

Curriculum vitae

Branko Miladinovic, Ph.D.

Assistant Professor of Biostatistics
Division/Center for Evidence-based Medicine
Department of Internal Medicine
USF Morsani College of Medicine
3515 E. Fletcher Avenue, MDT 1200
Tampa, FL 33612
Phone: 813-396-9614
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Assistant Professor (Courtesy Appointment)
College of Pharmacy
University of South Florida

Areas of Specialization

Systematic reviews/meta-analysis, prognostic models, extreme value distributions, instrumental variable analysis, Bayesian methods.

Areas of Competence

Survival analysis, multilevel modeling, clinical trial design, propensity score analysis.

Professional Experience

September 2010-Present

Title: Research Assistant Professor (Biostatistics)
Division/Center for Evidence Based Medicine
and Health Outcomes Research
Department of Internal Medicine
Clinical and Translational Science Institute
College of Medicine, University of South Florida

Sept 2009 – Sept 2010

Title: Research Biostatistician
Division/Center for Evidence Based Medicine
and Health Outcomes Research
Department of Internal Medicine
Clinical and Translational Science Institute

College of Medicine, University of South Florida

Sept 2009 – Sept 2010

Title: Intern Research Biostatistician
Biostatistics Core
Moffitt Cancer Center and Research Institute

Sept 2005-Sept 2009

Title: Assistant Professor
Department of Mathematics
The University of Tampa

Sept 2001-Sept 2005

Title: Graduate Teaching Assistant
Department of Mathematics and Statistics
College of Arts and Sciences, University of

South Florida

Academic Degrees

2008

Doctoral degree in Statistics (Ph.D.)
University of South Florida, Tampa, FL
Dissertation titled: "Kernel Density Estimation of Reliability with Application to Extreme Value Distributions," Downloadable at <http://scholarcommons.usf.edu/etd/408/>

2004

Masters degree in Mathematics (M.A.)
University of South Florida, Tampa, FL

2001

Masters degree in Applied Statistics (M.S.)
University of Southern Maine, Portland, ME

1998

Bachelors degree in Mathematics (B.S.)
Major concentration in Philosophy
Western Washington University, Bellingham, WA

Special Training/Continuing Education

October 2012

Advanced Topics in Network Meta-analysis
2012 Cochrane Colloquium
Auckland, NZ

June 2011

Social Network Analysis Workshop
College of Medicine, University of South Florida
Tampa, FL

January 2010

Meta-analysis with Dr. Michael Borenstein
Online course through www.statistics.com

November 2008

Bayesian Spatial Disease Modeling Workshop
Medical University of South Carolina

Teaching Accomplishments

Biostatistics Lecturer
2010-present

Med I and II Evidence Based Clinical Reasoning,
University of South Florida, College of Medicine,
BMS6837, Tampa, FL

Course Description: This is an essential course for
year I and II medical students to begin learning
critical appraisal skills using principles of
evidence-based medicine and clinical
epidemiology and apply it to clinical problem
solving.

Student level: Medical students Year I and II
CTSI Biostatistics Lecture Series and Workshops

Instructor

Sept 2005 – Sept 2009

Teach undergraduate courses in Mathematics at
the University of Tampa.

Aug 2004 to July 2005

Teach undergraduate courses in Mathematics at
the Hillsborough Community College.

Sept2001-Dec 2004

Teach undergraduate courses in Mathematics at
the University of South Florida, Department of
Mathematics and Statistics.

Research Grants

Ongoing:

A) Date of funding: 2009-2014

Title: Proposal for Development of EBM-CDSS (Evidence-Based Clinical
Decision

Support System) to Aid Prognostication in Terminally Ill Patients

Amount: \$670,560
Award Number: W81 XWH-09-2-0175
PI: Dr. Benjamin Djulbegovic (USF Health Center for Evidence-based Medicine)
Role: Co-investigator
Specific aim: To develop computer decision-support system for better prognostication life expectancy and improvement in decision-making in terminally ill patients.
Agency: United States Department of Defense

- B) Date of funding: 2011-2014
Title: Developing and Piloting a Patient Navigation Program for Breast Cancer Survivors
Amount: \$360,000
Role: Co-investigator
PI: Dr. Kristen Wells (USF Health Center for Evidence-based Medicine)
Specific Aim: To develop and pilot test a patient navigation program for underserved hormone receptor positive breast cancer survivors.
Agency: Bankhead Coley Florida Cancer Research Program

Completed:

- A) Date of funding: 2009-2011
Title: Success rate of cancer treatments and ethical principle of Equipoise
Amount: \$323,719
Award Number: R01-CA40408-01
PI: Dr. Benjamin Djulbegovic (USF Health Center for Evidence-based Medicine)
Role: Co-investigator
Specific Aim: To evaluate the success rate of cancer treatments assessed in phase III randomized controlled trials conducted by NCI Canada and GlaxoSmithKline.
Agency: NIH R01

Under review:

- A) Title: ICA-1 as a novel treatment for neuroblastoma
PI: Dr. Mildred Acevedo-Duncan (USF Department of Chemistry)
Role: Co-investigator
Agency: Department of Defense
- B) Title: Effects of ICA-1 on prostate cancer survival

PI: Dr. Mildred Acevedo-Duncan (USF Department of Chemistry)
Role: Co-investigator
Agency: NIH R01

C) Title: Comparative effectiveness of Decitabine versus Azacitidine for treatment of MDS

PI: Dr. Ambuj Kumar (USF Health Center for Evidence-based Medicine)

Role: Co-investigator

Agency: Patient Centered Outcomes Research (PCORI)

D) Title: A planning study: Designing a sleep apnea intervention in pregnancy

PI: Dr. Judette Louis (USF Health Department of Gynecology and Obstetrics)

Role: Co-investigator

Agency: NIH R34

Bibliography I

Peer Reviewed Journal Publications:

1. Djulbegovic B, Kumar A, Glasziou P, Miladinovic B, I Chalmers. Trial unpredictability yields predictable therapy gains. *Nature* 2013; 500:395-396.
2. Baz R, **Miladinovic B**, Patel A, Ho V, Shain K, Alsina M, Nishikori T, Ochoa L, Sullivan D, Dalton W, and B. Djulbegovic. Sequence of novel agents in multiple myeloma: an instrumental variable analysis. *Leukemia Research*. 2013; 37(9), 1077-1082.
3. Hernandez J, Tsalatsanis A, Humphries LA, **Miladinovic B**, Djulbegovic B, V Velanovich. Defining optimum treatment of patients with pancreatic adenocarcinoma using regret-based decision curve analysis. *Annals of Surgery* (in press).
4. Anand A, Norman J, Sprenger CJ, **Miladinovic B**, Karlinski R, Southall R, Wilburn B, Camporesi E, Mangar D. Intravenous acetaminophen versus ketorolac for postoperative analgesia after ambulatory parathyroidectomy. *Scandinavian Journal of Pain* (in press).
5. Mhaskar R, Reljic T, Wao H, Kumar A, **Miladinovic B**, Djulbegovic B. Treatment related harms: what was planned and what was reported? An analysis of National Cancer Institute's Co-operative Group Phase III randomized controlled trials. *Journal of Clinical Epidemiology* (in press).

6. **Miladinovic B**, Kumar A, and B. Djulbegovic. Kernel density estimation for random effects meta-analysis. *International Journal of Mathematical Sciences in Medicine* (in press).
7. Muhammad A, Dhamija E, Vidyarthi G, Amodeo D, Boyd W, **Miladinovic B**, Ambuj Kumar. Comparative effectiveness of traditional chemoembolization with or without sorafenib for hepatocellular carcinoma. *World Journal of Hepatology*, 2013; 5(7): 364-371.
8. **Miladinovic B**, Kumar A, Hozo I, Mhaskar R, Mahony H, and B Djulbegovic (2013). Optimal information size in trial sequential analysis of time-to-event outcomes reveals potentially inconclusive results because of the risk of random error. *J Clin Epidemiol*, 66(6): p. 654-9.
9. **Miladinovic B**, Kumar A, Mhaskar R, Kim S, Schonwetter R, and B Djulbegovic (2013). External validation of a web-based prognostic tool for predicting survival in patients in hospice care. *Journal of Palliative Care*. 29(3): 140-146.
10. **Miladinovic B**, Hozo I, B Djulbegovic. Indirect treatment comparisons. *The Stata Journal*. (in press)
11. Djulbegovic B, Kumar A, **Miladinovic B**, Reljic T, Galeb S, et al. (2013) Treatment Success in Cancer: Industry Compared to Publicly Sponsored Randomized Controlled Trials. PLoS ONE 8(3): e58711. doi:10.1371/journal.pone.0058711
12. **Miladinovic B**, Kumar A, Hozo I, and B Djulbegovic (2013). Trial sequential analysis may be insufficient to draw firm conclusions regarding statistically significant treatment differences using observed intervention effects: a case study of meta-analyses of multiple myeloma trials. *Contemp Clin Trials*, 34(2): p. 257-61.
13. Wao H, Mhaskar R, Kumar A, **Miladinovic B**, and B Djulbegovic (2013). Survival of patients with non-small cell lung cancer without treatment: A systematic review and meta-analysis. *Systematic Reviews*, 2: 10.
14. **Miladinovic B**, Hozo I, B Djulbegovic (2013). Trial sequential boundaries for cumulative meta-analysis. *The Stata Journal*, 13(1), pp 77-91.
15. **Miladinovic B** and CP Tsokos. Bayesian quantiles of extremes. *Journal of Statistical Theory and Practice*, 6: 566-579, 2012.
16. Louis J, Auckley D, **Miladinovic B**, Shephard A, Mencin P, Kumar D, Mercer B, Redline S. Perinatal outcomes associated with obstructive sleep apnea in obese pregnant women: a prospective observational study. *Obstetrics and Gynecology* 2012 Nov;120(5):1085-1092.
17. Djulbegovic B, Kumar A, Glasziou PP, Perera R, Reljic T, Dent L, Raftery J, Johansen M, Di Tanna GL, **Miladinovic B**, Soares HP, Vist GE, Chalmers I. New treatments compared to established treatments in randomized trials. *Cochrane Database Syst Rev*. 2012 Oct 17;10.

18. **Miladinovic B**, Mhaskar R, Kumar A, Kim S, Schonwetter R, and B Djulbegovic. A flexible alternative to the Cox proportional hazards model for assessing the accuracy of prognostic models. *PLoS One*. 2012;7(10):e47804
19. Havranek T, **Miladinovic B**, Wadhawan R, J Carver. Factors that affect the postnatal increase in superior mesenteric artery blood flow velocity in very low birth weight preterm Infants. *J of Perinatal Medicin*. 2012; Vol 40: 565-570
20. Mhaskar R, Redzepovic J, Wheatley K, Clark OAC, **Miladinovic B**, Glasmacher A, Kumar A, Djulbegovic B. Bisphosphonates in multiple myeloma: a network meta-analysis. *Cochrane Database of Systematic Review*, Issue 5, 2012.
21. Wells KJ, Luque JS, **Miladinovic B**, Vargas N, Asvat Y, Roetzheim RG, Kumar A; Do Community Health Worker Interventions Improve Rates of Screening Mammography in the United States? A Systematic Review. *Cancer Epidemiol Biomarkers Prev*. 2011, 20(8):1580-98
22. **Miladinovic B**, Kumar A, Hozo I, Djulbegovic B; Instrumental variable meta-analysis of individual patient data: application to adjust for treatment non-compliance; *BMC Medical Research Methodology*; 2011, 11(1):55.
23. Mhaskar R, Redzepovic J, Wheatley K, Clark OAC, **Miladinovic B**, Glasmacher A, Kumar A, Djulbegovic B. Bisphosphonates in multiple myeloma. *Cochrane Database of Systematic Reviews* 2010, Issue 3.
24. Lee J, **Miladinovic B**, Schell M. Analysis of two group comparisons: A practical guide. *Medical Problems of Perform Art*, 2009. Vol 24, 166-169.
25. **Miladinovic B** and CP Tsokos. Sensitivity of the Bayesian reliability estimates for the modified Gumbel failure model. *International Journal of Reliability, Quality and Safety Engineering*, 2009. Vol16(4): 331-341
26. **Miladinovic B** and Tsokos CP (2009). Ordinary, Bayes, empirical Bayes, and non-parametric reliability analysis for the modified Gumbel failure model. *Nonlinear Analysis-Theory Methods & Applications*, **71**(12): p. E1426-E1436.
27. **Miladinovic B** and Tsokos CP (2008). Bayesian reliability analysis for the Gumbel failure model. *International Journal of Neural, Parallel, and Scientific Computing*; 2008. Vol 16(1), 93-10

Journal Publications Under Review:

- a. Djulbegovic M, **Miladinovic B**, Hozo I, Neuberger M, Zarei M, Gilbert S, Djulbegovic B, P Dahm. Network meta-analysis of intravesical therapy for non-muscle invasive bladder cancers. *The Journal of Urology*.

Bibliography II

Letters to Editor:

1. **Miladinovic B**, Response to Thalidomide for previously untreated elderly patients with multiple myeloma: meta-analysis of 1685 individual patient data from 6 randomized clinical trials. [e-Letter], *Blood* (http://bloodjournal.hematologylibrary.org/content/118/5/1239/reply#bloodjournal_el_3065) Nov 21, 2011
2. Louis, J and **B. Miladinovic**. In Reply to Perinatal outcomes associated with obstructive sleep apnea in obese pregnant women: A letter to the editor. *Obstetrics and Gynecology*. April 2013. 121(4): 876

Bibliography III

Plenary/Platform Presentations:

1. **Miladinovic B**, Kumar A, Hozo I, Mhaskar R, Djulbegovic B. Instrumental variable methods to adjust for treatment non-compliance and contamination in meta-analyses of randomized controlled trials. Cochrane 2013 Colloquium, Quebec City, Canada (Oral Presentation)
2. Kumar A, **Miladinovic B**, Reljic T, Mhaskar R, Wao H, Djulbegovic B. What is the probability of discovering breakthrough interventions in industry versus publicly sponsored randomized controlled trials. Cochrane 2013 Colloquium, Quebec City, Canada (Oral Presentation)
3. Parchure R, Kulkarni V, Mhaskar R, **Miladinovic B**, Darak T, Emmanuel P. Will It Matter When We Start? Age At Start Of Anti-Retroviral Therapy (ART) And Reversal Of Stunting. 2013 IAS, Kuala Lumpur.
4. De Lucia A, Jackson S, Paul C, Closser Z, Harris M, Jorgensen T, Green L, Mhaskar R, **Miladinovic B**, Charlotte Derr. How Many Ultrasound Examinations Are Necessary To Gain Proficiency In Accurately Identifying The Nerves Of The Forearm. SAEM 2013, Atlanta.
5. Mahony H, Kumar A, Mhaskar R, **Miladinovic B**, Wheatley K, Djulbegovic B. Maintenance Therapies for Multiple Myeloma (MM): A Direct Meta-Analysis. ASH Annual Meeting Abstracts. 2012;120:4271-.(Poster Presentation)
6. Mahony H, Kumar A, Mhaskar R, **Miladinovic B**, Wheatley K, Djulbegovic B. Maintenance Therapies for Multiple Myeloma (MM): A Network Meta-Analysis. ASH Annual Meeting Abstracts. 2012;120:236-.(Oral Presentation)

7. **Miladinovic B**, Kumar A, Mhaskar R, Mahoney H, Wheatley K, Djulbegovic B. Trial Sequential Analysis in Meta-Analyses of Maintenance Therapies for Multiple Myeloma. ASH Annual Meeting Abstracts. 2012;120:2975-.(Poster Presentation)
8. Djulbegovic M, Djulbegovic B, **Miladinovic B**, Zarei M, Gilbert S, Neuberger M, Dahm P. Advancing Comparative Effectiveness Research Through Network Meta-analysis: Intravesical Therapy in Bladder Cancer, American Urological Association, Atlanta, GA 2012.
9. **Miladinovic B**, Hozo I, Kumar A, Mhaskar R, Georgiev H, Djulbegovic B, Confidence interval estimation following trial sequential analysis: a comparison of methods using cancer trials, Cochrane 2012 Colloquium, Auckland, NZ (Poster Presentation)
10. **Miladinovic B**, Hozo I, Kumar A, Mhaskar R, Georgiev H, Djulbegovic B, Novel trial sequential analysis (TSA) method for time-to-event outcomes, Cochrane 2012 Colloquium, Auckland, NZ (Poster Presentation)
11. Southall R, Wilburn B, Hogan G, Karlinski R, Anand A, Mangar D, Norman J, **Miladinovic B**. A Phase III, Randomized, Double-blind, Single Center, Study to Determine Analgesic Efficacy of Acetaminophen versus Ketorolac for Parathyroidectomy Post-Operative Pain. American Association of Nurse Anesthetists Annual Meeting, San Francisco. 2012. (Poster Presentation)
12. Ashmeade T, Haubner L, Collins S, **Miladinovic B**, Fugate K. Better golden hour care significantly improves outcomes for extremely low birth weight infants. Pediatric Academic Societies, Boston, 2012. (Poster Presentation)
13. Rivera M, Wells K, Laronga C, Quinn G, **Miladinovic B**, Roetzheim R. Developing and Piloting a Patient Navigation Program for Breast Cancer Survivors. Cancer, Culture, and Health Literacy Conference, Tampa, 2012 (Poster Presentation)
14. Carroll M, **Miladinovic B**, Shames M. A single institution experience: The integrated vascular surgery residency's effect on fellowship and general surgery resident case volume and diversity. 2012 Peripheral Vascular Surgery Society 22nd Annual Meeting, Vail, CO. (Oral Presentation)
15. Mhaskar R, **Miladinovic B**, Tsalatsanis A, Mbah A, Kumar A, Kim S, Schonwetter R, Djulbegovic B, External Validation of Prognostic Models in Terminally Ill Patients, in American Society of Hematology Annual Conference, A.S.o. Hematology, Editor. 2011: SAn Diego, California.
16. Djulbegovic B, K.A., **Miladinovic B**, Mhaskar A, Reljic T, Galeb S, Mhaskar R, Iztok H, Tu D, Stanton H, Booth CM, Meyer R., Success in Meeting the Primary Endpoint in Phase III Trials: A Comparison of Industry and Cooperative Group Trials, in American Society of Hematology Annual Conference, A.S.o. Hematology, Editor. 2011.
17. Mhaskar R, Wao H, Kumar A, **Miladinovic B**, Djulbegovic B Role of Iron Supplementation to Erythropoiesis Stimulating Agents In the Management of Chemotherapy-Induced Anemia In Cancer Patients: A Systematic Review and Meta-Analysis. Blood (ASH Annual Meeting Abstracts), Nov 2010; 2055.

18. **Miladinovic B**, Kumar A, Djulbegovic B, Correcting for bias in per protocol data: Instrumental variable meta-analysis, Cochrane and Campbell 2010 Colloquium, Key Stone, CO, Nov 2010 (Poster Presentation) CLIB-OP-10-0266
19. Reljic T, Bhansali N, Komrokji RS, Lin K, List AF, **Miladinovic B**, et al. Comparative Effectiveness of Azacitidine Versus Decitabine for the Treatment of Myelodysplastic Syndromes. *Blood* (ASH Annual Meeting Abstracts), Nov 2010; 3995. (Oral Presentation).
20. **Branko Miladinovic**. Correcting for bias in per protocol data using instrumental variable Analysis. Gulf Coast Conference on Probability and Statistics (GCCPS 2010) Feb 2010. (Invited Oral Presentation).
21. **Branko Miladinovic**. Ordinary, Bayes, and Empirical Bayes reliability analysis for the Modified Gumbel Failure model, *Fifth World Congress of Non-linear Analysts*, Orlando, FL, July 2 – July 9, 2008 (Invited Oral Presentation).
22. **Branko Miladinovic**. Kernel Density Estimation as an alternative to the Gumbel probability distribution function in modeling extreme quantiles. USF Department of Mathematics and Statistics Seminar. Sept 2008 (Invited Oral Presentation)

Bibliography III

Registered Protocols for ongoing studies

1. Mhaskar R, Wao H, **Miladinovic B**, Kumar A, Djulbegovic B. Role of Iron supplementation to erythropoiesis stimulating agents in the management of chemotherapy-induced anemia in cancer patients. *Cochrane Database of Systematic Reviews* 2012, Issue 2.
2. Georgiev H, Kumar A, Mhaskar R, **Miladinovic B**, Wheatley K, Djulbegovic B. Maintenance therapies for multiple myeloma. *Cochrane Database of Systematic Reviews* 2012, Issue 5.

Service

University/College Services/Advisory council

Nov 2011-present **Member, Committee on Research**, University of South Florida College of Medicine

Nov 2011-present **Member, Bi-laws Committee**, University of South Florida College of Medicine

Jan 2013-present **Member, Research Council**, University of South Florida

Journal Editorial/Reviewer Services

Sept 2011-present Statistical Reviewer for:
Cochrane Comparing Multiple Interventions Group

Cochrane Methodology Review Group
Cochrane Hematological Malignancies Group
Contemporary Clinical Trials
Clinical Trials
Journal of General Internal Medicine
Journal of Comparative Effectiveness Research
Data Science Journal