

**UNIVERSITY OF UTAH COLLEGE OF NURSING
ACADEMIC VITA**

SECTION I

Updated 12/31/2020

A. PERSONAL DATA

Name & Credentials Katherine Ann Sward, PhD, RN, FAAN
Rank and Title Professor (with tenure)
Contact Information Office: 421 Wakara Way, Suite 140 (office 2011), SLC, UT 84108
Mail: College of Nursing 10 South 2000 East, SLC, UT 84112
Phone: 801-585-1481 (office), 801-541-2968 (cell)
E-mail: kathy.sward@nurs.utah.edu

B. EDUCATION

1. Year Degree Institution (Area of Study/Specialization)
 2007 PhD University of Utah, Salt Lake City, UT (Nursing/Informatics).
 1998 MS University of Utah, Salt Lake City, UT (Nursing/Nursing Informatics)
 1990 BS Westminster College, Salt Lake City, UT (Nursing)
 1981 Diploma Lutheran Hospital School for Nurses, Moline, IL (Nursing)

2. Licensure / Certification
 Registered Nurse UT (22-209780-3102)

C. EMPLOYMENT / PROFESSIONAL EXPERIENCE

<u>Dates</u>	<u>Position and Institution</u>
8/07 – present	Faculty, tenure-line--University of Utah College of Nursing, SLC, UT Professor w tenure 2020 - present Associate Professor w tenure 2014-2020; Assistant Professor 2007-2014
8/07 – present	Adjunct faculty--Department of Biomedical Informatics, Sch of Med, U of Utah SLC, UT
8/12 – 8/14	Assistant Dean for Information & Technology--U of Utah College of Nursing, SLC, UT
8/08 – 8/09	Adjunct Assistant Professor--U of Nebraska Medical Ctr College of Nursing, Omaha, NB
8/01 – 8/07	Instructor, Clinical--University of Utah College of Nursing, SLC, UT
7/99 – 7/01	Clinical Instructor (adjunct)--University of Utah College of Nursing, SLC, UT
7/98 – 7/01	Computer Professional--University of Utah College of Nursing, SLC, UT
12/97 – 6/98	Teaching/Research Assistant--University of Utah College of Nursing, SLC, UT

D. HONORS, RECOGNITIONS & AWARDS

<u>Year</u>	<u>Recognition</u>	<u>Received From</u>
2019	Presidential Scholar 2019-21	University of Utah
2017	Fellow	American Academy of Nursing
2017	Reed M Gardner Award for Faculty Excellence	U of Utah Dept Biomedical Informatics
2014	Excellence in Scholarship and Research	U of Utah College of Nursing
2013	Excellence in Mentorship	STTI Gamma Rho chapter
2008	Excellence in Teaching Award	STTI Gamma Rho chapter
2007	Outstanding Doctoral Student	U of Utah College of Nursing
2006	Excellence in Teaching Award	U of Utah College of Nursing

E. RESEARCH AND SCHOLARLY WORK

1. Extramural Grants/Contracts
 Current

<u>Dates</u>	<u>Amount</u>	<u>Status</u>	<u>Title & Funding Agency</u>	<u>Role (PI, Co-PI)</u>
2021-2026	pending	Scored (1.9) Anticipated start 4/2021	Collaborative Pediatric Critical Care Research Network. NICHD. (PI Dean).	Co-investigator for the Data Coordinating Center
2020-2021	\$200,548	Funded	MATernal and Infant NetworK to Understand Outcomes Associated with Treatment for Opioid Use Disorder during Pregnancy (MAT-	Co-Investigator

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			LINK). Utah clinical site. CDC Public Health Informatics Institute (PI: Smid, Shakib) PI-CD32-OPI	
2019-2023	\$622491	Funded	TRP Channels and Air Pollution (PI Reilly) 2R01ES017431-08A1	Co-Investigator
5/1/2018-4/30/2023	\$3,826,184	Funded	Utah Center for Clinical and Translational Science (CCTS). NIH/NCATS (PI Dere, Hess) U01TR002538	Informatics expert (Biomedical Informatics Core; IAC)
10/1/2015-10/1/2022	~\$28 million	Funded	Utah Trials Innovation Center NIH/NCATS. (PI: Dean) 3U24TR001597	Co-investigator
09/26/2019 – 6/30/2023	\$14.4 million	Funded	Utah Trials Innovation Center, HEAL pain ERN supplement. NIH/NCATS. (PI: Dean) 3U24TR001597-04S1	Co-investigator Lead for aim 2
<u>Completed</u>				
9/30/2015 – 10/30/2020	\$5,529,663	Funded	PRISMS Informatics Platform - Federated Integration Architecture. NIH/NIBIB. 1U54EB021973-01.	PI (MPI w Facelli) (Contact PI)
10/1/2016-10/30/2020	\$99,821	Funded	PRISMS Informatics Platform - Federated Integration Architecture (administrative supplement 1) 3U54EB021973-01S1	PI (MPI w Facelli) (Contact PI)
10/14 – 10/20	~\$5,000,000	Funded	Data Coordinating Center for Collaborative Pediatric Critical Care Research Network. NICHD. (PI Dean). 2U01HD049934-11	Co-investigator (informaticist)
5/1/2012-5/1/2018	NA	Funded, Completed (renewed as new)	Center for Clinical and Translational Science (CCTS), Biomedical Informatics Core. NIH/NCATS (PI Byington, Dere) UL1TR001067	Informatics expert (beginning 10/2016)
10/09 – 10/14	\$4,249,998	Funded, Completed	Data Coordinating Center for the Collaborative Pediatric Critical Care Research Network. [Cycle II]. NICHD (PI Dean) 5U01HD049934-06 (U01)	Co-investigator (informaticist)
3/11 – 3/14	\$274,979	Funded, Completed	Translating an Adult Ventilator Computer Protocol to Pediatric Critical Care. (R21). NICHD. 1R21HD061870-01A2	PI (multiple PI with C. Newth – CHLA/UCLA)
10/04-9/08	NA	Funded, Completed	University subcontract for “Re-engineering Clinical Research in Critical Care” (A. Morris, PI), NIH Roadmap contract HHSN268200425210C	Knowledge Engineer, Investigator
9/00-6/04	\$1,710,831	Funded, Completed	“BRCA1 Testing in a Large African American Kindred” (A. Kinney, PI), NIH National Human Genome Research Institute (R01 HG02241)	CATI Programmer/ Support

Recently Submitted or pending

Submitted	Status	Title	Role
2021	Pending – in progress	New Cohorts for Environmental Exposures and Cancer Risk (CEECR) Coordinating Center. RFA-CA-20-050	MPI (with Cook and Post)
2020	Submitted December 2020	Response to RFA-RM-20-015 Harnessing Data Science for Health Discovery and Innovation in Africa (DS-I Africa)	Co-investigator (Facelli, local PI)

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			Research Hubs. Collaborative U54 proposal with BMI, global health.	
2020		Submitted Nov 2020 Scored 34, not funded	Application 1 R01 AG072936-01, Refinement and testing of Symptom Care at Home (SCH) for older adult survivors of COVID-19	Co-investigator (Meek, PI)
2020		Submitted Nov 2020	Home Monitoring Intervention to Improve Care of Children with Medical Complexity	Co-investigator (Nkoy, PI)
2020		Submitted Oct 2020, not funded (only 1 was awarded)	Response to RFA-OD-20-013 Emergency Awards: RADx-UP Coordination and Data Collection Center (CDCC) (U24 Clinical Trial Optional)	Co-Investigator (Cook, PI)
2019, 2020		Submitted, not funded. Resub Aug 2020	Alderdan - CDMRP (pre-proposal accepted, full proposal submitted). DSS 10054315, submitted to DOD. Early Pressure Injury Prediction among Critical-Care Patients: A Machine-Learning Approach	Co-investigator, mentor
2020		Submitted Feb 2020	Yaoundé Center for Epidemiological Modeling. USAID BRIDGE training proposal	Co-investigator (Negrette, PI)
2020		Submitted June 2020	The Aging Exposome: Characterizing Bidirectional Effects of Exposures and Aging to W.M. Keck Foundation	Co-investigator (Facelli, Gouripeddi, PI)
Pending/in the works				
2019		Not funded	Sleep apnea and air quality (Jay Kitt), Pending submission to NIBIB	
2019		deferred	Smart and Connected Health (NSF) – with Gouripeddi, Kasera, Lundrigan. Preliminary submission but pulled application. Defer to December 2021 unless we split into other calls.	
2020		Pending	Research Ethics proposal (RGE proposal)	
2020		Pending – June?	Mollie, Guilherme. Opioid follow up	
Not funded (since 2017). <i>Removed not funded proposal from prior to 2017</i>				
2020-2025		Not funded	Transformative R01 NIH (with TIC)	Co-investigator (Erin Rothwell)
2020-2022		Not funded	Biomedical Data Translator: Development NCATS OTA-19-009	Co-Investigator (Facelli/Gouripeddi)
2019-2021	N/A	Not funded.	Variation in Mortality and Lab Utilization Practices in Pediatric Intensive Care Units (Mahendra; UCSF). R21. Submitted to NHLBI. Considering resubmission.	Co-investigator
2018	N/A	Not funded	Rethinking Cancer Caregiving Stress: A Dynamic Approach to Optimizing Personalized Support for Family Caregivers P01 application to NCI (Mooney, Ellington, PIs). Submitted 2018. Not funded.	Director of the Sensor, Bioinformatics, and Technology Core
2/18-1/23	N/A	Not funded	Overcoming barriers and etiological limitations to effective asthma care: a personalized medicine approach. P01 Center application (Reilly, PI)	Co-Investigator
2017-2022	N/A	Not funded	CoConet: a Coordinating Consortium and Network for CD2H NIH/NCATS (PI Ohno-Machado, UCSD; UT site PI Facelli)	Co-investigator

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2017-2018	N/A	Not funded	OpenFurther: A service oriented architecture based semantically consistent multi-scale multi-model platform for genomic enhanced public health surveillance (CDC contract; Gouripeddi, Facelli PIs)	Co-investigator
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2. Intramural Grants/Contracts

<u>Dates</u>	<u>Amount</u>	<u>Status</u>	<u>Title & Funding Agency</u>	<u>Role (PI, Co-PI)</u>
2020-2022	\$24701	Awarded 4/15/2020	“Characterizing Local COVID-19 Emergent Phenomenon and Mitigation using Computational Modeling” Special Emphasis: Emerging COVID-19/SARS-CoV-2 Research. Immunology, Inflammation, and Infectious Disease (3i) Initiative/Office of the Vice President for Research	Co-investigator (Facelli, PI)
2020	\$6994	Not funded	Incorporating Artificial Intelligence Algorithmic Bias Training into Three Different Educational Programs. University Teaching Grants. (Borbolla, PI)	Co-investigator
2019-2021	\$12000	Internally funded.	Center of Excellence for Exposure Health Informatics (Sward, Gouripeddi, Facelli, MPI) 2020 Received Internal U of U funding \$6000/yr (\$2K each from CON, BMI, and research admin [Dere]) External funding pending. Keck Foundation (LOI declined) Resubmitted to Noorda Feb 2019 (declined) In discussion with Air Force Total Exposure Health program	PI (MPI)
4/2020-4/2021		Not funded.	Green and Healthy Homes, A Pilot study CTSA	PI
4/2020-4/2021		Not funded	Environmental assessment. Proposal submitted to Green and Healthy Homes, SLC	Co-PI (with Collingwood)
2020-2021		Not funded	Epilepsy home monitoring and enhanced provider management using a novel smart phone application, the electronic-SeizureTracker (e-Sei). CCTS.	Co-I (Sweney, Nkoy)
4/2018 – 4/2019	\$4256	Funded, completed	Examining the Role of Informatics in Capturing, Analyzing, and Interpreting Patient-Generated Data for Precision Health. CON Research Committee + CON RITE group.	PI
7/2016-7/2019	\$50,000	Funded, completed	Automatic Self-Monitoring for Adolescent Depression - ASAP. PCH Foundation. (PI Guo)	Co-investigator (Mentor)
2/2016-2/2018	\$7,500	Funded, completed	Coping with Labor: An algorithm for assessing labor pain. McGillis Foundation. (with L. Roberts).	Co-PI
9/2015 – 9/2016	\$29,944.03	Funded, completed	Contraceptive use in women with chronic medical conditions: Prioritizing personalized reproductive planning in the “silos” of subspecialty care. CCTS/program in personalized healthcare. (Gawron, contact PI)	Co-PI (mentor)

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8/14-8/16	\$5000	Funded, completed	Using Decision Science to Improve Protocol Adherence. David Bailly, PI (Dept of Peds) PCH Foundation Early Career Development Research Grant	Co-investigator (mentor)
12/14 – 6/15	\$3000	Funded, completed	Configurable platform for reporting of home-monitored vital signs. U of Utah/NSF I-corps grants (Bailly, PI)	Co-PI
6/12 – 6/13	\$20000	Funded, Completed	Nursing Home Quality Improvement: Assessing the Process (Towsley, PI). Deseret Health Group donation to UU College of Nursing	Co- PI
4/08-4/11	\$4952	Funded, Completed	caBIG Modeling of Case Report Form Data from NIH Roadmap ICU Insulin-Glucose Clinical Study. College of Nursing Research Committee	PI
2003	\$5000	Funded, Completed	Effects of a Computerized Pediatric Medicine Game of Content Mastery & Retention (S. Richardson & C. Maloney, PI). Primary Children’s Medical Center	Co-investigator
2003	\$3,000	Funded, Completed	“Trends in Nutrient Intake and Growth in Critically Ill Neonates” (PI: C. McDonald) Primary Children’s Medical Center	Co-Investigator

3. Independent Research

<u>Dates</u>	<u>Title</u>	<u>Role (PI, Co-PI)</u>
2016-20	Portable Vital Signs device integration into EHR (Tuan, PI). Collaboration with NI department.	Co-investigator
2012-13	picuGrid. Initial implementation of caBIG for a pediatric ICU registry in 8 US hospitals (w L. Frey and M. Dean). <u>Funded by CPCCRN network protocol funds and U of Utah Department of Pediatrics</u>	Co-PI
2006	Evaluation of UCARE AES implementation in the undergraduate nursing curriculum (with C. Gassert and G. Barnett)	Co-PI
2006	Patterns of noncompliance with recommendations from a computerized glucose/insulin protocol (PhD Dissertation)	PI
2006	Student Nurse Interface Evaluation of glucose software	PI
1999	Optimizing Outcomes Reporting for Nurse Midwives (with L. Roberts)	PI
1998	Database Usability: Automation of the BirthCare/HealthCare Birth Log (MS Project)	PI

F. PUBLICATIONS & EDITORIAL EXPERIENCE

(peer reviewed publications identified with * and data based publications with #)

Books (or Chapters in Books)

* **Sward, K.** (2014). Documentation. Chapter 9 In T.J. Mansen & J. Gabiola, *Patient Focused Assessment: The Art and Science of Clinical Data Gathering*. Upper Saddle River, NJ: Pearson Prentice Hall

*# Gouripeddi R, Lundrigan P, Kasera S, Collingwood S, Cummins M, Facelli JC, & Sward, K. Exposure Health Informatics Ecosystem. In: Phillips KA, Dirk P. Yamamoto, LeeAnn Racz, editors. *Total Exposure Health*. 1st ed. CRC Press; 2020. p. 233–78. Available from: <https://www.taylorfrancis.com/>

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Journal Publications

Accepted/In press

- *# Tiase, V., Sward, K.A., Del Fiol, G., Staes, C., Weir, C., & Cummins, M.R. (accepted/preprint 12/22/2020). Patient-Generated Health Data In Pediatric Asthma: An Exploratory Study of Providers' Information Needs. *JMIR Pediatrics and Parenting*. 22/12/2020:25413. DOI: 10.2196/25413 URL: <https://preprints.jmir.org/preprint/25413>
- *# Martial, M., **Sward**, K., Morse, J., Wilson, A. Selie, MN., Penney, D. Martial, P. (accepted 12/14/2020). Anemia Management in Rural Haitian Children: A Mixed-Method Study. *Journal of Transcultural Nursing*.
- *Morris, A., Stagg, B., Lanspa, M., et al. (accepted/in press 11/12/2020). Computer-protocols that enable replicable and personalized clinician actions. *Journal of the American Medical Informatics Association*.

Published

- *# Tiase, V.L. Hull, W., McFarland, M.M., Sward, K.A., Del Fiol, G., Staes, C. Weir, C., Cummins, M.R. (2020). Patient-generated health data and electronic health record integration: a scoping review, *JAMIA Open*, , o0aa052, <https://doi.org/10.1093/jamiaopen/o0aa052>. Available at <https://academic.oup.com/jamiaopen/advance-article/doi/10.1093/jamiaopen/o0aa052/5999185>
- * Gouripeddi R, Sward K, Cummins M, Eilbeck K, LaSalle B, Facelli J. (2020). Reproducible informatics for reproducible translational research. *Journal of Clinical and Translational Science*, 4(s1), 66-67. doi:10.1017/cts.2020.221
- *# Yang, R., Wang, H., Edelman, L. S., Tracy, E. L., Demiris, G., **Sward**, K. A., & Donaldson, G. W. (2020). Loneliness as a mediator of the impact of social isolation on cognitive functioning of Chinese older adults. *Age and ageing*, 49(4), 599–604. <https://doi.org/10.1093/ageing/afaa020>
- *# Yang, R. Plasek, J.M., Cummins, M.R., Sward, K.A. (2020). Predicting falls among community-dwelling older adults: A demonstration of applied machine learning. *Computers, Informatics, Nursing: CIN*. 2020/11/16 publish ahead of print. doi: 10.1097/CIN.0000000000000688. https://journals.lww.com/cinjournal/Abstract/9000/Predicting_Falls_Among_Community_Dwelling_Older.99323.aspx
- * Sward, K.A. & Dabbs, A.D.V. (2020). The expanding science of sensor technology in research. *Nursing Outlook* 68(6), 689-692
- * Khemani, R.G., Hotz, J.C., Sward, K.A., & Newth, C.J.L. (2020). The role of computer-based clinical decision support systems to deliver protective mechanical ventilation. *Curr Opin Crit Care*. 26(1):73-81. doi: 10.1097/MCC.0000000000000688.
- * Tiase, V. L., Hull, W., McFarland, M. M., **Sward**, K. A., Del Fiol, G., Staes, C., Weir, C., & Cummins, M. R. (2019). Patient-generated health data and electronic health record integration: protocol for a scoping review. *BMJ open*, 9(12), e033073. <https://doi.org/10.1136/bmjopen-2019-033073>
- *# Gawron, L.M., Sanders, Jessica N., **Sward**, K., Poursaid, A.E., Simmons, R., Turok, D.K. Multi-morbidity and Highly Effective Contraception in Reproductive-Aged Women in the U.S. Intermountain West: A Retrospective Cohort Study. *Journal of General Internal Medicine*. 2019 Nov 7 epub ahead of print. doi: 10.1007/s11606-019-05425-5
- * Tiase, V. L., **Sward**, K. A., & Cummins, M. R. (2019). Navigating the Search for Patient Generated Health Data. *Studies in health technology and informatics*, 264, 1992. <https://doi.org/10.3233/SHTI190750>
- *# Gouripeddi, R., Tran, L., Madsen, R., Gangadhar, T. Mo, P., Burnett, N., Butcher, R., **Sward**, K., Facelli, J. (2019). An architecture for metadata-driven integration of heterogeneous sensor and health data for translational exposomic research. *2019 IEEE EMBS International Conference on Biomedical & Health Informatics (BHI)*, Chicago, IL, USA, 2019, pp. 1-4, doi: 10.1109/BHI.2019.8834657.
- *#**Sward**, K. (2019). Making the connection: Integrated sensor systems research. (State of the Science Paper; proceedings of the Western Institute of Nursing 2019 Research Conference).
- *# Demiris, G., Iribarren, S.J., **Sward**, K., Yang, R., May, S. (2019). Patient Generated Health Data Use in Clinical Practice: A Review. *Nursing Outlook*. 67(4), 311–330. <https://doi.org/10.1016/j.outlook.2019.04.005>
- # Luo, G., Stone, B.L., Koebnick, C et al. (2019).Using Temporal Features to Provide Data-Driven Clinical Early Warnings: Rationale and Methods. *JMIR Research Protocols*, 8(6), e13783. DOI: 10.2196/13783; PMID: 31199308; PMCID: 6592592
- *# Furlong-Dillard, J.M., Miller, B., **Sward**, K et al. (2019) The Association between Compliance and Weight Gain When Using a Feeding Protocol in Single Ventricle Patients; a Single Center Experience. *Cardiol Young*. 2019 May 28:1-8. doi: 10.1017/S1047951119000222. [Epub ahead of print]. PMID: 31133078
- * Gouripeddi R, Sward K, Cummins M, Eilbeck K, LaSalle B, Facelli JC. (2020) Reproducible Informatics for Reproducible Translational Research. *Journal of Clinical and Translational Science*, 4(S1), 66-67.

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- *# Gouripeddi R, Facelli J, Sward K. (2019/10/1). Generating Spatiotemporal Records of Exposure for Utilization in Environment Epidemiology. *Environmental Epidemiology*, 3 (S1), 138-139
- *# Moore, J., Goffin, P., Meyer, M., Lundrigan, P., Patwari, N., **Sward**, K., Weise, J. (2018). Managing in-home environments through sensing, annotating, and visualizing air quality data. *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT)(UbiComp '18)*. Available ahead of print at http://vdl.sci.utah.edu/publications/2018_imwut_maav/
- *# Min KT, Lundrigan P, Sward K, Collingwood SC, Patwari N. (2018). Smart home air filtering system: A randomized controlled trial for performance evaluation. *Smart Health*, 9-10, 62-75.
<https://doi.org/10.1016/j.smhl.2018.07.009>
<https://www.sciencedirect.com/science/article/pii/S2352648318300448?via%3Dihub>
- *# Lundrigan, P., Min, K., Patwari, N., Kaseera, S.K., Kelly, K., Moore, J., Meyer, M., Collingwood, S.C., Nkoy, F., Stone, B., **Sward**, K. (2018). EpiFi: An in-home IoT architecture for epidemiological deployments. Thirteenth *IEEE Workshop on Practical Issues in Building Sensor Network Applications (SenseApp)*, 619-626. Oct 1-4 2018. Available at: <https://span.ece.utah.edu/pub/EpiFi.pdf> and https://pdfs.semanticscholar.org/3d46/34a5c72737e272663a1514d35c230d2df899.pdf?_ga=2.78735767.286514703.1543872304-1342806791.1541020000
- *# Kalsy, M., Lin, J., Bray, B. & **Sward**, K. (2018). Role of Nursing Informatics in the Automation of Pneumonia Quality Measure Data Elements. *Computers Informatics Nursing*, 2018 Jun 21. [Epub ahead of print]. doi: 10.1097/CIN.0000000000000451. PMID: 29927766 [In print as *Comput Inform Nurs*. 2018 Oct;36(10):475-483.]
- *# Gouripeddi R, Lane E, Madsen R, Butcher R, LaSalle B, Sward K, Fritz J, Facelli JC, Cummins M, Shao J, Singleton R. (2017). Towards a scalable informatics platform for enhancing accrual into clinical research studies. *J Clin Transl Sci*. 2017 Sep;1(S1):20–20.
- *# Newth CJL, **Sward** KA, Khemani RG, Page K, Meert KL, Carcillo JA, Shanley TP, Moler FW, Pollack MM, Dalton HJ, Wessel DL, Berger JT, Berg RA, Harrison RE, Holubkov R, Doctor A, Dean JM, Jenkins TL, Nicholson CE; Eunice Kennedy Shriver National Institute for Child Health and Human Development Collaborative Pediatric Critical Care Research Network (CPCCRN). (2017). Variability in usual care mechanical ventilation for pediatric acute respiratory distress syndrome: Time for a decision support protocol? *Pediatr Crit Care Med*. 2017 Nov;18(11):e521-e529. doi: 10.1097/PCC.0000000000001319. PMID:28930815
- *# **Sward** KA, Newth CJL, Khemani RG, Page K, Meert KL, Carcillo JA, Shanley TP, Moler FW, Pollack MM, Dalton HJ, Wessel DL, Berger JT, Berg RA, Harrison RE, Doctor A, Dean JM, Holobkov R, Jenkins TL, Nicholson CE; Eunice Kennedy Shriver National Institute for Child Health and Human Development Collaborative Pediatric Critical Care Research Network (CPCCRN). (2017) Potential Acceptability of a Pediatric Ventilator Management Computer Protocol. *Pediatr Crit Care Med*. 2017 Nov;18(11):1027-1034. doi: 10.1097/PCC.0000000000001331. PMID: 28926488
- *Newth C.J.L., Khemani, R.G., Jouvett, P.A., **Sward**, K.A. (2017). Mechanical ventilation & decision support in pediatric intensive care. *Pediatric Clinics of North America*, 64(5), 1057-1070 doi: 10.1016/j.pcl.2017.06.006 [October]
- * Luo, G. & **Sward**, K. (2017). A roadmap for optimizing asthma care management via computational approaches. *JMIR Medical Informatics* 5(3):e32 DOI: 10.2196/medinform.8076
<http://medinform.jmir.org/2017/3/e32/> PMID: 28951380 PMCID: PMC5635229 [Sept 26]
- *# Hirshberg, E.L., Lanspa, M.J., Wilson, E.L., **Sward**, K.A., Jephson, A., Larsen, G.Y., Morris, A.H. (2017). A pediatric ICU bedside computer protocol for hyperglycemia is feasible, safe, and offers advantages. *Diabetes Technology and Therapeutics*. 19(3), 188-193 doi:10.1089/dia.2016.0423
- *# Carcillo, J.A., **Sward**, K., Halstead, E.S., Telford, R., Jimenez-Bacardi, A., Shakoory, B., Simon, D., Hall, M., Eunice Kennedy Shriver National Institute of Child Health and Human Development Collaborative Pediatric Critical Care Research Network Investigators. (2016) A Systemic Inflammation Mortality Risk Assessment Contingency Table for Severe Sepsis. *Pediatric Critical Care Medicine*. 2017 Feb;18(2):143-150 [Epub ahead of print 2016 Dec 9]. doi: 10.1097/PCC.0000000000001029. PubMed PMID: 27941423; PubMed Central PMCID: PMC5291785
- *# Lyons, A., **Sward**, K.A., Deshmukh, V., Pett, M.A., Donaldson, G.W., Turnbull, J. (2016). Impact of Computerized Provider Order Entry (CPOE) on Length of Stay and Mortality. *Journal of the American Medical Informatics Association*. 2016 Jul 8. [Epub ahead of print] PubMed PMID: 27402139. doi: 10.1093/jamia/ocw091. Online at <http://jamia.oxfordjournals.org/cgi/content/full/ocw091?ijkey=2UVFHIMxvzWRYAi&keytype=ref>
- *# **Sward**, K.A., Rubin, S., Jenkins, T.L., Newth, C.J.L., Dean, J.M., Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) Collaborative Pediatric Critical Care Research Network

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- (CPCCRN). (2016). Case Study: Semantic Annotation of a PICU registry. *Computers Informatics Nursing* 2016 Mar;34(3):101-4. doi: 10.1097/CIN.000000000000236. PubMed PMID: 26958992; PubMed Central PMCID: PMC4788017.
- * **Sward, K.A.** & Newth, C.J.L. (2016). Computerized decision support systems for mechanical ventilation in children. *Journal of Pediatric Intensive Care*, 0, 1-6 (online ahead of print 26 October 2015). <https://www.thieme-connect.de/products/ejournals/issue/eFirst/10.1055/s-00029029>
 - * Cummins, M.R., **Sward K**, Guo JW. (2015). Leaders in Nursing Informatics Education and Research: The University of Utah Celebrates 25 Years. *Computers Informatics Nursing*, 33(9), 379-381
 - *# Iribarren, S.J, **Sward, K.A.**, Beck, S.L., Pearce, P.F., Thurston, D., & Chirico, C. (2015). Qualitative evaluation of a text messaging intervention to support patients with active tuberculosis: Implementation considerations. *JMIR mHealth and uHealth*, 3(1):e21. DOI: 10.2196/mhealth.3971 PMCID: 4376194
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- Burnett N, Gouripeddi R, Facelli J, Mo P, Madsen R, Butcher R, **Sward K**; Development of Sensor Metadata Library for Exposomic Studies.(poster). P01.0320, p. 966.
 - Tiase V, Gouripeddi R, **Sward K**, Burnett N, Butcher R, Mo P, Cummins M. Advancing Study Metadata Models to Support an Exposomic Informatics Infrastructure. (poster). P01.0330. p. 967
 - Collingwood S, Gouripeddi R, Wong B, **Sward K**. Environmental Influences on Health Outcomes- Integrating Real-Time Exposure Measures from Homes into Longitudinal Cohort Studies: Lessons from the Field. (poster, presented by Sward). P02.0860. p. 1320
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 - Panel TU-SY-F4: An Infrastructure for Generating Exposomes: Initial Lessons from the Utah PRISMS Platform, p 194-196
 - TU-SY-F4-353: Introduction to Utah PRISMS Platform. K. A. **Sward**.
 - TU-SY-F4-354: Utah PRISMS Data Acquisition System for Generating Exposomes. N. Patwari, P. Lundrigan, K. Min, K. Kelly, M. Meyer, K. A. **Sward**;
 - TU-SY-F4-355: Utah PRISMS Data Integration Platform for Generating Exposomes. R. Gouripeddi, M. Cummins, N. Burnett, R. Madsen, P. Mo, P. Warner, R. Butcher, K. A. **Sward**, J. Facelli
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- Sward K**, Morris A, Sorenson D, Warner H. (5/2006). A Software Tool to Develop Computerized Bedside Clinical Protocols. *Inventory and Evaluation of Clinical Research Networks (IECRN) National Leadership Forum*, Rockville, MD. [abstract and demo]
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Morris A, Orme J, Lee K, Truwit, J, Jefferson L, Willson D, Zaritsky A, Bogue C, Brower R, Sorenson D, **Sward K**, Warner H, Li G, Leong T. (5/2006). Unusual Insight from Clinician Compliance with a Bedside Computerized Glucose/IV Insulin Infusion Protocol. *American Thoracic Society 2006 International Conference*, A380. [abstract & poster] AJRCCM. 2006: 174: A380

Other

Thompson, C. B., **Sward, K.**, & Lyons, A. (2000). Using a relational database to support nursing research [letter to the editor]. *Computers in Nursing*, 18(4), 155-156.

2020 Military Health System Research Symposium. Accepted poster abstracts, Conference cancelled due to COVID-19

Gouripeddi, R., Cummins, M., Collingwood, S., Sward, K., Facelli, J. Utilization of a Data and Analytics Infrastructure for Total Exposure Health Research.

Eckel et al. Statistical and machine learning methods for using sensor monitoring systems to predict asthma exacerbations.

G. PRESENTATIONS

1. Peer-Reviewed Presentations

<u>Dates</u>	<u>Title, Sponsor</u>	<u>Location</u>
4/21	"Patient-Generated Health Data in Pediatric Asthma: A Participatory Design Approach", Podium presentation (paper) accepted for Western Institute of Nursing's 54th Annual Communicating Nursing Research Conference. (Tiase, Cummins, Sward)	virtual
11/19	"Citizen Science: Using Informatics to Engage Vulnerable Populations in Scientific Research", AMIA fall symposium panel S97. (Demiris, Taylor, Iribarren, Sward)	Washington DC
11/19	"Toward patient facing clinical decision support: Critical issues and near-term opportunities". AMIA fall symposium panel S106. Boxwala, Desroche, Middleton, Richardson, Sward.	Washington DC
9/18	Demiris, G. Iribarren, S., Sward K. (2018). Oral presentation at CANS Council for the Advancement of Nursing Science 2018 State of the Science Congress on Nursing Research: Precision Health, September 13-15, 2018	Washington DC
9/18	Guo, J., Beck, S. L., & Sward, K. (2018). <i>Discovering Public Opinions from Twitter Data About Using Medical Marijuana for Cancer Pain</i> . Oral presentation at International Conference on Cancer Nursing (ICCN) Annual Meeting. Presented by Dr. Guo.	Auckland, New Zealand
5/09	"Decoding the Mysteries of Biomedical Informatics: A Practical Tutorial for Oncology Nurses" Reeves, D., Ketcham, M., & Sward, K. ONS annual meeting. [panel presentation]	San Antonio, TX
4/09	"Informatics competencies: Not just for NI specialists!" (Staggers, N., Gooder, V., Poynton, M., & Sward, K). WIN annual conference [panel presentation]	Salt Lake City, UT
4/08	"Reasons for Declining Intravenous Insulin Protocol Recommendations." Sward, K., Morris, A., Orme, J., Sorenson, D. & Warner, H. 4th Annual Utah Health Services Research Conference: Using HIT for Quality Improvement. [panel presentation]	Salt Lake City, UT
1/06	"Tools for clinical decision support", National Collaborative Pediatric Critical Care Research Network (CPCCRN) steering committee meeting	Bethesda, MD
7/04	"A Prospective, Randomized Trial Evaluating the Efficacy and Attitudes of Students Learning Pediatrics Using Web-based Tools" (with C. Maloney (presenter), J. Kendrick, M. Wright, & S. Richardson) Slice of Life 2004	Amsterdam, The Netherlands

2. Invited Speeches / Lectures / Demonstrations

<u>Dates</u>	<u>Title, Sponsor</u>	<u>Location</u>
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4/2019	Making the connection: Integrated sensor systems research. State of the Science invited lecture , Western Institute of Nursing 2019 Annual conference, April 10-13,	San Diego, California
1/2019	"Sensors, Informatics, and Technology in Clinical and Translational Science". Distinguished Visiting Professor Lecture . University of Colorado School of Nursing. Jan 31 2019 (on site 1/30-2/1)	Denver, CO
8/2018	PRISMS Informatics Center. ISES/ISEE 2018 Tech fair	Ottawa Canada
10/19/2017	"PRISMS informatics center". ISES 2017 Tech Fair	Research Park Triangle, NC
9/21/2016	"Team Science for Precision Medicine: The Utah PRISMS Informatics Center." 2016 Air Quality, Health, and Society Symposium	Salt Lake City, UT
5/2016	"Harnessing Big Data to Understand Pediatric Asthma: the Utah PRISMS project". Utah chapter Health Information Management & Systems Society (UHIMSS) annual meeting	Salt Lake City, UT
5/2016	"PRISMS Informatics Center: Federated Integration Architecture." University Healthcare Leadership Ted-style talk	Salt Lake City, UT
11/2014	"Clinical research informatics in pediatric critical care". Biomedical Informatics Seminar Series. With J.M. Dean	Salt Lake City, UT
8/12/13	"Nursing knowledge: Big data research for transforming healthcare". Invitational conference to develop an action plan for shaping health policy and informatics initiatives that uses a national nursing knowledge model.	University of Minnesota School of Nursing
9/27/2013	"Social media for Oncology Nurses". Intermountain chapter of the Oncology Nurses Society	Salt Lake City, UT
9/2013	"Inter-professional research in the CPCRn". College of Nursing Seminar Series	Salt Lake City, UT
8/31/2012	"How to write your IRB application". College of Nursing Seminar Series	Salt Lake City, UT
5/18/2012	"Informatics: Translation to Practice". Plenary panel; Conference on Personalized Health Care for Women and Children.	Salt Lake City, UT
4/12	"Clinical Research Informatics in the ICU". Biomedical Informatics Seminar	Salt Lake City, UT
10/06	"Databases", Clinical Informatics Introductory Workshop, UNIN and Intermountain Health Care	Salt Lake City, UT
5/06	"Technology in the Classroom", 51 st Annual American College of Nurse-Midwives conference	Salt Lake City, UT
2004	"Designing your Research Database", Data Madness Seminar, Veterans Administration Hospital	Salt Lake City, UT
2003	"Databases", Nursing Informatics Overview, SMS MedSeries4 Patient Care Focus Group	Salt Lake City, UT
11/00	"Databases," Nursing Informatics Overview, American Nursing Informatics Association and Utah Nursing Informatics Network	Palm Springs, CA
11/00	"Taxonomies," Nursing Informatics Overview, American Nursing Informatics Association and Utah Nursing Informatics Network	Palm Springs, CA
4/00	"Databases," Nursing Informatics Certification Review, University of Utah College of Nursing and the SMS MedSeries4 Patient/Care Focus Group	Salt Lake City, UT
6/98	"Iliad Development," (Invited Speaker), A.D.A.M. Software	Atlanta, GA

<u>Posters Dates</u>	<u>Title, Sponsor</u>	<u>Location</u>
11 2020	A Corpus Analysis of Social Isolation from Clinical Notes of Patients with Cancer ID: 3410589 Jia-Wen Guo, Christina L. Radloff, Katherine A. Sward, Susan L. Beck, Wendy W. Chapman, Gary W. Donaldson, Lewis J. Frey. AMIA Annual Symposium.	Virtual
11/18/2019	Assimilating Pollen into Exposomes for Pediatric Asthma Research R. Gouripeddi, L. Tran, T. Gangadhar, R. Madsen, J. Facelli, K. Sward, University of Utah. AMIA Annual Symposium	Washington, DC

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11/18/2019	Researchers' Perspectives on Symptoms related to Cancer Pain: A Network Analysis of Literatures. J. Guo, C. Radloff, S. Beck, G. Donaldson, W. Chapman, K. Sward; L. Frey. AMIA Annual Symposium	Washington, DC
11/18/2019	Evaluating EHR Data Availability for Cancer Pain Research C. Radloff, J. Guo, K. Sward. AMIA Annual Symposium	Washington, DC
6/15/2018	"Towards Reproducible Translational Research using Templates" (Ramkiran Gouripeddi, Mollie Cummins, Bernie LaSalle, Katherine Sward, Will Dere, Julio Facelli (University of Utah)) Research Reproducibility Conference, U of Utah. Poster & abstract. http://campusguides.lib.utah.edu/UtahRR18/abstracts	SLC, UT
6/15/2018	"Enabling Reproducible Computational Modeling: the Utah PRISMS Ecosystem" (Albert Lund, Ram Gouripeddi, Nicole Burnett, Le-Thuy Tran, Peter Mo, Randy Madsen, Mollie Cummins, Kathy Sward, Julio Facelli (University of Utah)) Research Reproducibility Conference, U of Utah. Poster & abstract. http://campusguides.lib.utah.edu/UtahRR18/abstracts	SLC, UT
6/1/2018	"An Environmental Scan of global Air Quality Research for Developing global Exposomic Informatics Infrastructure". (Gouripeddi, Chang, Cummins, Facelli, Sward). NIEHS Global Environmental Health Conference.	Research Triangle Park, North Carolina
2018 accepted	"Participatory Design for Exposomic Studies Involving Sensors" (Sward , Moore, Wiese, Meyer). AMIA annual meeting (Fall 2018). Abstract & Poster	San Francisco, California
2018 accepted	"Comparing Machine Learning Algorithms to Predict Falls of community dwelling older adults" (Yang, Plasek, Wilson, Cummins, Sward). AMIA annual meeting (Fall 2018). Abstract & Poster	San Francisco, California
2018 submitted	"Discovering opinions about using medical marijuana for cancer pain from twitter data." (Guo, Beck, Sward). International Conference on Cancer Nursing (ICCN) Sept 2018	Auckland, New Zealand
3/2018	"Towards a Molecular Basis for Exposomic Research" AMIA CRI (Spring) meeting. (Burnett, Gouripeddi, Cummins, Facelli, Sward). Abstract and Poster.	San Francisco, California
1/2018	"Utah PRISMS Ecosystem: An infrastructure for personal exposomic research". (An, Lund, Burnett, Tran, Mo, Madsen, Sward , Gouripeddi, Facelli). Young generation technical and leadership (Ygnite) 2018 conference https://ygtlc.org/2018/	Washington, DC
4/2017	"Sentiment Analysis in Twitter for Non-Pharmacological Pain Management: a pilot study". Western Institute of Nursing Communicating Nursing Research Conference. (Guo, Sward)	Denver, CO
1/2017	"Making the Case for Informatics in Global Health". Extreme Affordability/Global Health Conference 2017 (Gouripeddi, Sward)	Salt Lake City, UT
12/2016	"Leveraging the Electronic Medical Record to Assess Pregnancy Risk in a Regional Tertiary Care Center". University of Hawaii Family Planning Conference. (Gawron, Sanders, Bullock, Turok, Sward)	Manoa, Hawaii
11/2016	"A Conceptual Architecture for Reproducible On-demand Data Integration for Complex Diseases" Research Reproducibility 2016 conference (Gouripeddi, Eilbeck, Cummins, Sward , LaSalle, Peterson, Madsen, Warner, Dere, Facelli)	Salt Lake City, UT
11/2016	"An infrastructure for Reproducible Exposomic Research". Research Reproducibility 2016 Conference. (Gouripeddi, Warner, Madsen, Mo, burnett, Wen, Lund, Butcher, Cummins, Facelli, Sward) http://campusguides.lib.utah.edu/UtahRR16/abstracts	Salt Lake City, UT
10/2016	"Pediatric Research using Integrated Sensor Monitoring Systems (PRISMS) – Utah Informatics Center Federated Integration Architecture." Interdisciplinary Approaches for Health and the Environment (ISES) International meeting (Sward , Facelli)	Utrecht, The Netherlands
3/2016	"Sentiment Analysis in Twitter for Non-Pharmacological Pain Management: a pilot study". 11 th annual Health Services Research Conference. Partnering for better health: Bringing Utah's patient voices to research. (Guo, Sward)	Salt Lake City, UT

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10/2015	"Pediatric intensivists' attitudes about a ventilator management computer protocol". Unlocking Best Practice: Collaborative Nursing Research conference. Hosted by Intermountain Healthcare and University of Utah. (Sward)	Salt Lake City, UT
10/2014	"Utah Pioneers: Nursing Informatics". Utah Nurses Association Centennial Celebration. (Langford, Sward).	Salt Lake City, UT
6/2014	"Integrating new quality provisions into nursing homes". Academy Health. (Towsley, Sward , Kehinde, Madden, & Guo)	San Diego, CA
6/2014	"Analyzing temporal expression from cancer nursing research eligibility criteria" NI 2014. (Guo, J & Sward, K)	Taipei, Taiwan
10/2013	"Quality improvement in rural nursing homes". 2013 Intermountain Nursing Research Conference (Towsley, G. L., Sward, K. S. , Kehinde, J., Madden, C., & Guo, J.)	SLC, UT
11/2012	"Quality of journal abstracts of randomized controlled trials in oncology nursing research." First Connections: Advancing Care Through Science Conference (Guo, J., Kuo, C., & Sward, K.).	Phoenix, AZ
5/12	"Quality of journal abstracts of randomized controlled trials in oncology nursing research." ONS conference. (Guo, J., Kuo, C., & Sward, K.).	New Orleans LA
4/09	"Using electronic health records to enhance simulation in NP education." (Authors: Perri, S., Robbins, K., Edwards, M., Schwarting, T., Simon, K., Winters, B., Hanberg, A., Sward, K.). WIN Annual meeting, April 22-25,	Salt Lake City, UT
4/09	"Using simulation to teach diagnostic reasoning in the care of older adults" (Authors: Hanberg, A.D., Madden, C., Sward, K.A., Winters, B.A.). Connecting the Dots: Geriatric Nursing, Education, and Clinical Simulation Conference. April 2-3, 2009	Durham, NC
5/08	"Validated adequately explicit computer protocols to be used for replicable QI studies." (Authors: Savitz, L., Morris, A.H., Sward, K. , Orme, J., Clemmer, T.) NCCR conference - Clinical Research Networks: Building the Foundation for Health Care Transformation May 8, 2008	Bethesda, MD
5/08	"Frame-based tools for point-of-care computerized protocols." (Authors: Sorenson, D., Morris, A.H., Warner, H., Sward, K. , Orme, J., Clemmer, T.) NCCR conference - Clinical Research Networks: Building the Foundation for Health Care Transformation May 8, 2008	Bethesda, MD
5/08	"Reasons for declining instructions from a computer-based insulin protocol." (Authors: Sward, K. , Orme, J., Sorenson, D., Warner, H., Morris, A.H.) NCCR conference - Clinical Research Networks: Building the Foundation for Health Care Transformation May 8, 2008	Bethesda, MD
5/08	"Blood glucose control with three different QI strategies." (Authors: Truit, J., Steingrub, J., Orme, J., Lee, K.H., Tidswell, M., Leong, T.Y., Hirshberg, E., Sorenson, D., Warner, H., Sward, K. , Morris, A.H.) NCCR conference - Clinical Research Networks: Building the Foundation for Health Care Transformation May 8, 2008	Bethesda, MD
4/08	"Reengineering Clinical Research in Critical Care." (Authors: Morris, A., Orme, J., Grissom, C., Thompson, B.T., Truwit, J., Bernard, G., Jefferson, L., Willson, D., Zaritsky, A., Bogue, C., Brower R., Sorenson, D., Sward, K. , & Warner, H.) 4th Annual Utah Health Services Research Conference: Using HIT for Quality Improvement. April 25, 2008	Salt Lake City, UT
4/08	"eProtocol-insulin Development and Refinement in Two Research Networks." (Authors: Thompson, T., Orme, J., Hirshberg, E., Brower, R., Truwit, J., Willson, D., Jefferson, Bernard, G., Hite, D., Zaritsky, A., Bogue, C., Faustino, V., Lockett, P., Larsen, G., Nadkarni, V., Lee, K., Sward, K. , Sorenson, D., Morris, A.) 4th Annual Utah Health Services Research Conference: Using HIT for Quality Improvement. April 25, 2008.	Salt Lake City, UT
2/05	"Re-engineering Clinical Research in Critical Care", Health Services Research Conference Feb 18 2005	Salt Lake City, UT
10/98	"Automated Birth Log" (with L. Roberts), It's a Jungle Out There: Gaining Competitive Advantages by Optimizing Outcomes Conference	Houston, TX

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4. Media

<u>Dates</u>	<u>Title/Topic</u>	<u>Type of Media</u>
1/25/2016	Climbing to the Top 5. http://nursing.utah.edu/blog/index.php	Blog
11/2/2015	Utah Department of Air Quality. Air quality asthma research. Sward, Kelly	Blog
9/30/2015	U researchers to study triggers for pediatric asthma, pollution link. Deseret News 09/29/2016	Newspaper
9/28/2015	New U of U study could change the lives of kids with asthma	TV news

5. Didactic Lectures (other than assigned course)

2019 F	Panel – leadership in nursing
2019 F	Using sensors in research: PRISMS and CEEHI T32 seminar
2016 F	Harnessing Big Data to Understand Pediatric Asthma. Data Science course (lecture)
2016 F	RedCap Overview – DNP students. Lecture
2016 F	Leadership course – Team Science (lecture)
2016 U	IRB overview for DNP - Lecture
2015 F	College of Nursing Seminar Series - Team Science: PRISMS Center
2015 F	Leadership course – leading interprofessional research
2015 U	IRB overview for DNP - Lecture
2014	Westminster College Healthcare Management Course “Biomedical Informatics” (Feb 2014) Lecture
2014 Spring	PhD: “IRB overview for PhD students” (Feb 2014) Lecture
2014	NURS 7104: “Secondary Data Analysis” (March 2014) Lecture
2013 Fall	MS-DNP: “IRB – overview for DNP” Lecture
2013 Spring	MS-DNP: “IRB – overview for DNP” Lecture
2012 Fall	BS-DNP: “IRB at U of Utah” Lecture
2012 Spring	MS-DNP: “Utah’s IRB” Lecture
2011	BSN course – “Nursing Informatics” Lecture
2011	CNL – “Databases” Lecture
2011	NURS6802, Clinical Decision Support, “Knowledge Engineering” Lecture/Demo
2010	N6802, Clinical Decision Support, “Drools” Lecture/Demo
2009	N6802, Clinical Decision Support, “Knowledge Engineering” Lecture/Demo
2009	AMIA 10x10 program, Public Health Informatics course, “Databases in Public Health” Online module
2009	N7010, Domains of Knowledge. “Informatics and Gerontology”
2008	N6802, Clinical Decision Support, “Knowledge Engineering”
2007	N6802, Clinical Decision Support, “Decision Support for Nursing”
2004	N6003, Program Planning and Development, "Using MS Project." Lecture / Demo
2003	N3000, Individual Assessment in Nursing (3), "Electronic Medical Records." Lecture / Demo
2003	N3000, Individual Assessment in Nursing (3), "LRL Database." Lecture / Demo
2003	N6003, Program Planning and Development, "Using MS Project." Lecture / Demo
2002	N6003, Program Planning and Development, "Using MS Project." Lecture / Demo

PROFESSIONAL ORGANIZATIONS & SERVICE

1. College of Nursing Committees

<u>Years</u>	<u>Committee</u>	<u>Role</u>
2015-17; 2019-21	RPT oversight (RAO)	Member

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2014-present	RPT	Member
2013-15	Research committee	Member.
2013	LEAN project – CON workload	Member
2012-2014	Academic Leadership Team (ALT)	Member
2012-2014	Information technology team (ad hoc)	Chair
2011/2012	CoN Search Committee	Member
2007-present	PhD curriculum committee	Member; curriculum revision subcommittee 2010-2011; 2020-21 RCR task force (2014-16) Electives subcommittee (2013, 2014) Recruitment task force (2015)
2007-2010	CNACS	Member, 2007,2008 Chair 2009-2010
2007-2012	Simulation Advisory Committee	Member. Chair 2011/2012
2006-2010	UCARE-AES [Cerner Academic Solutions) (2010 merged within Simulation advisory committee)	Co-director 2006-2010 Web security official
2007-08	Awards & recognition	Member
2007	LRC strategic planning task force	Member
2006-07	Faculty workload DB task force	Member
2005-08	CoNTAC, technology advisory committee	Member
2005-06	ITS Liaison	
2004	Accelerated BS task force	Member
2004	Distance education task force	Member
1997-99	Information resources coordinating committee	member

2. Health Sciences Center Committees

<u>Years</u>	<u>Committee</u>	<u>Role</u>
2017-2018	Academic Integration: workforce	Member
2009-present	Institutional Review Board	Member
2019-present	RGE	Member

3. University Committees

<u>Years</u>	<u>Committee</u>	<u>Role</u>
2020	Future of the Library – task force	member
2019-2021	University Senate Advisory committee for IT (SAC-IT)	member
2014-2017	University Teaching Committee	Member
2009-2012	Committee for a Tech. Enhanced Curriculum	Member 2009-2010; Chair 2010-2012

4. Professional Organizations

<u>Years</u>	<u>Organization</u>	<u>Role</u>
2019-	Council for Advancement of Nursing Science	Member. CANS advanced methods conference planning committee chair, 2018-19
2019-	Western Institute of Nursing	Member; WIne (environmental special interest group)
2017-	American Academy of Nursing	Member (Fellow). ITEP expert panel.
2015-	International Society of Exposure Science (ISES)	Member.
1998-present	Utah Nursing Informatics Network (UNIN)	Chair, 2005 Treasurer, 2006-07, president-elect 2007-08 and 2019,

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		president 2008-09 and 2020-21, past president 2009-10
2009	Alliance for Nursing Informatics	UNIN rep
2000-present	Health Information Management Systems Society (HIMSS); and Utah chapter (UHIMSS)	member
1997-present	American Medical Informatics Association (AMIA)	member
2007-2019	American Thoracic Society	Member
1981-present	American Nurses Association	Member
1981-present	Sigma Theta Tau International, Gamma Rho chapter	Member (VP, 2008-09)
2008-2015	Oncology Nurses Society	Member
2010-2018	Gerontological Society of America	Member

5. Consultation and Boards

<u>Mo/Yr</u>	<u>Firm/Client</u>	<u>Role</u>
<u>Grant/Application Reviews</u>		
11/2020	Food Allergy Research Network (FARE)	Grant reviewer
10/2020	NIH, CSR. BCHI (biomedical computing and health informatics) panel	Grant reviewer
9/2020	NIH/NINDS. SEP	Grant reviewer
6/2020	NIH, CSR. BCHI (biomedical computing and health informatics) panel	Grant reviewer
6//2020	NIH/NINDS. Data Harmonization SEP	Grant reviewer
5/2020	NIH, NLM. NLM digital curation.	Grant reviewer
10/2019	NIH, CSR. BCHI (biomedical computing and health informatics) panel	Grant reviewer
5/2019	PCORI	Application reviewer
3/2019	NIH, NIEHS. Human Health Exposure Analysis Resource (HHEAR)	Grant reviewer
2/2019	NIH, CSR. BCHI (biomedical computing and health informatics) panel	Grant reviewer
1/2019	NIH, CSR. mHealth applications	Grant reviewer
12/2018	PCORI Cycle 2	Application reviewer
10/2018	NIH, CSR. BCHI (biomedical computing and health informatics) panel	Grant reviewer
6/2018	NSF Smart and Connected health panel	Grant reviewer
2/2018	NIH, CSR. Special emphasis panel	Grant reviewer
5/1/2017	CCTS	Application reviewer
01/2017	Patient-centered outcomes research institute (PCORI) Palliative care research panel	Grant reviewer
01/2017	NIH, NHLBI. Special Emphasis Panel. ZHL1 CCT-Q (C1). Technologies for the CART Demonstration Project for Collaborative Aging Research	Grant reviewer, study section chair
11/2016	National Science Foundation (NSF). Quantitative Approaches to Biomedical Big Data Panel A (P170472)	Grant reviewer
7/2016	NIH, CSR. The Environmental Influences on Child Health Outcomes (ECHO) program, Data Analysis Center applications (RFA-OD-16-005) cross-institute special call	Grant reviewer, study section chair.
6/2016	NIH, National Institute of Aging. Special section for RFA AG 16-021 Collaborative Aging (in place) Research using Technology (CART) (U2C)	Grant reviewer

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10/2015	NIH, National Institute of Biomedical Imaging and Bioengineering (NIBIB) Biostatistical Methods and Research Design Study Section (BMRD)	Grant reviewer
7/2015	National Institutes of Health CSR, cross-institute special call	Grant reviewer
7/2015	Patient-centered outcomes research institute (PCORI)	Grant reviewer, special call
2015	NIH, National Institute of Nursing Research NINR)	Nursing Informatics Experts Panel
4/2014	Patient-centered outcomes research institute (PCORI)	Grant reviewer
2011-2014	Agency for Healthcare Research & Quality (AHRQ)	Ad hoc grant reviewer
<u>Other consultation and boards</u>		
2006-07	University of Utah Orthopedic Hospital.	Orthopedic administration database design
2005-06	Fox Chase Cancer Center, Cheltenham, PA.	Database development for research study "Management of Cancer-related Fatigue and Sleep Quality" (A. Barsevik, PI S. Beck, UT PI)
2003	University Hospitals and Clinics, Salt Lake City, UT.	Data extraction for research study, Gastroenterology Department,
2003	University of Nebraska Medical Center, Omaha, NB.	Database development, "Peer documentation evaluation forms", Nursing Resources and Development.
2/2000	Health Informatics (RxRemedy/ Atmedica), Salt Lake City, UT.	Knowledge engineering for web-based expert system
2018-present	Utah Center for Clinical and Translational Science	Internal Advisory Board

6. Other

<u>Years</u>	<u>Committee</u>	<u>Role</u>
2011 - 2015	Drools "Knitting Group" – transdisciplinary and multi-institutional collaboration to examine decision support tools in clinical healthcare and clinical research	Member, planning group

J. COMMUNITY SERVICE

<u>Dates</u>	<u>Organization/Site</u>	<u>Role/Activity</u>
2013-2018	Midvale CBC Community Health Clinic	Informatics consultation
2012-2013	Health eDecisions National Standards for exchange of decision support artifacts	participant
2008-2010	National Cancer Institute	caBIG CTCAE review and harmonization (reviewer)
2007-2008	CDISC (Clinical Data Interchange Standards Consortium)	CDASH national data standards harmonization project (reviewer)
2000	Rape Recovery Center, SLC	DB consultation
2000	IHC Behavioral Health Wasatch Canyons	DB consultation

K. INTERNATIONAL TEACHING AND SERVICE ACTIVITIES

<u>Dates</u>	<u>Organization/Site</u>	<u>Role/Activity</u>
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L. OTHER

Continuing Education/Professional Development:

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Good Clinical Practice (GCP) CITI certification (2016 Dec; 2020 Jan)
 CITI Human Subjects certification (Group 1, 2018 June; Group 2 2020 May)
 LEAN training (2013).
 U of U HR – Leadership development training (2014).
 2014 Legacy of Life: Morris (Intermountain Research & Medical Foundation) – 3.5 contacts hours CE.
 2015 Unlocking Best Practice: Nursing Research Conference (Intermountain Healthcare). 4.75 contact hrs CE

SECTION II

M. CURRENT & PAST AREAS OF TEACHING RESPONSIBILITY

1. Courses Taught Over Past 5 Years

<u>Year</u>	<u>Course No.</u>	<u>Title</u>	<u>Credit Hrs.</u>	<u>Number</u>	<u>Role</u>
2020 F	NURS 6702	Fnd Hlth Informat	1.5	67	Co-instructor
2020U	NURS 6803	Clinical Database Design	3	9	Single instructor
2019U	NURS 6803	Clinical Database Design	3	10	Single Instructor
2019U	NURS 6702-090	Fnd Hlth Informat	1.5	40	Lead instructor
2018 F	NURS 6702-090	Fnd Hlth Informat	1.5	46	Lead instructor
2018 F	NURS 6702-091	Fnd Hlth Informat	1.5	38	Lead instructor
2018 U	NURS 6702	Fnd Hlth Informat	1.5	48	Lead instructor
2018 U	NURS 6803/ BMI 6950-003	Clinical Database Design	3	13	Single instructor
2017 F	NURS 6702-091	Fnd Hlth Informat	1.5	40	Single instructor
2017 F	NURS 6702-090	Fnd Hlth Informat	1.5	37	Single instructor
2017 F	BMI 6203	Clin Database Design	2	40	Lead instructor
2017 F	BMI 6010	Fnd Healthcare Informat	2	36	Co-instructor
2017 U	NURS 6803	Clin Database Design	3	4	Co-instructor
2017 U	BMI 6950-003	Clin Database Design	3	1	instructor
2016 F	NURS 6810 / BMI 6010	Fnd Hlthcare Informatics	3	32	Co-instructor
2016 F	NURS 6815	NI practicum	3	1	Lead instructor
2016 U	NURS 6960 / BMI 6950	Midvale Clinic Practicum	1-4	2	Lead instructor
2016 U	NURS 6803	Clin Database Design	3	9	Single instructor
2016 U	NURS 7208-001	Quantitative Research Design II	2	7	Single instructor
2016 S	NURS 7207-001	Quantitative Research Design	2	7	Single Instructor
2016 S	NURS 6809	NI Roles/Collaboration	3	5	Single Instructor
2015 F	NURS 6960 / BMI 6950	Midvale Clinic Practicum	1-3	4	Lead instructor
2015 F	NURS 6801	Clinical Systems Analysis	3	6	Single instructor
2015 U	NURS 6960 / BMI 6950	Midvale Clinic Practicum	1-3	3	Lead instructor
2015 U	NURS 6803	Clin Database Design	3	7	Single instructor
2015 S	NURS 6809	NI Roles/Collaboration	3	2	Single instructor
2015 S	NURS 6960 / BMI 6950	Midvale Clinic Practicum	1-3	4	Lead instructor
2015 S	NURS 6801	Clinical Systems Analysis	3	10	Single instructor

2. Development of New Courses

<u>Year</u>	<u>Course No.</u>	<u>Title</u>	<u>Credit Hrs.</u>
2017	NURS 6702	Foundations of Health Informatics. Created 2017. Major Redesign 2018	1.5
2016	BMI 6950/ NURS 6950	Global health informatics practicum (expanded from previous Midvale CBC Informatics practicum)	1-3
2013	BMI 6950/ NURS 6950	Midvale CBC Informatics Practicum (Midvale Clinic)	1 – 3
2013	BMI 6950	Healthcare Quality Informatics (w J. Garvin)	3

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2012	NURS 6806	CS Fundamentals for Clinicians	3
2007	NURS 6004:	Intro to Infor Technology (with Cummins and Hanberg)	3

3. Honors Students Supervised or Taught

<u>Year</u>	<u>Level/Student Name</u>	<u>Number</u>
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4. Independent Study / Faculty Consultation

<u>Year</u>	<u>Level/Student Name</u>	<u>Number</u>
2020 S	PhD independent study – Data Science (Dimas)	1
2019 S	PhD independent study – R programming (Romero)	1
2016 F	Teaching practicum	1
2016 F	PhD research practicum	3
2014 U	PhD ind study BMI – DB design (Mullhany)	1
2013 S	PhD ind study BMI – Quality informat (Kalsy)	1
2013 S	Phd ind study (Langheit)	1
2012 F	PhD ind study (Lyons)	1
2012 S	PhD ind study (Baraki, Madden, Nelson)	3
2011 U	PhD ind study (Sanders, Reeves [PubHealth])	2
2011 U	Post doc, BMI (Young)	1
2010 F	PhD faculty consultation	1
2010 F	PhD research practicum (Himes)	1
2010 S	PhD Fac Consultation	2
2010 S	MS ind study	1
2010 S	PhD ind study	2
2010 S	DNP ind study	1
2010 S	PhD research practicum (Himes, Perri)	2
2009 F	PhD (Guo, Thum-Thomas)	2
2009 S	DNP	1
2008	MS	3
2008	DNP	1
2007	PhD	1
2007	MS	2
2006	MS	1
2005	MS	2
2004	MS	2
2001	MS	2
2000	MS	1
1999	MS	2

5. Graduate Students Supervision

B. Master's Thesis / Project

<u>Year</u>	<u>Student Name</u>	<u>Role</u>
In Progress	An, Soyounng (BMI MS w thesis)	Member
2018	Sneha Piriya P. (Engineering)	Member
2015	Clutter, J (BMI – NLM post-doc [MD/MS] fellow)	Chair
2014	Fahim, C (Computational Engineering & Science)	Chair
2014	Caldwell, J (BMI)	Member
2013	Hirshberg, E (MD/MSCI)	Co-chair
2008	Dalpias, D	Chair
2006	Palmquist, L	Member
2006	Allen, J	Chair
2005	LeBar, B	Member
2005	Goitz, F	Member
2005	Peters, M	Member

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2005	Miller, H	Chair
2004	Bittinger, M	Member
2004	Greenwood, C	Chair
2004	Kotter, D	Member
2004	Bernstein, G	Member
2004	Kramer, R	Member
2004	James, N	Member
2004	Webb, K	Member
2004	Roemer, L	Member
2003	Barrett, W	Member
2003	Church, R	Member
2003	Russell, J	Member
2002	Eklund, J	Chair
2002	Andrew (Nutt), T	Member
2002	Roberts (Barker)	Member
2001	Konefal, I	Member
2001	Heyborne (Carpenter), B	Member
2001	Hilz, L	Member
2000	Shannon, P	Member
1999	McBride, K	Member
1999	Lyons, A	Member

B. Dissertations

<u>Year</u>	<u>Student Name</u>	<u>Role</u>
In process	Jung, S	Co-Chair w Litchman
In Process	Eengh, E.	Chair
In Process	Lemione, J.	Member
In Process	Harvey, J	Advisor, potential chair
In Process	Radloff, C	Advisor
In Process	Rudd, B.	Advisor
In process	Miller, A (BMI)	Member
In process	Kiser, A. (BMI)	Member
In process	Vasquez, J (BMI)	Member
In process	Siripuram, Ram (BMI)	Member
2020	Dimas, J	Chair
2019	Garcia, A (BMI)	Member
2019	Thum-Thomas, N	Member
2019	Martial, M	Chair
2019	Al-Qaaydeh, S	Member
2018	Sundar, N. (BMI)	Member
2018	Langheit, K	Chair
2017	Wong, A (BMI)	Member
2017	Taft, T (BMI)	Member
2016	Macintosh, C	Chair
2016	Peters, M	Member
2015	Kalsy, M (BMI)	Member
2015	Lyons, A	Chair
2015	Madden, C	Advisor
2014	Kapsandoy, S	Chair
2014	Perri-Moore, S	Chair
2013	Guo, J	Chair
2013	Iribarren, S	Member
Dropped 2017	Baraki, K	Member

C. DNP Capstone

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<u>Year</u>	<u>Student Name</u>	<u>Role</u>
2016	Lorna Baer	Content expert
2012	Hewett, J (DNP, geron)	Content expert
2012	Driggs/Yearsley, C	Content expert
2012	Mayfield, A	Content expert
2010	Maruri, A	Content expert
2010	Passey, L	Content expert
2009	Osteyee, J	DNP Capstone leader
2009	Cheeseman, S (DNP + MS certificate)	Chair, DNP Capstone leader
2009	Roberts, L	Chair, DNP Capstone leader
2009	Jensen, L	Member, DNP Capstone leader
2009	Martin, S	Content expert
2009	Jarvis, S	Content expert