CURRICULUM VITAE JOSEPH M. BLISS, M.D., Ph.D.

Department of Pediatrics Women & Infants Hospital of Rhode Island 101 Dudley Street Providence, RI 02905 (401) 274-1122 ext. 47484

Fax: (401) 453-7571 E-mail: jbliss@wihri.org

EDUCATION

Undergraduate Ithaca College, Ithaca, New York

Major Field: Biology

B.A. with Honor, 1990, Summa cum Laude

Medical School University of Rochester, Rochester, New York

August 1990 – May 1998

M.D. with Honor, 1998, Alpha Omega Alpha

Advanced Degrees University of Rochester, Rochester, New York

August 1990 – May 1998

Major Field: Microbiology and Immunology

M.S., 1994; Ph.D., 1998

Brown University, Providence, Rhode Island

M.A. ad eundem, 2012

POSTGRADUATE TRAINING

Residency University of Rochester, Children's Hospital at Strong, Rochester, NY

Pediatric Residency (Special Alternative Pathway), July 1998 – June 2000

Fellowship University of Rochester, Children's Hospital at Strong, Rochester, NY

Fellowship in Neonatal-Perinatal Medicine, July 2000 – June 2003

POSTGRADUATE HONORS AND AWARDS

S.W.A.N. Award Recipient, Women & Infants Hospital, 2010

Faculty Young Investigator Award Finalist, Eastern Society for Pediatric Research, 2007

Basil O'Connor Starter Scholar Research Award Recipient, March of Dimes, 2006

Morning Report Most Valuable Resident, Children's Hospital at Strong, 2000

Award for Excellence in Neonatology, Children's Hospital at Strong, 1999

Alpha Omega Alpha, University of Rochester, 1998

Robert Kates Award for Excellence in Clinical Medicine and Research, University of Rochester, 1998

PROFESSIONAL LICENSES AND BOARD CERTIFICATION

Rhode Island State License Massachusetts State License Drug Enforcement Agency USMLE Step 1: June, 1992

Step 2: March, 1998 Step 3: May, 1999

American Board of Pediatrics – General Pediatrics, October, 2003

American Board of Pediatrics - Neonatal and Perinatal Medicine, November, 2005

Neonatal Resuscitation Program (NRP) Instructor – 2001 to present

ACADEMIC APPOINTMENTS

Assistant Professor of Pediatrics, Warren Alpert Medical School of Brown University, July 1, 2003 to June 30, 2011

Associate Professor of Pediatrics, Warren Alpert Medical School of Brown University, July 1, 2011 to present.

Program Director, Fellowship in Neonatal and Perinatal Medicine, Warren Alpert Medical School of Brown University, July 1, 2017 to present.

HOSPITAL APPOINTMENTS

Staff Neonatologist, Women & Infants Hospital of Rhode Island, July 1, 2003 to present.

Pediatrics/Neonatology, Memorial Hospital of Rhode Island, March 1, 2004 to 2017.

Pediatrics/Neonatology, Southcoast Medical Group, Fall River, MA, New Bedford, MA, December 1, 2004 to 2017

Pediatrics/Neonatology, Sturdy Memorial Hospital, Attleboro, MA, February 1, 2006 to present Pediatrics, Landmark Hospital, Woonsocket, RI, January 2017-present

OTHER APPOINTMENTS

Associate Editor, *Pediatric Research*, 2017-Editorial Board, *Frontiers in Fungi and their Interactions*, 2010-

Editorial Board, Journal of Mycology, 2012-2017

Editorial Board, Frontiers in Neonatology, 2014-

Reviewer, Hood Foundation, 2004-2005

Reviewer, Journal of Pediatrics, 2004-Reviewer, Pediatric Research, 2004-

Reviewer, Teatairic Research, 2004-

Reviewer, Journal of Medical Microbiology, 2007-

Reviewer, Journal of Perinatology, 2008-

Reviewer, Current Genetics, 2009-

Reviewer, Medical Mycology, 2009-

Reviewer, European Journal of Pediatrics, 2011-

Reviewer, Neonatology, 2012-

Reviewer, Acta Paediatrica, 2012-

Reviewer, mBio, 2013-

Reviewer, Nature Communications, 2013-

Reviewer, JAMA, 2014-

Reviewer, Virulence, 2014-

Reviewer, Journal of Leukocyte Biology, 2016-

Reviewer, FASEB Journal, 2016-

Reviewer, Plos One, 2016-

Reviewer, Antimicrobial Agents & Chemotherapy, 2016-

Reviewer, Early Human Development, 2016-

Reviewer, Scandanavian Journal of Immunology, 2018-

Reviewer, Journal of Pediatric Infectious Diseases, 2018-

Reviewer, Archives of Disease in Childhood, 2017-

Reviewer, Journal of Human Lactation, 2017-

Reviewer, American Journal of Reproductive

Immunology, 2019-

Grant Reviewer, Swiss National Science Foundation, 2012

Grant Reviewer, Academia Sinica, Taiwan, 2014-15

Grant Reviewer, Agency for Health Quality and

Assessment of Catalonia, Spain, 2018

HOSPITAL COMMITTEES

Extremely Low Birth-Weight Infant Task Force, 2003-

Search Committee, Nursery Director at Memorial

Hospital of Rhode Island, 2004, 2007

Early Nutrition for VLBW Infants Task Force, Chair, 2005

Trophic Feeding Task Force, 2006

NICU Communication and Technology Task Force, 2006-07

Breast Milk Task Force, 2007-2017

Infection Control Subcommittee, 2007-

Sepsis Task Force, 2009-

Medical Director, Peripherally Inserted Central Catheter

(PICC) team, 2009-

Co-Chair, Perinatal Mortality Committee, 2009-

Antibiotic Stewardship Committee, 2011-

Practice Variation Committee, 2017-

UNIVERSITY COMMITTEES

Summer Research Assistantship Committee, 2005-2014 Pediatric Infectious Disease Faculty Search Committee, 2007-10

Pediatric Fellowship Selection Committee, 2007-2017

Chair, Pathobiology Seminar Series, 2008

Pediatric Department Research Proposal Review

Committee, 2008-

Medical Faculty Executive Council, 2011-2014

Pediatric Surgery Faculty Search Committee, 2012

Pediatric Infectious Disease Faculty Search Committee,

Chair, 2013

Genetics Faculty Search Committee, 2013-2015

Chair, Fellowship Clinical Competency Committee, 2014-2017

Pediatric Critical Care Faculty Search Committee, 2016-2017

Pediatric Faculty Development Committee, 2017-UTRA (Undergraduate Teaching and Research Awards) Selection Committee, 2018 –19

Pediatric Infectious Disease Division Chief Search Committee, 2018-20

MEMBERSHIP IN SOCIETIES

American Academy of Pediatrics, 1998-present
American Society for Microbiology, 1994-present
Eastern Society for Pediatric Research, 2004-present
Member of Planning and Abstract Review
Committee for Annual Meeting, 2010-2014
Council Member, 2011-2015
Annual Meeting Program Chair, 2015-2016
Society for Pediatric Research, 2006-present
American Pediatric Society, 2012-present

ORIGINAL PUBLICATIONS IN PEER-REVIEWED JOURNALS

- 1. Wunder, D.E., Aaronson, W., Hayes, S.F., **Bliss, J.M.,** and Silver, R.P. Nucleotide sequence and mutational analysis of the gene encoding KpsD, a periplasmic protein involved in transport of polysialic acid in *Escherichia coli* K1. *J. Bacteriol.* **176:** 4025-4033, 1994.
- 2. **Bliss**, **J.M.**, Garon, C.F., and Silver, R.P. Polysialic acid export in *Escherichia coli* K1: the role of KpsT, the ATP-binding component of an ABC transporter, in chain translocation. *Glycobiology* **6**: 445-452, 1996.
- 3. **Bliss**, **J.M.**, and Silver, R.P. Evidence that KpsT, the ATP-binding component of an ATP-binding cassette transporter, is exposed to the periplasm and associates with polymer during translocation of the polysialic acid capsule of *Escherichia coli* K1. *J. Bacteriol.* **179**:1400-1403, 1997.
- 4. Haidaris, C.G., Malone, J., Sherrill, L.A., **Bliss, J.M.,** Gaspari, A.A., and Sullivan, M.A. Recombinant human single chain variable fragments (scFv) reactive with *Candida albicans* surface antigens. *J. Immunol. Meth.*, **257**: 185-202, 2001.
- 5. **Bliss**, **J.M.**, Sullivan, M.A., Malone, J., and Haidaris, C.G. Differentiation of *Candida albicans* and *Candida dubliniensis* by using recombinant human antibody single chain variable fragments specific for hyphae. *J. Clin. Microbiol.* **41**: 1152-1160, 2003.
- 6. Wellington, M., **Bliss**, **J.M.**, and Haidaris, C.G. Enhanced phagocytosis of *Candida* species mediated by opsonization with a recombinant human antibody single chain variable fragment. *Infect. Immun*. **71**: 7228-7231, 2003.
- 7. **Bliss, J.M.,** Bigelow, C.E., Foster, T.H., and Haidaris, C.G. Susceptibility of *Candida* species to photodynamic effects of Photofrin[®]. *Antimicrob. Agents Chemother.* **48:** 2000-2006, 2004.

- 8. **Bliss, J.M.** and Laforce-Nesbitt, S.S. Toxicity to *Candida albicans* mediated by human serum and peripheral blood mononuclear cells, *FEMS Immunol. Med. Microbiol.* **46:** 452-460, 2006.
- 9. **Bliss, J.M.,** Basavegowda, K.P., Watson, W.J., Sheikh, A.U., and Ryan, R.M. Vertical and Horizontal Transmission of *Candida albicans* in VLBW Infants Using DNA Fingerprinting Techniques. *Pediatr. Infect. Dis. J.* **27:** 231-235, 2008.
- 10. Kochilas, L., Gundogan, F., Atalay, M., **Bliss, J.M.**, Vatta, M, Pena, L.S., and Abuelo, D. A Novel Mutation of the Fibrillin-1 (*FBN1*) Gene in a Newborn with Severe Marfan Syndrome. *J. Perinatol.* **28:** 303-305, 2008.
- 11. Laforce-Nesbitt, S.S., Sullivan, M.A., Hoyer, L.L., and **Bliss, J.M.** Inhibition of *Candida albicans* Adhesion by Recombinant Human Antibody Single-Chain Variable Fragment Specific for Als3p. *FEMS Immunol. Med. Microbiol.* **54:** 195-202, 2008.
- 12. Destin, K.D., Linden, J.R.., Laforce-Nesbitt, S.S., and **Bliss, J.M.** Oxidative Burst and Phagocytosis of Neonatal Neutrophils Confronting *Candida albicans* and *Candida parapsilosis*. *Early Hum. Develop.* **85:** 531-535, 2009.
- 13. Linden, J.R., Maccani, M.A., Laforce-Nesbitt, S.S., and **Bliss, J.M.** High Efficiency Opsonin-Independent Phagocytosis of *Candida parapsilosis* by Human Neutrophils. *Med. Mycol.* **48:** 355-364, 2010.
- 14. Al-Rawi, N., Laforce-Nesbitt, S.S., and **Bliss, J.M.** Deletion of *Candida albicans SPT6* is not lethal but results in defective hyphal growth. *Fung. Genet. Biol.* **47:** 288-296, 2010.
- 15. *Tsai, N.Y., Laforce-Nesbitt, S.S., Tucker, R. and **Bliss, J.M.** A murine model for disseminated candidiasis in neonates. *Ped. Research* **69:**189-193, 2011.
- 16. Balakrishnan, M., Tucker, R., Stephens, B.E., and **Bliss, J.M.** Blood Urea Nitrogen and Serum Bicarbonate in Extremely Low Birth Weight Infants Receiving Higher Protein Intake in the First Week after Birth. *J. Perinatol.* **31:**535-539, 2011.
- 17. **Bliss, J.M.**, Wong, A.Y., Bhak, G., Laforce-Nesbitt, S.S., Taylor, S., Tan, S., Stoll, B.J., Higgins, R.D., Shankaran, S., and Benjamin, Jr., D.K. for the *Candida* Subcommittee of the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development Neonatal Research Network. *Candida* Virulence Properties and Adverse Clinical Outcomes in Neonatal Candidiasis. *J. Pediatr.*, **161:**441-447.e2, 2012.
- 18. Linden, J.R., Kunkel, D., Laforce-Nesbitt, S.S., and **Bliss, J.M.** The Role of Galectin-3 in Phagocytosis of *Candida albicans* and *Candida parapsilosis* by Human Neutrophils. *Cell. Microbiol.*, **15**:1127-1142, 2013.
- 19. *Pammi, M., Holland, L., Butler, G., Gacser, A., and **Bliss, J.M.** *Candida parapsilosis* Is a Significant Neonatal Pathogen: A Systematic Review and Meta-analysis. *Pediatr. Infect. Dis. J.*, **32:**e206-e216, 2013.
- 20. Linden, J.R., De Paepe, M.E., Laforce-Nesbitt, S.S., and **Bliss, J.M.** Galectin-3 Plays an Important Role in Protection against Disseminated Candidiasis. *Med. Mycol.*, **51:** 641–651, 2013.

- 21. Shintaku, T., Glass, K.A., Hirakawa, M.P., Longley, S.J., Bennett, R.J., **Bliss, J.M.** and Shaw, S.K. Human Endothelial Cells Internalize *Candida parapsilosis* via N-WASP Mediated Endocytosis. *Infect. Immun.*, **81:**2777-2787, 2013.
- 22. **Bliss, J.M.** and Reid, C.W. Medical Mycology and the Chemistry Classroom: Germinating Student Interest in Organic Chemistry. *J. Chem. Educ.*, **90:**1320–1324, 2013.
- 23. Chow, B.D.W., Perry, E.O., Reardon, J.R., Tucker, R., Laforce-Nesbitt, S.S., and **Bliss, J.M.** Expressed breast milk as a predictor of neonatal yeast colonization in an intensive care setting. *J. Ped. Infect. Dis. Soc.*, **3:** 213-220, 2014.
- 24. Gabriel, I, Kur, K., Laforce-Nesbitt, S.S., Pulickal A.S., **Bliss, J.M.**, and Milewski, S. Phenotypic consequences of the *LYS4* gene disruption in *Candida albicans. Yeast*, **31:**299-308, 2014.
- 25. Ronchi, A., Michelow, I.C., Chapin, K.C., **Bliss, J.M.,** Pugni, L., Mosca, F., and Sánchez, P.J. Viral Respiratory Infections in the Neonatal Intensive Care Unit: The VIRION-I Study. *J. Pediatr.*, **165**: 690-696, 2014. (Editor's Perspective, p. 647)
- 26. Glass, K.A., Longley, S.J., **Bliss, J.M.**, and Shaw, S.K. Protection of *Candida parapsilosis* from neutrophil killing through internalization by human endothelial cells. *Virulence*, **6:** 504-514, 2015.
- 27. Chow, B.D.W., Reardon, J.R., Perry, E.O., Laforce-Nesbitt, S.S., and **Bliss, J.M.** Host defense proteins in breast milk and neonatal yeast colonization. *J. Human Lact.*, 32: 168-173, 2016.
- 28. Byrd, A.S. O'Brien, X.M., Laforce-Nesbitt, S.S., Parisi, V., Hirakawa, M., **Bliss, J.M.** and Reichner, J.S. NETosis in neonates: evidence of a ROS-independent pathway in response to fungal challenge. *J. Infect. Dis.*, **213**: 634-639, 2016.
- 29. Gonia, S., Archambault, L., Shevik, M., Altendahl, M., Fellows, E., **Bliss, J.M.**, Wheeler, R.T. and Gale, C.A. *Candida parapsilosis* protects premature intestinal epithelial cells from invasion and damage by *Candida albicans. Front. Pediatr.*, **5:** 54, 2017.
- 30. Smith, A.M., Papaleo, C., Reid, C.W., and **Bliss, J.M.** RNA-seq reveals a central role for lectin, C1q and von Willebrand Factor A domains in the defensive glue of a terrestrial slug. *Biofouling*, **33**: 741–754, 2017.
- 31. Balakrishnan, M., Jennings, A., Przystac, L., Phornphutkal, C., Tucker, R., Vohr, B., Stephens, B.E., and **Bliss, J.M.** Growth and neurodevelopmental outcomes of early, high dose parenteral amino acid intake in very low birth weight infants: A randomized controlled trial. *JPEN J. Parenter. Enteral Nutr.*, **42:** 597-606, 2018.
- 32. **Neale, M.N., Longley, S.J., Kim, D.J., Laforce-Nesbitt, S.S., Wortzel, J., Shaw, S.K., and **Bliss, J.M.** Role of the inducible adhesin, CpAls7, in binding of *Candida parapsilosis* to the extracellular matrix under fluid shear, *Infect. Immun.*. **86:** e00892-17, 2018.
- 33. Arsenault, A.B., Gunsalus, K.T.W., Laforce-Nesbitt, S.S., Przystac, L., DeAngelis, E.J., Hurley, M.E., Vorel, E.S., Tucker, R., Matthan, N.R., Lichtenstein, A.H., Kumamoto, C.A., and **Bliss, J.M.** Dietary supplementation with medium-chain triglycerides reduces *Candida* gastrointestinal colonization in preterm infants, *Pediatr. Infect. Dis. J.*, **38:** 164–168, 2019.

- 34. Hemedez, C., Trail-Burns, E., Mao, Q., Chu, S., Shaw, S.K, **Bliss, J.M.**, and De Paepe, M.E. The pathology of neonatal non-*albicans* candidiasis: Autopsy study and literature review. *Pediatr. Dev. Pathol.*, **22:** 98-105, 2019.
- 35. Verma, P., Laforce-Nesbitt, S.S., Tucker, R., Mao, Q., De Paepe, M.E., and **Bliss, J.M.** Galectin-3 expression and effect of supplementation in neonatal mice with disseminated *Candida albicans* infection, *Pediatr. Res.*, **85:** 527-532, 2019.
- 36. Natarajan, G., Shankaran, S., Nolen, T.L., Sridhar, A., Kennedy, K.A., Hintz, S.R., Phelps, D.L., DeMauro, S.B., Carlo, W.A., Gantz, M.G., Das, A., Greenberg, R.G., Younge, N.E., **Bliss, J.M.**, Seabrook, R., Sánchez, P.J., Wyckoff, M.H., Bell, E.F., Vohr, B.R., and Higgins, R.D. Neurodevelopmental outcomes of preterm infants with retinopathy of prematurity by treatment, *Pediatrics*, **144**: e20183537, 2019.
- * Recommended by "Faculty of 1000"
- ** Selected by editors for "Spotlight" highlighting research articles of significant interest

OTHER PEER-REVIEWED PUBLICATIONS

- 1. **Bliss, J.M.** Isolation of a nuclear suppressor of a yeast mitochondrial mutation. *Proceedings of the Third National Conference on Undergraduate Research* **2:** 309-314, 1989.
- 2. **Bliss, J.M.,** and Silver, R.P. Coating the surface: a model for expression of capsular polysialic acid in *Escherichia coli* K1. *Mol. Microbiol.* **21:** 221-231, 1996.
- 3. **Bliss, J.M.,** Wellington, M., and Gigliotti, F. Antifungal pharmacotherapy for neonatal candidiasis. *Sem. Perinatol.* **27**: 365-374, 2003.
- 4. Chow, B.D.W., Linden, J.R., and **Bliss, J.M.** *Candida parapsilosis* and the neonate: epidemiology, virulence and host defense in a unique patient setting. *Expert Rev. Anti. Infect. Ther.*, **10:** 935-946, 2012.
- 5. **Bliss, J.M.** Infections in the NICU: Old problems, new successes, and promise for the future. *Cure & Care: Journal of Neonatal Intensive Care.*, Inaugural issue, 2013.
- 6. Bliss, J.M. *Candida parapsilosis*: An emerging pathogen developing its own identity. *Virulence* 6:109-11, 2015.
- 7. Arsenault, A.B and **Bliss, J.M.** Neonatal Candidiasis: New insights into an old problem at a unique host-pathogen interface. *Curr. Fungal Infect. Rep,* **9:** 246-252, 2015.
- 8. **Bliss, J.M.**, Carr, S.R., De Paepe, M.E., and Luks, F.I. What and Why the Neonatologist Should Know about Twin-to-Twin Transfusion Syndrome. *NeoReviews*, **18:** e22-e30, 2017.
- 9. **Bliss, J.M.** and Wynn, J.L. Editorial: The Neonatal Immune System: A Unique Host-Microbial Interface. *Front. Pediatr.*, **5:** 274, 2017.
- 10. Tóth, R., Nosek, J., Mora-Montes, H.M., Gabaldone, T., **Bliss, J.M.**, Nosanchuk, J.D., Turner, S.A., Butler, G., Vágvölgyi, C., Gácser, A. The emergence of *Candida parapsilosis*: from genes to the bedside, *Clin. Microbiol. Rev.*, **32:** e00111-18, 2019.

11. McGovern, M., Giannoni, E., Kuester, H., Turner, M.A., van den Hoogen. A., **Bliss, J.M.**, Koenig, J.M., Keij, F.M., Mazela, J., Finnegan, R., Degtyareva, M., Simons, S.H.P., de Boode, W.P., Strunk, T., Irwin Reiss, I.K.M, Wynn, J.L., Molloy, E.J., for the Infection, Inflammation, Immunology and Immunisation (I4) section of the European Society for Pediatric Research. Challenges in Developing a Consensus Definition of Neonatal Sepsis. *Pediatr, Res.*, in press, 2019.

BOOKS AND BOOK CHAPTERS

- 1. **Bliss, J.M.** Chapter 18: "Retinopathy of Prematurity: Current Concepts in Pathogenesis and Treatment", pp. 419-437 in Oh, W. (Ed.) *Evidence-Based Handbook of Neonatology* 2011.
- 2. **Bliss, J.M.** Chapter 27: "Infections of the Fetus and Newborn", pp. 321-340 in Elzouki, A.Y. (Ed.) *Textbook of Clinical Pediatrics (2nd edition)* 2011.
- 3. Koenig, J.M., **Bliss, J.M.**, and Mariscalco, M.M. Chapter 128: "Neonatal Neutrophil Biology and Pathophysiology", in press, in Polin, R., Abman, S. Benitz, W., and Rowitch, D. (Eds.) *Fetal and Neonatal Physiology (5th edition)* 2016.
- 4. **Bliss, J.M.** and Wynn, J.L. (eds.) *The Neonatal Immune System: A Unique Host-Microbial Interface*. Lausanne: Frontiers Media, 2018. (doi: 10.3389/978-2-88945-403-7)

OTHER NON-PEER REVIEWED PUBLICATIONS

- 1. **Bliss, J.M.** Lighten the load. Letters to the Editor. *Medical Economics* July, 2005.
- 2. Bearer, C., Agostoni, C., Anand, K.J.S., Ambalavanan, N., Bhandari, V., **Bliss, J.M.**, Bloomfield, F., Bonifacio, S.L., Buhimschi, I., Cilio, M.R., Coppes, M., Czinn, S.J., EL-Khuffash, A., Embleton, N., Felderhoff-Müser, U., Ferriero, D.M., Florin, T., Fuentes-Afflick, E., Gardner, W., Gospe, Jr., S.M., Gunn, A., Gressens, P., Giussani, D., Haiden, N., Hauptman, M., Kim, K.S., Klebanoff, M., Lachman, P., Lanphear, B., Ozen, S., Roehr, C., Roland, D., Rosenblum, N., Schwarz, M., Staiano, A., Stroustrup, A., Valente, E.M., Wilson-Costello, D., Wynn, J., Molloy, E. Toward the Elimination of Bias in Pediatric Research. *Pediatr. Res.* **86**: 680–681, 2019.

CORPORATE AUTHORSHIP OR MULTICENTER TRIALS

Bliss, J.M. - Site Investigator

DeJonge M, Burchfield D, Bloom B, Duenas M, Walker W, Polak M, Jung E, Millard D, Schelonka R, Eyal F, Morris A, Kapik B, Roberson D, Kesler K, Patti J, and Hetherington S. Clinical trial of safety and efficacy of INH-A21 for the prevention of nosocomial staphylococcal bloodstream infection in premature infants. *J. Pediatr.* **151**: 260-265, 2007.

Bliss, **J.M.** – Site Investigator

Steinbach WJ, Roilides E, Berman D, Hoffman JA, Groll AH, Bin-Hussain I, Palazzi DL, Castagnola E, Halasa N, Velegraki A, Dvorak CC, Charkabarti A, Sung L, Danziger-Isakov L, Lachenauer C, Arrieta A, Knapp K, Abzug MJ, Ziebold C, Lehrnbecher T, Klingspor L, Warris A, Leckerman K, Martling T, Walsh TJ, Benjamin DK Jr, Zaoutis TE, and the International Pediatric Fungal Network. Results from a prospective, international, epidemiologic study of invasive candidiasis in children and neonates. *Pediatr. Infect. Dis. J.* 31: 1252-1257, 2012.

Bliss, J.M. – Site Investigator

Laptook AR, Shankaran S, Tyson JE, Munoz B, Bell EF, Goldberg RN, Parikh NA, Ambalavanan N, Pedroza C, Pappas A, Das A, Chaudhary AS, Ehrenkranz RA, Hensman AM, Van Meurs KP, Chalak LF, Hamrick SEG, Sokol GM, Walsh MC, Poindexter BB, Faix RG, Watterberg KL, Frantz III ID, Guillet R, Devaskar U, Truog WE, Chock VY, Wyckoff MH, McGowan EC, Carlton DP, Harmon HM, Brumbaugh JE, Cotton CM, Sánchez PJ, Hibbs AM, Higgins RD, for the Eunice Kennedy Shriver National Institute of Child Health and Human Development Neonatal Research Network. Effect of therapeutic hypothermia initiated after 6 hours of age on death or disability among newborns with hypoxic-ischemic encephalopathy: A randomized clinical trial. *JAMA*. **318:**1550-1560, 2017.

PUBLICATIONS SUBMITTED OR IN PREPARATION

Smith, M.J., Autmizguine, J., Hudak, M.L., Zinkhan, E., Bloom, B.T., Heresi, G., Lavery, A.P., Courtney S.E., Sokol, G.R., Cotton, C.M., **Bliss, J.M.**, Mendley, S., Bendel, C., Dammann, C., Weitkamp, J.-H., Saxonhouse, M.A., Mundakel, G.T., Debski, J., Lewandowski, A., Erinjeri, J., Gao, J., Benjamin, D.K., Hornik, C., Smith, P.B., Cohen-Wolkowiez, M. on behalf of the Best Pharmaceuticals for Children Act – Pediatric Trials Network. Antibiotic Safety and Efficacy in Premature Infants with Complicated Intra-Abdominal Infections: A Randomized Clinical Trial, *JAMA*, submitted, 2019.

Tollefson, G., Uzun, A., Bliss, J.M., Shaw, S.K. Gene expression profile and genomic variability associated with inducible adhesion in *Candida parapsilosis*. In preparation. 2019.

ABSTRACTS

- 1. *Candida* and Candidiasis 2020, Montréal, Quebec, April 2020. Presentation: Shaw, S.K., Cuevas, A.M., Tollefson, G.A., Longley, S.J., Bliss, J.M. and Uzun, A. Phr1 controls adhesion of *Candida parapsilosis*
- 2. Pediatric Academic Societies' Annual Meeting, Baltimore, MD, April 2019. Poster Presentation: Bliss, J.M., Longley, S.J., Cuevas, A., and Shaw, S.K. Regulation of Adhesion of *Candida parapsilosis*
- 3. Pediatric Academic Societies' Annual Meeting, Toronto, ON, May 2018.

 Poster Presentation: McKinley, L. Przystac, L., Tucker, R., Trail-Burns, E., Vohr, B., Bliss, J.M., and Laptook, A. Association between Implementation of a Nutrition Care Bundle and Improved Growth of Extremely Preterm Infants to 36 Weeks Post-Menstrual Age
- Pediatric Academic Societies' Annual Meeting, Toronto, ON, May 2018.
 Platform Presentation: Smith, M., Autmizguine, J., Hudak, M., Zinkhan, E., Bloom, B., Heresi, G., Lavery, A., Courtney, S., Sokol, G., Cotten, M., Bliss, J.M., Mendley, S., Bendel, C., Damman, C., Weitkamp, H., Saxonhouse, M., Mundakel, G., Benjamin, D., Hornik, C., Smith, P.B., Cohen-Wolkowiez, M. on behalf of the Best Pharmaceuticals for Children Act Pediatric Trials Network.
 Antibiotic Safety and Efficacy in Infants with Complicated Intra-Abdominal Infections
 *Presented in Presidential Plenary: The Top Abstracts in Pediatric Infectious Diseases 2018
- 5. Society for Experimental Biology Annual Meeting, Gothenburg, Sweden, July 2017. Keynote Presentation: Smith, A.M., Papaleo, C., Reid, C.W., and Bliss, J.M. Double Networks and Slug Glue: Integrating Mechanics and Sequence Data to Characterize an Unusually Tough Hydrogel Adhesive

- 6. Society for Integrative and Comparative Biology Annual Meeting, New Orleans, LA, January 2017. Platform Presentation: Smith, A.M., Fung, T.M., Papaleo, C., Reid, C., Bliss, J.M., Wolf, I. and Harro, C. Transcriptome-Based Sequencing and Mechanical Measurements Elucidate the Energy Dissipation Mechanism of an Unusually Tough Hydrogel Glue
- 7. Pediatric Academic Societies' Annual Meeting, Baltimore, MD, May 2016.
 Platform Presentation: Verma, P., Laforce-Nesbitt, S.S., Tucker, R. and Bliss, J.M. Novel Therapeutic Use of Galectin-3 in Neonatal Host Defense against Disseminated Candidiasis
 *Presented in Presidential Plenary: The Top Abstracts in Pediatric Infectious Diseases 2016
- 8. Pediatric Academic Societies' Annual Meeting, San Diego, CA, April 2015. Poster Presentation: Gonia, S., Shevik, M., Jensen, R., Bliss, J.M. and Gale, C.A. *Candida* Inter-Species Interactions Protect Premature Intestinal Epithelial Cells from Invasion and Damage
- 9. Pediatric Academic Societies' Annual Meeting, Vancouver, BC, May 2014.
 Poster Presentation: Pulickal, A.S., Laforce-Nesbitt, S.S., Hoyer, L.L., and Bliss, J.M. Perinatal Protection against Invasive Neonatal Candidiasis
- 10. Pediatric Academic Societies' Annual Meeting, Vancouver, BC, May 2014.

 Poster Presentation: Chow, B.D.W., Perry, E.O., Reardon, J.R., Laforce-Nesbitt, S.S., and Bliss, J.M. Host Defense Proteins in Breast Milk and Neonatal Yeast Colonization
- 11. Pediatric Academic Societies' Annual Meeting, Vancouver, BC, May 2014.

 Poster Presentation: Vargas, D.P., Laforce-Nesbitt, S.S., Shaw, S.K., and Bliss, J.M. Tissue Tropism of *Candida parapsilosis* in a Mouse Model of Hematogenous Dissemination
- 12. Pediatric Academic Societies' Annual Meeting, Vancouver, BC, May 2014.

 Poster Presentation: Balakrishnan, M., Przystac, L.E., Jennings, A.V., Phornphutkal, C., Tucker, R., Mance, M.J., Stephens, B.E., Vohr, B.R., and Bliss, J.M. Growth Outcomes Following Early, High Dose Parenteral Amino Acids in Very Low Birth Weight Infants: A Randomized Trial
- 13. Federation of American Societies for Experimental Biology Meeting, San Diego, CA, April 2014. Poster Presentation: Byrd, A., O'Brien, X., Johnson, C., Zarember, K., Sampaio, E., Laforce-Nesbitt, S., Bliss, J., Newburger, P., Holland, S., and Reichner, J. Assessment of NETosis in patients with primary immunodeficiencies: evidence for a ROS-independent pathway.
- 14. 2013 AAP National Conference and Exhibition, Orlando, FL, October 2013. Platform Presentation: Pulickal, A.S., Laforce-Nesbitt, S.S., Hoyer, L.L., and Bliss, J.M. Perinatal Protection against Invasive Neonatal Candidiasis by a Monoclonal Antibody Targeting the *Candida albicans* Adhesin, Als3p
- 15. ID Week 2013, San Francisco, CA, October 2013.
 Platform Presentation: Chow, B., Perry, E., Reardon, J., Laforce-Nesbitt, S, and Bliss, J.M. Effect of Endogenous Human Lactoferrin and Lysozyme in Breast Milk on Neonatal Colonization with Yeast
- 16. Pediatric Academic Societies' Annual Meeting, Washington, DC, May 2013. Platform Presentation: *Pulickal, A.S., Laforce-Nesbitt, S.S., Hoyer, L.L., and Bliss, J.M. Protection against Neonatal Candidiasis by a Monoclonal Antibody Targeting the *Candida albicans* Adhesin, Als3p
- 17. Pediatric Academic Societies' Annual Meeting, Washington, DC, May 2013.

Poster Presentation: Vargas, D.P., Laforce-Nesbitt, S.S., Shaw, S.S., and Bliss, J.M. A Mouse Model for Adhesion of *Candida parapsilosis* to Endothelial Cells

- 18. 11th ASM Conference on *Candida* and Candidiasis, San Francisco, CA, March 2012. Platform Presentation: *Linden, J.R., Laforce-Nesbitt, S.S., and Bliss, J.M. The Role of Galectin-3 in the Human Neutrophil Response to *Candida* and in Protection against Disseminated Candidiasis
- 19. 11th Annual St. Jude/PIDS Pediatric Infectious Diseases Research Conference, Memphis, TN, February 2012.

Poster Presentation: Chow, B.D., Perry, E.O., and Bliss, J.M. The role of expressed breast milk in colonization of neonates with *Candida* species

- 20. American Society for Microbiology General Meeting, New Orleans, LA, May 2011. Poster and Platform Presentations: *†Linden, J.R. and Bliss, J.M. The Role of Galectin-3 in Neutrophil Phagocytosis of *Candida albicans* and *Candida parapsilosis*
- 21. Pediatric Academic Societies' Annual Meeting, Denver, CO, May 2011.

 Poster Presentation: Tsai, N.Y., Laforce-Nesbitt, S.S., Hoyer, L.L. and Bliss, J.M. Efficacy of Als3p-specific Monoclonal Antibody in a Mouse Model of Neonatal Candidiasis
- 22. 13th Annual Northeast Student Chemistry Research Conference (NSCRC), Boston, MA, April 2011. Poster Presentation: Aicardi, K., Martin, J., Andrusin, K., Sullivan, C., Witkowski, C., Laforce-Nesbitt, S., Bliss, J., and Reid, C. Assessing the effectiveness of solvent extractions for the identification of lipid-based antigens from *Candida albicans*
- 23. Eastern Society for Pediatric Research Annual Meeting, Philadelphia, PA, March 2011. Platform Presentation: *Tsai, N.Y., Laforce-Nesbitt, S.S., Hoyer, L.L. and Bliss, J.M. Efficacy of Als3p-specific Monoclonal Antibody in a Mouse Model of Neonatal Candidiasis
- 24. Pediatric Academic Societies' Annual Meeting, Vancouver, BC, May 2010.

 Poster Presentation: Bliss, J.M., Wong, A.Y., Bhak, G., Laforce-Nesbitt, S.S., Taylor, S., and Benjamin, Jr., D.K. *Candida parapsilosis* Virulence Properties and Adverse Clinical Outcomes in Neonatal Candidiasis
- 25. Pediatric Academic Societies' Annual Meeting, Vancouver, BC, May 2010.

 Poster Presentation: Tsai, N.Y., Laforce-Nesbitt, S.S., and Bliss, J.M. Neonatal Mouse Model for Disseminated Candidiasis
- 26. 10th ASM Conference on *Candida* and Candidiasis, Miami, FL, March 2010. Poster Presentation: *Linden, J.R. and Bliss, J.M. Phagocytosis of *Candida parapsilosis* by Human Neutrophils is Mediated through Mannan with a Potential Role for Galectin-3
- 27. 10th ASM Conference on *Candida* and Candidiasis, Miami, FL, March 2010. Platform Presentation: *Tsai, N.Y., Laforce-Nesbitt, S.S., and Bliss, J.M. Neonatal Mouse Model for Disseminated Candidiasis
- 28. American Society for Microbiology General Meeting, Philadelphia, PA, May 2009. Poster Presentation: Linden, J.R. and Bliss, J.M. Antioxidant Properties of Candida parapsilosis
- 29. Pediatric Academic Societies' Annual Meeting, Baltimore, MD, May 2009.

 Poster Presentation: Balakrishnan, M., Tucker, R., Stephens, B.E. and Bliss, J.M. Protein Safety in Extremely Low Birth Weight Infants

- 30. 6th International Neonatal Hematology and Immunology Meeting, Boston, MA, July 2008 Platform Presentation: Destin, K.D., Maccani, M.A., Laforce-Nesbitt, S.S., and Bliss, J.M. Phagocytosis and Oxidative Burst of Neonatal Neutrophils Confronted with *Candida albicans* and *Candida parapsilosis*
- 31. 9th ASM Conference on *Candida* and Candidiasis, Jersey City, NJ, March 2008 Poster Presentation: Laforce-Nesbitt, S.S., Sullivan, M.A., Hoyer, L.L., and Bliss, J.M. Inhibition of *Candida albicans* Adhesion by Recombinant Human Antibody Single-Chain Variable Fragment Specific for Als3p
- 32. 9th ASM Conference on *Candida* and Candidiasis, Jersey City, NJ, March 2008 Poster Presentation: Al-Rawi, N. and Bliss, J.M. *Candida albicans SPT6*: Proposed Target of a Human Single-Chain Variable Fragment Specific for Hyphae
- 33. Pediatric Academic Societies' Annual Meeting, Toronto, ON, May 2007 Platform Presentation: Bliss, J.M. and Laforce-Nesbitt, S.S. Effect of Human Single Chain Variable Fragments (scFv) Specific to the *Candida albicans* Adhesin, Als3, on Adherence to Endothelial Cells
- 34. Eastern Society for Pediatric Research Annual Meeting, Philadelphia, PA, March 2007 Platform Presentation: Bliss, J.M. and Laforce-Nesbitt, S.S. Effect of Human Single Chain Variable Fragments (scFv) Specific to the *Candida albicans* Adhesin, Als3, on Adherence to Endothelial Cells
- 35. 23rd Interdisciplinary Neonatal Nutrition and Gastroenterology Symposium, Sunny Isles Beach, FL, December 2006

 Platform Presentation: Plies LM and Laforce Nechitt S.S. Toxicity to Opsonized Candida albicans

Platform Presentation: Bliss, J.M. and Laforce-Nesbitt, S.S. Toxicity to Opsonized *Candida albicans* Mediated by Peripheral Blood Mononuclear Cells

- 36. 32nd Annual New England Conference on Perinatal Research, Newport, RI, September 2006 Platform Presentation: Bliss, J.M. and Laforce-Nesbitt, S.S. Deficiency of Neonatal Cord Blood Mononuclear Cells in Mediating Toxicity to Opsonized *Candida albicans*
- 37. Pediatric Academic Societies' Annual Meeting, San Francisco, CA, April 2006
 Poster Presentation: Bliss, J.M. and Laforce-Nesbitt, S.S. Deficiency of Neonatal Cord Blood Mononuclear Cells in Mediating Toxicity to Opsonized *Candida albicans*
- 38. 8th ASM Conference on *Candida* and Candidiasis, Denver, CO, March 2006 Poster Presentation: Bliss, J.M. and Laforce-Nesbitt, S.S. Deficiency of Neonatal Cord Blood Mononuclear Cells in Mediating Toxicity to Opsonized *Candida albicans*
- 39. American Society for Microbiology General Meeting, Atlanta, GA, June 2005 Poster Presentation: Bliss, J.M. and Laforce-Nesbitt, S.S. Inhibition of *Candida albicans* Mediated by Human Serum and Peripheral Blood Mononuclear Cells
- 40. Pediatric Academic Societies' Annual Meeting, San Francisco, CA, May 2004 Poster Presentation: Bliss, J.M. and Laforce-Nesbitt, S.S. Rapid Toxicity to *Candida albicans* Mediated by Human Peripheral Blood Mononuclear Cells
- 41. Eastern Society for Pediatric Research Annual Meeting, Old Greenwich, CT, March 2004 Poster Presentation: Bliss, J.M. and Laforce-Nesbitt, S.S. Rapid Toxicity to *Candida albicans* Mediated by Human Peripheral Blood Mononuclear Cells

- 42. Pediatric Academic Societies' Annual Meeting, Baltimore, MD, May 2002 Poster Symposium: Bliss, J.M., Sullivan, M.A., and Haidaris, C.G. Characterization of Recombinant Human Immunoglobulin Fragments Reactive with *Candida albicans* Germ Tube Surface Antigens.
- 43. 6th ASM Conference on *Candida* and Candidiasis, Tampa, FL, January 2002 Poster Presentation: Bliss, J.M., Sullivan, M.A., and Haidaris, C.G. Recombinant Human Immunoglobulin Single Chain Variable Fragments Reactive with *Candida albicans* Germ Tube Surface Antigens.
- 44. 58th Perinatal & Developmental Medicine Symposium, Aspen, CO, June 2001 Platform Presentation: Bliss, J.M., Sullivan, M.A., and Haidaris, C.G. Human Monoclonal Antibodies Directed Against *Candida albicans*.
- 45. American Society for Microbiology General Meeting, New Orleans, LA, May 1996 Poster Presentation: Bliss, J.M. and Silver, R.P. The Role of KpsT in Transport of the Polysialic Acid Capsular Polysaccharide of *Escherichia coli* K1.
- 46. American Society for Microbiology General Meeting, Washington, DC, May 1995 Poster Presentation: Bliss, J.M. and Silver, R.P. A Dominant Negative Mutation of *kpsT* Inhibits Polysialic Acid Transport in *Escherichia coli* K1.

INVITED PRESENTATIONS

- 1. Pediatric Research Colloquium, Brown University, Providence, RI, September 2002, Regional: "Human Monoclonal Antibody Fragments Directed Against *Candida* Surface Antigens"
- 2. Perinatal Seminar, Women & Infants Hospital of Rhode Island, Providence, RI, December 2003, Regional: "Candidiasis and Immunocompromise in the Neonate"
- 3. Pathobiology Graduate Program Seminar, Brown University, Providence, RI, February 2004, Regional: "Human Monoclonal Antibody Fragments Directed Against Surface Antigens of *Candida albicans*"
- 4. Pediatric Grand Rounds, Hasbro Children's Hospital, Providence, RI, July 2004, Regional: "*Candida* Infection in the Newborn: Mechanisms of Immune Compromise and Novel Approaches to Therapy"
- 5. Division of Surgical Research Seminar Series, Rhode Island Hospital, Providence, RI, April 2005, Regional: "The Role of Antibody in Host Defense Against *Candida albicans*"
- 6. Perinatal Seminar, Women & Infants Hospital of Rhode Island, Providence, RI, May 2005, Regional: "Early Nutrition for Premature Infants: When and Why?"
- 7. Pediatric Research Colloquium, Brown University, Providence, RI, March, 2006, Regional: "Antibody in Host Defense Against *Candida albicans*"
- 8. Perinatal Seminar, Women & Infants Hospital of Rhode Island, Providence, RI, May 2006, Regional: "Erbs Palsy & Diaphragm Paralysis: Management and Outcomes"

^{*} Travel Award Recipient

[†] Outstanding Student Poster Award Recipient

- 9. Problems in Pediatrics CME Conference, Colby College, Waterville, ME, July, 2006, National: "Evaluation and Management of the Symptomatic Newborn"
- 10. Perinatal Seminar, Women & Infants Hospital of Rhode Island, Providence, RI, August 2007, Regional: "Fluconazole as a NICU Prophylaxis Agent Ready for Prime Time?"
- 11. Microbiology and Immunology Seminar Series, East Carolina University, Brody School of Medicine, Greenville, NC, October 2007, Regional: "Candidiasis in the Neonate: Host Defense and Investigations into the Role of Antibody"
- 12. Pediatric Research Colloquium, Brown University, Providence, RI, November, 2007, Regional: "*Candida* and the Neonatal Host: Progress in Development of Antibody-Based Immunotherapy"
- 13. Pediatric Grand Rounds, University of Minnesota Children's Hospital, Minneapolis, MN, January 2008, Regional: "Fluconazole as a NICU Prophylaxis Agent Ready for Prime Time?"
- 14. Fellows' Conference, University of Minnesota Children's Hospital, Minneapolis, MN, January 2008, Regional: "Candidiasis in the Neonate: Host Defense and Investigations into the Role of Antibody"
- 15. Pediatric Academic Societies' Annual Meeting, Vancouver, BC, May 2010, International: Chair and Moderator for Topic Symposium "Innate Immunity in the Newborn: So Many Pathogens, So Little Time"; Platform presentation "Host-Pathogen Interactions in Neonatal Candidiasis"
- 16. Problems in Pediatrics CME Conference, Colby College, Waterville, ME, July, 2010, National: "The Symptomatic Newborn"
- 17. Pediatric Grand Rounds, Charlton Memorial Hospital, Fall River, MA, September 2010, Regional: "Radiographic Findings in Neonatology"
- 18. Pediatric Grand Rounds, Memorial Hospital, Pawtucket, RI, November 2010, Regional: "Radiographic Findings in Neonatology"
- 19. Perinatal Seminar, Women & Infants Hospital of Rhode Island, Providence, RI, April 2011, Regional: "Retinopathy of Prematurity: Its Sordid Past and Promising Future"
- 20. Pediatric Grand Rounds, Memorial Hospital, Pawtucket, RI, May 2011, Regional: "Infant of a Diabetic Mother"
- 21. Science and Technology Seminar Series, Bryant University, Smithfield, RI, September 2011, Regional: "*Candida* Infections in the Premature Infant: The Continuing Journey from Bench to Bedside"
- 22. Perinatal Seminar, Women & Infants Hospital of Rhode Island, Providence, RI, February 2013, Regional: "Preliminary Results from 'The Protein Study"
- 23. Problems in Pediatrics CME Conference, Colby College, Waterville, ME, July, 2013, National: "Care and Feeding of the NICU Graduate" and "Cases from the First 48 Hours in the Newborn Nursery"
- 24. Scientific Lecture Series, Biomed Club, Wheeler School, Providence, RI, September, 2014, Regional: "The Bench to the Bedside and Back: An Insider's View"

- 25. 19th Annual Neonatal/Pediatric Conference, Southcoast Health, North Dartmouth, MA, November, 2014, Regional: "Sepsis in the Neonate: A Clinical Perspective"
- 26. Pediatric Grand Rounds, Memorial Hospital, Pawtucket, RI, February, 2015, Regional: "Sepsis in the Neonate: A Clinical Perspective"
- 27. Perinatal Seminar, Women & Infants Hospital of Rhode Island, Providence, RI, July 2015, Regional: "Antibody as a Therapeutic Adjuvant in Neonatal Candidiasis and Lessons Learned Along the Way"
- 28. Perinatal Seminar, Women & Infants Hospital of Rhode Island, Providence, RI, May 2016, Regional: "Retinopathy of Prematurity: 65 Years of Controversy"
- 29. Pediatric Academic Societies' Annual Meeting, San Francisco, CA, May 2017, International: "Neutrophil Galectin-3: Stalwart Armor against Neonatal *Candida*" in Invited Science Symposium, "Neonatal Immunity, Sepsis, and Immunotherapy"
- 30. Problems in Pediatrics CME Conference, Colby College, Waterville, ME, July, 2017, National: "Care and Feeding of the NICU Graduate" and "Cases from the First 48 Hours in the Newborn Nursery"
- 31. Perinatal Seminar, Women & Infants Hospital of Rhode Island, Providence, RI, October 2017, Regional: "Coconut Oil and *Candida*: Journey from "Fake News" to Bedside?"
- 32. Brooklyn-Queen's Neonatal Network, Brooklyn, NY, February 2018, Regional: "Retinopathy of Prematurity: 65 Years of Controversy"
- 33. Combined Perinatal Rounds, British Columbia Children's Hospital, Vancouver, BC, Canada, March 2018, Regional: "Coconut Oil and *Candida*: Promising New Strategy for Prophylaxis against Neonatal Candidiasis?"
- 34. Clinical Management Rounds, British Columbia Children's Hospital, Vancouver, BC, Canada, March 2018, Regional: "Early Protein in Extremely Low Birthweight Infants"
- 35. Pediatric Academic Societies' Annual Meeting, Baltimore, MD, April 2019, International: Facilitator for Workshop presented by Editorial Board for Pediatric Research: Publication Pearls: Enhancing Success in Scientific Publication.
- 36. International Association for Dental Research (IADR) General Session and Exhibition, Vancouver, BC, June 2019, International: "*Candida* Colonization in the Newborn Period and Attempts to Modify It in the Neonatal Intensive Care Unit" in Invited Science Symposium, "Oral Candida: A Hidden Culprit for Dental Caries?"

GRANTS

- 1. 1 R01 HD097081 "Salivary Diagnostics for Sepsis Screening in the Neonate", NIH, \$658,000/yr, 8/9/19-4/30/24, Site PI
- 2. 1 R21 HD089278 "Dietary Supplementation of Medium Chain Triglyceride (MCT) Oil to Reduce *Candida* Colonization in Preterm Infants", NIH, \$148,000/yr, 8/15/17-7/31/20, Co-Principal Investigator

- 3. 5 P30 GM114750 "COBRE for Perinatal Biology", NIH, \$50,000/yr, 10/1/17-9/30/20, Principal Investigator for Pilot Project: "Contribution of Galectin-3 to Host Defense against Disseminated Candidiasis"
- 4. "Bioinformatic and glycomic approach to identifying potential virulence pathways of *Candida parapsilosis*", \$20,000/yr, 6/1/19-5/31/20, Oh Zopfi Professorship Research Awards, Co-Principal Investigator.
- 5. "Bioinformatic approach to identifying potential virulence pathways of *Candida parapsilosis*", Oh Zopfi Professorship Research Awards, \$20,000/yr, 6/1/18-5/31/19, Co-Principal Investigator.
- 6. "Phagocytosis mechanisms for *Candida parapsilosis*", Oh Zopfi Professorship Research Awards, \$15,000/yr, 6/1/17-5/31/18, Co-Principal Investigator.
- 7. "Endothelial internalization of *Candida parapsilosis* during bloodstream infections", Oh Zopfi Professorship Research Awards, \$25,000/yr, 6/1/16-5/31/17, Co-Principal Investigator.
- 8. 1 P20 GM104317 "COBRE-Immune-Based Interventions Against Infectious Diseases", NIH, subcontract from University of Rhode Island, \$50,000/yr, 1/1/15-5/31/16, Principal Investigator for Pilot Project: "Galectin-3 in Neonatal Host Defense against Disseminated Candidiasis"
- 9. "Defining the Factors Responsible for Persistent Candidemia by *C. albicans*", Brown University Dean's Emerging Areas of New Science Award, \$80,000/yr, 8/1/14-7/31/15, Co-Principal Investigator.
- 10. "Galectin-3 in Neonatal Host Defense against Disseminated Candidiasis", Oh Zopfi Professorship Research Awards, \$20,000/yr, 4/1/14-3/31/15, Principal Investigator.
- 11. "Antigenic Targets of *Candida albicans* Specific Antibody Fragments", Rhode Island Research Alliance Collaborative Grant Award, \$200,000/yr, 2/1/11-7/31/12, Principal Investigator.
- 12. 1 P20 RR018728 "COBRE for Perinatal Biology", NCRR/NIH, \$175,000/yr, 7/1/08-6/30/14, Principal Investigator for Project 1: "Neonatal Candidiasis and Immune Compromise during Development"
- 13. "Molecular Analysis of a Bistable Switch in the Pathogen *Candida albicans*", Brown University Seed Grant, Co-PI. \$10,400/yr, 2/1/08-1/31/09.
- 14. "The Role of Specific Antibody in Host-Defense Against Neonatal Candidiasis", Basil O'Connor Starter Scholar Research Award, March of Dimes, \$75,000/yr, 2/1/06-1/31/09, Principal Investigator
- 15. 1 K08 AI064919 "Antibody in Defense Against Neonatal *Candida* Infections" NIH/NIAID, \$95,000/yr, 3/15/05-2/28/09, Principal Investigator.