

Publications

Refereed Journals:

- Ahmed, A., **Roumani, Ali M.**, (2021). Breastfeeding Monitoring Improves Maternal Self-Efficacy and Satisfaction. The American Journal of Maternal/Child Nursing (MCN) [Q2], 45(6), pp. 357-363, (E-ISSN:1539-0683, Scopus CiteScore 1.7). doi:10.1097/NMC.0000000000000658. Manuscript Number - MCN-D-20-00015R2.
- **Roumani, A.M.**, Madkour, A., Ouzzani, M., McGrew, T., Omran, E., & Zhang, X. (2019). BioNet: An Interactive Visual Data Analysis Platform for Molecular Expressions. PLoS One [Q1]. Vol. 14(2). doi:10.1371/journal.pone.0211277.
- Keller C.E.M., Sepúlveda M.S., Hopf-Jannasch A., **Roumani A.M.**, Zhou F.C., Brown P.B. (2018) Metabolite changes in the zebrafish model of fetal alcohol spectrum disorder associated with established neural abnormalities. The FASEB Journal [Q1], Vol. 31(1_supplement.792.1), (ISSN: 0892-6638, online: 1530-6860), (Q1 SJR 2.07, Scopus 4.32, IF = 5.49). doi:10.1096/fasebj.31.1_supplement.792.1. https://www.fasebj.org/doi/abs/10.1096/fasebj.31.1_supplement.792.1.
- Omran, I., Grandison, T., Nelson, D. A., **Roumani, A.M.**, Ali. (2017). A Comparative Study to the Semantics of Ontology Chain-Based Data Access Control versus Conventional Methods in Healthcare Applications. Computer and Information Science, Vol. 10(4). 10.1.10.5539/cis.v10n4p1. doi.org/10.5539/cis.v10n4p1.
- Ahmed, A., **Roumani, Ali M.**, Szucs, K.A., Zhang, L., King, D. (2016). The Effect of Interactive Web-Based Monitoring on Breastfeeding Exclusivity, Intensity, and Duration in Healthy, Term Infants After Hospital Discharge. Journal of Obstetric, Gynecologic & Neonatal Nursing (JOGNN) [Q1], 45(2), (ISSN: 0884-2175, ISI 4.3). doi:10.1016/j.jogn.2015.12.001.
- Grabowski, J.M., Perera, R., **Roumani, Ali M.**, Hedrick, V.E., Inerowicz, H.D., Hill, C.A., Kuhn, R.J. (2016). Changes in the proteome of Langat-infected Ixodes scapularis ISE6 cells: metabolic pathways associated with flavivirus infection. PLOS Neglected Tropical Diseases (PLOS NTD) [Q1], 10(2), (ISSN: 1935-2735, ISI 1.15). doi:10.1371/journal.pntd.0004180.
- **Roumani, A.M.**, McNeill, N., Patil, L., Ouzzani, M., & Hirleman, E.D. (Dec. 2014). GlobalHUB - A Model for Sustainable Online Communities. International Journal of Web Portals (IJWP) [Q4], Vol. 6, Issue 2, Article 1. (ISSN: 19380208, Scopus 0.14). <http://www.igi-global.com/journal/international-journal-web-portals-ijwp/1113>. <http://www.igi-global.com/article/globalhub/123170>
- Keller, C.E.M., Sepulveda, M. S., Jannasch, A. S., Keller, J., **Roumani, A.M.**, Zhou, F. C., Brown, P.B. (2014). Metabolomic profiling of zebrafish and mouse models of fetal alcohol spectrum disorder: antioxidants and neural-related lipids (137.5), The FASEB Journal [Q1], Vol. 28(1): 137-5. (ISSN: 0892-6638, ISI 5.043, Scopus 4.53). https://www.fasebj.org/doi/10.1096/fasebj.28.1_supplement.137.5.
- Robinson, J.P., Rajwa, B.P., Bae, E., Patsekin, V., **Roumani, A.M.**, Bhunia, A.K., Dietz, J.E., Davisson, V.J., Dundar, M.M., Thomas, J., & Hirleman, E.D. (Oct. 2011). Using Scattering to Identify Bacterial Pathogens, Optics & Photonics (OPN) [Q2], Vol. 22 (10), pp. 20-27. (ISSN: 1047-6938, ISI 0.3)
- Riley, C.P., Gough, E.S., He, J., Jandhyala, S.S., Kennedy, B., Orcun, S., Ouzzani, M., Buck, C., **Roumani, A.M.**, & Zhang, X. (Jun. 2010). The Proteome Discovery Pipeline – A Data Analysis Pipeline for Mass Spectrometry-Based Differential Proteomics Discovery. Open Proteomics Journal [Q4], Vol. 3, pp. 8-19. (ISSN: 1875-0397, Scopus 0.18)

Book Chapters:

- **Roumani, A.M.**, Skillicorn, D.B. (2004) *Large-Scale Resource Selection in Grids*. Lecture Notes in Computer Science [Q2], Vol. 3292, pp.154-164. Berlin: Springer Press. (ISSN: 0302-9743, ISI 0.33)

Refereed Conference Papers:

- **Roumani, A.M.**, Ahmed, A., (2022). Assessment of Using a Digital System for Breastfeeding Monitoring on Self-Efficacy. CATS'22 conference (COVID 19: Computer Applications & Technological Solutions), Kuwait, March 14, 2022.
- Ahmed, A. Szucs, K.A., Zhang, L., **Roumani, A.M.** (2015). The Effect of Interactive Web-based Breastfeeding Monitoring on Breastfeeding Outcomes: A randomized control trial. MNRS 39th Annual Research Conference, Indianapolis, Indiana, USA, April 16-19, 2015.
- Keller, C.E.M. , Zhou, F. C., Brown, P.B., Jannasch, A. S., Goodman Chan, A.S. , **Roumani, A.M.**, Sepulveda, M. S. (2012). Metabolomic insights from the zebrafish model of fetal alcohol spectrum disorders and the potential relationship to spontaneous abortion, preterm labor, and sudden infant death syndrome. Purdue Forestry and Natural Resources Research Symposium, USA, Oct. 2012. (Won 1st prize in the PhD Research division)
- Keller, C.E.M. , Zhou, F. C., Brown, P.B., Jannasch, A. S., Goodman Chan, A.S. , **Roumani, A.M.**, Sepulveda, M. S. (2012). Metabolomic insights from the zebrafish model of fetal alcohol spectrum disorders and the potential relationship to spontaneous abortion, preterm labor, and sudden infant death syndrome. Cold Spring Harbor Asia on Zebrafish Disease Models 5 Conference, Suzhou, China, April. 2012.
- Keller, C.E., Zhou, F., Brown, P.B., Jannasch, A.S., Chan, A.G., **Roumani, A.M.**, Sepulveda, M.S. (2012). Metabolomic insights into eye abnormalities in the zebrafish model of Fetal Alcohol Spectrum Disorders and the potential importance of Vitamin A. CSHAsia conference on Fishing for Answers: Zebrafish Models of Human Development and Disease, China, Apr. 16-20. 2012.
- Robinson, J.P., Rajwa, B.P., Bae, E., Patsekin, V., **Roumani, A.M.**, Bhunia, A.K., Dietz, J.E., Davisson, V.J., Dundar, M.M., Thomas, J., & Hirleman, E.D. (2012). Rapid Microbe Colony Identification by Optical Scattering. 9th LIP - Lasers and Interactions with Particles conference, INSA de Rouen-CORIA, France, Mar. 26-30, 2012.
- Paul Robinson, J., Rajwa, B. P., Murat Dundar, M., Bae, E., Patsekin, V., Daniel Hirleman, E., **Roumani, A.**, Bhunia, A.K., Eric Dietz, J., Jo Davisson, V., Thomas, J.G. (2011). "A Distributed National Network for Label-Free Rapid Identification of Emerging Pathogens". SPIE - the International Society for Optical Engineering, Chemical, Biological, Radiological, Nuclear, and Explosives (CBRNE) Sensing XII, Orlando, USA, June 26-28, 2011. (ISSN: 0277-786X, Scopus 0.22)
- Jesiek, B., Chang, Y., Ouzzani, M., Jesiek, B., **Roumani, A.M.**, Hirleman, E.D., & Bohn, J.H. (2010). Supporting the International Research and Education in Engineering (IREE) Program through the GlobalHUB Cyber Community for Global Engineering. 9th ASEE Global Colloquium on Engineering Education, Singapore, Oct. 18-21, 2010.
- Shirke, K., Springer, J., Gough, E., **Roumani, A.**, Riley, C., & Buck, C. (2010). A Case Study in Clinical Data Management for Cancer Proteomics. ISCA 19th International Conference on Software Engineering and Data Engineering (SEDE'10), pp. 301-306, San Francisco, USA, June 16-18, 2010.
- Gough, E., Riley, C., Buck, C., **Roumani, A.**, Regnier, F., & Springer, J. (2010). Integrating biospecimen collection, clinical information and proteomics for cancer biomarker research. Third Annual Biospecimen Research Network (BRN) Symposium, pp. 18-19, USA, Mar. 2010.
- Aref, W, Ouzzani, M., **Roumani, A.M.** (2008). Data Management Challenges for Computational Transportation. Presentation at the Int. Conference on Mobile and Ubiquitous Systems, pp. 1-5, Dublin, Ireland, Jul. 21, 2008.
- **Roumani, A.M.** & Skillicorn, D.B. (2007). Matching for Mobile Users in the Publish/Subscribe Paradigm. International Conference on Wireless Information Networks and Systems (WINSYS'07), pp. 173-180, Barcelona, Spain, July 28-31, 2007.
- **Roumani, A.M.** & Skillicorn, D.B. (2007). Finding the Positive Nearest-Neighbor in Recommender Systems. International Conference on Data Mining (DMIN'07), pp. 190-196, Las Vegas, USA, June 25-28, 2007.
- **Roumani, A.M.** & Skillicorn, D.B. (2007). Positive Matching of Resources in Computational Grids. International Conference on Grid Computing and Applications (GCA'07), pp. 3-9, Las Vegas, USA, June 25-28, 2007.

- **Roumani, A.M.** & Skillicorn, D.B. (2004). Mobile Services Discovery and Selection in the Publish/Subscribe Paradigm. International Conference on Computer Science and Software Engineering (CASCON), pp. 163-173, Toronto, Ontario, Canada, Oct. 4-7, 2004.
- **Roumani, A.M.** & Skillicorn, D.B. (2004). Large-Scale Resource Selection in Grids. In Proc. of On the Move Federated Conferences (OTM): GADA, Springer Press, Agia Napa, Cyprus, Oct. 25-29, 2004.
- **Roumani, A.M.** & Hassanein, H. (2001). A scheme for QoS-Based Dynamic Multicast Routing. 6th. IEEE Symposium on Computers and Communications (ISCC'01), pp. 132-138, Hammamet, Tunisia, July 3-5, 2001. (ISSN: 1530-1346, Scopus 0.22)

Refereed Conference Abstracts:

- Ahmed, A. Szucs, K.A., Zhang, L., **Roumani, A.M.** (2015). The Effect of Interactive Web-based Breastfeeding Monitoring on Breastfeeding Outcomes: A randomized control trial. 2015 Annual Indiana CTSI Meeting. Indiana University-Purdue University Indianapolis University. (program-published abstract-Poster). Reference Number: 0490-000193.
- Grabowski JM, Perera R, **Roumani AM**, Hedrick V, Inerowicz HD, Gulia-Nuss M, Nuss AB, Hill CA, and Kuhn RJ. (2014). Host proteome changes following infection with Langat virus: energy-associated and glutaminolysis enzymes involved in tick-borne flavivirus infection. Annual American Society for Virology Meeting. Colorado State University, Fort Collins, CO. (program-published abstract-Oral Presentation)
- Grabowski, J, Perera, R, **Roumani, AM**, Hedrick, V, Inerowicz, HA, Hill, C, and Kuhn, R. (2014). Host proteome changes following infection with the Langat virus: identification of novel targets for tick-borne flavivirus control. 2014 ACTS Translational Science Meeting. Omni Shoreham Hotel, Washington D.C. (program-published abstract)
- Grabowski, J, Perera, R, **Roumani, AM**, Hedrick, V, Inerowicz, HA, Hill, C, and Kuhn, R. (2013). Development of a tick-borne Langat virus-Ixodes scapularis ISE6 cellular proteomic screen: identification of novel targets for tick-borne flavivirus control. The 2013 Entomological Society of America Meeting. Austin, TX, Nov. 10-13, 2013. (program-published abstract)
- Grabowski, J., Perera, R., **Roumani, A.**, Hedrick, V., Inerowicz, H.A., Hill, C., & Kuhn, R. (2013). Development of a tick-borne Langat virus-Ixodes scapularis ISE6 cellular proteomic screen: identification of novel targets for tick-borne flavivirus control. 5th Indiana Clinical and Translational Sciences (CTSI) Meeting, Indiana University-Purdue University Indianapolis University (IUPUI), IN, USA, Sept. 13, 2013. (program-published abstract)
- Grabowski, J., Perera, R., **Roumani, A.**, Hedrick, V., Inerowicz, H.A., Hill, C., & Kuhn, R. (2013). Development of a tick-borne Langat virus-Ixodes scapularis ISE6 cellular proteomic screen: identification of novel targets for tick-borne flavivirus control. 7th Annual Arthropod Genomics Symposium. Notre Dame University, IN, USA, June 12-15, 2013. (program-published abstract)
- Grabowski, J., Perera, R., **Roumani, A.**, Hedrick, V., Inerowicz, H.A., Hill, C., & Kuhn, R. (2013). Development of a tick-borne Langat virus-Ixodes scapularis ISE6 cellular proteomic screen: a novel system to discover host proteins for viral-therapeutic development. National CTSA Programs Meeting. Mayo Clinic Campus, MN USA, May 5-7, 2013. (program-published abstract)
- **Roumani, A.M.**, Gough, E.S., and McGrow, T. (2011). The Omics Discovery Pipeline: A Data Analysis Pipeline for Mass Spectrometry Based Differential Proteomics and Metabolomics", Poster at the Utilizing "Omic" Technologies to Accelerate Crop Improvement Workshop, Purdue University, IN, USA, Sep. 15, 2011. (program-published abstract)
- Ouzzani, M., Hirleman, D. E., Dutta, D., Lucena, J., Groll, E., Bohn, J. H., **Roumani, A.**, & Apte, B. (2009). GlobalHUB: A Cyber-Community for Global Engineering. Poster at the NSF EEC Awardees Conference (EECAC), Reston, VA, USA, Feb. 1-3, 2009.
- Ouzzani, M., Hirleman, D.E., Bohn, Dutta, D., Groll, E., Lucena, J., **Roumani, A.**, and Apte, B. (2008). GlobalHUB: A Virtual Community for Global Engineering Education, Research, and Collaboration. Poster at 11th International Colloquium on International Engineering Education, RI, USA, Nov. 6-8, 2008.
- Whitaker, D., Aref, W., Datsenko, K., Ess, S., Gribskov, M., Kihara, D., Kim, S., **Roumani, A.**, et al. (2008). EcoliHub: An Information Resource for Experimentalists and Modelers. Poster at the 16th International Conference on Intelligent Systems for Molecular Biology (ISMB), Toronto, Canada, July 19-23, 2008.

Other Publications/Abstracts/Presentations:

- **Roumani, A.M.**, Ahmed, A. Szucs, (2022). Research seminar: The Effect of Interactive Web-based Monitoring on Breastfeeding Outcomes and Postpartum Depression: A Randomized Controlled Trial. GUST, Kuwait, June 29, 2022.
- **Roumani, A.M.**, (2022). Student Seminar: Understanding Intellectual Property Rights (IPR). Delivered to high school students participating in GUST-Tech program. GUST, Kuwait, March 19, 2022.
- **Roumani, A.M.**, (2020). Conference workshop: Digital Platforms (Moodle, BigBlueButton, and MS Teams). GUST virtual conference on COVID-19 Education Crisis - Discussing GUST Experience in Remote Learning During Spring and Summer Semesters 2020, Kuwait, July 25, 2020.
- Grabowski, J, Perera, R, **Roumani, AM**, Hedrick, V, Inerowicz, HA, Hill, C, and Kuhn, R. (2013). Development of a tick-borne Langat virus-Ixodes scapularis ISE6 cellular proteomic screen: identification of novel targets for tick-borne flavivirus control. 2013 Annual Indiana CTSI Meeting. Indiana University-Purdue University Indianapolis University. (program-published abstract-Poster).
- Grabowski, J., Perera, R., **Roumani, A.**, Hedrick, V., Inerowicz, H.A., Hill, C., & Kuhn, R. (2013). Development of a tick-borne Langat virus-Ixodes scapularis ISE6 cellular proteomic screen: identification of novel targets for tick-borne flavivirus control". Poster at the Interdisciplinary Graduate Program Reception, Purdue University, IN, USA, 2013. (Poster Presentation)
- **Roumani, A.M.**, Gough, E.S., and McGrow, T. (2012). Proteomics and Metabolomics Data Discovery for Mass Spectrometry-Based Analysis. 4th Annual CTSI Meeting, Indiana University-Purdue University Indianapolis University (IUPUI), IN, USA, Aug. 31, 2012. (program-published abstract Oral Presentation)
- Grabowski, J., Perera, R., **Roumani, A.**, Hedrick, V., Inerowicz, H.A., Hill, C., and Kuhn, R. (2012). Properties of tick-borne Langat virus during growth in Ixodes scapularis ISE6 cells and host proteome change following infection. 4th Annual CTSI Meeting, Indiana University-Purdue University Indianapolis University (IUPUI), IN, USA, Aug. 31, 2012. (program-published abstract Oral Presentation)
- **Roumani, A.M.**, Gough, E.S., and McGrow, T. (2012). A Data Analysis Pipeline for Mass Spectrometry Based Differential Proteomics and Metabolomics. Poster at the Cancer Retreat: Obesity and Cancer Discovery Group & Cancer Prevention and Control Group, Purdue University, IN, USA, May 23, 2012.
- **Roumani, A.M.**, Gough, E.S., & McGrow, T. (2011). Proteomics and Metabolomics Data Discovery for Mass Spectrometry-Based Analysis. Poster at the IU Simon Cancer Center Research Day, Indiana University, Indianapolis, IN, USA, May 26, 2011.
- **Roumani, A.M.**, Gough, E.S., McGrow, T., Riley, C.P., Buck, C., & Zhang, X. (2011). Mass Spectrometry-based Differential Proteomics. Poster at the Third Annual Breast Cancer Discovery Group Retreat, Purdue University, IN, USA, May 12, 2011.
- **Roumani, A.M.**, Riley, C.B., Gough, E.S., Buck, C., & Zhang, X. (2011). The Proteome Discovery Pipeline: A Data Analysis Pipeline for Mass Spectrometry Based Differential Proteomics. Poster at the Chronic Disease Research Session, Purdue University, IN, USA, Apr. 27, 2011.
- **Roumani, A.**, Riley, C.B., Gough, E.S., Buck, C., & Zhang, X. (2010). A Data Analysis Pipeline for Mass Spectrometry Based Differential Proteomics and Metabolomics Discovery. Poster at CI Days at Purdue, IN, USA, Dec. 8-9, 2010.
- **Roumani, A.M.**, Jovanovic, V., Tomovic, M.M., & Aref, W. (2008). PLM HUB. Internal Research Poster at Purdue University, IN, USA, Apr. 2008.
- **Roumani, A.M.**, "The Global Engineering Hub", Presentation (Invited Dinner Speaker) at the Global Engineering Program (GEP) Retreat, Purdue University, IN, USA, Nov. 2008.
- **Roumani, A.M.** (2008). The Purdue PLMhub: Development of a Web Community Resource for Product Lifecycle Management. Presentation (Invited Lunch Speaker) at Purdue PLM Center of Excellence, the Industrial Advisory Board Meeting (IAB), Purdue University, IN, USA, Apr. 2008.
- **Roumani, A.M.**, "The Nearest-Neighbour Problem in High-Dimensional Applications", Ph.D. Thesis, School of Computing, Queen's University, Canada, Feb. 2007.
- **Roumani, A.M.** & Skillicorn, D.B. (2006). A Dimensionality Reduction Technique for Collaborative Filtering. Technical Report 2006-527, Queen's University, Kingston, Canada, Nov. 2006.
<http://research.cs.queensu.ca/TechReports/Reports/2006-527.pdf>

https://www.researchgate.net/publication/253131454_A_Dimensionality_Reduction_Technique_for_Collaborative_Filtering

- **Roumani, A.M.** (2000). QoS-Based Multicast Routing. M.Sc. Thesis, Department of Computing and Information Science, Queen's University, Canada, Aug. 2000.