Updated 01/31/2024

Curriculum Vitae   Junguk Hur, Ph.D.

Current Position

Associate Professor
Department of Biomedical Sciences
School of Medicine and Health Sciences
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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	
Post-doc:	Bioinformatics, University of Michigan Ann Arbor, Michigan, 2010~2015 Systems pharmacology, US Food and Drug Administration (FDA) Silver Spring, Maryland, 2013	

Research interests

Bioinformatics
Ontology-based literature mining
Systems pharmacology and drug repurposing
Diabetic neuropathy

Professional Experience

Academic appointments

Jan. 2015 ~ Jun. 2021	Assistant Professor University of North Dakota
Mar. 2018 ~	Adjunct Research Assistant Professor University of Michigan, Ann Arbor
Jul. 2021 ~	Associate Professor University of North Dakota

Hospital, government, or other professional positions

Jan. 1995 to Apr.1995	Lab Participation at National CRI Center for Calcium & Learning. POSTECH, Korea
Apr. 1998 to Jun. 2000	Military service Korea
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

Junguk Hur, Ph.D. – C.V.

Feb. 2013 to Apr. 2013	ORISE Visiting Research Fellow
	US Food and Drug Administration (FDA)
	Silver Spring, Maryland
Apr. 2017 ~	Research Without Compensation (WOC)
	U.S. Department of Veterans Affairs, Fargo Hospital
Aug. 2021 ~	Director, UND Computational Data Analysis Core (CDAC)

Honors and Awards

2006-2007	Rackham Graduate Fellowship
	University of Michigan, Ann Arbor, Michigan
2007-2009	Program for Neurology Research and Discovery Scholarship University of
	Michigan, Ann Arbor, Michigan
2009-2010	Rackham Pre-Doctoral Fellowship
	University of Michigan, Ann Arbor, Michigan
2010	Rackham Spotlight
	University of Michigan, Ann Arbor, Michigan
2011-2014	Juvenile Diabetes Research Foundation
	Post-doctoral Fellowship Recipient

Membership in professional organizations

May. 2008 ~	International Society for Computational Biology, member
Mar. 2015 ~	American Diabetes Association, professional member
Feb. 2016 ~ Dec. 2021	American Society for Pharmacology and Experimental Therapeutics
	(ASPET), member
Apr. 2017 ~ Dec. 2021	North Dakota Academy of Sciences

Major committee and service responsibilities

School of Medicine & Health Sciences

Aug. 2016 to Aug. 2019	Admissions Committee (member)
Sep. 2019 to Jul. 2020	Admissions Committee (vice chair)
Feb. 2020	Grievance Committee (member)
Aug. 2020 to Jul. 2021	Admissions Committee (chair)
Aug. 2021 to Jun. 2023	Admissions Committee (member)
Aug. 2023 to Jun. 2024	Admissions Committee (co-chair)
Jan. 2022 to Apr. 2022	UND LCME Accreditation – Junior Faculty Member

Departmental

Aug. 2015 ~	Epigenetics Bioinformatics (Genomics) Core
	(advisory board member)
Aug. 2021 ~	UND SMHS Histology Core
	(internal advisory committee member)

Inventions, intellectual property, and patents held or pending
Patent: A System for Analyzing DNA-Chips Using Gene Ontology, and a Method Thereof, 2002, Korea

Review and Referee Work

Editorial Board

Aug. 2015 ~	Review Editor, Frontiers in Cellular and Infection Microbiology
Feb. 2018 ~	Associate Editor BMC Complementary and Alternative Medicines
May. 2019 ~	Associate Editor, Scientific Reports
Jul. 2020 ~	Topic Board Editor, International Journal of Molecular Sciences

Jun. 2023 ~ Guest Editor, Journal of Biomedical Semantics

Ad-hoc reviewer for journals
Acta Psychiatrica Scandinavica; Advances and Applications in Bioinformatics and Chemistry; Annals of the New York Academy of Sciences; Bioinformatics; BioMed Research International; Biomolecules; BMC Bioinformatics; BMC Complementary and Alternative Medicine; BMC Endocrine; BMC Neurology; Cells; Chemico-Biological Interactions; Chemistry and Biodiversity; Computational Biology and Chemistry; Computer Methods and Programs in Biomedicine; Current Diabetes Reviews; Diabetes Therapy; Diabetes, Metabolic Syndrome, and Obesity; Drug Discovery Today; European Journal of Pharmacology; Evidence-Based Complementary and Alternative Medicine; Frontiers in Cellular and Infection Microbiology; Frontiers in Microbiology; Frontiers in Neuroinformatics; Frontiers in Pharmacology; Genomics, Proteomics, and Bioinformatics; Gerontology; International ImmunoPharmacology; International Journal of Genomics; International Journal of Medical Sciences; iScience; Journal of Affective Disorders; Journal of Diabetes and Complications; Journal of Diabetes Research; Journal of Educational Evaluation for Health Professions; Journal of Functional Food; Journal of Microbiology; Journal of Molecular Endocrinology; Journal of Pain Research; Journal of Pharmaceutical and Biomedical Analysis; Pharmacogenomics; Processes; Research Square ; Scientific Reports; Therapeutic Advances in Chronic Disease;

Ad-hoc reviewer for conference proceedings
Sep. 2014	2014 Conference of Technologies and Applications of Artificial Intelligence
Jul. 2019	The 3rd International Conference on Biological Information and Biomedical Engineering
Jun. 2022	The 13th International Conference on Biomedical Ontology (ICBO-2022)
Dec. 2022	The 14th International Conference on Bioinformatics Models, Methods and Algorithms
Dec. 2023	The 15th International Conference on Bioinformatics Models, Methods and Algorithms

Ad-hoc reviewer for grants
Jul. 2016	Diabetic Complications Consortium pilot grant
Jul. 2016	Department of Defense (DoD) Peer Reviewed Medical Research Program (PRMRP)
Nov. 2016	Early Career Reviewer (ECR) program at the Center for Scientific Review (CSR)
Oct. 2017	National Science Foundation (NSF) reviewer
Dec. 2017	DoD PRMRP Full application reviewer
Aug. 2018	DoD PRMRP Pre-application reviewer
Oct. 2018	National Institute of Health (NIH) CNNT Study Section reviewer
Mar. 2019	DoD PRMRP preliminary reviewer
May. 2020	DoD PRMRP preliminary reviewer
Jul. 2021	DoD PRMRP panel reviewer
Jul. 2021	UK Research and Innovation (UKRI) ad hoc reviewer
May. 2022	UND BIMD518 Spring 2022. Student grant review
Dec. 2022	Motor Neuron Disease Association ad hoc reviewer
Dec. 2022	UND BIMD518 Fall 2022. Student grant review
Mar. 2023	National Institute of Health (NIH) PAR Panel: Biomedical Data Repositories and Knowledgebases
Jun. 2023	National Institute of Health (NIH) PAR Panel: Biomedical Data Repositories and Knowledgebases

Dec. 2023	UND BIMD518 Fall 2023. Student grant review
Mar. 2024	National Institute of Health (NIH)
	PAR Panel: Biomedical Data Repositories and Knowledgebases

Teaching Activities

Courses

Sep. 2004 ~ Dec. 2004	INFO692, Graduate Capstone Project for Bioinformatics (Associate Instructor, Indiana University)
Jan. 2005 ~ Apr. 2005	INFO590, Introduction to genomics for non-biology students (Associate Instructor, Indiana University)
Sep. 2005 ~ Dec. 2005	BIOL519, Bioinformatics Theory and Application (Associate Instructor, Indiana University)
Jan. 2008 ~ Apr. 2008	BIOINFO 800.006-008, Introduction to Bioinformatics (Graduate Student Instructor, University of Michigan)
Aug. 2016 ~ Dec. 2016	BMB540 Special Topics: Foundations of Bioinformatics for Biology and Biomedical Graduate Students (2 credits; UND)
Aug. 2017 ~ Dec. 2017	BIMD514 Bioinformatics (3 credits; UND)
Jan. 2018 ~ May 2018	BIMD494 Directed Studies – Bioinformatics (1 credit; UND)
Aug. 2019 ~ Dec. 2019	BIMD514 Bioinformatics (3 credits; UND)
Aug. 2020 ~ Dec. 2020	BIMD514 Bioinformatics (3 credits; UND)
Aug. 2021 ~ Dec. 2021	BIMD514 Bioinformatics (3 credits; UND)
Aug. 2022 ~ Dec. 2022	BIMD514 Bioinformatics (3 credits; UND)
Aug. 2023 ~ Dec. 2023	BIMD514 Bioinformatics (3 credits; UND)

Patient-Centered Learning (PCL) Facilitation (UND)

Jan. 2018 ~ Mar. 2018	PCL Block 3 Facilitation – Class of 2021 (M.D.)
Jan. 2019 ~ Mar. 2019	PCL Block 3 Facilitation – Class of 2022 (M.D.)
Jan. 2020 ~ Mar. 2020	PCL Block 3 Facilitation – Class of 2023 (M.D.)
Oct. 2020 ~ Dec. 2020	PCL Unified Session Block 3 Facilitation – Class of 2024 (M.D.)
Nov. 2021 ~ Jan. 2022	PCL PreUnit 3 Facilitation – Class of 2025 (M.D.)
Nov. 2022 ~ Jan. 2023	PCL Unit 3 Facilitation – Class of 2026 (M.D.)
Sep. 2023 ~ Nov. 2023	PCL Unit 2 Facilitation – Class of 2027 (M.D.)

Advising – Post-doctoral fellows (UND)

Nov. 2016 ~ Jul. 2022	Dr. Kai Guo (joint with UM Dr. Eva Feldman)
Nov. 2016 ~ Dec. 2017	Dr. Guillermo de Anda Jauregui
Aug. 2018 ~ Aug. 2022	Dr. Atrayee Ray (co-mentored with Drs. Dhasarathy and Brissette)
Sep. 2019 ~ Jul. 2021	Dr. Brett McGregor
Mar. 2020 ~ Dec. 2022	Dr. MD Obayed Raihan (co-mentored with Dr. Porter)

Advising – Visiting scholar (UND)

Nov. 2019 ~ Aug. 2021	Dr. Ling Li (Guangzhou First People's Hospital, China; joint with Dr. Xusheng Wang at UND Biology)
Sep. 2022 ~ Dec. 2022	Ms. Hasin Rehana (University of Dhaka)
Sep. 2022 ~	Ms. Christianah Jemiyo (National Assembly Budget & Research Office (NABRO), Nigeria)

Advising – Students

| Oct. 2010 ~ Jan. 2013 | George Zhao (mentor for M.S.) University of Michigan |
| May. 2015 ~ May 2019 | Brett A. McGregor (co-chair of FAC) |

	UND Biomedical Sciences Ph.D.
Nov. 2015 ~ Jul. 2019	Peter Halcrow (member of Ph.D. FAC)
	UND Biomedical Sciences Ph.D.
Oct. 2015 ~ May 2016	Dakota Krout (advisor)
	UND Computer Sciences undergraduate
May 2016 ~ May 2018	Larson Danes (advisor for co-op)
	UND Computer Sciences undergraduate
Jun. 2016 ~ Jul. 2020	Derick Thompson (member of FAC)
	UND Biomedical Sciences Ph.D.
Jun. 2017 ~ May 2021	Leo Lakpa (member of FAC)
	UND Biomedical Sciences Ph.D.
Oct. 2017 ~ Jul. 2021	Smruthi Rudraraju (member of FAC)
	UND Biomedical Sciences Ph.D.
Nov. 2018 ~ May 2022	Sayem Bhuiyan (member of FAC)
	UND Biomedical Sciences Ph.D.
Apr. 2019 ~ May 2022	Joanna Handzlik (member of FAC)
	UND Biology Ph.D.
Jan. 2020 ~ Jul. 2021	Temidayo Adeluwa (chair of FAC)
	UND Biomedical Sciences M.S.
Aug. 2020 ~ Dec. 2021	Malak Alzidaneen (member of FAC)
	UND Biomedical Sciences M.S.
Sep. 2021 ~ Oct. 2021	Oluwatobiloba Aminu, Darius Quansah (Laboratory rotation)
Nov. 2021 ~ Jan. 2022	Anna Corradi (Laboratory rotation)
Jan. 2022 ~ Aug. 2023	Oluwatobiloba Aminu (member of FAC)
	UND Biomedical Sciences, M.S.
Jan. 2022 ~	Dehui Kong (member of FAC)
	UND Biology Ph.D.
Jan. 2022 ~	Blessing Okosun (member of FAC)
	UND Biology Ph.D.
Jan. 2023 ~	Hasin Rehana (chair of FAC)
	UND Computer Sciences, Ph.D.
Aug. 2023 ~	Mostafa Elhennawy (member of FAC)
	UND Biomedical Sciences, Ph.D.
June. 2023 ~	Sarah Hong (Research mentor; remote research participation)
	Columbia University. Undergraduate.
Dec. 2023 ~	Akhtar Hussain (member of FAC)
	UND Computer Science Ph.D.
Jan. 2024 ~	Goshen Miteu (Laboratory rotation)

Grant

Current - External

1. NIH/NIAID U24 1U24AI171008   (MPIs: Tao, He, Hur)
   Role: Co-PI   Total: $3,839,270   (07/01/2022 – 06/30/2027)
   Title: VIOLIN 2.0: Vaccine Information and Ontology LInked kNowledgebase
   Note: 15% efforts.
2. NIH/NIDDK R01 R01DK130913   (MPIs: Feldman, Hur)
   Role: Co-PI   Total: $2,555,612   (08/23/2022 – 06/30/2026)
   Title: Metabolic coupling between Schwann cells and axons is functionally distinct from myelination
   and is disrupted in obesity, prediabetes, and diabetes
   Note: 17.5% efforts.

3. NINDS R01 5R01NS065957   (PI: Susan Masino, Trinity University)
   Role: Co-investigator   Total: $2,254,373   (6/2018-6/2024)
   Title: Ketogenic diet and adenosine: epigenetics and antiepileptogenesis
   Note: 10% efforts. My role focuses on bioinformatics analyses of the high-throughput next-generation sequencing data (transcriptomics and methylomics) from animal models of epileptogenesis with/without two treatments.
4. NIGMS P20 5P20GM113123   (MPI: Combs & Bradley)   HPI COBRE
   Role: Core Director   Total: $778,850 (Core)   (7/2021-6/2026)
   Title: Center for Excellence in Host Pathogen Interactions
   Note: Establishment of Computational Data Analysis Core (CDAC)
5. NINDS R01 5R01NS120926   (MPI: Goutman & Murdock at University of Michigan)
   Role: Co-investigator   Total: $149,556 (UND)   (4/2023-3/2026 UND)
   Title: Creating a foundation for personalized age- and sex-based immune-targeted therapies from an ALS longitudinal cohort by identifying peripheral and central immune signatures.
   Note: Awarded. UND portion will start in 2023. Unpaid consultant role before then.

Current - Internal
1. UND Epigenomics COBRE Pilot (MPI: Hur and Porter)
   Role: MPI (contact)   Total: $40,000   (07/01/2023 – 06/30/2024)
   Title: Spatial pattern of microglial transcriptomic response to α-Synuclein overexpression in Thy1-αSynuclein mice

Pending - External
1. NIH/NIGMS P20 COBRE (MPI: Hur, Adams)   (submitted in 01/2024)
   Role: Contact PI   Total: $10,477,230   (12/01/2024 – 11/30/2029)
   Title: Center for Advanced Artificial Intelligence Applications in Biomedical Sciences
2. NIH/NIGMS P20 CTR (PI: Schwartz)   (submitted in 11/2023)
   Role: Core Lead   Total: $10,774,235   (07/01/2024 – 06/30/2029)
   Title: Translational Science Engaging North Dakota (TRANSCEND)
3. NIH/NIAID R01 (MPI: Khan, Hur)   (submitted in 10/2023)
   Role: MPI   Total: $860,401 (UND)   (07/01/2024 – 06/30/2029)
   Title: Protective epithelial defense against influenza and secondary bacterial infections
4. NIH/NIA R01(PI: Mathur)   (submitted in 10/2023)
   Role: Co-Investigator   Total: $2,872,506   (07/01/2024 – 06/30/2029)
   Title: The role of mitochondrial TFAM on Foxp3 Tregs to modulate neuroinflammation in Alzheimer's disease
5. NIH/NNCI R01(PI: Mathur)   (submitted in 11/2023)
   Role: Co-Investigator   Total: $2,844,208   (03/01/2024 – 02/28/2029)
   Title: Understanding the molecular relationship between tissue-resident CX3CR1 cells and the tumor microenvironment in aging colon cancer
6. American Cancer Society (PI: Mathur)   (submitted in 12/2023)
   Role: Co-Investigator   Total: $960,000   (07/01/2024 – 06/30/2028)
   Title: The role of gut epithelium fucosylation shaping tumor microenvironment and its therapeutic potential in colon cancer patients
7. NIH/NNCI R01(PI: Mathur)   (submitted in 11/2023)
   Role: Co-Investigator   Total: $2,538,379   (07/01/2024 – 06/30/2029)
   Title: Regulating gut epithelium fucosylation to reduce colon cancer pathophysiology

Pending - Internal

1. UND Post-doctoral Pilot Funding Program   (submitted in 12/2023)
    Role: PI   Total: $170,600   (1/2024-12/2025)
    Title: Artificial intelligence integration in biomedical research: enhancing protein interaction studies
    Note: Salary and benefits support for a post-doctoral associate for two years.

Completed
1. Juvenile Diabetes Research Foundation, Postdoctoral Research Fellowship Grant
    Role: Project PI   Total: $136,620   (3/1/2011-6/30/2014)
    Title: Cross-tissue transcriptomics predict diabetic complications
2. UND COBRE Epigenomics and Development and Disease, Pilot Grant
    Role: Project PI   Total: $42,347   (10/2015-5/2016)
    Title: RNA-Seq and Comparative Transcriptomics to Identify Key Gene Networks of Diabetic Neuropathy
    Effort: 5% with no salary support. The award was used to perform high-throughput DNA-methylation sequencing analysis of sural nerves collected from diabetic neuropathy patients.
3. Diabetic Complication Consortium, Pilot & Feasibility Grant
    Role: Project PI   Total: $89,537   (10/2015-1/2017)
    Title: Comparative Transcriptomics to Identify Key Gene Networks of Diabetic Neuropathy
    Note: 5% effort with salary support. Generating and analyzing RNA-Seq of human sural nerve samples obtained from diabetic neuropathy (DN) patients to identify critical gene regulatory network of DN.
4. UND Neuroscience COBRE Pilot Grant
    Role: Project PI   Total: $40,000   (9/2016-5/2017)
    Title: Cross-center validation study for epigenetic changes associated with epileptogenesis
    Note: 5% efforts. The support was for next-generation sequencing service (RNA-Seq & RRBS) of rat hippocampus samples collected during epileptogenesis.
5. NIEHS R01ES022030
    Role: Co-investigator   Total: $1,552,500 (PI: Joyce Ohm at Roswell Research Institute)
    Title: Environmental Toxins and Stem Cell Epigenomic Remodeling   (9/2012-8/2017)
    Note: 5% efforts. The work involves performing bioinformatics analysis of transcriptomics/epigenomics data on the effect of environmental toxins to identify critically altered genes by epigenomic modifications.
6. UND Post-doctoral Pilot Funding Program
    Role: PI   Total: $120,000   (7/2016-6/2018)
    Title: Epigenetics for anti-epileptogenic therapy
    Note: Salary and benefits support for a post-doctoral associate (Dr. Kai Guo) for two years. The project is to examine the epigenetic/transcriptomic changes during epileptogenesis by generating/analyzing next-generation sequencing data (RNA-Seq & RRBS).
7. UND COBRE Epigenomics and Development and Disease, Pilot Grant
    (MPIs: Porter and Hur)
    Role: Co-PI   Total: $30,000   (10/2017-05/2019)
    Title: Epigenetic modification of microglial phenotype in Parkinson's Disease
    Note: 5% efforts. The grant support is for high-throughput next-generation sequencing for gene expression (RNA-Seq) and methylation (RRBS) of microglia obtained from an animal model of Parkinson's disease.
8. UND Health Challenge Seed Program (MPIs: Dhasarathy, Hur & Scheidegger)
    Role: Co-PI   Total: $50,000   (10/2017-05/2018)
    Title: Transcription proteins and mRNA splicing: a novel molecular mechanism influencing cancer progression
    Note: 5% efforts. This seed grant is to examine the novel mechanism of the RNA-binding feature of cancer progression-related transcription factor SNAIL. My role is to analyze high-throughput

sequencing data analysis using bioinformatics approaches.
9. UND Post-doctoral Pilot Funding Program   (MPIs: Brissette, Dhasarathy, and Hur)
    Role: Co-PI   Total: $129,600 (UND)   (7/2018-6/2020)
    Title: Exploring epithelial-to-mesenchymal transitions in Lyme arthritis through a systems approach
    Note: Salary and benefits support for a post-doctoral associate for two years, who will work on a project to investigate the role of epithelial-to-mesenchymal transition in Lyme arthritis.
10. UND COBRE Host-Pathogen Interaction, Pilot Grant
    Role: PI   Total: $25,000   (7/2019-4/2020)
    Title: Development of ontology-based literature mining system for host-pathogen interactions
    Note: 5% efforts. This grant supports to development of a literature-mining platform to support the identification and mining of host-pathogen gene interactions from biomedical literature.
11. UND Epigenetics COBRE Pilot   (MPI: Porter & Hur)
    Role: Co-PI   Total: $30,000   (12/2019-5/2020)
    Title: Epigenetic modifications of microglial phenotypes in α-synucleinopathy disorders
    Note: 5% efforts. My role focuses on bioinformatics analysis of transcriptomic and epigenetic data.
12. NIDDK 1R24082841 (PI: Eva Feldman, U of Michigan)
    Role: Co-investigator   Total: $437,458 (UND)   (4/2017-7/2021)
    Title: Integrated systems biology approach to diabetic microvascular complications
    Note: 20% efforts. My role involves bioinformatics analyses on diabetic complication-related high-throughput Omics data to identify critical genes and pathways, responsible for the development of diabetic complications. This grant supports 20% of my salary and 100% of one post-doctoral fellow.
13. UND Post-doctoral Pilot Funding Program   (MPIs: Porter & Hur)
    Role: Co-PI   Total: $129,600   (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
14. NIAID R01 1R01AI143741   (PI: Khan)   (12/2019-12/2021)
    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
    Note: 5% efforts. My role focuses on bioinformatics analyses of high-throughput sequencing data.
15. UND COBRE Epigenetics Pilot Grant
    Role: Co-PI   Total: $50,000   (10/2021-5/2022)
    Title: Correlated Epigenetic and Behavioral Modifications in α-Synucleinopathy Disorders

Academic Consultant role
1. BD2K-LINCS DCIC External Research Project
    PI: Yongqun He, Ph.D. University of Michigan   (2016-2018)
    Title: Ontology-based Cell Line Standardization, Integration, and LINCS application
2. NIH R01   DA042156   (Funded)
    PI: Lucia Carvelli, Ph.D.   (2016-2021)
    Title: Amphetamine-induced trans-generational effects
3. CDC
    PI: Eva Feldman, M.D., Ph.D., University of Michigan   (2018-2021)
    Title: Metabolomic Signatures Linking ALS to Persistent Organic Pollutant Exposures.
4. NSF
    PI: Henry Neeman, Ph.D., University of Oklahoma   (2018-2022)
    Title: Acquisition of a Regional Resource for Long-term Archiving of Large Scale Research Data Collections
5. NIH K99/R00
    PI: Amy Rumora, Ph.D., University of Michigan   (2018-2022)
    Title: Sphingolipid and Fatty Acid Biology in Prediabetes and Neuropathy

6. NIH/NIEHS R01 ES030049
   PIs: Drs. Feldman & Batterman (U of Michigan)   (2020-2024)
   Title: Mapping the ALS Exposome to Gain New Insights into Disease Risk and Pathogenesis
   Goal: To collect data that will offer a foundation to uncover key pathways and mechanisms linked to exposure-induced changes that may represent novel biomarkers and therapeutic targets, ultimately supporting the development of much-needed treatment options for ALS.
7. NIH/NIDDK K99/R01
   PI: Sarah Elzinga, U of Michigan   (2021-2025)
   Title: Obesity and prediabetes-mediated neuroinflammation and cognitive decline: Identifying mechanism-based therapeutic targets and therapeutic windows
8. NIH R01 (PI: Bibhuti Mishra, U of Texas)   (2021-2026)
   Title: Macrophage memory development and responses in secondary pneumonia and sepsis
9. NIH Transformative grant ALS[2] (PI: Eva Feldman, U of Michigan)   (2021-2026)
   Title: Developing novel strategies for personalized treatment and prevention of ALS: Leveraging the global exposome, genome, epigenome, metabolome, and inflammasome with data science in a case/control cohort
10. NIH/NIDDK K01
    PI: Stephanie Eid, U of Michigan   (2023-2027)
    Title: NADPH Oxidases Nox4 and Nox5 are New Therapeutic Targets for Peripheral Neuropathy

Paid Consulting Activity
1. YooJinBioSoft Co., Ltd., South Korea   (01/2023-12/2024)
   Role: paid consultant
   Topic: drug repurposing

Computational Tools
1. SciMiner (http://hurlab.med.und.edu/SciMiner/), a web-based literature mining tool.
   Recent updates: 04/19/2016 (system migration to a UND server)
2. PubChemSR (https://sourceforge.net/projects/pubchemsr/), a standalone tool for searching and retrieving data from the NCBI PubChem databases.
   Recent updates: 12/18/2019 (release of new public version 3.6.4)
3. DNMKB2 (http://hurlab.med.und.edu/DNMKB2/), an online data repository and analysis portal of diabetic neuropathy-related transcriptomics data. It currently supports a total of 140 differentially expressed gene sets from 18 diabetic neuropathy-related high-throughput gene expression profiling datasets.
   Recent updates: 10/21/2018 (release of version 2.1)
4. VennDetail (http://hurlab.med.und.edu/VennDetail; https://github.com/hurlab/Venndetail/), is an R package that creates high-quality Venn-Pie charts and allows extraction of subset details from up to eight input sets. VennDetail has officially become a part of Bioconductor, an open-source software repository for bioinformatics.
   Recent updates: 02/10/2022 (release of version 1.10.0) (DOI: 10.18129/B9.bioc.VennDetail).
   Bioconductor version: https://www.bioconductor.org/packages/release/bioc/html/VennDetail.html
5. richR (http://hurlab.med.und.edu/richR; https://github.com/hurlab/richR/), an R package allowing functional enrichment analysis and visualization of gene sets obtained from high-throughput next-generation sequencing data.
   Recent updates: 09/15/2022
6. Tox21 Enricher (http://hurlab.med.und.edu/Tox21Enricher/), an online chemical enrichment analysis tool for the Tox21 toxicology screening platform.
   Recent updates: 04/2023
   We have been focusing on an R-version of Tox21 Enricher.
   https://github.com/hurlab/tox21enricher (version 2.4.0; 04/25/2023)

7. RichStudio (http://hurlab.med.und.edu:3838/RichStudio/), an R Shiny App for performing functional enrichment analysis as well as gene-based clustering analysis.
   Recent updates: 01/07/2024 (release of version 0.0.4)

Conference Organization

1. The 6th Vaccines and Drug Ontology Studies (VDOS) workshop. Sep.13-15, 2017. Newcastle Upon Tyne, UK. (Co-organizer)
2. The 7th Vaccines and Drug Ontology Studies (VDOS) workshop. Aug. 7-10, 2018. Corvallis, Oregon, USA. (Co-organizer)
3. The 8th Vaccines and Drug Ontology Studies (VDOS) workshop. Jul. 29 - Aug 2, 2019. Buffalo, New York. (Co-organizer)
4. The 9th Vaccines and Drug Ontology Studies (VDOS) workshop. Sep. 17, 2020. Virtual (Co-organizer)
5. The 10th Vaccines and Drug Ontology Studies (VDOS) workshop. Sep. 18, 2021. Virtual (Co-organizer)
6. The 13th International Conference of Biological Ontologies (ICBO) 2022, Sep. 25-28, 2022. Ann Arbor, MI and Virtual (Program Committee member)
7. The 11th Vaccines and Drug Ontology Studies (VDOS) workshop. Sep. 26, 2022. Ann Arbor, MI and Virtual (Co-organizer)
8. The 14th International Conference on Bioinformatics Models, Methods and Algorithms. BIOINFORMATICS 2023. Feb. 16-18, 2023, Lisbon, Portugal. (Program Committee member)
9. The 15th International Conference on Bioinformatics Models, Methods and Algorithms. BIOINFORMATICS 2024. Feb. 21-23, 2024, Rome, Italy (Program Committee member)
10. The 12th Vaccines and Drug Ontology Studies (VDOS) workshop. University of Brasilia, Brasilia, DF, Brazil and Virtual (Co-organizer)

Professional Competition Participation

1. Text Analysis Conference (TAC) 2017 – Adverse Drug Reaction Extraction from Drug Labels (ADR) track. Our team CONDL participated in this text mining challenge, and **our best result ranked 4th out of 14 teams**. Two peer-reviewed papers were generated out of this challenge participation (Tiftikci et al, 2019 BMC Bioinformatics [PMID: 31865904] and Hur et al, 2018, JBMS [PMID: 29880031]
2. Food and Drug Administration (FDA) Adverse Drug Event Evaluation (ADR Eval) via MITRE aimed to develop an automatic text mining system to identify ADR mentions in drug labels. Our team CONDL participated in this challenge between November 2018 and February 2019. The performance evaluation results were released to the participants in October 2019. Among 23 submissions from 13 teams, **our best-performing submission achieved the best precision (accuracy)**.
3. Critical Assessment of Massive Data Analysis – CMap Drug Safety Challenge. July 13-14, 2020, as a part of the Intelligent Systems for Molecular Biology conference (virtual).
4. Pediatric COVID-19 Data Challenge, sponsored by BARDA. (Aug 19 - Dec 17, 2021; Participated)
5. Long COVID Computational Challenge, NIH (Oct-Dec, 2022; Participated)

Publications

Original Papers – Peer-reviewed (*: equal contribution, $: co-corresponding authorship)

1. 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]
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Reviews or Editorial – Peer-reviewed

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7. Goutman SA, Savelieff MG, Jang DG, Hur J, and Feldman EL. The amyotrophic lateral sclerosis exposome: recent advances and future directions. ***Nature Reviews Neurology***. 2023 Oct;19(10):617-634. doi: 10.1038/s41582-023-00867-2. [PMID: 37709948]

Editorial – Not-peer reviewed

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]

Book Editing
1. Bai JPF and Hur J. Systems Medicine. ***Methods in Molecular Biology***. Springer. April 5th, 2022.

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. Methods in Molecular Biology. ***Bioinformatics in Drug Discovery*** 3rd edition. 2019 Edited by Richard S Larson and Tudor I Oprea. [PMID: 30848462]

Conference Proceedings – Peer-reviewed
1. Özgür A, Hur J$, and He Y$. Extension of the Interaction Network Ontology for literature mining of gene-gene interaction networks from sentences with multiple interaction keywords. ***The Proceedings of the International Workshop on Biomedical Data Mining, Modeling, and Semantic Integration: A Promising Approach to Solving Unmet Medical Needs*** (**BDM2I 2015**). Bethlehem, PA, USA. [Full text]
2. Guo A, Racz R, Hur J, Lin Y, Xiang Z, Zhao L, Jiang G, Zhu Q, Bai J, and He Y. Ontology-based collection, representation and analysis of drug-associated neuropathy adverse events. ***The proceedings of the International Conference of Biological Ontologies (ICBO) 2015 Vaccines and Drug Ontology Studies (VDOS) workshop***. [Full text]
3. Hur J$, Ozgur A, Ong E, and He Y$. Ontology-based literature mining of E. coli vaccine-associated gene interaction networks. ***The proceedings of the International Conference of Biological Ontologies (ICBO) 2016 Vaccines and Drug Ontology Studies (VDOS) workshop***.
4. Hur J$, Ozgur A, and He Y. Ontology-based NLP literature mining and analysis of adverse drug reactions associated with neuropathy-inducing drugs. ***The proceedings of the International Conference of Biological Ontologies (ICBO) 2017 Vaccines and Drug Ontology Studies (VDOS) workshop***.
5. Tiftikci M, Ozgur A, He Y, and Hur J$. Machine learning-based identification and rule-based normalization of adverse drug reactions in drug labels**. *The proceedings of the International Conference of Biological Ontologies (ICBO) 2018 Vaccines and Drug Ontology Studies (VDOS) workshop.***
6. Hur J, Ozgur A, Ong E, Xiang Z, and He Y$. Ignet: A centrality- and ontology-based gene interaction network analysis system and its usage in vaccine-associated gene interaction study**. *The proceedings of the International Conference of Biological Ontologies (ICBO) 2019 Vaccines and Drug Ontology Studies workshop (VDOS-2019)***.
7. Liu Y, Chan KBW, Wang Z, Hur J, Xie J, Sun D, Handelman S, Sexton J, Yu H, and He Y. Development of the International Classification of Diseases Ontology (ICDO) and its application for COVID-19 diagnostic data analysis. *The 19th **International Conference on Bioinformatics***.Virtual. November 25-29, 2020.
8. Hur J, Huffman A, Basmaci M, Ong E, Ozgur A, and He Y. Literature-derived host-coronavirus gene-gene interaction network of SARS-CoV-2. ***The proceedings of the 11th International Conference of Biological Ontologies (ICBO) 2020 Vaccines and Drug Ontology Studies workshop (VDOS-2020).*** September 16 – 19, 2020. Virtual.
9. Basmaci M, He Y, Hur J$, and Ozgur A$. BioBERT model for protein-protein interaction extraction from biomedical text with a COVID-19 case study. ***The proceedings of the 12th International Conference of Biological Ontologies (ICBO) 2021 Vaccines and Drug Ontology Studies workshop (VDOS-2021).***
10. Adeluwa T, Kim E, Hur J. GBMPSO: Hybrid Gradient Boosting Machines with Particle Swarm Optimization in Cell Segmentation Data. ***IEEE Symposium Series on Computational Intelligence*** (SSCI) (SSCI 2021). December 5-7, 2021. Orlando Florida USA

11. Basmaci M, He Y, <u>Hur J</u>$^\$$, and Ozgur A$^\$$. Application of Interaction Network Ontology with BioBERT model to identifying protein-protein interactions from biomedical text. ***The proceedings of the 13th International Conference of Biological Ontologies (ICBO) 2022 Vaccines and Drug Ontology Studies workshop (VDOS-2022)***. September 26, 2022. Ann Arbor, MI, USA.
12. He Y, Yu H, Huffman A, Lin AY, Natale DA, Beverley J, Zheng L, Perl Y, Wang Z, Liu Y, Ong E, Wang Y, Huang P, Tran L, Du J, Shah Z, Shah E, Desai R, Huang HH, Tian Y, Merrell E, Duncan WD, Arabandi S, Schriml LM, Zheng J, Masci AM, Wang L, Liu H, Smaili FZ, Hoehndorf R, Pendlington ZM, Roncaglia P, Ye X, Xie J, Tang YW, Yang X, Peng S, Zhang L, Chen L, <u>Hur J</u>, Omenn GS, Athey B, and Smith B. A Comprehensive Update on CIDO: The Community-based Coronavirus Infectious Disease Ontology. ***The proceedings of the 13th International Conference on Biomedical Ontologies (ICBO-2022)***. September 25-28, 2022. Ann Arbor, MI, USA.
13. Rehana H, Zheng J, He Y, and <u>Hur J</u>. ChatGPT to identify Drug-Drug Interactions from Biomedical Texts. ***The proceedings of the 14th International Conference of Biological Ontologies (ICBO) 2023 Vaccines and Drug Ontology Studies workshop (VDOS-2023)***. August 28-September 1, 2023. Brasilia, Brazil.

<u>Conference Proceedings – Not peer-reviewed</u>
1. Tiftikci M, He Y, Ozgur A, and <u>Hur J</u>$^\$$. Extracting adverse drug reactions using deep learning- and dictionary-based literature mining approaches. ***Proceedings of Text Analysis Conference 2017***. [<u>Full text</u>]

<u>Preprint (BioRxived) – Not peer-reviewed</u>
1. de Anda-Jáuregui G, Espinal-Enriquez J, <u>Hur J</u>, Alcala-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 https://www.biorxiv.org/content/early/2018/05/21/327718
2. Liu Y, Chan W, Wang Z, <u>Hur J</u>, 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. Wang Z, Guo K, Gao P, Pu Q, Wu M$^\$$, Huang C$^\$$, and <u>Hur J</u>$^\$$. Identification of Repurposal Drugs and Adverse Drug Reactions for Various Courses of COVID-19 Based on Single-cell RNA Sequencing Data. ***arXiv***. https://arxiv.org/abs/2005.07856
4. Guo K$^\$$, Yombo D, Schmit T, Wang Z, Ghosh S, Sathish V, Mathur R, Wu M, <u>Hur J</u>$^\$$, and Khan N$^\$$. Cellular heterogeneity and molecular reprogramming of host response during influenza acute lung injury. ***bioRxiv***. https://www.biorxiv.org/content/10.1101/2021.08.05.455152v1
5. Dou JF, Bakulski KM, Guo K, Hur J, …, and Goutman SA. Cumulative genetic risk andC9orf72repeat status independently associate with ALS status in two case-control studies. medRxiv. https://www.medrxiv.org/content/10.1101/2022.10.27.22281377v1
6. Rehana H*, Cam NB*, Masmaci M, Zheng J, Jemiyo C, He Y, Ozgur A$^\$$, and <u>Hur J</u>$^\$$. Evaluation of GPT and BERT-based models on identifying protein-protein interactions in biomedical text. ***arXiv***. https://doi.org/10.48550/arXiv.2303.17728

<u>Manuscript currently under peer-review or in revision</u>
1. Eid SA*, Elzinga SE*, Guo K*, Hinder LM, Hayes JM, Pacut CM, Koubek EJ, Hur J$^\$$, and Feldman EL$^\$$. Transcriptomic profiling of sciatic nerves and dorsal root ganglia reveals site-specific effects of prediabetic neuropathy. ***Translational Research***. (revision requested; initially submitted on 11/13/2023)
2. Rehana H*, Cam NB*, Masmaci M, Zheng J, Jemiyo C, He Y, Ozgur A$^\$$, and Hur J$^\$$. Evaluation of GPT and BERT-based models on identifying protein-protein interactions in biomedical text. ***The 32nd Intelligent Systems for Molecular Biology (to be published Bioinformatics)*** (submitted on 12/30/2023)

Manuscript in preparation

1. Guo K, Goutman SA, Zhao L, Savelieff M, <u>Hur J</u>, and Feldman EL. Longitudinal plasma and terminal brain and spinal cord metabolomics in amyotrophic lateral sclerosis implicates impaired lipid metabolism. ***Brain*** (In preparation)
2. Purnell B, Murugan M, Fedele D, Geiger JD, Masino S, Hur J$, Boison D$. Uncovering Shared Epileptogenesis Pathways: Integrative Analysis of Gene Expression and DNA Methylation in Distinct Rat Models. ***PLOS One***. (In preparation)
3. McGregor BA, Raihan MDO, Porter J, and Hur J. Deciphering Motor Dysfunction and Microglial Activation in mThy1-α-Synuclein Mice: A Comprehensive Study of Behavioral, Gene Expression, and Methylation Changes. (In preparation)
4. Guo K, McGregor BA, Porter JE, and <u>Hur J</u>$. VennDetail: a Bioconductor package for visualizing and extracting details of multi-sets intersection. ***BMC Bioinformatics*** (In preparation for resubmission to a different journal)
5. Nookala S, Mukendan S, Fife A, Claycombe-Larson K, Combs C, Satptati A, <u>Hur J</u>, and Kotb M. Combined Clindamycin and the PPAR-lower case Greek gamma Agonist Pioglitazone reduces Inflammation and Anti-adipogenic effects in invasive Group A Streptococcal Infections. ***Disease Models & Mechanisms*** (In preparation for resubmission to different journal)
6. Jemiyo C, Dawn D, Lindseth G, Afghah Z, Becker J, Downs Z, Johnson M, Jurivich D, and Hur J. Polypharmacy as the risk factor of the elderly falls. ***GeroScience*** (In preparation)

Presentations
Invited or contributed talks (Oral)

1. 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; Local)
2. Defining reactive oxidant genes in diabetes mellitus. Tools and Technology Seminar, University of Michigan. February 01, 2007. Ann Arbor, Michigan (Invited; Local)
3. 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; Local)
4. The identification of gene expression profiles predictive of human diabetic neuropathy. Peripheral Nerve Society Biennial Meeting, June 25-29, 2011. Potomac, Maryland (Contributed; International)
5. 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; International)
6. 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; National)
7. Bioinformatics leads to potential therapeutic targets in ALS. Mayo Clinic Department of Neuroscience Seminar Series. December 20, 2013. Jacksonville, Florida. (Invited; Regional)
8. 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; National)
9. Bioinformatics approaches for understanding the disease mechanisms of diabetic neuropathy and amyotrophic lateral sclerosis. Department of Basic Science, School of Medicine and Health Sciences, University of North Dakota. August 28, 2014. Grand Forks, North Dakota (Invited; Local)
10. 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; National)

11. Ontology-based literature mining of E. coli vaccine-associated gene interaction networks. The International Conference of Biological Ontologies (ICBO) 2016 Vaccines and Drug Ontology Studies (VDOS) workshop. August 1-4, 2016. Corvallis, Oregon. (Contributed; International).
12. Ignet: A centrality and INO-based web system for analyzing and visualizing literature-mined networks. International Conference of Biological Ontologies (ICBO) & BioCreative 2016. August 1-4, 2016. Corvallis, Oregon. (Contributed talk; International; Flash oral talk & Poster)
13. 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; International)
14. 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; Local)
15. 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; National)
16. 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 28, 2018. Gwangju, Korea. (Invited talk; Local)
17. Systems biology for diabetic peripheral neuropathy research. United Tribes Technical College, Department of Environmental Sciences and Research. March 22, 2019. Bismarck, ND. (Invited talk; Regional)
18. 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; Regional)
19. Ignet: 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; International)
20. Gene expression signature-based machine learning classifier of drug-induced liver injury. Critical Assessment of Massive Data Analysis (CAMDA) – CMap Drug Safety Challenge. 28th Intelligent Systems for Molecular Biology conference. July 13, 2020. (Contributed talk; International)
21. Host-coronavirus gene-gene interaction network of SARS-CoV-2 derived from biomedical literature. The 9th International Workshop on Vaccine and Drug Ontology Studies (VDOS-2020). September 19, 2020. Virtual (Contributed talk; International)
22. Bioinformatics approaches for finding cures for diabetic peripheral neuropathy. March 11, 2022. University of North Dakota, Biology Departmental Seminar (Invited talk; local)
23. UND SMHS Computational Data Analysis Core (CDAC). HPI COBRE Research Seminar. May 10, 2022. University of North Dakota (Contributed talk; local)
24. Ontology-based literature mining analysis of molecular level interactions. The 11th International Workshop on Vaccine and Drug Ontology Studies (VDOS-2022). September 26, 2022. Ann Arbor, MI (Contributed talk; International)
25. Leveraging Large Language Model for Identifying DDI & PPI. The 1st Vaccine Informatics Working Group Meeting. September 8, 2023. Ann Arbor, MI (Invited; Regional)

Abstracts (Poster)
1. Hur J, Park D, and Kim Y. Construction of Integrated Database for Protein Kinases and Proteases. RECOMB 2002. Washington D.C. (Poster)
2. Hur J, Lee S, Chung T, and Kim Y. A Mathematical Modeling of GO Hierarchy for Gene Expression Profiling Analysis. RECOMB 2002. Washington D.C. (Poster)

3. Hur J, Lee W, and Kim Y. Construction of Integrated Database for Protein Kinases and Proteases. The 1st annual conference of the Korean society for bioinformatics. Busan, Korea (Poster)
4. Lee S, Hur J, and Kim Y. GOODIES: A mathematical modeling of GO hierarchy for automated biological Validation and putative functional categorization of genes. The 1st annual conference of the Korean society for bioinformatics. Busan, Korea (Awarded as the best poster)
5. Hur JI, Damaj M, Beremand P, Collins J, Hur J, and Thomas T. The Arabidopsis ABI5 bZIP gene alters the global pattern of embryo-related and ABA-regulated gene expression. American Society of Plant Biologists, Lake Buena Vista, Florida (Poster)
6. Costello J, Dalkilic M, Patwardhan R, Hur J, Middha S, Mehta K, Saple A, Colbourne J, Eads B, and Andrews J. InGeNE: Integrated Gene Network Explorer. i-Conference. Penn State University. (Poster)
7. Costello J, Dalkilic M, Patwardhan R, Middha S, Eads B, Colbourne J, Hur J, Mehta K, and Andrews J. Network Properties of a Gene Network Built from Drosophila melanogaster Data. NetSci Conference. Bloomington, Indiana (Poster)
8. Hur J and Tang H. Characterization of transcriptional responses to environmental stress by differential location analysis. Third Annual Indiana Bioinformatics Conference, Indianapolis, Indiana (Poster)
9. Hur J, States DJ, and Feldman EL. JUMiner: An online literature mining tool for target identification and functional enrichment analysis, NCIBI ARM 2008. National Center for Integrated Biomedical Informatics Annual Research Meeting, Ann Arbor, Michigan (Poster)
10. Hur J, Wiggin TD, Ade A, States DJ, and Feldman EL. JUMiner: An online literature mining tool for target identification and functional enrichment analysis. ISMB 2008, Toronto, Canada (Poster)
11. Hur J, Nair V, Wiggin TD, Kretzler M, Brosius FC, and Feldman EL. Conserved regulatory network of diabetic neuropathy and nephropathy. National Center for Integrated Biomedical Informatics Annual Research Meeting (NCIBI ARM) 2009, Ann Arbor, Michigan (Poster)
12. Hinder LM, Wiggin TD, Hur J, Kretzler M, Pennathur S, and Feldman EL. Bioinformatics discovery of genes relevant to diabetic neuropathy. NeuroDiab/ISDN 2009, Toronto, Canada (Poster)
13. Hur J, Schuyler AD, Backus C, Hayes JM, States DJ, Jagadish HV and Feldman EL. Discovery of literature-derived diabetes- and ROS-related targets and examination of SOD1 as a novel mediator of diabetic neuropathy in mice. NeuroDiab/ISDN 2009, Toronto, Canada (Poster)
14. Hur J, Kretzler M, Nair V, Jagadish HV, Sullivan KA, Anders SAA, and Feldman EL. Gene Expression Profiles Predictive of Diabetic Neuropathy Progression. American Neurological Association annual meeting 2009, Baltimore, Maryland (Poster)
15. Nair V, Hur J, Wiggin TD, Martini S, Brosius FC, Nelson R, Jagadish HV, Feldman EL, and Kretzler M. Identification of Shared Regulatory Transcriptional Networks in Diabetic Nephropathy and Neuropathy. American Society of Nephrology (ASN) 2009 Annual Meeting, San Diego, California (Poster)
16. Pande M, Hur J, Sullivan KA, Kretzler M, and Feldman EL. Transcriptional Profiling of Peripheral Neuropathy in Type 2 Diabetes Using db/db Mouse Model. 5th National Center for Integrative Biomedical Informatics (NCIBI) 2010 Annual Research Meeting, Ann Arbor, Michigan (Poster)
17. Pande M, Hur J, Sullivan KA, Kretzler M, and Feldman EL. Transcriptional Profiling of Peripheral Neuropathy in Type 2 Diabetes Using db/db Mouse Model. 18th Annual International Conference on Intelligent Systems for Molecular Biology (ISMB), Boston, Massachusetts (Poster)
18. Hur J, Xiang Z, Feldman EL, and He Y. Ontology-based Vaccine Literature Mining and Indexing. 18th Annual International Conference on Intelligent Systems for Molecular Biology (ISMB), Boston, Massachusetts (Poster)
19. Figueroa-Romero C, Pilsner JR., Hur J, and Feldman, EL. Epigenomics and Amyotrophic Lateral Sclerosis. International Symposium on ALS/MND. December 7-13, 2010. Orland, Florida (Poster)
20. Figueroa-Romero C, Hur J, Hong Y, Lunn JS, Pacut C, Delaney CE, Yung R, Callaghan BC, and Feldman EL. Identification of Epigenomic Modifications as Biomarkers for Amyotrophic Lateral Sclerosis. American Academy of Neurology. April 9-16. 2011. Honolulu, Hawaii (Poster)

21. Figueroa-Romero C, Hur J, Hong Y, Lunn JS, Pacut C, Delaney CE, Yung R, Callaghan BC, and Feldman EL. Identification of Epigenomic Modifications as Biomarkers for Amyotrophic Lateral Sclerosis. 136th American Neurological Association Annual Meeting. September 25-28, 2011. San Diego CA. (Poster)

22. Pande M, Hur J, Hong Y, Backus C, Hayes JM, Oh S, Kretzler M, and Feldman EL. Transcriptional Profiling of Diabetic neuropathy in the BKS db/db Mouse, a Mouse model of Type 2 Diabetes. Peripheral Nerve Society Biennial Meeting, June 25-29, 2011. Potomac, Maryland (Poster)

23. Sims-Robinson C, Zhao S, Hur J, and Feldman EL. Hippocampal endoplasmic reticulum stress in a murine model of type 2 diabetes. Keystone Symposia Conference

24. Hur J, Ozgur A, and He Y. 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 (Oral by He)

25. Feldman EL, Hur J, Bender D, Backus C, Hayes JM, Pande M, Cheng T. Inflammation in Diabetic Neuropathy. Keystone Symposia Conference

26. Figueroa-Romero C*, Hur J*, Bender DE, Cataldo MD, Smith AL, Yung R, Callaghan BC, and Feldman EL. Identification of Epigenetically Altered Genes in Sporadic Amyotrophic Lateral Sclerosis. Spring Symposium on Epigenetics 2013, Ann Arbor, MI (Poster)

27. O'Brien PD, Hur J, Robell NJ, Hayes JM, Oh SS, Dauch JR, Hong Yu, and Feldman EL. Neurological Complications of the BTBR OB/OB Mouse. American Diabetes Association 73rd Scientific Sessions, June 21-25, 2013. Chicago, Illinois (Poster)

28. 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. American Diabetes Association 73rd Scientific Sessions, June 21-25, 2013. Chicago, Illinois (Guided audio poster)

29. Hur J, Liu Z, Tong W, and Bai PF. Systems pharmacology-based network analysis of drug-induced rhabdomyolysis. 1st Annual FDA Scientific Computing Day. July 14, 2013. Silver Spring, Maryland (Poster)

30. Hur J, Guo A, Loh W, Feldman EF and Bai PF. Systems pharmacology and transcriptomics analysis to identify signatures of drug-induced peripheral neuropathy. 1st Annual FDA Scientific Computing Day. July 14, 2013. Silver Spring, Maryland (Poster)

31. O'Brien PD, Hur J, Robell NJ, Hayes JM, Oh SS, Dauch JR, Hong Yu, and Feldman EL. Diabetic Neuropathy in the BTBR OB/OB Mouse. 2013 Peripheral Nerve Society Biennial meeting, June 29-July 3, 2013. Saint Malo, Brittany, France (Oral and poster presentation by f)

32. Himeno T, Lunn SJ, Backus C, Robinson C, Pacut C, Hayes JM, Oh SS, Dauch JR, McLean LL, Hinder LM, Hur J, O'Brien PD, and Feldman EL. Increased Expression of Neuronal Progenitor Markers in Dorsal Root Ganglia of Diabetic Mice. 2013 Peripheral Nerve Society Biennial meeting, June 29-July 3, 2013. Saint Malo, Brittany, France (Oral and poster presentation by f)

33. Hur J, Liu Z, Tong W, and Bai PF. Systems pharmacology-based network analysis of drug-induced rhabdomyolysis. US FDA Office of Clinical Pharmacology Science Day. September 16, 2013. Silver Spring, Maryland (Poster)

34. Sarntivijai S, Hur J, Ozgur A, He Y, Omenn GS, Athey BD, and Abernethy DR. An Ontology- and NLP-assisted Systems Pharmacology Analysis of Tyrosine Kinase Inhibitor Induced Cardiotoxicity. US FDA Office of Clinical Pharmacology Science Day. September 16, 2013. Silver Spring, Maryland (Poster)

35. Hur J, Guo A, Loh W, Feldman EF, and Bai PF. Systems pharmacology and transcriptomics analysis to identify signatures of drug-induced peripheral neuropathy. US FDA Office of Clinical Pharmacology Science Day. September 16, 2013. Silver Spring, Maryland (Poster)

36. 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. 23rd Neurodiab Meeting. September 19-22, 2013. Barcelona, Spain (Oral presentation; presenting author)

37. Alameer RS, Hur J, Figueroa-Romero C, Feldman EL, and McEachin RC. Modeling Complex Genetic and Environmental Influences on ALS and FTD. A. Alfred Taubman Medical Research Institute 6th Annual Symposium. October 11, 2013. Ann Arbor, Michigan (Poster)

38. Hur J, Guo A, Loh W, Feldman EF, and Bai PF. Systems pharmacology and transcriptomics analysis to identify signatures of drug-induced peripheral neuropathy. A. Alfred Taubman Medical Research Institute 6th Annual Symposium. October 11, 2013. Ann Arbor, Michigan (Poster)

39. O'Brien PD, Hur J, Robell NJ, Hayes JM, Oh SS, Dauch JR, Hong Yu, and Feldman EL. Diabetic Neuropathy in the BTBR OB/OB Mouse. American Neurological Association's (ANA) 2013 Annual Meeting, October 13-15, 2013. New Orleans, LA (Poster)

40. Figueroa-Romero C*, Hur J*, Bender DE, Cataldo MD, Flores G, Jacoby S, Smith AL, Yung R, Callaghan BC, and Feldman EL. Identification of Epigenetically Altered Genes in Sporadic Amyotrophic Lateral Sclerosis. American Neurological Association's (ANA) 2013 Annual Meeting, October 13-15, 2013. New Orleans, LA (Poster)

41. 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. American Neurological Association's (ANA) 2013 Annual Meeting, October 13-15, 2013. New Orleans, LA (Poster)

42. Sarntivijai S, Hur J, Ozgur A, Burkhart KK, He Y, Omenn GS, Athey BD, and Abernethy DR. Predicting Gene Interactions of Tyrosine Kinase Inhibitor-Induced Cardiotoxicity with Ontology of Adverse Events-assisted Bioinformatics. American Society for Clinical Pharmacology and Therapeutics 2014 Annual Meeting, March 18-22, 2014. To be held at Atlanta, Georgia (Poster)

43. Park M, Hur J, and Feldman EF. A centralized data mining and analysis portal for diabetic neuropathy research. The 9th Great Lake Bioinformatics (GLBio) Conference. May 16-18, 2014. Cincinnati, Ohio (Flash-talk and poster)

44. Hur J, Guo A, Loh W, Feldman EF, and Bai PF. Systems pharmacology analysis of drug-induced peripheral neuropathy. The 9th Great Lake Bioinformatics (GLBio) Conference. May 16-18, 2014. Cincinnati, Ohio (Flash-talk and poster)

45. Hur J, Guo A, Loh W, Feldman EF, and Bai PF. Systems pharmacology analysis of drug-induced peripheral neuropathy. International Conference on Systems Biology of Human Disease 2014. June 17-19, 2014. Boston, Massachusetts (Poster)

46. O'Brien PD, Robell NJ, Hur J, Hayes JM, Backus C, and Feldman EL. Characterization of diabetic peripheral neuropathy in male and female BTBR ob/ob mice reveals increased fiber loss in male mice that correlates with increased plasma triglycerides. Keystone Symposia 2015 The Crossroads of Lipid Metabolism & Diabetes (D6). Copenhagen, Denmark. (Poster by O'Brien)

47. Park M, Hur J, Eichinger F, Kretzler M, Brosius FC, and Feldman EL. Identification of Tissue-specific Effect of Pioglitazone Treatment in db/db Mice using RNA-Seq. American Diabetes Association 75th Scientific Sessions, June 5-9, 2015. Boston, Massachusetts (Oral by Park)

48. Hur J, O'Brien PD, Nair V, Hinder LM, Kretzler M, Brosius FC, and Feldman EL. Shared Transcriptional Networks Between Diabetic Peripheral Neuropathy And Nephropathy In Murine Models Of Diabetes. Peripheral Nerve Society biennial meeting, June 28-July 2, 2015. Quebec City, Quebec, Canada (Oral and poster by O'Brien)

49. Guo A, Racz R, Hur J, Lin Y, Xiang Z, Zhao L, Jiang G, Zhu Q, Bai J, and He Y. Ontology-based collection, representation and analysis of drug-associated neuropathy adverse events. International Conference of Biological Ontologies (ICBO) 2015 Vaccines and Drug Ontology Studies (VDOS) workshop, July 27, 2015. Lisbon Portugal (Oral by He)

50. Ozgur A, Hur J, and He Y. Extension of the interaction network ontology (INO) for literature mining of gene-gene interaction networks from sentences with multiple interaction keywords. International Workshop on Biomedical Data Mining, Modeling, and Semantic Integration: A promising Approach to Solving Unmet Medical Needs (ISWC-BDM2I 2015). October 11-12, 2015. Bethlehem, Pennsylvania. (Oral by He)

51. Park M, Hur J, Eichinger F, Kretzler M, Brosius FC, and Feldman EL. Identification of Tissue-specific Effect of Pioglitazone Treatment in db/db Mice using RNA-Seq. The 25th Annual Scientific Meeting of NEURODIAB, September 11-13, 2015. Elsinore, Denmark (Poster by Park)

52. Hsieh JH, Svoboda D, Hur J, Sipes N, Huang R, Paules R, and Auerbach S. NTP Tox21 Toolbox to prioritize chemicals for extensive toxicological testing. ASCCT: Integrated Approaches to Testing and Assessment: Promises and Challenges of a More Flexible Approach to Toxicology Testing. October 1-2, 2015. Durham, NC (Poster by Hsieh)

53. Hsieh JH, Svoboda D, Hur J, Sipes N, Huang R, Paules R, and Auerbach S. NTP Tox21 Toolbox to prioritize chemicals for extensive toxicological testing. FutureTox III: Transforming 21st Century Science into Risk Assessment and Regulatory Decision-Making. November 19-20, 2015. Arlington, VA (Poster by Hsieh)

54. McGregor BA, Porter J, Feldman EL, and Hur J[$]. Systems Pharmacology Approach to Identify Potential Therapeutic Small- Molecules for Treatment of Diabetic Peripheral Neuropathy. Experimental Biology (EB) American Society for Pharmacology & Experimental Therapeutics (ASPET) 2016 Meeting. April 2-6, 2016. San Diego (**Oral presentation presented by McGregor, a student in the lab; 2nd place – best abstract / presentation award**)

55. Bhattacharya A, Hur J, and Dhsarathy A. The Role of CCCTC Binding Factor (CTCF) in Epithelial to Mesenchymal Transition (EMT). North Dakota Academy of Science (NDAS) Annual Meeting, April 15-16, 2016. Fargo, North Dakota (Poster by Bhattacharya)

56. McGregor BA, Porter J, Feldman EL, and Hur J[$]. Systems Biology Approach to Identify Conserved Transcriptional Networks between Human and Murine Diabetic Neuropathy. American Diabetes Association 76th Scientific Sessions, June 10-14, 2016. New Orleans (**Oral presentation presented by McGregor, a student in the lab**)

57. Hsu CW, Hur J, Liu Z, and Bai JPF. Integrative systems approaches to repurposing drugs for treating ebola virus disease. *Drug Safety Gordon Research Conference*. June 26 – July 1, 2016. Easton, Massachusetts. (Poster by Hsu)

58. Ozgur A[*], Hur J[*], Xiang Z[*], Ong E, Radev DR, and He Y. Ignet: A centrality and INO-based web system for analyzing and visualizing literature-mined networks. International Conference of Biological Ontologies (ICBO) & BioCreative 2016. August 1-4, 2016. Corvallis, Oregon. (**Flash oral talk & Poster presented by Hur**)

59. McGregor BA, Porter JE, Feldman EL, and Hur J. Transcriptional Signature of Diabetic Peripheral Neuropathy Shared Between Human and Mouse. *Graduate Research Achievement Day 2017.* University of North Dakota. Grand Forks, ND, March 2017 (**Poster by McGregor, a student in the lab)**

60. 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. UND SMHS 37th Frank N. Low Research Day. April 6, 2017. Grand Forks, North Dakota. (**Poster by Guo, a post-doc in the lab**)

61. de Anda-Jáuregui G, McGregor B, Guo K, and Hur J[$]. Using systems pharmacology to identify common mechanisms of druginduced peripheral neuropathy. UND SMHS 37th Frank N. Low Research Day. April 6, 2017. Grand Forks, North Dakota. (**Poster by de Anda-Jáuregui, a post-doc in the lab**)

62. 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 by Bhattacharya)

63. McGregor BA, Porter JE, Feldman EL, and Hur J. Transcriptional Signature of Diabetic Peripheral Neuropathy Shared Between Human and Mouse. Frank N. Low Research Day. April 6, 2017. Grand Forks, North Dakota. (**Poster by McGregor, a student in the lab)**

64. 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 by Shin)

65. 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 by Shin)

66. 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 by Bhattacharya)

67. 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 by Danes & McGregor, students in the lab)

68. 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, 2017. Grand Forks. North Dakota. (**Poster by Guo, a post-doc in the lab**)

69. de Anda-Jáuregui G, McGregor B, Guo K, and Hur J[$]. Using systems pharmacology to identify common mechanisms of druginduced peripheral neuropathy. 109th Annual Meeting of the North Dakota Academy of Science, April 28-29, 2017. Grand Forks, North Dakota. (**Oral by de Anda-Jáuregui, a post-doc in the lab; best post-doc presentation award**)

70. 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 by Hur**)

71. McGregor BA, Hinder LM, Guo K, de Anda-Jáuregui G, Pennathur S, Kretzler M, Brosius FC, Porter J, 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 by McGregor, a student in the lab**)

72. 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 by de Anda-Jáuregui, a post-doc in the lab**)

73. 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 by Cho)

74. 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 by Guo, a post-doc in the lab**)

75. 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 by de Anda-Jáuregui, a post-doc in the lab**)

76. 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, 2017. Cancún, Mexico. (**Oral by de Anda-Jáuregui, a post-doc in the lab**)

77. de Anda-Jáuregui G, McGregor B, Guo K, and <u>Hur J</u>$^{\$}$. 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 by de Anda-Jáuregui, a post-doc in the lab)**

78. Figueroa-Romero C, Lo TW, <u>Hur J</u>, Stoll E, Spring C, Pacut C, Backus C, Goutman SA, Nagrath 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 by Figueroa-Romero & Hur**)

79. O'Brien PD, Hinder LM, Guo K, <u>Hur J</u>, Hayes JM, 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 by O'Briend)

80. Elzinga S*, Guo K*, Eid S, de Anda-Jauregui G, Figueroa-Romero C, McGregor BA, Backus Carey, Pacut C, Feldman EL, and <u>Hur J</u>$^{\$}$. 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 by Elzinga)

81. Pan X, Wang J, Deng S, <u>Hur J</u>, 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 by Pan)

82. Guo K*, Elzinga S*, Eid S, de Anda-Jauregui G, Figueroa-Romero C, McGregor BA, Backus Carey, Pacut C, Feldman EL, and <u>Hur J</u>$^{\$}$. 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**)

83. McGregor BA, Guo K, <u>Hur J</u> 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 by McGregor, a student in the lab**)

84. Danes L, Hsieh JH, McGregor B, Krout D, Hu WC, Auerbach S, and <u>Hur J</u>$^{\$}$. 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 by Danes, a student in the lab**) – **Best presentation award in the 'Undergraduate' category**

85. McGregor BA, Guo K, <u>Hur J</u>, 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 by McGregor, a student in the lab**)

86. Guo K*, Elzinga S*, Eid S, de Anda-Jauregui, Figueroa-Romero C, McGregor BA, Backus Carey, Pacut C, Feldman EL, and <u>Hur J</u>$^{\$}$. 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 by Guo, a post-doc in the lab**)

87. Guo K, <u>Hur J</u>, 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 by Guo, a post-doc in the lab**)

88. Guo K, Elzinga S, Eid S, Figueroa-Romero C, McGregor BA, de Anda-Jauregui G, Pacut C, Feldman EL and **<u>Hur J</u>**. 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*)

89. Eid S, Hayes JM, Pacut C, Mendelson FE, Guo K, <u>Hur J</u>, 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 by Eid)

90. O'Brien PD, Guo K, Hinder LM, <u>Hur J</u>, 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 by O'Briend)

91. Guo K, Elzinga S, Eid S, Figueroa-Romero C, McGregor BA, de Anda-Jauregui G, Pacut C, Feldman EL, and <u>Hur J</u>[$]. 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 by Guo, a post-doc in the lab**)

92. Guo K, Feldman EL, and <u>Hur J</u>[$]. 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 by Guo, a post-doc in the lab**)

93. Claycombe-Larson KJ, Bundy AN, Darland D, <u>Hur J</u>, 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, 2018. Boston, MA. (Poster by Claycombe-Larson)

94. Guo K, and <u>Hur J</u>[$]. 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 by Guo, a post-doc in the lab**)

95. Kim J, Yoon H, White T, Zhang P, Brown J, Kim J, <u>Hur J</u>, 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 by Kim)

96. Koney-Kwaku N, Guo K, Perley D, <u>Hur J</u>, 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 by Koney-Kwaku)

97. Shin D and <u>Hur J</u>[$]. Predictive modeling of postpartum depression using Machine Learning approaches. Nutrition 2019, June 8-11, 2019, Baltimore, Maryland. (Poster by Shin)

98. Guo K, McGregor BA, Porter JE, and <u>Hur J</u>[$]. 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 by Guo, a post-doc in the lab**)

99. Guo K, McGregor BA, Porter JE, and <u>Hur J</u>[$]. 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 by Guo, a post-doc in the lab**)

100. McGregor BA, Schommer J, Guo K, Ghribi O, <u>Hur J</u>, and Porter JE. Alpha-synuclein-induced methylation and gene expression changes in microglia. ND EPSCoR 2019 State Conference. March 27, 2019. Fargo, ND. (**Poster by McGregor, a student in the lab**)

101. Guo K, Feldman EL, and <u>Hur J</u>[$]. 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 by Hur**)

102. Eid S, Guo K, Elzinga S, Figueroa-Romero C, Hinder L, Pacut C, <u>Hur J</u> and Feldman E. Genome-wide DNA Methylation Profiling Identifies Epigenetic Clues into Human Peripheral Neuropathy in Type 2 Diabetes. Peripheral Nerve Society Meeting, Genoa, June 2019. (Poster by Eid)

103. O'Brien PD, Guo K, Eid SA, Rumora AE, Hinder LM, Hayes LM, Mendelson FE, <u>Hur J</u> 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)

104. Gao P, Guo K, Lin P, <u>Hur J</u>, 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 by Gao)

105. Wang Z, Gao P, Pu Q, Guo K, Lin P, Qin S, <u>Hur J</u> 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 by Wang)
106. Elzinga S, Rumora AE, Hinder LM, Guo K, Eid S, O'Brien PD, Hayes JM, Tabbey MA, <u>Hur J</u> and Feldman EL. Nailing down peripheral neuropathy; a lipidomics approach. Neuroscience 2019, October 19-23. Chicago, USA (Poster by Elzinga)
107. Goutman SA, Boss J, Kim S, Guo K, <u>Hur J</u>, Mukherjee B, Batterman S, and Feldman EL. Unique metabolomic signatures in ALS participants based on persistent organic pollutant plasma concentrations. Northeast Amyotrophic Lateral Sclerosis Consortium (NEALS) 2019 meeting, October 2019. Clearwater Beach, FL. (Poster by Goutman)
108. Guo K, Figueroa-Romero C, Eid S, Hinder LM, Petit H, <u>Hur J</u>, and Feldman EL. Dietary reversal improves peripheral neuropathy and gut microbiota profile in a murine model of prediabetes and obesity. The American Diabetes Association 81st Scientific Sessions. June 25-29, 2020. Virtual (**Poster by Guo, a post-doc in the lab**)
109. Elzinga SE, Henn RE, O'Brien PD, Guo K, Eid SA, Rumora AE, Hayes JM, Mendelson FE, Feldman EL, and <u>Hur J</u>$^{\$}$. Hippocampal transcriptomic change due to high-fat diet in prediabetic mice. The American Diabetes Association 81st Scientific Sessions. June 25-29, 2020. Virtual (Proceedings only)
110. Alakwaa F, Goutman S, <u>Hur J</u>, and Feldman EL. Metabolite enzyme association predictor (MeaP): An algorithm to predict metabolite-enzyme association form Protein-Protein Interaction and metabolomics data. International Society for Computational Biology 2020. Virtual meeting. July 12-16 (Poster by Alakwaa)
111. McGregor B, Adeluwa T, Guo K, and <u>Hur J</u>. Gene expression signature-based machine learning classifier of drug-induced liver injury. Critical Assessment of Massive Data Analysis (CAMDA) – CMap Drug Safety Challenge. 28th Intelligent Systems for Molecular Biology conference. July 13, 2020. (International; **Poster by McGregor, a post-doc in the lab**)
112. <u>Hur J</u>$^{\$}$, Huffman A, Ozgur A, and He Y. Literature mining-based analysis of host-coronavirus gene-gene interactions. University of North Dakota Host-Pathogen Interactions CoBRE Symposium. September 15, 2020. Virtual. (**Poster by Hur**)
113. Guo K, Wang Z, Gao P, Pu Q, Wu M, Li C, and <u>Hur J</u>$^{\$}$. Drug repurposing for various courses of COVID-19 based on single-cell RNA sequencing data. University of North Dakota Host-Pathogen Interactions CoBRE Symposium. September 15, 2020. Virtual. (Poster by Wang)
114. Henn R, Elzinga S, Guo K, <u>Hur J</u>, Feldman EL. Examining the role of obesity in hippocampal activation using single-cell RNA sequencing. American Neurology Association Conference. Oct 17-10, 2021. (Virtual; presented by Henn)
115. Figueroa-Romero C, Guo K, Noureldein M, Murdock BJ, Goutman SA, Hur J, Batterman S, Feldman EL. The gut microbiome: modulator of environmental insults in Amyotrophic Lateral Sclerosis. American Neurology Association Conference. Oct 17-10, 2021. (Virtual; presented by Figueroa-Romero)
116. Adeluwa T, Kim E, <u>Hur J</u>. GBMPSO: Hybrid Gradient Boosting Machines with Particle Swarm Optimization in Cell Segmentation Data. IEEE Symposium Series on Computational Intelligence (SSCI) (SSCI 2021). Dec 5-7, 2021. Orlando Florida USA. (Full oral presentation by Mr. **Adeluwa**, a graduate student in the lab)
117. Raihan MO, McGregor BA, <u>Hur J</u>, and Porter JE. Alpha-Synucleinopathy-Related Transcriptomic Changes in Microglia. 7th Epigenetics Symposium, March 15-16, 2022, Grand Forks, ND (Poster presented by Raihan)
118. McGregor BA, Raihan MO, Porter JE, and <u>Hur J</u>. Nanopore Methylation analysis of microglia isolated from a murine model of α-synucleinopathy. The 7th Epigenetics Symposium, March 15-16, 2022, Grand Forks, ND (Poster presented by **McGregor**)

119. Raihan MO, McGregor BA, Hur J, and Porter JE. Alpha-Synucleinopathy-Related Transcriptomic Changes in Microglia. The 42nd Frank Low Research Day, April 21, 2022, Grand Forks, ND (Poster presented by **Raihan**)
120. Guo K, Noureldein M, Elzinga S, Kim B, Savelieff M, Jacoby S, Hur J*, and Feldman EL*. Metabolic syndrome produces insulin resistance in the brain and impairs oligodendrocyte metabolic support of neurons: a novel mechanism for dementia. 2022 Caswell Diabetes Institute – metabolism, Obesity & Diabetes (CDI-MOD) Symposium with Frontiers in Diabetes Complications. May 11-12, 2022. Ann Arbor, MI (**Poster presented by Hur**)
121. McGregor BA, Hur J, and Roiko M. SARS-CoV-2 Whole Genome Sequencing and Microbiome Analysis. DaCCoTA Annual Conference. Aug 2022. (Poster presented by Roiko)
122. Raihan MO, McGregor BA, Hur J*, and Porter JE*. Exploring the Role of Microglia in α-Synucleinopathy phenotypes. Seminar for the Epigenetics COBRE group. September 21, 2021. (Oral presented by **Raihan and McGregor**)
123. McGregor BA and Hur J. The University of North Dakota Computational Data Analysis Core. The 7th annual Host-Pathogen Symposium. October 3-4, 2022. Grand Forks, ND (Poster presented by **McGregor**)
124. McGregor BA, Tyagi A, Hill M, Nausheen S, DeKumar B, Nechaev S, Parrello D, Hur J, and Roiko M. SARS-CoV-2 Whole Genome Sequencing and Metagenomic Analysis. The 7th annual Host-Pathogen Symposium. October 3-4, 2022. Grand Forks, ND (Poster presented by **McGregor**)
125. McGregor BA, Tyagi A, Hill M, Nausheen S, De Kumar B, Nechaev S, Parrello D, Hur J, and Roiko M. SARS-CoV-2 Whole Genome Sequencing and Metagenomic Analysis. American Society for Microbiology (ASM). June 15 - 19, 2023 | Houston, TX
126. Rehana H, CAM NB, Basmaci M, Ozgur A, He Y, and Hur J. Evaluation of Generative Pre-Trained Transformer 3 (GPT-3) on identifying protein-protein interactions from biomedical text. University of North Dakota Graduate Research Achievement Day (GRAD), March 2-3, 2023. Grand Forks, ND (Poster presented by **Rehana**)
127. Aminu O, de Kumar B, and Hur J. Understanding Nanog's role in cell differentiation. University of North Dakota Graduate Research Achievement Day (GRAD), March 2-3, 2023. Grand Forks, ND (Poster presented by **Aminu; 2nd base presentation award**)
128. Aminu O, de Kumar B, and Hur J. Understanding Nanog's role in cell differentiation. University of North Dakota Frank Low Research Day, April 13, 2023. Grand Forks, ND (Poster presented by **Aminu**)
129. Amith M, Hur J, Komalsari R, Roberts K, and Tao C. Preliminary Word-Embedding Experiment to Explore Network Structures of Alzheimer's Medications from PubMed Literature. Computational Intelligence Methods for Bioinformatics and Biostatistics (CIBB) 2023. (Abstract submitted)
130. Rehana H, CAM NB, Basmaci M, Ozgur A, He Y, and Hur J. Identifying Protein-Protein Interaction from Biomedical Text Using Generative Pre-trained Transformer. University of North Dakota Cybersecurity Awareness & Research Symposium (CARS) 2023. October 30-31, 2023. Grand Forks, ND (Poster presented by **Rehana**, 1st place award)
131. Huffman A, Hur J, Tao C, and He Y. VIOLIN In 2024: 15 Years of Vaccine Resource Development. AMIA 2024 Informatics Summit, March 2024. (To be presented as a poster by Huffman)
132. Eid SA, Guo K, Hayes JM, Rigan D, Carter A, Wang X, Feldman EL, and Hur J. Single-cell RNA-sequencing deconvolutes cellular and molecular responses to diet and exercise interventions in prediabetic neuropathy. 2024 Peripheral Nervous Society Annual Meeting. Montreal, Canada (June 22-25, 2024) (Abstract submitted; to be presented by Hur)
133. Rehana H, CAM NB, Basmaci M, Ozgur A, He Y, and Hur J. Leveraging Large Language Models for Extracting Protein-Protein Interactions from Biomedical Corpora. South Dakota State University 2024 Data Science Symposium. February 5-6, 2024. Sioux Fall, South Dakota. (Poster to be presented by **Rehana**; Travel award)

134. He Y, Huffman A, Zheng J, Tao C, and Hur J. VIOLIN in 2024: Comprehensive Vaccine Knowledgebase and Vaccine Data Standardization, Integration, and Analysis. American Society for Microbiology (ASM) MICROBE 2024. June 13-17, 2024, Atlanta (Abstract submitted on 1/22/2024; to be presented by He)