

# Karamarie Fecho, Ph.D.

## Publication List<sup>1</sup>

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### PEER-REVIEWED JOURNAL ARTICLES:

**Fecho K**,\* Arunachalum S, Champion J, Chute CG, Gersing K, Glusman G, Hadlock J, Lee J, Pfaff E, Robinson M, Sid E, Ta C, Xu H, Zhu R, Zhu Q, Peden DB, and The Biomedical Data Translator Consortium. Sex, obesity, diabetes, and exposure to particulate matter: scientific insights revealed by analysis of open clinical data sources during a five day hackathon. *Journal of Biomedical Informatics*, under review as a *Special Communication* by invitation of the Editor-in-Chief. \*Apart from the first/lead and last/senior author, all other authors are listed in alphabetical order.

Ahalt SC, Chute CG, **Fecho K**,\* Glusman G, Hadlock J, Solbrig H, Overby-Taylor C, Pfaff E, Ta C, Tatonetti N, Weng C, and The NCATS Biomedical Data Translator Consortium. Clinical data: sources and types, regulatory constraints, applications. *Clin Transl Sci*, 2019. doi: 10.1111/cts.12638 [E-publication ahead of print]. \*Authors are listed alphabetically. [**K. Fecho**, lead author]

**Fecho K**, Pfaff E, Xu H, Champion J, Cox S, Stillwell L, Bizon C, Peden D, Krishnamurthy A, Tropsha A, Ahalt SC. A novel approach for exposing and sharing clinical data: the Translator Integrated Clinical and Environmental Exposures Service. *JAMIA*, 2019. doi: 10.1093/jamia/ocs042. [E-publication ahead of print].

Zhang XA, Yates A, Vailevsky N, Gourdine JP, Callahan TJ, Carmody LC, Danis D, Joachimiak MP, Ravanmehr V, Pfaff ER, Champion J, Robasky K, Xu H, **Fecho K**, Walton NA, Zhu RL, Ramsdill J, Mungall CJ, Kohler S, Haendel MA, McDonald CJ, Vreeman DJ, Peden DP, Bennett TD, Feinstein JA, Martin B, Stefanski AL, Hunter LE, Chute CG, Robinson PN. Semantic integration of clinical laboratory tests from electronic health records for deep phenotyping and biomarker discovery. *npj Digital Medicine* 2019;2:32. doi.org/10.1038/s41746-019-0110-4.

Pfaff ER, Champion J, Cox S, Xu H, **Fecho K**, Krishnamurthy A, Chute CG, Overby Taylor C, Ahalt S. All roads lead to FHIR: an extensible clinical data conversion pipeline. Conference paper and podium presentation, *AMIA 2019 Informatics Summit*, March 25-28, 2019, San Francisco, CA, USA.

The Biomedical Data Translator Consortium. The Biomedical Data Translator program: conception, culture, and community. *Clin Transl Sci* 2019;12(2):86–90. [**K Fecho**, lead author]

The Biomedical Data Translator Consortium. Toward a universal biomedical data translator. *Clin Transl Sci* 2019;12(2):91–94. [**K. Fecho**, lead author]

Aikat J, Carsey T, **Fecho K**, Jeffay K, Krishnamurthy A, Mucha PJ, Rajasekar A, Ahalt S. Scientific training in the era of big data: a new pedagogy for graduate education. *Big Data* 2017;5(1):12–18. doi.org/10.1089/big.2016.0014

Evans JP, Wilhelmsen KC, Berg J, Schmitt CP, Krishnamurthy A, **Fecho K**, Ahalt SC. A new framework and prototype solution for clinical decision support and research in genomics and other data-intensive fields of medicine. *eGEMS (Generating Evidence & Methods to improve patient outcomes)* 2016;4(1):Article 6.

Pennell A, Salo-Coombs V, Herring A, Spielman F, **Fecho K**. Anesthesia and analgesia–related preferences and outcomes of women who have birth plans. *J Midwifery Womens Health* 2011;56:376–381.

Marroquin B, **Fecho K**, Salo-Coombs V, Spielman FJ. Can parturients identify midline during neuraxial block placement? *J Clin Anesth* 2011;23:3–6.

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<sup>1</sup> Only authored publications are included here; published acknowledgements for consulting, research, writing, and editorial support are not included.

Wilson SH, **Fecho K**, Marshall J, Spielman F. Factors impacting cesarean delivery operative times: a prospective observational cohort study. *Int J Obstet Anesth* 2010;19:417–421.

Vanterpool S, Coombs R, **Fecho K**. Continuous epidural infusion of morphine versus single epidural injection of extended-release morphine for postoperative pain control after arthroplasty. *Ther Clin Risk Manag* 2010;6:271–277.

Schroeck H, **Fecho K**, Adobe K, Bailey A. Vocal cord function and BIS in pediatric bronchoscopy patients emerging from propofol anesthesia. *Pediatr Pulmonol* 2010;45:494–499.

Judge A., **Fecho K**. Lateral antebrachial cutaneous neuropathy as a result of positioning while under general anesthesia. *Anesth Analg* 2010;110:122–124. [Case Report]

**Fecho K**, Jackson F, Smith F, Overdyk F. In-hospital resuscitation: opioids and other factors influencing survival, *Ther Clin Risk Manag* 2009;5:961–968.

Wilson S, Meyer H, **Fecho K**. Postoperative nausea and vomiting after breast surgery: incidence and effects of midazolam. *Ambulatory Surgery* 2009;15:3–20.

**Fecho K**, Miller NR, Merritt SA, Klauber-DeMore N, Hultman S, Blau WS. Acute and persistent pain after breast surgery. *Pain Med* 2009;10:708–715.

**Fecho K**, Moore CG, Lunney AT, Rock P, Norfleet EA, Boysen PG. Anesthesia-related perioperative adverse events during inpatient and outpatient procedures. *Int J Health Care Qual Assur* 2008;21:396–412.

**Fecho K**, Lunney AT, Boysen PG, Rock P, Norfleet EA. Postoperative mortality after inpatient surgery: incidence and Risk Factors. *Ther Clin Risk Manag* 2008;4:681–688.

Nackley AG, Tan KS, **Fecho K**, Flood P, Maixner W, Diatchenko L. Catechol-O-methyltransferase inhibition increases pain sensitivity through activation of both  $\beta_2$  and  $\beta_3$  adrenergic receptors. *Pain* 2007;128:199–208.

**Fecho K**, Manning E, Maixner W, Schmitt CP. Effects of carrageenan and morphine on acute inflammation and pain in Lewis and Fischer Rats. *Brain Behav Immun*, 2007;21:68–78.

**Fecho K**, Valtschanoff JG. Acute inflammatory and neuropathic pain in Lewis and Fischer rats. *J. Neuroendocrinol.* 2006;18:504–513.

**Fecho K**, Nackley A, Wu Y, Maixner W. Basal and carrageenan-induced pain behavior in Sprague-Dawley, Lewis and Fischer Rats. *Physiol Behav* 2005;85:177–186.

**Fecho K**, Lysle DT. Morphine-induced enhancement in the granulocyte response to thioglycollate administration in the rat. *Inflammation* 2002;26:259–271.

**Fecho K**, Lysle DT. Heroin-induced alterations in leukocyte numbers and apoptosis in the rat spleen. *Cell Immunol* 2000;202:113–123.

**Fecho K**, Nelson CJ, Lysle DT. Phenotypic and functional assessments of immune status in the rat spleen following acute heroin treatment. *Immunopharmacology* 2000;46:193–207.

**Fecho K**, Lysle DT. Phenotypic analysis of splenocyte subsets following acute morphine treatment in the rat. *Cell Immunol* 1999;195:137–146.

Maldonado MA, MacDonald GC, Kakkanaiah VN, **Fecho K**, Dransfield M, Sekiguchi D, Cohen PL, Eisenberg RA. Differential control of autoantibodies and lymphoproliferation by fas ligand expression on CD4<sup>+</sup> and CD8<sup>+</sup> T cells in vivo. *J Immunol* 1999;163:3138–3142.

**Fecho K**, Bentley SA, Cohen PL. Mice deficient in fas ligand (*gld*) or fas (*lpr*) show few alterations in granulopoiesis. *Cell Immunol* 1998;188:19–32.

**Fecho K**, Cohen PL. Fas ligand (*gld*)- and fas (*lpr*)-deficient mice do not show alterations in the extravasation or apoptosis of inflammatory neutrophils. *J Leukoc Biol* 1998;64:373–383.

**Fecho K**, Maslonek KA, Dykstra LA., Lysle DT. Acetylcholinesterase antibody-induced sympathectomy: effects on immune status and acute morphine-induced immunomodulation. *Brain Behav Immun* 1997;11:167–184.

**Fecho K**, Maslonek KA, Dykstra LA, Lysle DT. Assessment of the involvement of central nervous system and peripheral opioid receptors in the immunomodulatory effects of acute morphine treatment in rats. *J Pharmacol Exp Ther* 1996;276:626–636.

**Fecho K**, Maslonek K A, Dykstra LA, Lysle DT. Evidence for sympathetic and adrenal involvement in the immunomodulatory effects of acute morphine treatment in rats. *J Pharmacol Exp Ther* 1996;277:633–645.

**Fecho K**, Maslonek KA, Dykstra LA, Lysle DT. Mechanisms whereby macrophage-derived nitric oxide is involved in morphine-induced suppression of splenic lymphocyte proliferation. *J Pharmacol Exp Ther* 1995;272:477–483.

Coussons-Read ME, Maslonek KA, **Fecho K**, Perez L, Lysle DT. Evidence for the involvement of macrophage-derived nitric oxide in the modulation of immune status by a conditioned aversive stimulus. *J Neuroimmunol* 1994;50:51–58.

**Fecho K**, Maslonek KA, Coussons-Read ME, Dykstra LA, Lysle DT. Macrophage-derived nitric oxide is involved in the depressed concanavalin A responsiveness of splenic lymphocytes from rats administered morphine in vivo. *J Immunol* 1994;152:5845–5852.

**Fecho K**, Dykstra LA, Lysle DT. Evidence for beta-adrenergic receptor involvement in the immunomodulatory effects of morphine. *J Pharmacol Exp Ther* 1993;265:1079–1087.

**Fecho K**, Maslonek KA, Dykstra LA, Lysle DT. Alterations of immune status induced by the sympathetic nervous system: immunomodulatory effects of DMPP alone and in combination with morphine. *Brain Behav Immun* 1993;7:253–270.

#### **WHITE PAPERS AND TECHNICAL REPORTS:**

Kapeljushink O, Thakur S, **Fecho K**, Schmitt C, Feldman MP, Lowe NJ. Genesis Data System: enabling research on regional economics and innovation. RENCi Technical Report, TR-17-01. RENCi, University of North Carolina at Chapel Hill, 2017. <https://renci.org/wp-content/uploads/2017/12/Triangle-GenesisWP-12.11.17FINAL.pdf>.

Kapeljushnik O, Rosenfeld L, Garcia M, Brigham R, Naylor S, **Fecho K**, Schmitt C. SSWiS: an information system for graduate education in social work. RENCi Technical Report, TR-16-02. RENCi, University of North Carolina at Chapel Hill, 2016. <http://renci.org/wp-content/uploads/2016/10/SSWiS-TechReport-FINAL.pdf>.

Schmitt CP, Cox S, **Fecho K**, Idaszak R, Lander H, Rajasekar A, Thakur S. Scientific discovery in the era of big data: more than the scientific method. RENCi White Paper, Vol. 3, No. 6. RENCi, University of North Carolina at Chapel Hill, 2015. doi: 10.7921/GOC82763. <http://renci.org/wp-content/uploads/2015/11/Sci-Discovery-BigData-FINAL-11.23.15.pdf>.

Evans JP, Wilhelmsen KC, Berg J, Schmitt CP, Krishnamurthy A, **Fecho K**, Ahalt SC. Clinical genomics: how much data is enough? RENCi White Paper, Vol. 3, No. 2. RENCi, University of North Carolina at Chapel Hill, 2015. doi: 10.7921/GOF769G9. <http://renci.org/wp-content/uploads/2015/02/0215White-Paper-CLinicalGenomics-highres.pdf>.

Ahalt S, **Fecho K**. Ten emerging technologies for higher education. RENCi White Paper, Vol. 3, No. 1. RENCi, University of North Carolina at Chapel Hill, 2015. doi: 10.7921/GOPN93HQ. <http://renci.org/wp-content/uploads/2015/02/EmergingTechforHigherEd.pdf>.

Bizon C, Nassar N, Schmitt C, **Fecho K**, Wilhelmsen K. Technologies for genomic medicine: CANVAS and AnnoBot, solutions for genomic variant annotation. RENCi Technical Report, TR-14-04. RENCi, University of North Carolina at Chapel Hill, 2014. doi: 10.7921/GOQN64N3. [renci.org/technical-reports/tr-14-04-canvas-and-annobot-solutions-for-genomic-variant-annotation/](http://renci.org/technical-reports/tr-14-04-canvas-and-annobot-solutions-for-genomic-variant-annotation/).

Fortner B, Ahalt S, Coposky J, **Fecho K**, Krishnamurthy A, Moore R, Rajasekar A, Schmitt C, Schroeder W. Control your data: iRODS, the integrated Rule-Oriented Data System. RENCi/iRODS Consortium White Paper. RENCi, University of North Carolina at Chapel Hill, 2014. doi: 10.7921/GOBG2KWZ. [renci.org/wp-content/uploads/2014/07/0214WhitePaper-iRODS-2-FINAL-v6.pdf](http://renci.org/wp-content/uploads/2014/07/0214WhitePaper-iRODS-2-FINAL-v6.pdf).

Owen P, Young D, Coyle J, Gillis D, Schmitt C, Berg J, **Fecho K**, Wilhelmsen K. Technologies for genomic medicine: the GMW, a genetic medical workflow engine. RENCi Technical Report, TR-14-02. RENCi, University of North Carolina at Chapel Hill, 2014. doi: 10.7921/G0KW5CXC. [renci.org/technical-reports/tr-14-02-the-gmw-a-genetic-medical-workflow-engine/](http://renci.org/technical-reports/tr-14-02-the-gmw-a-genetic-medical-workflow-engine/).

Reilly J, McGee J, Jones C, Roach J, Schmitt C, **Fecho K**, Wilhelmsen K. Technologies for genomic medicine: MaPSeq, a computational and analytical workflow manager for downstream genomic sequencing. RENCi Technical Report, TR-14-03. RENCi, University of North Carolina at Chapel Hill, 2014. doi: 10.7921/G0VD6WCF. [renci.org/technical-reports/mapseq-computational-and-analytical-workflow-manager/](http://renci.org/technical-reports/mapseq-computational-and-analytical-workflow-manager/).

Schmitt C, Lamm B, Shoffner M, Owen P, Wilhelmsen K, Krishnamurthy A, Ahalt S, **Fecho K**. Security and privacy in the era of big data: the SMW, a technological solution to the challenge of data leakage. RENCi/NCDS White Paper. RENCi, University of North Carolina at Chapel Hill, 2013. doi: 10.7921/G0WD3XHT. [www.renci.org/wp-content/uploads/2013/12/0213WhitePaper-SMW.pdf](http://www.renci.org/wp-content/uploads/2013/12/0213WhitePaper-SMW.pdf).

Schmitt C, Wilhelmsen K, Krishnamurthy A, Ahalt S, **Fecho K**. Security and privacy in the era of big data: iRODS, a technological solution to the challenge of implementing security and privacy policies and procedures. RENCi/NCDS White Paper. RENCi, University of North Carolina at Chapel Hill, 2013. doi: 10.7921/GOH41PBR. [www.renci.org/wp-content/uploads/2013/11/0313WhitePaper-iRODS.pdf](http://www.renci.org/wp-content/uploads/2013/11/0313WhitePaper-iRODS.pdf).

Wilhelmsen K, Schmitt C, **Fecho K**. Factors influencing data archival of large-scale genomic data sets: a mathematical formalism to comprehensively evaluate the costs-benefits of archiving large data sets. RENCi Technical Report, TR-13-03. RENCi, University of North Carolina at Chapel Hill, 2013. doi: 10.7921/GOMW2F25. [www.renci.org/technical-reports/factors-influencing-data-archival-of-large-scale-genomic-data-sets](http://www.renci.org/technical-reports/factors-influencing-data-archival-of-large-scale-genomic-data-sets).

#### BOOK CHAPTERS:

**Fecho K**, Lysle DT. Acute effects of heroin on the cellularity of the spleen and the apoptosis of splenic leukocytes. In: Friedman H, Klein TW, Madden JJ (Eds) *Neuroimmune Circuits, Drugs of Abuse, and Infectious Diseases*, pp. 153–162. New York: Kluwer Academic/Plenum Publishers, 2001.

**Fecho K**, Maslonek KA, Dykstra LA, Lysle DT. Mechanisms whereby macrophage-derived nitric oxide is involved in morphine-induced immunomodulation. In: Sharp B, Eisenstein T, Madden J, Friedman H (Eds) *The Brain-Immune Axis and Substance Abuse*, pp. 149–153. New York: Plenum Press, New York, 1995.

Lysle DT, **Fecho K**, Maslonek KA, Dykstra LA. Evidence for the involvement of macrophage-derived nitric oxide in the immunomodulatory effects of morphine and aversive Pavlovian conditioning. In: Sharp B, Eisenstein T, Madden J, Friedman H (Eds) *The Brain-Immune Axis and Substance Abuse*, pp. 141–147. New York: Plenum Press, 1995.

#### REQUESTED ARTICLES:

**Fecho K**. Rules of engagement: writers and editors. *AMWA Journal* 29(4):166–167, 2014.

**Fecho K**. OS-41: Marketing Bingo! *AMWA Journal* 29(1):23–24, 2014.

**Fecho K**. 2011 AMWA salary survey. *AMWA Journal* 26(4):e4, 2011. [www.amwa.org/files/Journal/2011v26n4\\_online.pdf](http://www.amwa.org/files/Journal/2011v26n4_online.pdf).

#### COMPETITIVE ABSTRACTS AND ORAL PRESENTATIONS:

Wilson S, Marshall J, **Fecho K**, Spielman F. Factors impacting cesarean delivery time. Presented at the Annual Meeting of the Society for Obstetric Anesthesia and Perinatology, May 2009.

**Fecho K**, Joyner L, Pfeiffer D. Code Blue emergencies and opioids. Presented at the Annual Meeting of the American Society of Anesthesiologists, October 2008. *Anesthesiology* 109:A34, 2008.

**Fecho K**, Lysle D. Heroin-induced alterations in the leukocyte composition of the spleen: a possible role for apoptosis. Presented at the 7th Annual Conference on Neuroimmune Circuits and Infectious Disease, NIH, Bethesda, Maryland, October 1999.

**Fecho K**, How T, Nelson C, Lysle D. Acute effects of heroin on leukocyte trafficking and apoptosis in the spleen. Presented at the Annual Meeting of the PsychoNeuroImmunology Research Society, Galveston, Texas, May 1999. *Neuroimmunomodulation* 6:218, 1999.

**Fecho K**, Maslonek KA, Dykstra LA, Lysle DT. Mechanisms of morphine-induced immunomodulation. Presented at the Annual Meeting of the PsychoNeuroImmunology Research Society, November 1994.

#### **COMPETITIVE ABSTRACTS AND POSTER PRESENTATIONS:**

**Fecho K**, Kirschbaum K, Rask J, Ballard D, McFarlane C, Boysen P, Farrell T, Bitar, R. Invitational rhetoric as a tool for improving communication between anesthesiologists and surgeons. *Proceedings of the 2009 American Society of Anesthesiologists*, No. A1004, October 2009.

**Fecho K**, Kopp V. ASA PS classification system differentiates miscellaneous complications. *Proceedings of the 2009 American Society of Anesthesiologists*, No. A1516, October 2009.

Harrell M, Nanda M, Meyer H, **Fecho K**. An evaluation of nerve block duration and patient satisfaction. *Proceedings of the 2009 American Society of Anesthesiologists*, No. A1496, October 2009.

Rusak K, Newton T, Blau W, Coombs R, **Fecho K**. Postoperative pain management during and after continuous epidural infusion. 2009. *Proceedings of the 2009 American Society of Anesthesiologists*, No. A803, October 2009.

McCulloch S, Hardman D, **Fecho K**. Regional anesthesia in a patient with end-stage renal disease: balancing local anesthetic toxicity and block efficacy. Presented at the Annual Meeting of the American Society of Anesthesiologists, October 2009. [Case Report]

Veneracion M, Hardman D, **Fecho K**. Distinguishing fact from fiction: delayed recognition and treatment of profound hypotension in a patient undergoing cervical spine surgery in the prone position. Presented at the Annual Meeting of the American Society of Anesthesiologists, October 2009. [Case Report]

Hardman D, McCulloch S, **Fecho K**. Ultrasound guided brachial plexus anesthesia in a patient with end stage renal disease (ESRD): vascular structures and local anesthetic toxicity. Presented at the XXVIII Annual European Society of Regional Anaesthesia Congress, October 2009. [Case Report]

Hardman D, Runkle D, **Fecho K**. Symptomatic phrenic nerve paralysis after ultrasound guided interscalene brachial plexus block (ISBPB): an unusual presentation. Presented at the XXVIII Annual European Society of Regional Anaesthesia Congress, October 2009. [Case Report]

Jackson F, Tyler E, Kim W, **Fecho K**, Spielman F. Code Blue: who responds, and which drugs and equipment are used, in academic anesthesia programs. Presented at the Annual Meeting of the International Anesthesia Research Society, March 2008.

Judge A, Winchester B, **Fecho K**. Postoperative lateral antebrachial cutaneous neuropathy after general anesthesia. Presented at the Annual Meeting of the American Society of Anesthesiologists, October 2008. [Case Report]

Marroquin B, Neighbors J, **Fecho K**, Salo-Coombs V, Spielman FJ. Can parturients identify midline during neuraxial block placement? Presented at the Annual Meeting of the American Society of Anesthesiologists, October 2008. *Anesthesiology* 109:A1127, 2008.

Sanders M, Smith K, **Fecho K**, Spielman F, Mayer D. A case-control analysis to identify risk factors for peripartum blood transfusions. Presented at the Annual Meeting of the American Society of Anesthesiologists, October 2008. *Anesthesiology* 109:A594, 2008.

Wilson S, Meyer H, **Fecho K**. Postoperative nausea and vomiting after breast surgery: incidence and effects of midazolam. Presented at the Annual Meeting of the American Society of Anesthesiologists, October 2008. *Anesthesiology* 109:A1262, 2008.

Blau WS, Longphre KM, **Fecho K**, Herald C. Why does continuous epidural infusion of analgesics often fail to provide effective postoperative pain control? Presented at the Annual Meeting of the International Association for the Study of Pain, World Congress on Pain, August 2008.

Vanterpool SG, **Fecho K**, Salo-Coombs V, Coombs RF. Continuous epidural infusion vs. extended-release epidural morphine after lower extremity arthroplasty. Presented at the Annual Meeting of the American Society of Regional Anesthesia & Pain Medicine, May 2008.

Lin E, Bailey A, **Fecho K**. The effects of midazolam premedication on the recovery course of pediatric patients undergoing general anesthesia for tonsillectomy and/or adenoidectomy. Presented at the Annual Meeting of the Society for Pediatric Anesthesia, April 2008.

**Fecho K**, Merritt SA, Miller NR, Klauber-DeMore N, McKenney SA, Hultman S, Lee CN, Blau WS, Norfleet EA. Pain after partial mastectomy, complete mastectomy or reconstructive breast surgery. Presented at the Annual Meeting of the American Pain Society, May 2007. *Journal of Pain* 8:S77, 2007.

Pennel A, Spielman F, Salo-Coombs V, **Fecho K**, Herring AH. Prospective analysis of labor and delivery outcomes and birth plan preference fulfillment in parturients with birth plans. Presented at the Annual Meeting of the Society for Obstetric Anesthesiology and Perinatology, May 2007.

Smith K, Spielman F, **Fecho K**, Mounce G, Mayer D, Kim W. Management of parturients with placenta previa and accreta: a survey of SOAP members. Presented at the Annual Meeting of the Society for Obstetric Anesthesiology and Perinatology, May 2007.

Merritt SA, Miller NR, Klauber-DeMore N, McKenney SA, Hultman S, Lee CN, Blau WS, Norfleet EA, **Fecho K**. Acute and chronic pain after lumpectomy, mastectomy or reconstructive breast surgery. Presented at the Annual Meeting of the Center for Women's Health Research, UNC-CH, April 2007.

**Fecho K**, Moore CG, Lunney AT, Norfleet EA, Boysen PG. Intraoperative adverse events associated with inpatient and outpatient procedures. Presented at the Annual Meeting of the American Society of Anesthesiologists, October 2006. *Anesthesiology* 105:A1388, 2006.

**Fecho K**, Faison JM, Valtschanoff JG, Manning EL, Nackley AG, Maixner W. Lewis and Fischer 344 rats differ in basal, acute inflammatory and neuropathic pain. Program No. 748.21. Presented at the Annual Meeting of the Society for Neuroscience, October 2005.

Nackley AG, Faison JM, Lambeth BL, **Fecho K**, Diatchenko L, Maixner W. Catechol-O-methyltransferase modulates pain behavior and cytokine production via  $\beta$ 2/3-adrenergic receptor mechanisms. Presented at the Annual Meeting of the Society for Neuroscience, October 2005.

Nackley AG, Lambeth BL, Faison JM, **Fecho K**, Diatchenko LB, Maixner W. Catechol-O-methyltransferase inhibition produces enhanced pain sensitivity and cytokine production via a  $\beta$ -adrenergic mechanism. Presented at the Annual Meeting of the International Association for the Study of Pain, August 2005.

**Fecho K**, Faison JM, Manning EL, Nackley AG, Maixner W. Genetic differences in basal and inflammatory pain behavior and in morphine's analgesic effects in the rat. Presented at the Annual Meeting of the American Pain Society, May 2005. *Pain* 6:S14, 2005.

**Fecho K**, Lysle DT. Morphine enhances the acute inflammatory response to intraperitoneal thioglycollate. Presented at the Annual Meeting of the PsychoNeuroimmunology Research Society, October 2002.

**Fecho K**, How T, Lysle D. Morphine-induced increase in the neutrophil response to thioglycollate. Presented at the Annual Meeting of the Society for Neuroscience, October 2000. *Soc. Neurosci. Abstr.*, Vol. 26, Part 1, p. 1183, 2000.

Nelson C, Allen B, How T, Ijames S, **Fecho K**, Carelli R, Lysle DT. Comparison of the immunomodulatory effects of acute intravenous and self-administered heroin administration. Presented at the Annual Meeting of the PsychoNeuroimmunology Research Society, October 1999. *Neuroimmunomodulation* 6:237, 1999.

**Fecho K**, Lysle DT. Impact of morphine administration on the activity and trafficking of leukocytes: implications for health and disease. Presented at the 8<sup>th</sup> Annual Statewide Conference of the N.C. Governor's Institute on Alcohol and Substance Abuse, Inc., February 1999.

**Fecho K**, How T, Lysle DT. Effects of acute morphine treatment on leukocyte subpopulations in the spleen. Presented at the 17<sup>th</sup> Summer Symposium in Molecular Biology, Immune-Neuro-Endocrine Interactions: Cellular and Molecular Mechanisms, July 1998.

Maldonado MA, MacDonald GO, Kakkanaiah VN, **Fecho K**, Dransfield M, Sekiguchi, Cohen, PL, Eisenberg RA. Differential control of autoimmunity by Fas ligand expressing CD4<sup>+</sup> and CD8<sup>+</sup> T cells *in vivo*. Presented at the Annual Meeting of the American College of Rheumatology, November 1997.

**Fecho K**, Dykstra LA, Lysle DT. Sympathetic and adrenal involvement in morphine-induced immunomodulation. Presented at the AIDS, Drugs of Abuse and the Neuroimmune Axis satellite of the annual meeting of the Society for Neuroscience, November 1995.

**Fecho K**, Dykstra LA, Lysle DT. Macrophage-derived nitric oxide and mechanisms of suppression of mitogenic responsiveness in splenocyte cultures from morphine-treated rats. Presented at the Substance Abuse and the Brain-Immune Axis Symposium at the Annual Meeting of the College on Problems of Drug Dependence, June 1994.

**Fecho K**, Lysle DT, Dykstra LA. Morphine-induced immune alterations: evidence for  $\beta$ -adrenergic receptor involvement. *NIDA Res. Monogr.* 132:296, 1993.

**Fecho K**, Maslonek KA, Dykstra LA, Lysle DT. Mechanisms of morphine-induced immunomodulation. Presented at the Annual Meeting of the Society for Neuroscience, October 1993. *Soc. Neurosci. Abstr.*, 19:505, 1993.

**Fecho K**, Maslonek KA, Dykstra LA, Lysle DT. Morphine-induced immunomodulatory effects: evidence for the involvement of the sympathetic nervous system. Presented at the Substance Abuse and the Brain-Immune Axis Symposium of the Annual Meeting of the College on Problems of Drug Dependence, June 1993.

**Fecho K**, Maslonek KA, Dykstra LA, Lysle DT. Sympathetic nervous system involvement in the immunomodulatory effects of morphine. Presented at the Research Perspectives in Psychoneuroimmunology IV meeting, April 1993.

**Fecho K**, Lysle DT, Dykstra LA. Morphine-induced alterations of immune status: evidence for  $\beta$ -adrenergic receptor involvement. Presented at the Annual Meeting of the Society for Neuroscience, October 1992. *Soc. Neurosci. Abstr.*, 18:1009, 1992.

#### **NON-COMPETITIVE ABSTRACTS AND ORAL PRESENTATIONS:**

Hudson T, Nonoy N, **Fecho K**. Postoperative shivering: a review. Presented at the 36<sup>th</sup> Annual Meeting of the Gulf Atlantic Anesthesia Residents' Research Conference, May 2010. [Literature Review]

Monroe H, Hutchinson J, Kocis K, Kocis D, Schmitt C, **Fecho K**, Quint S. The use of Poincaré plots to predict discharge status from the pediatric intensive care unit. Presented at the 36<sup>th</sup> Annual Meeting of the Gulf Atlantic Anesthesia Residents' Research Conference, May 2010.

Harker E, Chern S, **Fecho K**, Mercaldo N, Howard S, Furman W, Weinger M. Post-call psychomotor performance of resident versus attending anesthesiologists. Presented at the 35<sup>th</sup> Annual Gulf Atlantic Anesthesia Residents' Research Conference, April 2009.

Vanterpool SG, **Fecho K**, Coombs R. A retrospective comparison between continuous morphine/bupivacaine epidural and extended-release epidural morphine after lower extremity arthroplasty: pain management, ambulation, and side-effects. Presented at the 34<sup>th</sup> Annual Gulf Atlantic Anesthesia Residents' Research Conference, April 2008.

Wilson SH, Meyer H, DeMore N, Hultman CS, **Fecho K**. The effects of midazolam premedication on postoperative nausea and vomiting in breast cancer patients. Presented at the 34<sup>th</sup> Annual Gulf Atlantic Anesthesia Residents' Research Conference, April 2008.

Sanders MS, Smith KA, **Fecho K**, Spielman F, Mayer D. Peripartum blood transfusions at UNC Hospitals 1996-2005: a retrospective analysis of incidence rates, characteristics, and trends over time. Presented at the 33<sup>rd</sup> Annual Gulf Atlantic Anesthesia Residents' Research Conference, April 2007.

Wilson SH, Collins PM, **Fecho K**. Management and evaluation of an intra-operative transfusion reaction. Presented at the 33<sup>rd</sup> Annual Gulf Atlantic Anesthesia Residents' Research Conference, April 2007. [Case Report]

**NON-COMPETITIVE ABSTRACTS AND POSTER PRESENTATIONS:**

Meyer H, **Fecho K**. Acute and persistent pain after breast surgery. Presented at the 40<sup>th</sup> Annual Student Research Day of the John B. Graham Medical Student Research Society, January 2008.

**Fecho K**, Lysle DT. Morphine enhances the granulocyte response to thioglycollate-induced peritonitis. Presented at the Comprehensive Center for Inflammatory Disorders' Annual Research Day, University of North Carolina at Chapel Hill, November 2001.

**Fecho K**, Maslonek KA, Dykstra LA, Lysle DT. The involvement of the sympathetic nervous system in the immunomodulatory effects of morphine. Presented at the Annual Meeting of the North Carolina Chapter of the Society for Neuroscience, May 1993.

**Fecho K**, Lysle DT, Dykstra LA. Morphine-induced alterations of immune status: evidence for  $\beta$ -adrenergic receptor involvement. Presented at the Annual Meeting of the North Carolina Chapter of the Society for Neuroscience, May 1992.

**BLOG:**

[Fecho K. 2011 AMWA Salary Survey \(Open Session 6\). AMWA 2011 Conference Blog](#)