Asilomar, CA, January 15, 2017.

Berrun A, **Stachura DL. 2017.** Characterization of *ism-1* in hematopoietic differentiation and proliferation.

Presentation, 31st Annual Student Research Competition, Chico, CA, March 17, 2017. Won 2nd place (out of five presenters) and selected to present research at the statewide competition.

Smith JS, **Stachura DL**. 2017. Growth receptor bound protein-2 (GRB2) overexpression expands myeloid cells and increases proliferation in chronic myeloid leukemia (CML). **Presentation**. 31st Annual Student Research Competition, Chico, CA, March 17, 2017. Won 1st place (out of five presenters) and selected to present research at the statewide competition.

Barton-Wechsler S, **Stachura DL**, Ho E, Housley L. 2017. Effects of zinc supplementation on carnitine and lactate concentrations in cultured liver cells. **Poster Presentation**. College of Natural Sciences 13th Annual Poster Session, Chico, CA, May 10, 2017.

Metzger H, **Stachura DL**. 2017. Differential effects of *bcl2* overexpression in various B lymphocyte populations. **Poster Presentation**. College of Natural Sciences 13th Annual Poster Session, Chico, CA, May 10, 2017.

Berrun A, **Stachura DL**. 2017. *ism-1* depletion negatively affects vertebrate hematopoiesis. **Poster Presentation**. College of Natural Sciences 13th Annual Poster Session, Chico, CA, May 10, 2017.

Schmidt T, Boice M, Pulido O, **Stachura DL**. 2017. *kal1b* reduction decreases vertebrate blood cells. **Poster Presentation**. College of Natural Sciences 13th Annual Poster Session, Chico, CA, May 10, 2017.

Aguiar S, Rodriguez S, Hanson T, Arpin C, **Stachura DL**. 2017. Analysis of novel inhibitors of the GRB2 SH2 domain that decrease proliferation in chronic myeloid leukemia. **Poster Presentation**. College of Natural Sciences 13th Annual Poster Session, Chico, CA, May 10, 2017.

Aguiar S, Rodriguez S, Hanson T, Arpin C, **Stachura DL**. 2017. Analysis of novel inhibitors of the GRB2 SH2 domain that decrease proliferation in chronic myeloid leukemia. **Poster Presentation**. 21st Annual Student Research Poster Symposium, Chico, CA, May 12, 2017.

Tinsley B, Berrun A, **Stachura DL**. 2017. *mustn1a* depletion negatively affects vertebrate hematopoiesis. **Poster Presentation**. 21st Annual Student Research Poster Symposium, Chico, CA, May 12, 2017.

Schmidt T, Boice M, Pulido O, **Stachura DL**. 2017. *kal1b* reduction decreases vertebrate blood cells. **Poster Presentation**. 21st Annual Student Research Poster Symposium, Chico, CA, May 12, 2017.

Metzger H, **Stachura DL**. 2017. Differential effects of *bcl2* overexpression in various B lymphocyte populations. **Poster Presentation**. 21st Annual Student Research Poster Symposium, Chico, CA, May 12, 2017.

Berrun A, **Stachura DL**. 2017. *ism-1* depletion negatively affects vertebrate hematopoiesis. **Poster Presentation**. 21st Annual Student Research Poster Symposium, Chico, CA, May 12, 2017.

Rice C, **Stachura DL**, Schierenbeck K. 2017. Serpentine adaptation gene expression in *Mimulus glaucescens*. **Poster Presentation**. 21st Annual Student Research Poster Symposium, Chico, CA, May 12, 2017.

Stachura DL. 2017. Identifying genes involved in hematopoietic development. Hematology Research Interest Group **Presentation**. Zebrafish Disease Model Society 10, San Diego, CA, August 6, 2017.

Berrun A, **Stachura DL**. 2017. *ism-1* depletion negatively affects vertebrate hematopoiesis. Session II **Presentation**. 2nd Annual Northern California Fish Research Symposium, UC Davis, Davis, CA, August 22, 2017.

Belmonte R and **Stachura DL**. 2017. The role of *SON* in hematopoiesis. **Poster Presentation**. 2nd Annual Northern California Fish Research Symposium, UC Davis, Davis, CA, August 22, 2017.

Wright F and **Stachura DL. 2017.** Zebrafish interleukin 7 (IL-7) encourages lymphoid development. **Poster** Presentation. 2nd Annual Northern California Fish Research Symposium, UC Davis, Davis, CA, August 22, 2017.

Laurie P, Harris E, **Stachura DL. 2018.** *ccl44* depletion negatively affects vertebrate hematopoiesis. **Poster** Presentation. 30th Annual CSU Biotechnology Symposium, Santa Clara, CA, January 12, 2018.

Rodriguez S, Aguiar S, Hanson T, Arpin C, **Stachura DL. 2018.** Analysis of novel inhibitors of the GRB2 SH2 domain that decrease proliferation in chronic myeloid leukemia. **Poster** Presentation. 30th Annual CSU Biotechnology Symposium, Santa Clara, CA, January 12, 2018.

Pulido O, Harris E, **Stachura DL. 2018.** Characterization of *rapunzel5* in blood formation. **Poster** Presentation. 30th Annual CSU Biotechnology Symposium, Santa Clara, CA, January 12, 2018.

Boice M, Kure P, **Stachura DL. 2018.** *kal1b* plays a role in thrombocyte (platelet) production. **Poster** Presentation. College of Natural Sciences 14th Annual Poster Session, Chico, CA, April 30, 2018.

Laurie P, **Stachura DL. 2018.** *ccl44* plays a key role in hematopoietic stem and progenitor cell proliferation. **Poster** Presentation. College of Natural Sciences 14th Annual Poster Session, Chico, CA, April 30, 2018.

Belmonte R, Ahn E, **Stachura DL. 2018.** SON is necessary for proper blood maturation. **Poster** Presentation. College of Natural Sciences 14th Annual Poster Session, Chico, CA, April 30, 2018.

Hanson T, Aguiar S, Tomasetti S, Griffin K, Rodriguez S, Smith J, **Stachura DL, Arpin C. 2018.** Analysis of novel inhibitors of the GRB2 SH2 domain that decrease proliferation in chronic myeloid leukemia. **Poster** Presentation. College of Natural Sciences 14th Annual Poster Session, Chico, CA, April 30, 2018.

Belmonte R, **Stachura DL. 2018.** The role of SON in blood development. CSU Chico 32nd Annual Student Research Competition, Chico, CA, March 7, 2018. **Presentation.** Won 1st place (out of five presenters) and selected to present research at the statewide competition.

Laurie P, **Stachura DL. 2018.** *ccl44* plays a key role in hematopoietic stem and progenitor cell proliferation. **Presentation.** CSU Chico 32nd Annual Student Research Competition, Chico, CA, March 7, 2018.

Hanson T, **Stachura DL. 2018.** Analysis of novel inhibitors of the GRB2 SH2 domain that decrease proliferation in chronic myeloid leukemia. **Presentation.** CSU Chico 32nd Annual Student Research Competition, Chico, CA, March 7, 2018.

Belmonte R, **Stachura DL. 2018.** The role of SON in blood development. **Presentation.** CSU Student Research Competition, Sacramento, CA, May 4, 2018.

Stroup D, Arca K, **Stachura DL. 2018.** Generation of fluorescent zebrafish kidney cell lines. **Poster** Presentation. 22nd Annual Student Research Poster Symposium, Chico, CA, May 11, 2018.

Stroup D, Arca K, **Stachura DL. 2018.** Stem cells- it's what's for dinner. **Poster** Presentation. 22nd Annual Student Research Poster Symposium, Chico, CA, May 11, 2018.

Boice M, Kure P, **Stachura DL. 2018.** *kal1b* plays a role in thrombocyte production. **Poster** Presentation. 22nd Annual Student Research Poster Symposium, Chico, CA, May 11, 2018.

Laurie P, **Stachura DL. 2018.** *ccl44* plays a key role in hematopoietic stem and progenitor cell proliferation. **Poster** Presentation. 22nd Annual Student Research Poster Symposium, Chico, CA, May 11, 2018.

Belmonte R, Ahn E, **Stachura DL. 2018.** *son* is necessary for proper blood maturation. **Poster**

Presentation. 22nd Annual Student Research Poster Symposium, Chico, CA, May 11, 2018.

Hanson T, Aguiar S, Griffin K, Tomasetti G, Rodriguez S, Arpin C, **Stachura DL. 2018.** Analysis of novel inhibitors of the GRB2 SH2 domain that decrease proliferation in chronic myeloid leukemia. **Poster Presentation.** 22nd Annual Student Research Poster Symposium, Chico, CA, May 11, 2018.

Berrun A, **Stachura DL. 2018.** *isthmin 1 (ism1)* is required for normal hematopoiesis in developing zebrafish. **Poster Presentation.** 13th International Zebrafish Conference, Madison, WI, June 20, 2018.

Belmonte R, **Stachura DL. 2018.** SON is necessary for proper blood maturation. **Poster Presentation.** 13th International Zebrafish Conference, Madison, WI, June 20, 2018.

Laurie P, **Stachura DL. 2018.** *ccl44* plays a key role in hematopoietic stem and progenitor cell proliferation. **Poster Presentation.** 13th International Zebrafish Conference, Madison, WI, June 20, 2018.

Stachura DL. 2018. Stem cells and genetic engineering: the future of medicine. Keynote **Presentation.** Dinner with a Scientist fundraiser for Chico Science Fair, Chico, CA, November 2, 2018.

Stachura DL. 2019. Using zebrafish to understand the molecular control of blood development. Plenary Session **Presentation.** 31st Annual CSU Biotechnology Symposium, Anaheim, CA, January 4, 2019.

Laurie P, **Stachura DL. 2019.** *ccl44*: a necessary gene for hematopoietic progenitor cells. **Poster Presentation.** 31st Annual CSU Biotechnology Symposium, Anaheim, CA, January 4, 2019.

Aguiar S, Griffin K, Arpin C, **Stachura DL. 2019.** Novel antagonists of growth factor receptor-bound protein 2 (GRB2) decrease proliferation of chronic myeloid leukemia (CML) cells. **Poster Presentation.** 31st Annual CSU Biotechnology Symposium, Anaheim, CA, January 4, 2019.

Cajias I, Maciel S, Belmonte B, Thapa S, Aggio J, Wolf A, Smith J, **Stachura DL. 2019.** Effects of different wavelengths of light on zebrafish fecundity. **Poster Presentation.** 31st Annual CSU Biotechnology Symposium, Anaheim, CA, January 4, 2019.

Stachura DL. 2019. Utilizing zebrafish to discover molecular pathways involved in blood formation. Seminar **Presentation,** CSU Dominguez Hills, February 28, 2019.

Aguiar S, **Stachura DL. 2019.** Novel antagonists of growth factor receptor-bound protein 2 (GRB2) decrease proliferation of chronic myeloid leukemia (CML) cells. **Presentation.** CSU Chico 33rd Annual Student Research Competition, Chico, CA, March 12, 2019.

Laurie P, **Stachura DL. 2019.** *ccl44* plays a key role in hematopoietic stem and progenitor cell proliferation. **Presentation.** CSU Chico 33rd Annual Student Research Competition, Chico, CA, March 12, 2019. Won 1st place (out of five presenters) and selected to present research at the statewide competition.

Aguiar S, Griffin, Arpin C, **Stachura DL. 2019.** Novel Antagonists of Growth Factor Receptor-bound Protein 2 (GRB2) Decrease Proliferation of Chronic Myeloid Leukemia (CML) Cells. **Poster Presentation.** College of Natural Sciences 15th Annual Poster Session, Chico, CA, April 29, 2019.

Laurie P, **Stachura DL. 2019.** *ccl44*: a chemokine critical for normal hematopoiesis. **Poster Presentation.** College of Natural Sciences 15th Annual Poster Session, Chico, CA, April 29, 2019.

Rueb K, Griffin K, **Stachura DL. 2019.** Using CRISPR/Cas9 Technology to Ablate the Critical Gene *ccl44* During Embryonic Hematopoiesis. **Poster Presentation.** College of Natural Sciences 15th Annual Poster Session, Chico, CA, April 29, 2019.

Cajias I, Maciel S, Tomasetti S, **Stachura DL. 2019.** Isolation and characterization of hematopoietic stem and progenitor cells. **Poster Presentation.** College of Natural Sciences 15th Annual Poster Session, Chico,

CA, April 29, 2019.

Cajias I, Maciel S, Belmonte R, Thapa S, **Stachura DL. 2019.** Effects of Different Wavelengths of Light on Zebrafish Fecundity. **Poster** Presentation. College of Natural Sciences 15th Annual Poster Session, Chico, CA, April 29, 2019.

Stachura DL. 2019. Using Zebrafish to Model Human Blood Disease and Development. **Presentation.** Yuba College, Marysville, CA, May 8, 2019.

Aguiar S, Griffin, Arpin C, **Stachura DL. 2019.** Novel Antagonists of Growth Factor Receptor-bound Protein 2 (GRB2) Decrease Proliferation of Chronic Myeloid Leukemia (CML) Cells. **Poster** Presentation. 23rd Annual Student Research Poster Symposium, Chico, CA, May 10, 2019.

Laurie P, **Stachura DL. 2019.** *ccl44*: a chemokine critical for normal hematopoiesis. **Poster** Presentation. 23rd Annual Student Research Poster Symposium, Chico, CA, May 10, 2019.

Rueb K, Griffin K, **Stachura DL. 2019.** Using CRISPR/Cas9 Technology to Ablate the Critical Gene *ccl44* During Embryonic Hematopoiesis. **Poster** Presentation. 23rd Annual Student Research Poster Symposium, Chico, CA, May 10, 2019.

Cajias I, Maciel S, Tomasetti S, **Stachura DL. 2019.** Isolation and characterization of hematopoietic stem and progenitor cells. **Poster** Presentation. 23rd Annual Student Research Poster Symposium, Chico, CA, May 10, 2019.

Cajias I, Maciel S, Belmonte R, Thapa S, **Stachura DL. 2019.** Effects of Different Wavelengths of Light on Zebrafish Fecundity. **Poster** Presentation. 23rd Annual Student Research Poster Symposium, Chico, CA, May 10, 2019.

Laurie P, Rueb K, Griffin K, **Stachura DL. 2019.** *ccl44*: a chemokine critical for normal hematopoiesis. **Poster** Presentation. Zebrafish Disease Models 12, Boston, MA, July 17, 2019.

Laurie P, Rueb K, Griffin K, **Stachura DL. 2019.** *ccl44*: a chemokine critical for normal hematopoiesis. **Flash Talk.** Plenary Session 6: Infection and Immunity; Zebrafish Disease Models 12, Boston, MA, July 17, 2019.

Benavidez A, Maciel, S, **Stachura DL. 2019.** *kal1b* is necessary for normal myeloid and thrombocyte formation. **Poster** Presentation. 1st Annual CSC² Undergraduate Research Poster Symposium, Chico, CA, September 13, 2019.

Griffin K, Engbretson I, Arpin C, **Stachura DL. 2020.** Proliferation of chronic myeloid leukemia cells is prevented by antagonizing growth receptor bound protein 2 (GRB2). **Poster** Presentation. 32nd Annual CSU Biotechnology Symposium, Santa Clara, CA, January 17, 2020.

Rueb K, **Stachura DL. 2020.** CRISPR/Cas9 technology indicates that *ccl44* is essential for normal embryonic hematopoiesis. **Poster** Presentation. 32nd Annual CSU Biotechnology Symposium, Santa Clara, CA, January 18, 2020. Glenn Nagel Undergraduate Research Award finalist (one of the top eight best undergraduate posters presented at the meeting).

Namit A, Dowell W, Matiasek S, Webster J, **Stachura DL. 2020.** Examining the effects of pentachlorophenol on the development of zebrafish. **Poster** Presentation. 24th Annual Student Research Poster Symposium, Chico, CA, May 8, 2020. Won 1st place (out of 36 presenters).

Benevidez A, **Stachura DL. 2020.** The necessity of the *kal1b* gene in the development of myeloid, thrombocyte, and erythrocyte cell formation. **Poster** Presentation. 24th Annual Student Research Poster Symposium, Chico, CA, May 8, 2020.

Thapa S, **Stachura DL. 2020.** Characterization of *rapunzel5* in zebrafish hematopoiesis. **Poster Presentation.** 24th Annual Student Research Poster Symposium, Chico, CA, May 8, 2020.

Engbretson I, **Stachura DL. 2020.** *son* is necessary for proper vertebrate development. **Poster Presentation.** 24th Annual Student Research Poster Symposium, Chico, CA, May 8, 2020. Won 1st place (out of nine presenters).

Rueb K, Laurie P, **Stachura DL. 2020.** *ccl44* is essential for normal embryonic zebrafish hematopoiesis. **Poster Presentation.** 24th Annual Student Research Poster Symposium, Chico, CA, May 8, 2020.

Metzger H, **Stachura DL. 2020.** Differential Effects of E-Cigarette Fluid Flavors on Development. **Poster Presentation.** 24th Annual Student Research Poster Symposium, Chico, CA, May 8, 2020.

Stachura DL. 2020. Using zebrafish tissue culture to understand blood cell development and muscle growth. **Presentation.** Woo Laboratory Meeting, UC Merced, Merced, CA. October 16, 2020.

Rueb K, **Stachura DL. 2021.** *ccl44* is essential for normal embryonic hematopoiesis. **Presentation.** CSU Chico 35th Annual Student Research Competition, Chico, CA, March 8, 2021. Won 1st place (out of eight presenters) and selected to present research at the statewide competition.

Benavidez A, **Stachura DL. 2021.** The necessity of the *kal1b* gene in the development of myeloid, thrombocyte, and erythrocyte cell formation. **Presentation.** CSU Chico 35th Annual Student Research Competition, Chico, CA, March 8, 2021.

Namit A, Dowell W, Matiasek S, Webster J, **Stachura DL. 2021.** Pentachlorophenol has significant adverse effects on hematopoietic and immune system development in zebrafish (*Danio rerio*). **Presentation.** CSU Chico 35th Annual Student Research Competition, Chico, CA, March 8, 2021.

Namit A, **Stachura DL. 2021.** *mustn1a* is Essential for Normal Vertebrate Hematopoiesis. **Presentation.** CSU Chico 35th Annual Student Research Competition, Chico, CA, March 8, 2021. Won 1st place (out of seven presenters) and selected to present research at the statewide competition.

Namit A, Dowell W, Matiasek S, Webster J, **Stachura DL. 2021.** Pentachlorophenol has significant adverse effects on hematopoietic and immune system development in zebrafish (*Danio rerio*). **Presentation.** CSU Chico Center for Water and the Environment (CWE) Virtual Student Research Symposium, Chico, CA, April 30, 2021.

Rueb K, **Stachura DL. 2021.** *ccl44* is essential for normal embryonic hematopoiesis. **Poster Presentation.** College of Natural Sciences 17th Annual Poster Session, Chico, CA, May 3, 2021.

Benavidez A, **Stachura DL. 2021.** The necessity of the *kal1b* gene in the development of myeloid, thrombocyte, and erythrocyte cell formation. **Poster Presentation.** College of Natural Sciences 17th Annual Poster Session, Chico, CA, May 3, 2021.

Vasquez K, **Stachura DL. 2021.** Discovering Novel Genes Involved in Hematopoiesis. **Poster Presentation.** College of Natural Sciences 17th Annual Poster Session, Chico, CA, May 3, 2021.

Namit A, Dowell W, Matiasek S, Webster J, **Stachura DL. 2021.** Pentachlorophenol has significant adverse effects on hematopoietic and immune system development in zebrafish (*Danio rerio*). **Poster Presentation.** College of Natural Sciences 17th Annual Poster Session, Chico, CA, May 3, 2021.

Namit A, **Stachura DL. 2021.** *mustn1a* is Essential for Normal Vertebrate Hematopoiesis. **Poster Presentation.** College of Natural Sciences 17th Annual Poster Session, Chico, CA, May 3, 2021. Won 1st place (out of 19 posters).

Rueb K, **Stachura DL. 2021.** *ccl44* is essential for normal embryonic hematopoiesis. **Poster** Presentation. 25th Annual Student Research Poster Symposium, Chico, CA, May 14, 2021. Won Tom Rogers Outstanding Researcher Award.

Benavidez A, **Stachura DL. 2021.** The necessity of the *kal1b* gene in the development of myeloid, thrombocyte, and erythrocyte cell formation. **Poster** Presentation. 25th Annual Student Research Poster Symposium, Chico, CA, May 14, 2021.

Vasquez K, **Stachura DL. 2021.** Discovering Novel Genes Involved in Hematopoiesis. **Poster** Presentation. 25th Annual Student Research Poster Symposium, Chico, CA, May 14, 2021.

Namit A, Dowell W, Matiasek S, Webster J, **Stachura DL. 2021.** Pentachlorophenol has significant adverse effects on hematopoietic and immune system development in zebrafish (*Danio rerio*). **Poster** Presentation. 25th Annual Student Research Poster Symposium, Chico, CA, May 14, 2021.

Namit A, **Stachura DL. 2021.** *mustn1a* is Essential for Normal Vertebrate Hematopoiesis. **Poster** Presentation. 25th Annual Student Research Poster Symposium, Chico, CA, May 14, 2021.

Stachura DL. 2021. Using zebrafish to optimize cellular agriculture. **Presentation.** 15th International Conference on Invertebrate and Fish Cell Culture: Emerging Technologies and Future Directions. Society of In Vitro Biology Annual Meeting, Online, June 5, 2021.

Stachura DL. 2022. *ccl44* is Essential for Normal Embryonic Zebrafish Hematopoiesis. **Presentation.** Iowa State University Seminar Series. Ames, IA, February 22, 2022.

Rodriguez SV and **Stachura DL. 2022.** The effect of treated wastewater on zebrafish immune development. **Presentation.** CSU Chico 36th Annual Student Research Competition, Chico, CA, March 3, 2022. Won 3rd place (out of eight presenters) and selected to present research at the statewide competition.

Rodriguez SV and **Stachura DL. 2022.** The effect of treated wastewater on zebrafish immune development. **Presentation.** CSU San Francisco 36th Statewide Annual Student Research Competition, San Francisco (virtual), CA, April 29, 2022.

Rueb K, Laurie P, **Stachura DL. 2022.** *ccl44* is Essential for Normal Embryonic Zebrafish Hematopoiesis. **Poster** Presentation. Keystone Symposia- Innate Immunity: Complement and Beyond, Snowbird, UT, April 4, 2022.

Namit A and **Stachura DL. 2022.** *mustn1a* is Essential for Normal Vertebrate Hematopoiesis. **Poster** Presentation. Keystone Symposia- Innate Immunity: Complement and Beyond, Snowbird, UT, April 4, 2022.

Rodriguez SV and **Stachura DL. 2022.** The effect of treated wastewater on zebrafish immune development. Center for Water and the Environment Student Research Symposium **Presentation**, Chico, CA, May 6, 2022.

Payne M and **Stachura DL. 2022.** Examining the negative effects of camp fire toxins on the immune system. Center for Water and the Environment Student Research Symposium **Presentation**, Chico, CA, May 6, 2022.

Kitts R, Rueb K, **Stachura DL. 2022.** Inducing gene expression in Zebrafish Kidney Stromal cell lines to produce lab grown fish filets. **Poster** Presentation. College of Natural Sciences 18th Annual Poster Session, Chico, CA, May 2, 2022.

Rodriguez SV and **Stachura DL. 2022.** The effect of treated wastewater on zebrafish immune development. **Poster** Presentation. College of Natural Sciences 18th Annual Poster Session, Chico, CA, May 2, 2022.

Bolinas T, Brewer A, Garcia, K, Shahla HA, Rueb KF, **Stachura DL**, Aylworth J. **2022**. Stem cell conditioned media aids the successful treatment of androgenetic alopecia (AGA). **Poster** Presentation. College of Natural Sciences 18th Annual Poster Session, Chico, CA, May 2, 2022.

Vasquez KA and **Stachura DL**. **2022**. Discovering novel genes involved in hematopoiesis. **Poster** Presentation. College of Natural Sciences 18th Annual Poster Session, Chico, CA, May 2, 2022.

Namit A and **Stachura DL**. **2022**. *mustn1a* is Essential for Normal Vertebrate Hematopoiesis. **Poster** Presentation. College of Natural Sciences 18th Annual Poster Session, Chico, CA, May 2, 2022.

Payne M and **Stachura DL**. **2022**. Aluminum Nitrate has significant adverse effects on zebrafish (*Danio rerio*) development. **Poster** Presentation. College of Natural Sciences 18th Annual Poster Session, Chico, CA, May 2, 2022.

Kitts R, Rueb K, **Stachura DL**. **2022**. Inducing gene expression in Zebrafish Kidney Stromal cell lines to produce lab grown fish fillets. **Poster** Presentation. 26th Annual Student Research Poster Symposium, Chico, CA, May 13, 2022.

Rodriguez SV and **Stachura DL**. **2022**. The effect of treated wastewater on zebrafish immune development. **Poster** Presentation. 26th Annual Student Research Poster Symposium, Chico, CA, May 13, 2022.

Bolinas T, Brewer A, Garcia, K, Shahla HA, Rueb KF, **Stachura DL**, Aylworth J. **2022**. Stem cell conditioned media aids the successful treatment of androgenetic alopecia (AGA). **Poster** Presentation. 26th Annual Student Research Poster Symposium, Chico, CA, May 13, 2022.

Vasquez KA and **Stachura DL**. **2022**. Discovering novel genes involved in hematopoiesis. **Poster** Presentation. 26th Annual Student Research Poster Symposium, Chico, CA, May 13, 2022.

Namit A and **Stachura DL**. **2022**. *mustn1a* is Essential for Normal Vertebrate Hematopoiesis. **Poster** Presentation. 26th Annual Student Research Poster Symposium, Chico, CA, May 13, 2022.

Payne M and **Stachura DL**. **2022**. Aluminum Nitrate has significant adverse effects on zebrafish (*Danio rerio*) development. **Poster** Presentation. 26th Annual Student Research Poster Symposium, Chico, CA, May 13, 2022.

Stachura DL. **2022**. Making sense of the science of advanced biotech in skincare. **Presentation** during Education section. International Esthetics, Cosmetics, and Spa Conference, West Palm Beach, FL, October 9, 2022.

Rueb K, Payne M, **Stachura DL**. **2023**. Mesenchymal stem cell (MSC) conditioned media facilitates wound healing. **Poster** Presentation. 35th Annual CSU Biotechnology Symposium, Santa Clara, CA, January 12, 2023.

Rodriguez S, **Stachura DL**. **2023**. Treated wastewater effluent has no negative effect on zebrafish immune development. **Poster** Presentation. 35th Annual CSU Biotechnology Symposium, Santa Clara, CA, January 12, 2023.

Stachura DL, Rueb K, Aylworth J. **2023**. Mesenchymal stem cell (MSC) conditioned media facilitates wound healing. **Poster** Presentation. AAD annual meeting, New Orleans, LA, March 17-21, 2023

Stachura DL, Aylworth J. **2023**. Human stem cells and skincare. **Presentation**. 8th Middle East International Dermatology and Aesthetic Medicine Conference and Exhibition, Dubai, UAE, September 22-24, 2023.

Stachura DL. 2023. Stem cell-based skincare: turn back time. **Presentation** during Education section. International Esthetics, Cosmetics, and Spa Conference, West Palm Beach, FL, October 16, 2023.

Aylworth J, **Stachura DL**, Flasch S. **2024.** Renew Dermal Solution. **Webinar.** FACTORFIVE Skincare, online, April 16, 2024.

Aylworth J, **Stachura DL.** **2024.** Spooky science: the truth behind stem cell growth factor skincare. **Webinar.** FACTORFIVE Skincare, online, October 21, 2024.

Stachura DL. 2024. FACTORFIVE: using human stem cells in skincare. **Presentation.** 9th Middle East International Dermatology and Aesthetic Medicine Conference and Exhibition, Dubai, UAE, November 15, 2024.

Research Support

Completed

NIH Ruth L. Kirschstein National Research Service Award T32-GM12453-03: Examining the role of GATA-1 in erythro-megakaryocytic differentiation

01/01/02-12/31/05

Principal Investigator: Mitchell Weiss, M.D. Ph.D.

University of Pennsylvania, Philadelphia, PA

Role: Graduate Student, Thesis work

Cancer Research and Prevention Foundation Postdoctoral Fellowship: Using the zebrafish embryo to understand and prevent leukemia

01/15/07-01/14/09

Principal Investigator: David Traver, Ph.D.

University of California at San Diego, La Jolla, CA

Role: Full-time Postdoctoral Fellow

NIH Ruth L. Kirschstein National Research Service Award T32-HL086344: Blood cells in hemostasis and thrombosis

01/15/09-06/31/11

Program Director: Mark H Ginsberg, M.D.

Principal Investigator: David Traver, Ph.D.

University of California at San Diego, La Jolla, CA

Role: Full-time Postdoctoral Fellow

Internal Research Grant Fall 2014 Competition: Using Zebrafish as a Model System to Study Human Leukemia.

01/01/2015-6/30/15

\$5000

Principal Investigator: David Stachura, Ph.D.

California State University, Chico, Chico, CA

Role: Full-time Investigator

NIH Mentored Career Development Award K01-DK087814-01A1: Zebrafish stem and progenitor cells and their dysregulation in leukemogenesis.

07/01/11-12/31/16

\$732,000

Principal Investigator: David Stachura, Ph.D.

University of California at San Diego, La Jolla, CA

Role: Full-time Investigator

Research, Scholarly, and Creative Activities (RSCA): Encouraging Vertebrate Blood Cell Development

6/1/16-12/31/16 Principal Investigator: David Stachura, Ph.D. California State University, Chico, Chico, CA Role: Full-time Investigator	\$5,252
College of Natural Sciences Grant Stimulus Program (GSP), 2016 6/1/16-12/31/16 Principal Investigator: David Stachura, Ph.D. California State University, Chico, Chico, CA Role: Full-time Investigator	\$5,000
Molecular Control of the Vertebrate Hematopoietic Niche: California State University Program for Education and Research in Biotechnology (CSUPERB) Faculty-student collaborative research: New investigator grant program 6/1/16-12/31/17 Principal Investigator: David Stachura, Ph.D. California State University, Chico, Chico, CA Role: Full-time Investigator	\$15,000
NSF Major Research Instrumentation (MRI) Award 1626406: Acquisition of a fluorescence-activated cell sorter (FACS) to enhance high-impact learning 8/1/16-7/31/19 Principal Investigator: David Stachura, Ph.D. Co-PIs are Gordon Wolfe, David Keller, Troy Cline, Carolynn Arpin [Chemistry], and Senior Personnel Elena Harris [Computer Science]) Role: Full time investigator	\$544,343
Lantis Endowed Professor: Cell-based fish, the future of cellular agriculture 7/1/19-6/30/22 Principal Investigator: David Stachura, Ph.D. California State University, Chico, Chico, CA Role: Full-time Investigator	\$40,000
NIH Academic Research Enhancement Awards (AREA) R15DK114732-01: Genetic control of hematopoietic cell generation and differentiation 8/1/17-6/30/22 Principal Investigator: David Stachura, Ph.D. California State University, Chico, Chico, CA Role: Full-time Investigator	\$414,540
Development of mesenchymal stem cell (MSC) factor-derived wound healing cream: California State University Program for Education and Research in Biotechnology (CSUPERB) Industry Partnership Initiative Grant 6/1/21-11/30/22 Principal Investigator: David Stachura, Ph.D. California State University, Chico, Chico, CA Role: Full-time Investigator	\$15,000