

CURRICULUM VITAE

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Education

Ph.D.: Bioinformatics
University of Michigan
Ann Arbor, Michigan, 2006~2010
M.S.: Bioinformatics
Indiana University
Bloomington, Indiana, 2004~2006
B.S.: Life Science
Pohang University of Science and Technology (POSTECH)
Pohang, Korea, 1994~2001

Work/research Experience

Feb.2001 to Oct.2002 Research Scientist
Bioinformatics team, ISTECH Inc., Korea
Jun.2003 to Jun.2004 Part-time Research Scientist
Bioinformatics team, ISTECH Inc., Korea
Feb. 2013 to Apr. 2013 ORISE Visiting Research Fellow
US Food and Drug Administration (FDA), Silver Spring, Maryland
Jul. 2010 to Jan. 2015 Post-doctoral Research Fellow
University of Michigan, Ann Arbor
Jan. 2015 to current Assistant Professor
University of North Dakota
Apr. 2017 to current Research Without Compensation (WOC) Scientist
Department of Veterans Affairs (VA), Fargo Hospital
Mar. 2018 to current Adjunct Research Assistant Professor
University of Michigan, Ann Arbor

Research Interests

Computational modeling of diabetic neuropathy
High-throughput omics data analysis
Biomedical literature mining

Systems pharmacology modeling of drug adverse event

Honors and Awards

2011-2014	Juvenile Diabetes Research Foundation Postdoctoral Fellowship Recipient
2010	Rackham Spotlight University of Michigan, Ann Arbor, Michigan
2009-2010	Rackham Pre-Doctoral Fellowship University of Michigan, Ann Arbor, Michigan
2007-2009	Program for Neurology Research and Discovery Scholarship University of Michigan, Ann Arbor, Michigan
2006-2007	Rackham Graduate Fellowship University of Michigan, Ann Arbor, Michigan
2004-2006	Graduate Assistantship Indiana University, Bloomington, Indiana
2001	B.S. graduation with <i>Honors</i> POSTECH, Pohang, Korea
1994-2001	6 times of academic excellence award recipient POSTECH, Pohang, Korea

Memberships in Professional Societies

May. 2008 to current	International Society for Computational Biology (ISCB), member
Mar. 2015 to current	American Diabetes Association (ADA), professional member
Feb. 2016 to current	American Society for Pharmacology and Experimental Therapeutics (ASPET), member
Apr. 2017 to current	North Dakota Academy of Sciences (NDAS), member

Review and Referee Work

Editorial Board

Aug. 2015 to current	Review Editor at <i>Frontiers in Cellular and Infection Microbiology</i>
Feb. 2018 to current	Associate Editor at <i>BMC Complementary and Alternative Medicine</i>
Jul. 2019 to current	<i>Scientific Reports</i>

Ad-hoc reviewer for journal

2014 Conference of Technologies and Applications of Artificial Intelligence, *Acta Psychiatrica Scandinavica*, *Advances and Applications in Bioinformatics and Chemistry*, *Bioinformatics*, *BMC Bioinformatics*, *BMC Complementary and Alternative Medicines*, *BMC Endocrine Disorders*, *BMC Neurology*, *Computational Biology and Chemistry*, *Computer Methods and Programs in Biomedicine*, *Diabetes Therapy*, *Drug Discovery Today*, *European Journal of Pharmacology*, *Evidence-Based Complementary and Alternative Medicine*, *Frontiers in Cellular and Infection Microbiology*, *Journal of Diabetes and Complications*, *Journal of Functional Foods*, *Journal of Molecular*

Endocrinology, Journal of Pain Research, Pharmacogenomics,
PLOS One, Research Square, Scientific Reports

Ad-hoc reviewer for grants

2016	Diabetic Complications Consortium pilot grant
2016	Department of Defense (DoD) Peer Reviewed Medical Research Program (PRMRP) preliminary reviewer
2016 ~	Early Career Reviewer (ECR) program at the Center for Scientific Review (CSR)
2017	National Science Foundation (NSF) reviewer
2017	DoD PRMRP review panel
2018	DoD PRMRP preliminary reviewer
2018	National Institute of Health (NIH) CNNT Study Section
2019	DoD PRMRP preliminary reviewer
2020	UK Biotechnology and Biological Sciences Research Council reviewer
	DoD PRMRP preliminary reviewer

Teaching Activities

Courses

Sep. 2004 to Dec. 2004	INFO692, Graduate Capstone Project for Bioinformatics (Associate Instructor, Indiana University)
Jan. 2005 to Apr. 2005	INFO590, Introduction to genomics for non-biology students (Associate Instructor, Indiana University)
Sep. 2005 to Dec. 2005	BIOL519, Bioinformatics Theory and Application (Associate Instructor, Indiana University)
Jan. 2008 to Apr. 2008	BIOINFO 800.006-008, Introduction to Bioinformatics (Graduate Student Instructor, University of Michigan)
Aug. 2016 to Dec. 2016	BMB540, Foundations of Bioinformatics for Biomedical and Biology Graduate Students (University of North Dakota)
Aug. 2017 to Dec. 2017	BIMD514, Foundations of Bioinformatics (University of North Dakota)
Jan. 2018 to May. 2018	BIMD419 Directed Studies – Bioinformatics (University of North Dakota)
Aug. 2019 to Dec. 2019	BIMD514, Foundations of Bioinformatics (University of North Dakota)
Aug. 2020 to current	BIMD514, Foundations of Bioinformatics (University of North Dakota)

Patient-Centered Learning (PCL) Facilitation

Jan. 2017 to Mar. 2017	PCL Block 3 Facilitation – Class of 2021 (M.D.)
Jan. 2018 to Mar. 2018	PCL Block 3 Facilitation – Class of 2022 (M.D.)
Jan. 2019 to Mar. 2019	PCL Block 3 Facilitation – Class of 2023 (M.D.)
Jan. 2020 to Mar. 2020	PCL Block 3 Facilitation – Class of 2024 (M.D.)

Advising – Post-doctoral fellows

Nov. 2016 to current	Dr. Kai Guo (UND Biomedical Sciences)
Aug. 2018 to current	Dr. Atrayee Ray (UND Biomedical Sciences) – co-mentored by Drs. Dhasarathy and Brissette
Nov. 2016 to Dec. 2017	Dr. Guillermo de Anda Jauregui (UND Biomedical Sciences) (Current: National Institute of Genomic Medicine, Mexico)
Sep. 2019 to current	Dr. Brett McGregor (UND Biomedical Sciences)
Mar. 2020 to current	Dr. MD Obayed Raihan – co-mentored by Dr. James Porter

Advising – Students

May. 2015 to May. 2019	Brett A. McGregor Co-chair of Faculty Advisory Committee (FAC) UND Biomedical Sciences Ph.D.
Nov. 2015 to Jul. 2019	Peter Halcrow (member of FAC) UND Biomedical Sciences Ph.D.
Oct. 2015 to May. 2016	Dakota Krout (advisor) UND Computer Sciences undergraduate
May 2016 to May 2018	Larson Danes (advisor for co-op) UND Computer Sciences undergraduate
Jun. 2016 to current	Derick Thompson (member of FAC) UND Biomedical Sciences Ph.D.
Jun. 2017 to current	Leo Lakpa (member of FAC) UND Biomedical Sciences Ph.D.
Sep. 2017 to current	Smruthi Rudraraju (member of FAC) UND Biomedical Sciences Ph.D.
Nov. 2018 to current	Sayem Bhuiyan (member of FAC) UND Biomedical Sciences Ph.D.
Apr. 2019 to current	Joanna Handzlik (member of FAC) UND Biology Ph.D.
Jan. 2020 to current	Temidayo Adeluwa (chair of FAC) UND Biomedical Sciences M.S.

Grant

Ongoing

- NIDDK 2R24082841 (PI: Eva Feldman, U of Michigan)
Role: Co-investigator
Title: Integrated systems biology approach to diabetic microvascular complications
(Years 1-3) Total: \$214,414 (UND) (4/2017-7/2019)
(Years 4-5) Total: \$318,332 (UND) (8/2019-7/2021)
- NINDS 2R01NS065957-05A1 (PI: Susan Masino, Trinity University)
Role: Co-investigator Total: \$598,686 (UND) (06/2018-04/2022)
Title: Ketogenic diet and adenosine: epigenetics and Antiepileptogenesis
- NIAID 1R01AI143741-01A1 (PI: Nadeem Kahn) (12/2019-11/2024)

- Role: Co-investigator Total: \$1,780,000
Title: Pathogenic role of IL-17 response in *Streptococcus pneumoniae* nasopharyngeal pathogenesis during an influenza virus co-infection
- UND Post-doctoral Pilot Funding Program (MPIs: Porter & Hur)
Role: Co-PI Total: \$120,000 (UND) (1/2019-12/2021)
Title: Alpha-Synuclein-mediated Epigenomic Modification of Microglial Neuroinflammatory Profiles during the Progression of Parkinson's Disease from Early to Advanced Stages

Completed

- Diabetic Complication Consortium (DiaComp), Pilot & Feasibility Grant
Role: Project PI Total: \$89,537 (10/2015-01/2017)
Title: Comparative Transcriptomics to Identify Key Gene Networks of Diabetic Neuropathy
- Juvenile Diabetes Research Foundation (JDRF), Postdoctoral Research Fellowship
Role: Project PI Total: \$136,620 (03/2011-06/2014)
Title: Cross-tissue transcriptomics predict diabetic complications
- UND COBRE Epigenomics and Development and Disease, Pilot Grant
Role: Project PI Total: \$42,347 (06/2015-05/2016)
Title: RNA-Seq and Comparative Transcriptomics to Identify Key Gene Networks of Diabetic Peripheral Neuropathy
- NIEHS R01ES022030 (PI: Joyce Ohm, Roswell Park Comprehensive Cancer Center)
Role: Co-investigator Total: \$1,552,500 (09/2012-05/2017)
Title: Environmental toxins and stem cell epigenomic remodeling
- UND Neuroscience COBRE Pilot Grant
Role: Project PI Total: \$40,000 (09/2016-05/2017)
Title: Cross-center validation study for epigenetic changes associated with epileptogenesis
- UND Post-doctoral Pilot Funding Program
Role: PI Total: \$120,000 (7/2016-06/2018)
Title: Epigenetics for anti-epileptogenic therapy
Note: Salary and benefits support for a post-doctoral associate in the lab for two years
- UND Health Challenge Seed Program (MPIs: Dhasarathy, Hur & Scheidegger)
Role: Co-PI Total: \$50,000 (UND) (2/2018-10/2018)
Title: Transcription proteins and mRNA splicing: a novel molecular mechanism influencing cancer progression
- COBRE Epigenomics and Development and Disease, Pilot Grant
Role: Co-PI Total: \$30,000 (10/2017-05/2019)
Title: Epigenetic modification of microglial phenotype in Parkinson's Disease
- UND Post-doctoral Pilot Funding Program (MPIs: Brissette, Dhasarathy & Hur)
Role: Co-PI Total: \$120,000 (UND) (7/2018-6/2020)
Title: Exploring epithelial-to-mesenchymal transitions in lyme arthritis through a systems approach
- UND COBRE Host-Pathogen Interaction, Pilot Grant
Role: PI Total: \$25,000 (7/2019-6/2020)
Title: Development of ontology-based literature mining system for host-pathogen

interactions

Conference Organization

- International Conference of Biological Ontologies (ICBO) 2017 Vaccines and Drug Ontology Studies (VDOS). Sep. 13-15, 2017. Newcastle Upon Tyne, UK. (Co-organizer)
- International Conference of Biological Ontologies (ICBO) 2018 Vaccines and Drug Ontology Studies (VDOS) workshop. Aug. 7-10, 2018. Corvallis, Oregon. (Co-organizer)
- International Conference of Biological Ontologies (ICBO) 2019 Vaccines and Drug Ontology Studies (VDOS) workshop. Jul. 29 - Aug 2, 2019. Buffalo, New York. (Co-organizer)

Computational Tools

- SciMiner (<http://hurlab.med.und.edu/SciMiner/>), a web-based literature mining tool.
- PubChemSR (<https://sourceforge.net/projects/pubchemsr/>), a standalone tool for searching and retrieving data from the NCBI PubChem databases.
- Tox21 Enricher (<http://hurlab.med.und.edu/Tox21Enricher/>), an online chemical enrichment analysis tool for Tox21 toxicology screening platform.
- DPNKB (<http://hurlab.med.und.edu/DNMKB/>), an online data repository and analysis portal of diabetic neuropathy-related transcriptomics data.
- richR (<http://hurlab.med.und.edu/RichR/>; <https://github.com/hurlab/richR/>), is an R package allowing functional enrichment analysis and visualization of gene sets obtained from high-throughput next generation sequencing data.
- VennDetail (<http://hurlab.med.und.edu/VennDetail/>; <https://github.com/hurlab/VennDetail/>), is an R package creates high-quality Venn-Pie charts and allows extraction of subset details from up to eight input sets. A web-based service is also available.

Bibliography

Peer Reviewed Publications (*: equal contribution, \$: (co-)corresponding authorship)

Diabetes and Its Complications

1. Guo K*, Eid S*, Elzinga S*, Pacut C, Feldman EL, and Hur J\$. Genome-wide profiling of DNA methylation and gene expression identifies candidate genes for human diabetic neuropathy. *Clinical Epigenetics*. (In press)
2. O'Brien PD*, Guo K*, Eid SA*, Rumora AE*, Hinder LM*, Hayes JM, Mendelson FE, **Hur J**, and Feldman EL. Integrated Lipidomic and Transcriptomic Analyses Identify Altered Nerve Triglycerides in Mouse Models of Prediabetes and Type 2 Diabetes. *Diabetes, Obesity and Metabolism*. 2019 Dec 10. pii: dmm.042101. [PMID: 31822493]
3. Guo K*, Elzinga S*, Eid S, Figueroa-Romero C, Hinder LM, Pacut C, Feldman EL, and **Hur J**\$. Genome-wide DNA methylation profiling of human diabetic peripheral neuropathy in subjects with type 2 diabetes mellitus. *Epigenetics*. 2019 Aug;14(8):766-779. doi: 10.1080/15592294.2019.1615352. [PMID: 31132961]
4. Elzinga S, Murdock BJ, Guo K, Hayes JM, Tabbey MA, **Hur J**, and Feldman EL. Toll-like receptors and inflammation in metabolic neuropathy: a role in early versus late disease? *Experimental Neurology*. 2019 May 28; 320:112967. Doi: 10.1016/j.expneurol.2019.112967. [PMID: 31145897]

5. de Anda-Jáuregui G, Guo K, McGregor B, Feldman EL and **Hur J^S**. Pathway crosstalk perturbation network modeling for identification of connectivity changes induced by diabetic neuropathy and pioglitazone. *BMC Systems Biology*. 2019 Jan 7;13(1):1. doi: 10.1186/s12918-018-0674-7. [PMID: [30616626](#)]
6. McGregor BA, Eid S, Murdock B, Guo K, de Anda-Jáuregui G, Porter J, Feldman EL, and **Hur J^S**. Transcriptional signature of diabetic peripheral neuropathy conserved across human and mouse. *Scientific Reports*. 2018 Dec 5;8(1):17678. doi: 10.1038/s41598-018-36098-5. [PMID: [30518872](#)]
7. Cho KH, Cho EH, **Hur J**, and Shin D. Association of sleep duration and obesity according to sex and age in Korean Adults: Results from the Korea National Health and Nutrition Examination Survey 2007–2015. *Journal of Korean Biomedical Sciences*. 2018 Dec 17;33(53):e345. doi: 10.3346/jkms.2018.33.e345. eCollection 2018 Dec 31. [PMID: [30595686](#)]
8. Shin D*, **Hur J***, Cho KH, and Cho E. Trends of self-reported sleep duration in Korean Adults: Results from the Korea National Health and Nutrition Examination Survey 2007–2015. *Sleep Medicine*. 2018 Dec; 52:103-106. doi: 10.1016/j.sleep.2018.08.008 [PMID: [30308449](#)]
9. Hinder LM, Murdock BJ, Park M, Bender DE, O'Brien PD, Rumora AE, **Hur J**, and Feldman EL. Transcriptional networks of progressive diabetic peripheral neuropathy in the db/db mouse model of type 2 diabetes: An inflammatory story. *Experimental Neurology*. 2018 Jul;305:33-43. doi: 10.1016/j.expneurol.2018.03.011. [PMID: [29550371](#)]
10. Cho EH, Shin DY, Cho KH, and **Hur J^S**. Prevalences and management of diabetes and pre-diabetes among Korean teenagers and young adults: Results from the Korean National Health and Nutrition Examination Survey 2005-2014. *Journal of Korean Medical Sciences*. 2017 Dec;32(12):1984-1990. doi: 10.3346/jkms.2017.32.12.1984. [PMID: [29115080](#)]
11. Hinder LM*, Park M*, Rumora AE*, **Hur J**, Eichinger F, Pennathur S, Kretzler M, Brosius FC, and Feldman EL. Comparative RNA-Seq Transcriptome Analyses Provide New Insights into Diabetic Neuropathy and Nephropathy. *Journal of Cellular and Molecular Medicine*, 2017 Mar 8. doi: 10.1111/jcmm.13136. [PMID: [28272773](#)]
12. Lee KJ, **Hur J**, Yang KS, Lee MK, and Lee SJ. Acute biophysical responses and the psychological effects of different types of forests in patients with metabolic syndrome. *Environment & Behavior*, 2017 Mar 31. Doi: 10.1177/0013916517700957 [PMID: indexing in process] [Full text]
13. **Hur J**, Cho EH, Baek KH, and Lee KJ. Prediction of Gestational Diabetes Mellitus by Unconjugated Estriol Levels in Maternal Serum. *International Journal of Medical Sciences*, 2017 Feb 7;14(2):123-127. doi: 10.7150/ijms.17321. [PMID: [28260987](#)]
14. Sas KM, Kayampilly P, Byun J, Nair V, Hinder LM, **Hur J**, Zhang H, Lin C, Qi NR, Michailidis G, Groop PH, Darshi M, Sharma K, Schelling JR, Sedor JR, Pop-Busui R, Weinberg JM, Soleimanpour SA, Abcouwer SF, Gardner TW, Burant CF, Feldman EL, Kretzler M, Brosius FC, and Pennathur S. Tissue-specific metabolic reprogramming drives nutrient flux in diabetic complications. *Journal of Clinical Investigation*, 2016 Sep 22;1(15):e86976 [PMID: [27699244](#)]
15. **Hur J^S**, O'Brien PD, Nair V, Hinder LM, McGregor BA, Jagadish HV, Kretzler M, Brosius FC, and Feldman EL^S. Transcriptional networks of murine diabetic peripheral

- neuropathy and nephropathy: Common and distinct gene expression patterns. *Diabetologia*, 2016 Mar 21 [PMID: 27000313]
16. O'Brien PD, **Hur J**, Robell NJ, Hayes JM, Sakowski SA, and Feldman EL. Gender-specific differences in diabetic neuropathy in BTBR ob/ob mice. *Journal of Diabetic Complications*, 2015 Oct 3. doi: 10.1016/j.jdiacomp.2015.09.018. [PMID: 26525588]
 17. **Hur J***, Dauch JR*, Hinder ML, Hayes JM, Backus C, Sakowski SA, and Feldman EL. The Metabolic Syndrome and Microvascular Complications in a Murine Model of Type 2 Diabetes. *Diabetes*, 2015 [PMID: 25979075]
 18. O'Brien PD, **Hur J**, Hayes JM, Lindblad CN, and Feldman EL. BTBR ob/ob mice as a novel diabetic neuropathy model: Neurological characterization and gene expression analyses. *Neurobiology of Disease*, 2014 Oct 30;73C:348-355. [PMID: 25447227]
 19. **Hur J**, Sullivan KA, Callaghan BC, Pop-Busui R, and Feldman EL. Identification of factors associated with sural nerve regeneration and degeneration in diabetic neuropathy, *Diabetes Care*, 2013, 2013 Dec;36(12):4043-9. [PMID: 24101696]
 20. Sims-Robinson C, **Hur J**, Hayes JM, Dauch JR, Keller PJ, Brooks SV, and Feldman EL. The role of oxidative stress in nervous system aging. *PLoS One*, 2013 Jul 2;8(7):e68011. doi: 10.1371/journal.pone.0068011. Print 2013. [PMID: 23844146]
 21. Han J, Back SH, **Hur J**, Lin YH, Gildersleeve R, Shan J, et al. ER-stress-induced transcriptional regulation increases protein synthesis leading to cell death. *Nature Cell Biology*, 2013 May;15(5):481-90 [PMID: 23624402]
 22. Callaghan BC, **Hur J**, and Feldman EF. Diabetic Neuropathy: One disease or two?, *Current Opinions in Neurology*, 2012, 25:536-541 [PMID: 22892951]
 23. Sims-Robinson C, Zhao S, **Hur J**, and Feldman EL. Central nervous system endoplasmic reticulum stress in a murine model of type 2 diabetes, *Diabetologia*, 2012, 55:2276-2284. [PMID: 22581041]
 24. **Hur J**, Sullivan KA, Pande M, Hong Y, Sima AAF, Jagadish HV, Kretzler M, and Feldman EL. The identification of gene expression profiles predictive of human diabetic neuropathy, *Brain*, 2011, Nov;134(Pt 11):3222-35 [PMID: 21926103]
 25. Pande M, **Hur J**, Hong Y, Backus C, Hayes JM, Oh SS, Kretzler M, and Feldman EL. Transcriptional profiling of diabetic neuropathy in the BKS db/db mouse, a model of type 2 diabetes, *Diabetes*, 2011 [PMID: 21617178]
 26. Kim MK, **Hur J**, Lee SY, Kim YL, Park KS, Park SW, and Lee KJ. Maternal obesity and associated risk of adverse pregnancy outcomes in women with hyperglycemia, *Korean Journal of Obstetrics and Gynecology*, 2011;54(10):591-598, doi: 10.5468/KJOG.2011.54.10.591 [Full text]
 27. Lee S, **Hur J**, Lee KJ. Pregnancy outcome and relationship between maternal weight gain and fetal birth weight in Korean pregnant women with hyperglycemia, *Journal of Women's Medicine*, 2011;4(2):35-40, doi: 10.5468/jwm.2011.4.2.35 [Full text]
 28. **Hur J**, Sullivan KA, Schuyler AD, Hong Y, Pande M, States DJ, Jagadish HV, Feldman EL. Literature-based discovery of diabetes- and ROS-related targets, *BMC Medical Genomics*, 2010 [PMID: 20979611]

Literature Mining and Bioinformatics Tools

29. He Y, Yu H, Ong E, Wang Y, Liu Y, Huffman A, Huang H, Beverley J, Hur J, Yang X, Chen L, Omenn G, Athey B, and Smith B. CIDO, a community-based ontology for coronavirus disease knowledge and data integration, sharing, and analysis. *Scientific*

Data (2020) (*In press*)

30. Tiftikci M, Ozgur A, He Y, and **Hur J**^S. Machine learning-based identification and rule-based normalization of adverse drug reactions in drug labels. *BMC Bioinformatics*. 2019 Dec 23;20(Suppl 21):707. [[PMID: 31865904](#)]
31. **Hur J**^S, Ozgur A, and He Y. Ontology-based NLP literature mining and analysis of adverse drug reactions associated with neuropathy-inducing drugs. *Journal of Biomedical Semantics* 2018 Jun 7;9(1):17. doi: 10.1186/s13326-018-0185-x. [[PMID: 29880031](#)]
32. **Hur J**^S, Ozgur A, He Y. Ontology-based literature mining of E. coli vaccine-associated gene interaction networks. *Journal of Biomedical Semantics*, 2017 Mar 14;8(1):12. doi: 10.1186/s13326-017-0122-4. [[PMID: 28288685](#)]
33. Ozgur A*, **Hur J**^{*}, and He Y. The Interaction Network Ontology-supported modeling and mining of complex interactions represented with multiple keywords in biomedical literature. *BioData Mining*, 2016 Dec 19;9:41. doi: 10.1186/s13040-016-0118-0. [[PMID: 28031747](#)]
34. Guo A, Racz R, **Hur J**, Lin Yu, Xiang Z, Zhao L, Rinder J, Jiang G, Zhu Q, and He Y. Ontology-based collection, representation and analysis of drug-associated neuropathy adverse events. *Journal of Biomedical Semantics*, 2016 May 21;7:29. doi: 10.1186/s13326-016-0069-x. [[PMID: 27213033](#)]
35. Karadeniz I, **Hur J**^S, He Y^S, and Özgür A^S. Literature Mining and Ontology based Analysis of Host-Brucella Gene-Gene Interaction Network. *Frontiers Research Topics Microbiology*, 2015 Dec 9;6:1386. doi: 10.3389 [[PMID: 26696993](#)]
36. Chan WKB, Zhang H, Yang J, Brender JR, **Hur J**, Ozgur A, and Zhang Y. GLASS: a comprehensive database for experimentally-validated GPCR-ligand associations. *Bioinformatics*, 2015 May 13. Pii: btv302 [[PMID: 25971743](#)]
37. **Hur J**^{*}, Ozgur A*, Xiang Z, and He Y. Development and Application of an Interaction Network Ontology (INO) for Literature Mining of Vaccine-associated Gene-Gene Interactions. *Journal of Biomedical Semantics*, 2015 Jan 6;6:2. [[PMID: 25785184](#)]
38. He Y, Racz R, Sayers S, Lin Y, Todd T, **Hur J**, Li X, Patel M, Zhao B, Chung M, Ostrow J, Sylora A, Dungarani P, Ulysse G, Kochhar K, Vidri B, Strait K, Jourdain GW, and Xiang Z. Updates on the VIOLIN Vaccine Database and Analysis System. *Nucleic Acids Research*, 2014 Jan 1; 42(1): D1124-32 [[PMID: 24259431](#)]
39. **Hur J**^{*}, Ozgur A*, Xiang Z, and He Y. Identification of fever and vaccine-associated gene interaction networks using ontology-based literature mining. *Journal of Biomedical Semantics*, 2012, 3:18. [[PMID: 23256563](#)]
40. **Hur J**, Xiang Z, Feldman EL, and He Y. Ontology-based Brucella vaccine literature indexing and systematic analysis of gene-vaccine association network. *BMC Immunology*, 2011 [[PMID: 21871085](#)]
41. **Hur J**, Schuyler AD, States DJ, Feldman EL. SciMiner: Web-based literature mining tool for target identification and functional enrichment analysis. *Bioinformatics*, 25(6):838-40, 2009. [[PMID: 19188191](#)]
42. **Hur J**, Wild D. PubChemSR: A search and retrieval tool for PubChem. *Chemistry Central Journal*, 2:11, 2008. [[PMID: 18482452](#)]
43. Lee S, **Hur J**, Kim Y. A graph-theoretic modeling on GO space for biological interpretation of gene clusters. *Bioinformatics*, 20(3):381-388, 2004. [[PMID: 14960465](#)]

Systems Pharmacology & Cheminformatics

44. de Anda-Jáuregui G, McGregor B, Guo K, and **Hur J^S**. A network pharmacology approach for the identification of common mechanisms of drug-induced peripheral neuropathy. *CPT-Pharmacometrics & Systems Pharmacology*. 2019 Feb 14. doi: 10.1002/psp4.12383. [PMID: 30762308]
45. de Anda-Jáuregui G, Guo K, and **Hur J^S**. Network-based assessment of adverse drug reaction risk in polypharmacy using high-throughput screening data. *International Journal of Molecular Sciences. Frontiers in Drug Toxicity Prediction*. 2019 Jan 17;20(2). pii: E386. doi: 10.3390/ijms20020386. [PMID: 30658437]
46. de Anda-Jáuregui G, Guo K, McGregor B, and **Hur J^S**. Exploration of the Anti-Inflammatory Drug Space Through Network Pharmacology: Applications for Drug Repurposing. *Frontiers in Physiology*. 2018 Mar 1;9:151. doi.org/10.3389/fphys.2018.00151 [PMID: 29545755]
47. **Hur J^S**, Danes L, Hsieh JH, Krout D, McGregor BA, and Auerbach SS. Tox21 Enricher: Web-based Chemical and Functional Enrichment Analysis Tool for Tox21 Toxicity Screening Platform. *Molecular Informatics*. 2018 Jan 29. doi: 10.1002/minf.201700129. [PMID: 29377626]
48. Messinis D, Melas IN, **Hur J**, Varshney N, Alexopoulos LG, and Bai J.P.F., Translational systems pharmacology-based predictive assessment of drug-induced cardiomyopathy. *CPT: systems pharmacology & pharmacometrics* 2018 Jan 17. doi: 10.1002/psp4.12272. [PMID: 29341478]
49. Bai JPF, Melas IN, **Hur J**, and Ellen YG. Advances in omics for informed pharmaceutical R&D. *Expert Opinion on Drug Discovery* (2017): 1-4. <https://doi.org/10.1080/17460441.2018.1394839> [Full text]
50. Sakellaropoulos T, **Hur J**, Melas IN, Guo EY, Alexopoulos L, and Bai JPF. Precision medicine: Computational approaches for better patient care from bedside to benchtop. *Advances in Protein Chemistry and Structural Biology*, 102, 147-179, doi:10.1016/bs.apcsb.2015.09.005 (2016). [PMID: 26827605]
51. **Hur J^S**, Zhao CS, and Bai JPF^S. Systems Pharmacological Analysis of Drugs Inducing Stevens–Johnson Syndrome and Toxic Epidermal Necrolysis. *Chemical Research in Toxicology*, 2015 May 18;28(5):927-34. doi: 10.1021/tx5005248. [PMID: 25811541]
52. **Hur J**, Guo A, Loh W, Feldman EL, and Bai JPF. Integrated systems pharmacology analysis of clinical drug-induced peripheral neuropathy. *Clinical Pharmacology and Therapeutics: Pharmacometrics and Systems Pharmacology*, 2014 May 14;3:e114. doi: 10.1038/psp.2014.11. [PMID: 24827872]
53. **Hur J***, Liu Z*, Tong W, Laaksonen R, and Bai JPF. Drug-Induced Rhabdomyolysis: from systems pharmacology network analysis to biochemical flux analysis. *Chemical Research in Toxicology*, 2014 [PMID: 24422454]

Bioinformatics Approaches to Other Disease Models

54. Shin D, Lee KJ, and Hur J. Development of predictive modeling of postpartum depression using machine learning approaches. *Women's Health Issues* (In press)
55. Goutman SA, Boss J, Alakwaa F, Guo K, Hur J, Kim S, and Feldman EL. Untargeted metabolomics yields insight into ALS disease mechanisms. *Journal of Neurology, Neurosurgery, and Psychiatry*. (In press)
56. Gao P, Guo K, Pu Q, Wang Z, Lin P, Qin S, Khan N, Hur J, Liang H, and Wu M. oprC

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 72. Lee K, **Hur J**, Yoo J. Twin weight discordance and maternal weight gain in twin pregnancies. *International Journal of Gynecology Obstetrics*, 96(3):176-180, 2007. [[PMID: 17291507](#)]

Conference Proceedings – Peer-reviewed

73. **Hur J**, Ozgur A, Ong E, Xiang Z, and He Y^S. Iagnet: A centrality- and ontology-based gene interaction network analysis system and its usage in vaccine-associated gene interaction study. The 8th International Workshop on Vaccine and Drug Ontology Studies (VDOS-2019) (*Conference proceedings*).
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Book chapter

1. Melas IN, Sakellaropoulos T, **Hur J**, Messinis D, Guo EY, Alexopoulos LG, and Bai J.P.F., A computational platform and guide for acceleration of novel medicine and precision medicine. *Methods in Molecular Biology. Bioinformatics in Drug Discovery 3rd edition*. Edited by Richard S Larson and Tudor I Oprea. [PMID: 30848462]

Book Editing

1. Bai JPF and **Hur J**. Systems Medicine in Methods in Molecular Biology. Springer. To be released in 2021.

Editorial

1. Hur J, Tao C, and He Y. A 2018 workshop: vaccine and drug ontology studies (VDOS 2018). *BMC Bioinformatics*. 2019 Dec 23;20(Suppl 21):705. [PMID: 31865905]

Conference Proceedings – Not peer-reviewed

1. Tiftikci M, He Y, Ozgur A, and **Hur J**. Extracting adverse drug reactions using deep learning- and dictionary-based literature mining approaches. *Proceedings of Text Analysis Conference 2017*. [Full text]

Preprint (BioRxived) – Not peer-reviewed

1. de Anda-Jáuregui G, Espinal-Enriquez J, **Hur J**, Alcalá-Corona SA, Ruiz-Azuara L, and Hernandez-Lemus E. Identification of Casiopeina II-gly secondary targets through a systems pharmacology approach. bioRxiv, 2018. doi: <https://doi.org/10.1101/327718>
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2. Liu Y, Chan W, Wang Z, **Hur J**, Xie J, Yu H, and He Y. Ontological and bioinformatic analysis of anti-coronavirus drugs and their implication for drug repurposing against COVID-19. *Preprints* 2020, 2020030413 (doi: 10.20944/preprints202003.0413.v1).
3. Guo K, Wang Z, Gao P, Pu Q, Wu M^s, Huang C^s, and **Hur J**^s. Identification of Repurposal Drugs and Adverse Drug Reactions for Various Courses of Coronavirus Disease 2019 (COVID-19) Based on Single-cell RNA Sequencing Data. *arXiv*. <https://arxiv.org/abs/2005.07856>

Manuscript under peer review or in revision

1. Hur J, Yoo J, Shin D, Baek KH, Park, and Lee KJ. Macrosomic birth prediction model based on fetal aneuploidy screening biochemical markers in hyperglycemic mothers. *International Journal of Medical Sciences*. (Under review)
2. Guo K, McGregor BA, Porter JE, and **Hur J**^s. VennDetail: a Bioconductor package for visualizing and extracting details of multi-sets intersection. *BMC Bioinformatics* (Under review)
3. McGregor BA, Schommer J, Guo K, Ghribi O, Hur J, and Porter JE. Alpha-Synuclein-induced Methylation and Gene Expression Changes in Microglia. *PLOS One* (In preparation for resubmission)
4. Liu Y, Chan WKB, Wang, Z, Hur J, Xie J, Yu H, and He Y. Ontological and bioinformatic analysis of anti-coronavirus drugs and their implication for drug

repurposing against COVID-19. *Frontiers in Pharmacology*. (In preparation for resubmission)

Oral Presentation

1. Ichnet: A centrality- and ontology-based gene interaction network analysis system and its usage in vaccine-associated gene interaction study. The 8th International Workshop on Vaccine and Drug Ontology Studies (VDOS-2019). July 30-August 2, 2019. Buffalo, NY (*Contributed talk*)
2. Alpha-synuclein-mediated epigenomic modification of microglial neuroinflammation in Parkinson's disease. 2019 IDeA Central Region Conference. June 12-14, 2019. Oklahoma City, OK (*Invited talk*)
3. Systems biology for diabetic peripheral neuropathy research. United Tribes Technical College, Department of Environmental Sciences and Research. March 22, 2019. Bismarck, ND. (*Invited talk*)
4. Computational approaches for elucidating the pathogenic mechanisms of diabetic peripheral neuropathy and identifying small-molecule drugs for its treatment. Chonnam National University, School of Biological Sciences and Technology. March 27, 2018. Gwangju, Korea. (*Invited talk*)
5. Integration of machine learning- and dictionary-based approach for identification of adverse drug reactions in drug labels. *Text Analysis Conference (TAC) 2017*. November 13-14. *National Institute of Standards and Technology (NIST)*, Gaithersburg, MD. (*Contributed talk*)
6. Diabetic Peripheral Neuropathy Knowledge-Base (DPNKB), an integrated web-based exploration and analysis platform for diabetic peripheral neuropathy gene expression data. *University of Michigan, Department of Neurology*. October 27, 2017. Ann Arbor, Michigan. (*Invited talk*)
7. Ontology-based NLP literature mining and analysis of adverse drug reactions associated with neuropathy-inducing drugs. *International Conference of Biological Ontologies (ICBO) 2017 Vaccines and Drug Ontology Studies (VDOS) workshop*. September 13-15, 2017. Newcastle Upon Tyne, United Kingdom. (*Contributed talk*)
8. Ontology-based literature mining of E. coli vaccine-associated gene interaction networks. *International Conference of Biological Ontologies (ICBO) & BioCreative 2016 Vaccines and Drug Ontology Studies (VDOS) workshop*. August 1-4, 2016. Corvallis, Oregon. (*Contributed talk*)
9. Transcriptional networks of murine diabetic neuropathy and nephropathy: Common and distinct gene expression patterns. *American Diabetes Association 75th Scientific Sessions*, June 5-9, 2015. Boston, Massachusetts. (*Contributed talk*)
10. Bioinformatics approaches for understanding the disease mechanisms of diabetic neuropathy and amyotrophic lateral sclerosis. *University of North Dakota, School of Medicine and Health Sciences, Department of Basic Science*. August 28, 2014. Grand Forks, North Dakota. (*Invited talk*)
11. Glucose and Triglyceride Control Prevents Small but not Large Fiber Diabetic Neuropathy in a Murine Model of Type 2 Diabetes. *American Diabetes Association 74th Scientific Sessions*, June 13-17, 2014. San Francisco, California. (*Contributed talk*)
12. Bioinformatics leads to potential therapeutic targets in ALS. *Mayo Clinic Department of Neuroscience Seminar Series*. December 20, 2013. Jacksonville, Florida. (*Invited talk*)

13. Informatics tools for interacting with literature and chemical databases to build pharmacological networks of drug-induced neuropathy. *246th American Chemical Society National Meeting and Exposition. Graduate Student Research Symposium in Cheminformatics, Information Science, and Library Science*. Sep 8, 2013. Indianapolis, Indiana. (Invited talk)
14. Ontology-based Enrichment Analysis of Gene-Gene Interaction Terms and Application on Literature-derived IFN- γ network. *International Conference on Intelligent Systems for Molecular Biology – Bio-Ontologies Special Interest Group*, July 14, 2012. Long Beach, California. (Contributed talk)
15. Identification of fever and vaccine-associated gene interaction networks using ontology-based literature mining. *International Conference on Biomedical Ontology – Vaccine and Drug Ontology in the Study of Mechanism and Effect*, July 21, 2012. Graz, Austria. (Contributed talk; presented by the co-first author)
16. The identification of gene expression profiles predictive of human diabetic neuropathy. *Peripheral Nerve Society Biennial Meeting*, June 25-29, 2011. Potomac, Maryland. (Contributed talk; a recipient of the Wiley book award)
17. Integration of Text Mining with Systems Biology Provides New Insight into the Pathogenesis of Diabetic Neuropathy. *Department of Neurology Research Seminar, University of Michigan*, March 17, 2011, Ann Arbor, Michigan. (Invited talk)
18. Defining reactive oxidant genes in diabetes mellitus. Tools and Technology Seminar, University of Michigan. February 01, 2007. Ann Arbor, Michigan. (Invited talk)
19. Differential location analysis: a novel approach to detecting cellular responses to environmental changes. Center for Genomics and Bioinformatics Round Table, Indiana University. January 26, 2006. Bloomington, Indiana. (Invited talk)

Conference Presentation (Posters and other oral talks, including those presented by lab members and co-authors)

1. Alakwaa F, Goutman S, Hur J, and Feldman EL. Metabolite enzyme association predictor (MeaP): An algorithm to predict metabolite-enzyme association from Protein-Protein Interaction and metabolomics data. *International Society for Computational Biology 2020*. Virtual meeting. July 12-16 (Abstract submitted)
2. Elzinga S, Rumora AE, Hinder LM, Guo K, Eid S, O'Brien PD, Hayes JM, Tabbey MA, Hur J and Feldman EL. Nailing down peripheral neuropathy; a lipidomics approach. *Neuroscience 2019*, October 19-23. Chicago, USA (Poster by Elzinga)
3. Goutman SA, Boss J, Kim S, Guo K, Hur J, Mukherjee B, Batterman S, and Feldman EL. Unique metabolomic signatures in ALS participants based on persistent organic pollutant plasma concentrations, NEALS, Clearwater Beach, FL, 2019. (Poster by Goutman)
4. Wang Z, Gao P, Pu Q, Guo K, Lin P, Qin S, **Hur J** and Wu M. Suppression of cGAS protects against colitis through modification of the intestinal microbiota. *2019 Host-Pathogen Interactions Symposium*. September 17, 2019. Grand Forks, ND (Poster)
5. Gao P, Guo K, Lin P, **Hur J**, and Wu M. An integrative bioinformatics pipeline to facilitate the discovery of novel anti-CRISPR proteins. *2019 Host-Pathogen Interactions Symposium*. September 17, 2019. Grand Forks, ND (Poster)
6. Guo K, Feldman EL, and **Hur J**. Identification of repurposable drug candidates for diabetic peripheral neuropathy using high-throughput drug-perturbation data. *The 79th*

- American Diabetes Association Scientific Sessions. June 7-11, 2019. San Francisco, CA. (*Poster*)
7. Eid S, Guo K, Elzinga S, Figueroa-Romero C, Hinder L, Pacut C, Hur J and Feldman E. Peripheral Nerve Society, Genome-wide DNA Methylation Profiling Identifies Epigenetic Clues into Human Peripheral Neuropathy in Type 2 Diabetes. Genoa, June 2019. (*Poster*)
 8. O'Brien PD, Guo K, Eid SA, Rumora AE, Hinder LM, Hayes LM, Mendelson FE, Hur J and Feldman EL. Altered Nerve Triglycerides in Mouse Models of Diabetes with Neuropathy. Peripheral Nerve Society Meeting. June 22-26, 2019, Genoa, Italy (Oral presentation and poster by O'Brien)
 9. McGregor BA, Schommer J, Guo K, Ghribi O, **Hur J**, and Porter JE. Alpha-synuclein-induced methylation and gene expression changes in microglia. ND EPSCoR 2019 State Conference. March 27, 2019. Fargo, ND. (*Poster*)
 10. Guo K, McGregor BA, Porter JE, and **Hur J**. VennDetail: An R package for visualizing and extracting details of multi-set intersection. Frank N. Low Research Day. April 25, 2019. Grand Forks, North Dakota. (*Poster*)
 11. Guo K, McGregor BA, Porter JE, and **Hur J**. VennDetail: An R package for visualizing and extracting details of multi-set intersection. ND Academy of Science Annual Meeting 2019. March 8, 2019. Grand Forks, ND (*Poster*)
 12. Shin D and **Hur J**. Predictive modeling of postpartum depression using Machine Learning approaches. Nutrition 2019, June 8-11, 2019, Baltimore, Maryland. (*Poster*)
 13. Koney-Kwaku N, Guo K, Perley D, **Hur J**, Grove B, and Nechaev S. Post-transcriptional processing at the promoter proximal RNA polymerase II pausing. A possible mechanism for premature termination. Experimental Biology 2019, April 6-9, 2019. Orlando, Florida. (*Poster*)
 14. Kim J, Yoon H, White T, Zhang P, Brown J, Kim J, **Hur J**, Fryer JD, and LeBrasseur NK. The Role of miR-7 in The Regulation of Energy Homeostasis. Keystone Symposia Drivers of Type 2 Diabetes: From Genes to Environment (S1), October 7-11, 2018, Seoul, South Korea. (*Poster*)
 15. Guo K, and **Hur J**. RichR: an R package for enrichment analysis and network construction for biological datasets. The 26th Intelligent Systems for Molecular Biology conference. Chicago. July 6-10, 2018. (*Poster*)
 16. Claycombe-Larson KJ, Bundy AN, Darland D, **Hur J**, Dhasarathy A, Perley D, Scheidegger A, Johnson L, Krout D, and Roemmich JN. Obesity during human pregnancy is associated with altered placental tissue structure and RBMS1 mRNA expression. The American Society of Nutrition Annual Meeting 2018. June 9-12, Boston, MA. (*Poster*)
 17. Guo K, Feldman EL, and **Hur J**. Two-way Orthogonal Partial Least Squares (O2PLS) analysis of the lipidome and transcriptome in prediabetic and diabetic neuropathy. The American Diabetes Association 78th Scientific Sessions, June 22-26, 2018, Orlando, Florida. (*Guided poster*)
 18. Guo K, Elzinga S, Eid S, Figueroa-Romero C, McGregor BA, de Anda-Jauregui G, Pacut C, Feldman EL, and **Hur J**. Large scale DNA methylation profiling of human diabetic peripheral neuropathy in subjects with type 2 diabetes mellitus. The American Diabetes Association 78th Scientific Sessions, June 22-26, 2018, Orlando, Florida. (*Guided poster*)

19. O'Brien PD, Guo K, Hinder LM, **Hur J**, John M. Hayes¹, Mendelson EF, Tabbey MA, Backus C and Feldman EL. Amelioration of Peripheral Neuropathy in Mouse Models of Diabetes by Dietary Reversal. The American Diabetes Association 78th Scientific Sessions, June 22-26, 2018, Orlando, Florida. (*Poster*)
20. Eid S, Hayes JM, Pacut C, Mendelson FE, Guo K, **Hur J**, and Feldman EL. Nox, Nox, Are You Here? The Emerging Role of NADPH Oxidase Nox5 in Diabetic Neuropathy. The American Diabetes Association 78th Scientific Sessions, June 22-26, 2018, Orlando, Florida. (*Poster*)
21. Guo K, Elzinga S, Eid S, Figueroa-Romero C, McGregor BA, de Anda-Jauregui G, Pacut C, Feldman EL and **Hur J**. Genome-wide DNA methylation profiling of human diabetic peripheral neuropathy in subjects with type 2 diabetes mellitus. Gordon Research Conference Epigenomics of Diabetes and Other Metabolic Diseases. May 27-June 1, 2018. Hong Kong, China. (*Poster*)
22. Guo K, **Hur J**, Lubin F, Lusardi T, Perez G, Ruskin D, Saleumvong B, Sanchez R, Ohm J, Geiger J, Masino S, and Boison D. Protocol matters - reproducibility and rigor of DNA methylation data sets. The 5th Epigenetics and Epigenomics Symposium. May 7-8, 2018. Grand Forks, North Dakota. (*Poster*)
23. Guo K*, Elzinga S*, Eid S, de Anda-Jauregui, Figueroa-Romero C, McGregor BA, Backus Carey, Pacut C, Feldman EL, and **Hur J**. Global DNA methylation profiling of human diabetic peripheral neuropathy in subjects with T2DM. The 110th North Dakota Academy of Science Annual Meeting. April 27, 2018. Minot, North Dakota. (*Poster*)
24. McGregor BA, Guo K, **Hur J**, and Porter J. Systems Pharmacology Approach to Assign Expression Based Signatures to Adrenergic Compounds. Experimental Biology (EB) American Society for Pharmacology & Experimental Therapeutics (ASPET) 2018 Meeting. April 21-25, 2018. San Diego, California. (*Poster*)
25. Danes L, Hsieh JH, McGregor B, Krout D, Hu WC, Auerbach S, and **Hur J**. Tox21 Enricher: Enrichment Analysis of Chemical Annotations for Tox21 Toxicity Screening Platform. Frank N. Low Research Day. April 19, 2018. Grand Forks, North Dakota. (*Poster*) – Best presentation award (Danes L. in the 'Undergraduate' category)
26. McGregor BA, Guo K, **Hur J** and Porter J. Expression-Based Compound Signatures Used to Identify Alternative Research Uses. Frank N. Low Research Day. April 19, 2018. Grand Forks, North Dakota. (*Poster*)
27. Guo K*, Elzinga S*, Eid S, de Anda-Jauregui G, Figueroa-Romero C, McGregor BA, Backus Carey, Pacut C, Feldman EL, and **Hur J**. Genome-wide DNA methylation profiling of human diabetic peripheral neuropathy in subjects with type 2 diabetes mellitus. Frank N. Low Research Day. April 19, 2018. Grand Forks, North Dakota. (*Oral presentation by Guo, a post-doc in the lab*)
28. Pan X, Wang J, Deng S, **Hur J**, Ozgur A, and He Y. Ontology-based systematic collection, representation, and analysis of suicidal behavior-related genes. The 11th international Biocuration Conference, April 08-11, 2018. Shanghai, China (*Poster*)
29. Elzinga S*, Guo K*, Eid S, de Anda-Jauregui G, Figueroa-Romero C, McGregor BA, Backus Carey, Pacut C, Feldman EL, and **Hur J**. Genome-wide DNA methylation profiling of human diabetic peripheral neuropathy in subjects with type 2 diabetes mellitus. Keystone Symposia: Uncomplicating diabetes: Reducing the burden of diabetes-related end organ injury. February 25 – March 1, 2018. Santa Fe, New Mexico (*Poster*)

30. O'Brien PD, Hinder LM, Guo K, **Hur J**, John M. Hayes¹, Mendelson EF, Tabbey MA, Backus C and Feldman EL. Dietary Reversal Ameliorates Peripheral Neuropathy in Mouse Models of Diabetes. Keystone Symposia: Uncomplicating diabetes: Reducing the burden of diabetes-related end organ injury. February 25 – March 1, 2018. Santa Fe, New Mexico (*Poster*)
31. Figueroa-Romero C, Lo TW, **Hur J**, Stoll E, Spring C, Pacut C, Backus C, Goutman SA, Nagraath S, and Feldman EL. Extracellular Vesicles From ALS Spinal Cord And Brain Contain Dysregulated Mirnas. *Neuroepigenetics and Neuroepitranscriptomics Conference*. February 24-27, 2018. Cancun, Mexico (*Poster*)
32. de Anda-Jáuregui G, Guo K, McGregor B, and **Hur J**. Changes in pathway connectivity induced by disease and therapeutic treatment: the case of diabetic neuropathy and pioglitazone. *Conference on Complex Systems 2017*, September 17-22, Cancún, Mexico. (*Oral presentation by de Anda-Jáuregui, a post-doc in the lab*)
33. de Anda-Jáuregui G, McGregor B, Guo K, and **Hur J**. The use of a drug-gene perturbation network for the study of drug side effects: The case of drug-induced peripheral neuropathy. *The 1st Latin American Conference on Complex Networks*. September 25-29, 2017, Puebla, Mexico. (*Oral presentation by de Anda-Jáuregui, a post-doc in the lab*)
34. de Anda-Jáuregui G, Guo K, McGregor B, and **Hur J**. Network pharmacology exploration of the anti-inflammatory drug space. *The 25th Conference on Intelligent Systems for Molecular Biology & 16th European Conference on Computational Biology*. July 21-25, 2017. Prague, Czech Republic. (*Poster*)
35. Guo K, de Anda-Jáuregui G, McGregor BA, Backus C, Pacut C, Feldman EL, and **Hur J**. RNA-Seq analysis of human diabetic neuropathy in subjects with type 2 diabetes. *Diabetes. American Diabetes Association 77th Scientific Sessions*, June 9-13, 2017. San Diego, California. (*Poster*)
36. Cho EH, Jeong JY, and **Hur J**. Ly2405319, an analog of FGF-21 ameliorates liver fibrosis through succinate-GPR 91 pathway in mice. *American Diabetes Association 77th Scientific Sessions*, June 9-13, 2017. San Diego, California. (*Poster*)
37. de Anda-Jáuregui G, Guo K, McGregor BA, and **Hur J**. Pathway-level effects of pioglitazone on neuropathy in the BKS-db/db mouse model of type 2 diabetes. *American Diabetes Association 77th Scientific Sessions*, June 9-13, 2017. San Diego, California. (*Poster*)
38. McGregor BA, Hinder LM, Guo K, de Anda-Jáuregui G, Pennathur S, Kretzler M, Brosius FC, Porter JE, Feldman EL, and **Hur J**. Conserved gene expression changes and dysregulated pathways in complication-prone tissues of streptozotocin-diabetic mouse. *American Diabetes Association 77th Scientific Sessions*, June 9-13, 2017. San Diego, California. (*Poster*)
39. Hinder LM, Guo K, de Anda-Jáuregui G, McGregor BA, Backus C, Feldman EL, **Hur J**. Effect of Pioglitazone Treatment on Diabetic Neuropathy in STZ-Diabetic Mice. *American Diabetes Association 77th Scientific Sessions*, June 9-13, 2017. San Diego, California. (*Poster*)
40. de Anda-Jáuregui G, McGregor B, Guo K, and **Hur J**. Using systems pharmacology to identify common mechanisms of drug-induced peripheral neuropathy. *109th Annual Meeting of the North Dakota Academy of Science*, April 28-29, Grand Forks, North Dakota. (*Oral presentation; best post-doc presentation award*)

41. Guo K, de Anda-Jáuregui G, McGregor BA, Backus C, Pacut C, Feldman EL, and **Hur J**. RNA-Seq analysis of human diabetic neuropathy in subjects with type 2 diabetes. *Diabetes. 109th Annual Meeting of the North Dakota Academy of Science*, April 28-29, Grand Forks, North Dakota. (Poster)
42. **Hur J**, Danes L, McGregor BA, Krout D, Hsieh JH, and Auerbach S. Tox21 Enricher: Web-based Chemical and Functional Enrichment Analysis Tool for Tox21 Toxicity Screening Platform. *Experimental Biology (EB) American Society for Biochemistry and Molecular Biology (ASBMB) Pharmacogenomics and Toxicogenomics 2017 Meeting*. April 22-26, 2017. Chicago, Illinois. (Poster)
43. Shin D, Lee KW, Tande DL, **Hur J**, Chung HK, Shivappa N, Wirth MD, and Hebert JR. Prepregnancy Body Mass Index is Positively Associated with Dietary Inflammatory Index and C-Reactive Protein Concentrations during Pregnancy. *Experimental Biology (EB) American Society for Nutrition (ASN) 2017 Meeting*. April 22-26, 2017. Chicago, Illinois. (Poster)
44. Bhattacharya A, **Hur J**, and Dhasarathy A. The Role of CCCTC Binding Factor CTCF in Epithelial to Mesenchymal Transition (EMT). *Experimental Biology (EB) American Society for Biochemistry and Molecular Biology (ASBMB) 2017 Meeting*. April 22-26, 2017. Chicago, Illinois. (Poster)
45. Shin D, Lee KW, Tande DL, **Hur J**, Shivappa N, Wirth MD, and Hebert JR. Effects of Dietary Inflammatory Index and History of Gestational Diabetes Mellitus on Insulin Resistance. *Experimental Biology (EB) American Society for Nutrition (ASN) 2017 Meeting*. April 22-26, 2017. Chicago, Illinois. (Poster)
46. Bhattacharya A, **Hur J**, and Dhasarathy A. The Role of CCCTC Binding Factor CTCF in Epithelial to Mesenchymal Transition (EMT). *UND SMHS 37th Frank N. Low Research Day*. April 6, 2017. Grand Forks, North Dakota. (Poster)
47. de Anda-Jáuregui G, McGregor B, Guo K, and **Hur J**. Using systems pharmacology to identify common mechanisms of drug-induced peripheral neuropathy. *UND SMHS 37th Frank N. Low Research Day*. April 6, 2017. Grand Forks, North Dakota. (Poster)
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