CURRICULUM VITAE/BIBLIOGRAPHY

Sherine F. Elsawa, Ph.D.

PERSONAL INFORMATION:

Work Address:
Department of Biological Sciences
Northern Illinois University
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ACADEMIC RANK AND POSITION:

August 2011-present:
Assistant Professor, Northern Illinois University, DeKalb, IL

WORK AND RESEARCH EXPERIENCE

August 2011-present:
Assistant Professor of Immunology, Department of Biological Sciences, Northern Illinois University.

Basic/translational cancer biology projects: The long-term goal of my research program is to facilitate the development of novel therapies for cancer patients based on a fundamental understanding of signaling events in malignant cells and in the tumor microenvironment. My current research is focused on the following:

1. Understanding the mechanisms by which GLI proteins mediate oncogenic functions in the tumor microenvironment. This includes the identification of novel GLI cytokine genes and novel signaling pathways upstream of GLI proteins that can activate and modulate their function.
2. Understanding the role of GLI2 in modulating Ig secretion.
3. Explore the role of combination therapy in cancer treatment using xenograft mouse models.

Basic Immunology projects: We have developed several projects aimed at understanding basic immune response. The include:

1. Investigating the mechanisms regulating IgM secretion.
2. Investigating the role of GLI proteins in modulating B1 cell functions.
3. Investigating the role of GLI in inflammation
4. Investigating the role of GLI in response to TLR stimulation.

December 2008-August 2011:

Research Associate. Division of Oncology Research, Mayo Clinic.
My research focused on understanding the role of GLI transcription factors in promoting the production of IL-6, a proinflammatory cytokine within the tumor microenvironment of non-Hodgkin Lymphoma (NHL). Furthermore, my research focused on understanding the non-canonical factors that regulate GLI proteins within stromal cells in the bone marrow.

March 2008 – December 2008:
Research Associate.
December 2004 – March 2008:
Research fellow.
Lymphoma Laboratory, Division of Hematology Research, Mayo Clinic.
My research focused on understanding the molecular basis for growth, proliferation and immunoglobulin (Ig) secretion in hematological malignancies. I utilized the Biospecimens Core for the Iowa/Mayo Lymphoma SPORE to obtain human lymphoma samples to study the effect of cytokines on Ig secretion in B cell lymphoma.

March 2003 – December 2004:
Research Fellow. Department of Immunolgoy, Mayo Clinic.
My research focused on the optimization of peptide-based vaccines for cancer. Studies focused on using a mouse model to examine the effect of immunological tolerance/ignorance on immunity to peptide vaccines.

September 1999 – May 2003:
Graduate student. Department of Biological Sciences, University of North Carolina, Charlotte, NC
Investigated the host response to the murine gammaherpesvirus-68, as a mouse model of the human virus EBV. Studies included host-pathogen interactions in the setting of a viral infection and the mucosal immune response including the role of the neuropeptide substance P in the host response to gammaherpesvirus infections. Also investigated the correlation between infection with a gammaherpesvirus and the development/severity of the autoimmune disease multiple sclerosis.

January 1996 – May 1999:
Graduate Student. Department of Biology, Florida International University, Miami, FL.
Investigated the breeding mechanism of tropical fruit trees and the use of RAPD DNA fingerprinting and microsatellite libraries to study tropical fruit cultivars.

November 1992 – January 1995:

Field Assistant/Translator, Agricultural Cooperative Development International (ACDI).

Escort and interpret for various agricultural experts from the United States in Egypt through the USAID-funded Farmer to Farmer program. Escort and interpret for various agricultural experts from Egypt during their visits to the United States. Planned and executed office and field visits. Wrote technical reports and evaluated the benefits gained from the exchange of expertise.

CONSULTING EXPERIENCE:

Field Consultant, June 1997, Schwaller consultants.

EDUCATION:

Ph.D. – May 2003
The University of North Carolina, Charlotte NC
Dissertation: "Initiation of Immune response to murine gammaherpesvirus-68"

MS – May 1998
Florida International University, Miami, FL

B.Sc. – June 1992
University of Alexandria,
Alexandria, Egypt

HONORS/AWARDS:

- American Society of Hematology Committee on Training, member February 2011- December 2015.
- American Society of Hematology Trainee Council, member, July 2008-June 2010.
- American Society of Hematology Mentor Award Study Section, 2009 and 2010.
- Goldman Young Investigator/Travel Award, 3rd Mayo Clinic State of the Art Symposium: Hematological Malignancies. Scottsdale, Arizona. January 2006
- NIH T32 Hematology Training Fellowship – Mayo Clinic, July 2004 – June 2006
- NIH T32 Tumor Biology Training Fellowship - Mayo Clinic, March 2003 – March 2004
- Cameron Applied Research Center (CARC) Research Award, UNC-Charlotte (April 2003)
- Selected among 5 Graduate Teaching Assistants to represent Florida International University teaching program, 1997.
- Phi Kappa Phi Honor Society, member (Spring 1997)
- National Financial Award for Academic Distinction – Egypt (1991 and 1992)

PROFESSIONAL MEMBERSHIPS AND SOCIETIES:

- American Society of Hematology (ASH), member since 2006.

- American Association for the Advancement of Science (AAAS), member since 2000.
- American Association of Immunologists (AAI), member July 2000 – 2004 and 2013-present.
- American Association for Cancer Research (AACR), member since 2012.

EDITORIAL RESPONSIBILITIES:

- Current Immunology Reviews, Editorial board member, July, 2013 – present.
- Scigmoid Publications – Mutations & Cancer Studies, Editorial board member, July 2013 – present.
- World Journal of Biological Chemistry, Editorial board member, August 2011 – July 2013.

EDUCATION ACTIVITIES

A. Teaching

At Northern Illinois University (Spring 2012-present)

- BIOS440 Immunobiology (undergraduate)
- BIOS540 Immunobiology (graduate)
- BIOS700: Advanced Immunology (graduate)
- BIOS761: Cell seminar (graduate)
- BIOS370: Immunology/Cancer Biology research (undergraduate)

At Mayo Clinic (2004-present)

- Instructor, Sections in Developmental Biology.
- Culture Awareness Class: The Arab Cultures.

At the University of North Carolina (Fall 1999 – Spring 2003)

- Teaching Assistant, Plant Biology lab
- Teaching assistant, Sections in Immunology (lecture and lab)
- Instructor, Sections in Virology (lecture)
- Instructor, Sections in Host-Pathogen Interactions (lecture)
- Teaching Assistant, Sections in Advanced Immunological Techniques (lecture and lab)

At Carolinas College of Health Sciences (Nursing students)(Fall 2002)

- Instructor, Human Anatomy and Physiology lecture

At Florida International University (Spring 1996 – Spring 1999)

- Teaching Assistant, General Biology I lab
- Teaching Assistant, General Biology II lab
- Teaching Assistant, Botany lab
- Teaching Assistant, Ecology lab

B. Mentoring

List of Mentees:

At Northern Illinois University:

Postdoctoral fellows:

Nansalmaa Amarsaikhan, Ph.D.
September 2011 – August 2013
Current position: Postdoctoral fellow at Indiana University Medical School

Graduate students:

Shannon Boi, M.S. May 2014
Current position, Ph.D. student at the University of Iowa

Matthew Neil, M.S. August 2014
Current position: Ph.D. student at Johns Hopkins University

David Jackson, M.S. student, May 2015
Current position: Research Associate, Elsawa lab, Northern Illinois University

Weiguo Han, Ph.D. student, August 2014 – present

Stephan Matissek, M.S. student, July 2015 – present

Preethi Chandrasekar, M.S. student, August 2015 - present

Undergraduate students:

1. Edward Chen; November 2014 – May 2015
2. Taylor Riggins-Walker; August 2014 – May 2015
3. Lydia Moore; August 2013 – May 2014
4. Andra Dobbel; August 2013 – May 2014
5. Joel Dennison; July 2013 – May 2014
6. Stanislav Berestovyy; August 2013 – August 2014
7. Bailey Rhoads; September 2012 – May 2015
8. Keianna Cummings; September 2011 – September 2012

At Mayo Clinic:

- Jane Yang, Fall 2007; Rochester Gifted and Talented high school program. Mayo Clinic, Rochester, MN
- Mark Strom, Spring 2008; Rochester Gifted and Talented high school program. Mayo Clinic, Rochester, MN
- Yang Liu, Summer 2009; Research Trainee - Medical Student, Case Western University. Mayo Clinic, Rochester, MN
- Huang Huang, Summer 2009 – 2010; Summer Undergraduate Research Fellowship (SURF), Mayo Clinic, Rochester, MN

- Nicole Vincelette, Summer 2010; Summer Undergraduate Research Fellowship (SURF). Mayo Clinic, Rochester, MN

C. Honors and Awards for Education

Pitzer, T, Brasheer, C, Combs, C, **El-Sawa, SF** and Penwell, RA. Cooperative and Active Learning in Biology: Implications for TA Teaching and Training. Oral presentation at the Sixth National Conference on the Education and Employment of Graduate Teaching Assistants. Minneapolis, MN, November 1997.

Penwell, R, **Elsawa, SF**, and Pitzer, T. (2004). Cooperative and Active Learning in Undergraduate Biological Laboratories at FIU--Implications to TA Teaching and Training. *Bioscene* 30 (2):9-12.

INSTITUTIONAL/DEPARTMENTAL ADMINISTRATIVE RESPONSIBILITIES, COMMITTEE MEMBERSHIPS, AND OTHER ACTIVITIES

- Northern Illinois University, Interfaith committee, Fall 2014 – present
- Northern Illinois University, Faculty Advisor, Muslim Students Association, Fall 2013 - present
- Northern Illinois University, Department of Biological Sciences Awards committee, January 2014 – present.
- Northern Illinois University Chemical Safety Committee member, August 2013 – present.
- Northern Illinois University Graduate Council Curriculum Committee member, August 2013 – present.
- Northern Illinois University, Department of Biological Sciences undergraduate curriculum committee, August 2013 – present.
- Northern Illinois University, University Press Committee member, Spring 2013.
- American Society of Hematology Committee on Training Programs, member (February 2011 – present).
- American Society of Hematology Advocacy Leadership Institute, October 2011.
- American Society of Hematology Trainee Council, member (July 2008 – June 2010).
- Mayo Research Fellows Association, Department of Hematology Research representative, 2006.

RESEARCH GRANTS:

Current Funding:

NIH 1R03CA175872-01A1 (PI: Sherine Elsawa, Ph.D.: $147,000)
'Targeting the tumor microenvironment in B-cell malignancies'
Period of support: April 1, 2014- March 31, 2016.

This grant investigates signaling events in the TME and combines therapies targeting these events with standard therapies.

International Waldenström macroglobulinemia foundation (IWMF) (PI: Sherine Elsawa; $113,981)
'Targeting the tumor microenvironment in Waldenström macroglobulinemia'
Period of support: February 15, 2014-February 14, 2016.
This grant investigates signaling events in malignant B-cells and combination therapy.

Northern Illinois University Research & Artistry Grant (PI: Sherine Elsawa, Ph.D.; $13,500)
"TLR mediated regulation of GLI3 expression: role in cytokine regulation"
July 1, 2015 – June 30, 2016
This grant investigates the regulation of GLI expression by TLR signaling.

Northern Illinois University – Rosalind Franklin University of Medicine and Science Research Pilot grant. (PI: Sherine Elsawa, Ph.D. and Neelam Sharma-Walia, Ph.D.; $45,000)
"Role of GLI2 in Inflammatory Breast Cancer"
August 15, 2015 – June 30, 2016
This grant investigates the role of GLI proteins in modulating inflammation in Inflammatory Breast cancer (IBC).

Northern Illinois University – Rosalind Franklin University of Medicine and Science Research Pilot grant. (PI: Sherine Elsawa, Ph.D., Barrie Bode, Ph.D. and Gulam Waris, Ph.D.; $49,500)
"GLI-mediated Inflammation in Response to HCV-HBV Infection"
August 15, 2015 – June 30, 2016
This grant investigates the role of GLI proteins in modulating inflammation induced in response to Hepatitis C virus/Hepatitis B virus.

Past funding:

Northern Illinois University Research & Artistry Grant (PI: Sherine Elsawa, Ph.D.; $15,000)
"Understanding the regulation of GLI transcription factors"
July 1, 2013 – June 30, 2014
This grant investigates the role of GLI proteins in modulating cytokine genes in the TME.

Northern Illinois University Research and Artistry Grant; $ 15,000
June 1, 2012 – May 30, 2013
'Cytokine-GLI2 interaction in the tumor microenvironment'
PI: Sherine F. Elsawa, Ph.D.

T32 HL67742-05 NIH. (PI: Scott Kaufmann, M.D., Ph.D.)
Trainee, period of support: 6.2.04 – 6.1.06

"Multidisciplinary Training in Experimental Hematology."
This training grant supports postdoctoral fellows.

T32 CA09441 NIH (PI: Jeffrey Salisbury, Ph.D.)
Trainee, period of support: 3.24.03 – 3.23.04
"Multidisciplinary Basic Research Training in Cancer."
This training grant supports postdoctoral fellows.

PEER REVIEW ACTIVITIES

- PlosOne.
- Journal of Clinical Investigation.
- Immunopharmacology and Immunotoxicology.
- Autoimmunity.
- BBA – Molecular Cell Research.
- Infectious Agents and Cancer.
- Kuby Immunology, 7th ed..
- Blood.
- Mayo Clinic Proceedings.
- British Journal of Hematology.
- American Society of Hematology Self-Assessment Program (SAP).

BIBLIOGRAPHY

PUBLICATIONS: peer-reviewed original articles, book chapters, reviews and editorials:

1. Jackson, DA, Smith, TD, Amarsaikhan, N, Han, W, Neil, MS, Boi, SK, Vrabel, AM, Tolosa, EJ, Almada, LL, Fernandez-Zapico, ME and **Elsawa, SF** (2015). Modulation of the IL-6 receptor α underlies GLI2-mediated regulation of immunoglobulin secretion in Waldenstrom macroglobulinemia cells. *J of Immunol*, 195 Aug 3. pii:1402974 [Epub ahead of print].
2. Boddicker RL, Kip NS, Xing X, Zeng Y, Yang ZZ, Lee JH, Almada LL, **Elsawa SF**, Knudson RA, Law ME, Ketterling RP, Cunningham JM, Wu Y, Maurer MJ, O'Byrne MM, Cerhan JR, Slager SL, Link BK, Porcher JC, Grote DM, Jelinek DF, Dogan A, Ansell SM, Fernandez-Zapico ME, Feldman AL. (2015). The oncogenic transcription factor IRF4 is regulated by a novel CD30/NF-κB positive feedback loop in peripheral T-cell lymphoma. *Blood* May 14;125(20):3118-27.
3. Jackson, DA and **Elsawa, SF** (2014). Factors regulating immunoglobulin production by normal and disease-associated plasma cells. *Biomolecules 2015, 5, 20-40; doi:10:3390/biom5010020..*
4. Nye, MD, Almada, LL, Fernandez-Barrena, MG, Marks, DL, **Elsawa, SF,** Vrabel, A, Tolosa, EJ, Ellenrieder, V and Fernandez-Zapico, ME (2014). The transcription factor GLI1 interacts with SMAD proteins to modulate transforming growth factor β-induced gene expression in a p300/CREB-binding protein-associated factor (PCAF)-dependent manner. J. Biol. Chem. 2014 May 30;289(22):15495-506.

5. Boi, SK and **Elsawa, SF** (2013). Epigenetic regulation of Toll-Like Receptor signaling: Implications for Cancer Development. *Medical Epigenetics*. July 23, 2013;1:19-30.
6. Nakamura I, Fernandez-Barrena MG, Ortiz-Ruiz MC, Almada LL, Hu C, **Elsawa SF**, Mills LD, Romecin PA, Gulaid KH, Moser CD, Han JJ, Vrabel A, Hanse EA, Akogyeram NA, Albrecht JH, Monga SP, Sanderson SO, Prieto J, Roberts LR, Fernandez-Zapico ME (2013). Activation of the transcription factor GLI1 by WNT signaling underlies the role of SULFATASE 2 as a regulator of tissue regeneration. J Biol Chem. 2013 Jul 19;288(29):21389-98.
7. Amarsaikhan, N and **Elsawa, SF** (2013). GLI2 (GLI family zinc finger 2). *Atlas Genet Cytogenet Oncol Haematol*. February 2013;17(8)516-522.
8. Zheng, X; Gai, X; Moser, CD; Hu, C; Shire, AM; **Elsawa, SF**; Almada, LL; Thorgeirsson, SS; Kim, Y; Liu, Q; Fernandez-Zapico, ME and Roberts, L (2012). The transcription factor GLI1 mediates TGF-beta1 driven EMT in hepatocellular carcinoma via a SNAL1-dependent mechanism. PLoS One. 2012;7(11):e49581.
9. Lo Re, AE, Fernandez-Barrena, MG, Almada, LL, Mills, L, **Elsawa, SF**, Lund, G, Ropolo, A, Molejon, MI, Vaccaro, MI and Fernandez-Zapico, ME (2012). Novel AKT1-GLI3-VMP1 pathway mediates KRAS oncogene-induced autophagy in cancer cells. *J Biol Chem.* Jul 20;287(30):25325-34. PMID: 22535956
10. **Elsawa, SF,** Almada, LA, Ziesmer, SC, Novak, AJ, Witzig, TE, Fernandez-Zapico, ME and Ansell, SM (2011). Comprehensive analysis of tumor microenvironment cytokines in Waldenström macroglobulinemia identifies CCL5 as a novel modulator of IL-6 activity. *Blood.* Nov 17;118(20):5540-9.
11. **Elsawa, SF,** Almada, LA, Ziesmer, SC, Novak, AJ, Witzig, TE, Ansell, SM and Fernandez-Zapico, ME (2011). GLI2 transcription factor mediates cytokine crosstalk in the tumor microenvironment. *JBC.* 286(24):21524-34.
12. Hodge, LS, **Elsawa, SF,** Grote, DM, Price-Troska, TL, Asmann, YW, Fonseca, R, Gertz, MA, Witzig, TE, Novak, and Ansell, SM (2011). MicroRNA expression in tumor cells from Wladenstrom's Macroglobulinemia reflects both their normal and malignant counterparts. *Blood Cancer Journal* (2011) 1, e24; doi:10.1038/bcj.2011.25.
13. Lai, J-P, Oseini, AM, Moser, CD, Yu, C, **Elsawa, SF**, Hu, C, Nakamura, I, Han, T, Aderca, I, Isomoto, H, Garrity-Park, M, Jackson, KK, Shire, AM, Sanderson, S, Fernandez-Zapico, ME, Adjei, AA and Roberts, LR (2010). The oncogenic effect of sulfatase 2 (SULF2) in human hepatocellular carcinoma is mediated in part by glypican 3 (GPC3)-dependent Wnt activation. *Hepatology.* 2010 Jul 29. [Epub ahead of print]
14. Liu, Y, **Elsawa, SF** and Almada, LA (2009). Primer son molecular pathways – cycling Howard pancreatic cancer. *Pancreatology.* 10(1):6-13.
15. Wilcox RA, Wada DA, Ziesmer SC, **Elsawa SF**, Comfere NI, Dietz AB, Novak AJ, Witzig TE, Feldman AL, Pittelkow MR and Ansell SM (2009). Monocytes promote tumor cell survival in T-cell lymphoproliferative disorders and are impaired in their ability to differentiate into mature dendritic cells. *Blood*. 114(14):2936-44. PMCID: PMC2756204

16. **Elsawa, SF** and Ansell, SM (2009). Cytokines in the microenvironment of Waldenstrom's macroglobulinemia. *Clin Lymphoma Myeloma.* 2009 Mar;9(1):43-5.
17. **Elsawa, SF**, Novak, AJ, Grote, Konopleva, M., Andreeff, M., Witzig, TE, and Ansell, SM (2008). CDDO-Imidazolide mediated inhibition of malignant cell growth in Waldenström Macroglobulinemia. *Leukemia Research.* Dec;32(12):1895-902. PMCID: PMC2776029
18. Rodeberg, DA, Nuss, R, **Elsawa, SF** , Erskine, CL and Celis, E (2006). Generation of Tumoricidal PAX3 Peptide Antigen Specific Cytotoxic T Lymphocytes. *International Journal of Cancer* 2006 Jul 1;119(1):126-32.
19. Bischof, D, **Elsawa, SF**, Mantchev, G, Yoon, J, Michels, GE, Nilson, A, Sutor, S, Platt, JL, Ansell, SM, von Bulow, G, and Bram, RJ (2006). Selective Activation of TACI by Syndecan-2. *Blood* Apr 15;107(8):3235-42. PMCID: PMC1895754
20. **Elsawa, SF**, Novak, AJ, Grote, DM, Ziesmer, SC, Witzig, TE, Kyle, RA, Dillon, SR, Harder, B, Gross, JA, and Ansell, SM (2006). B-Lymphocyte Stimulator (BLyS) Stimulates Immunoglobulin Production and Malignant B-cell Growth in Waldenstrom's Macroglobulinemia. *Blood.* Apr 1;107(7):2882-8. PMCID: PMC1895377
21. Rodeberg, DA, Nuss, RA, **Elsawa, SF** and Celis, E. (2005) Recognition of six-transmembrane epithelial antigen of the prostate-expressing tumor cells by Peptide antigen-induced cytotoxic T lymphocytes. *Clinical Cancer Research*. Jun 15;11(12):4545-52. PMCID: PMC1698136
22. **Elsawa, SF**, Rodeberg DA and Celis, E. (2004). T cell Epitope Peptide Vaccines. *Expert Review of Vaccines* 3(5):563-575.
23. Penwell, R, **Elsawa, SF**, and Pitzer, T. (2004). Cooperative and Active Learning in Undergraduate Biological Laboratories at FIU--Implications to TA Teaching and Training. *Bioscene* 30 (2):9-12.
24. **Elsawa, SF** and Bost, KL (2004). Murine gammaherpesvirus-induced IL-12 contributes to the control of latent viral burden, but also contributes to viral mediated leukocytosis. *J of Immunol.* 172(1):516-24.
25. Campbell, RJ, **El-Sawa, SF**, Wasielewski, J and Ledesma, N (2004). Breeding and Selection of Jackfruit for South Florida. Proc. Fla. State Hort. Soc. 117:193-194.
26. Peacock, JW, **Elsawa, SF**, Hickey, WF and Bost, KL (2003). Exacerbation of experimental allergic encephalomyelitis in rodents infected with murine gammaherpesvirus-68. *Eur. J of Immunol.* 33(7):1849-58.
27. **Elsawa, SF**, Taylor, W, Petty, CC, Mariott, I, Weinstock, JV and Bost, KL. (2003) Reduced CTL response and increased viral burden in substance P receptor deficient mice infected with murine gammaherpesvirus-68 *J of Immunol.* 170(5):2605-12.
28. Campbell, RJ and **El-Sawa, SF** (1998). New Jackfruit Cultivars for Commercial and Home Garden Use in Florida. *Florida State Hort. Society*. 111:302-304.
29. Campbell, RJ, **El-Sawa, SF** and Eck, R (1998). The Jackfruit (*Artocarpus heterophyllus* Lam.). *Fairchild Horticultural Series* 2:1-22.

30. **El-Sawa, SF** and Campbell, RJ (1997). Influence of Controlled Pollination on Jackfruit (*Artocarpus heterophyllus* Lam.) Production and Quality. *Proc. Interamer. Soc. Trop. Hort.* 41:228-235

ORAL AND POSTER PRESENTATIONS AT NATIONAL MEETINGS:

1. Jackson, DA, Smith, TD, Amarsaikhan, N, Neil, MS, Boi, SK, Vrabel, A, Tolosa, EJ, Almada, LL, Fernandez-Zapico, ME and **Elsawa, SF**. A novel mechanism of GLI2 mediated regulation of IgM secretion in Waldenstrom macroglobulinemia. Poster presentation at the American Society of Hematology Annual meeting, 2014, San Francisco, CA, Abstract # 3006.
2. Amarsaikhan N, Dennison J, Boi SK, Neil MS and **Elsawa SF**. GLI transcription factors: Novel modulators of IgM secretion in Waldenstrom macroglobulinemia. Poster presenation at the American Society of Hematology Annual meeting, 2013, New Orleans, LA, Abstract # 1771.
3. Boi, SK, Fernandez-Zapico ME and **Elsawa SF**. The transcription factor GLI3 is a novel candidate effector of toll-like receptor 4 (TLR4) signaling in the regulation of a monocyte program of inflammatory cytokines. Poster presenation at the American Society of Hematology Annual meeting, 2013, New Orleans, LA.
4. Neil MS, Dennison JR, Fernandez-Zapico ME and **Elsawa SF**. GLI2 transcription factor modulates CD40 ligand expression in bone marrow stromal cells. Poster presenation at the American Society of Hematology Annual meeting, 2013, New Orleans, LA.
5. **Elsawa, SF**, Almada, LL, Ziesmer, SC, Witzig, TE, Ansell, SM and Fernandez-Zapico, ME. GLI2, An Effector of the Hedgehog Pathway, Is a Novel Regulator of IL6 Oncogenic Function in the Tumor Microenvironment. Oral presentation at the American Society of Hematology Annual meeting, Abstract # 613 Orlando, FL 2010.
6. Lo Re A, Almada LL, **Elsawa SF**, Pardo R, Molejon MI, Vaccaro MI, Fernandez-Zapico ME. A novel PI3K-AKT-GLI3 axis activates the machinery controlling authophagy in pancreatic cancer cells. APA meeting, Chicago, 2010.
7. Almada LL, **Elsawa SF**, Lund GL and Fernandez-Zapico ME. An active AKT pathway is required for KRAs regulation of GLI1 in pancreatic cancer cells. APA meeting, Chicago 2010.
8. Lai, J-P, Oseini, AM, Moser, CD, Yu, C, **Elsawa, SF**, Hu, C, Nakamura, I, Han, T, Aderca, I, Isomoto, H, Garrity-Park, M, Jackson, KK, Shire, AM, Sanderson, S, Fernandez-Zapico, ME, Adjei, AA and Roberts, LR. SULF2 activation of the Wnt/β-catenin pathway in human hepatocellular carcinoma is GPC3-dependent. The Liver Meeting, Boston, MA, 2010.
9. Nye, MD, Cross, A, Almada, LL, **Elsawa, SF** and Fernandez-Zapico, M.E. Molecular mechanisms underlying hedgehog-GLI oncogenic function via interaction with the TGF-beta-SMAD4 axis. Poster presentation at the American Association for Cancer Research Annual meeting, Abstract # 3917, Washington, D.C., 2010.
10. Ansell, SM, Grote, DM, **Elsawa, SF**, Gupta, M, Ziesmer, SC, Novak, A and Witzig, TE. Inhibition of the Jak/Stat Pathway Downregulates Immunoglobulin Production and Induces Cell Death in Waldenström Macroglobulinemia**.** Poster

presentation at the American Society of Hematology Annual meeting, Abstract # 1691, New Orleans, LA.

11. **Elsawa, SF**, Novak, AJ, Ziesmer, SC, Almada, LL, Fernandez-Zapico, ME, Witzig, TE, and Ansell, SM. Comprehensive analysis of the Waldenstrom Macroglobulinemia "Cytokine Milieu" reveals a novel role of Rantes signaling in the regulation of immunoglobulin production. Oral presentation at the American Society of Hematology Annual meeting, Abstract # 618, San Francisco, CA, 2008
12. **Elsawa, SF**, Novak, AJ, Grote, D, Witzig, TE, and Ansell, SM. miRNA analysis identifies a unique expression in Waldenstrom Macroglobulinemia B cells and plamsa cells. Oral presentation at the American Society of Hematology Annual meeting, Abstract # 620, San Francisco, CA, 2008
13. Wilcox, RA, David, WA, Feldman, AL, **Elsawa, SF**, Grote, DM, Ziesmer, SC, Novak, AJ, Pittelkow, MR, Witzig, TE and Ansell, SM. Monocytes Promote Survival of Malignant T Cells in Cutaneous T-Cell Lymphoma and Are Recruited to the Tumor Microenvironment by CCL5 (RANTES). Oral presentation at the American Society of Hematology Annual meeting, San Francisco, CA, 2008
14. **Elsawa, SF**, Novak, AJ, Ziesmer, SC, Witzig, TE, Treon, SP and Ansell, SM. Role of CCL5 and interleukin-6 in the biology of Waldenström macroglobulinemia. Oral presentation at the American Society of Hematology Annual meeting, Abstract # 688, Atlanta, GA, 2007
15. **Elsawa, SF**, Novak, AJ, Ziesmer, SC, Witzig, TE, Rajkumar, V and Ansell, SM. Multiplex analysis of serum cytokine levels in Waldenström macroglobulinemia patients. Poster presentation at the American Society of Hematology Annual meeting, Abstract # 2616, Atlanta, GA, 2007.
16. **Elsawa, SF**, Novak, AJ, Konopleva, M, Andreef, M, Witzig, TE and Ansell, SM. Preferential Inhibition of malignant cell growth by CDDO in Waldenström macroglobulinemia. Poster presentation at the American Society of Hematology Annual Meeting, Abstract # 2528, Orlando, FL, December 2006.
17. **Elsawa, SF**, Novak, AJ, Grote, DM, Ziesmer, SC, Witzig, TE, Kyle, RA, Dillon, SR, Harder, B, Gross, JA, and Ansell, SM. Role of B-Lymphocyte Stimulator (BLyS) in Waldenström's Macroglobulinemia. Poster presentation at the 3rd Annual Mayo Clinic Hematological Malignancies Meeting, Scottsdale, AZ, January 2006.
18. **Elsawa, SF**, Novak, AJ, Grote, DM, Ziesmer, SC, Witzig, TE, Kyle, RA, Dillon, SR, Harder, B, Gross, JA, and Ansell, SM. Role of B-Lymphocyte Stimulator (BLyS) in Waldenström's Macroglobulinemia. Oral presentation at the American Society of Hematology Annual Meeting, Abstract 601, Atlanta, GA, December 2005.
19. **Elsawa, SF** and Bost, KL. Murine gammaherpesvirus-induced IL-12 contributes to the control of latent viral burden, but also contributes to viral mediated leukocytosis. Poster presentation at the American Association of Immunologists Annual Meeting, Denver, CO, May 2003.
20. Pitzer, T, Brasheer, C, Combs, C, **El-Sawa, SF** and Penwell, RA. Cooperative and Active Learning in Biology: Implications for TA Teaching and Training. Oral presentation at the Sixth National Conference on the Education and Employment of Graduate Teaching Assistants. Minneapolis, MN, November 1997.

21. **El-Sawa, SF** and Campbell, RJ. Influence of Controlled Pollination on Jackfruit (*Artocarpus heterophyllus* Lam.) Production and Quality. Oral presentation at the Interamerican Society for Tropical Horticulture Annual Meeting. Guatemala City, Guatemala, September 1997.