

Fiona Yull
Curriculum Vitae

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Public URL for Yull my bibliography collection is:

<https://www.ncbi.nlm.nih.gov/sites/myncbi/fiona.yull.1/bibliography/40483843/public/?sort=date&direction=ascending>

Education:

- 1985: BSc (Hons) in Biochemistry with Microbiology from St. Andrews University, St. Andrews, UK
- 1989: DPhil from St. Catherines College, Oxford University, UK
Title: Control of replication of the 2 μ plasmid in yeast
- 1989-1995: Postdoctoral Research Fellow, under the direction of Dr. J. Clark, The Roslin Institute, Roslin, Edinburgh, UK.
- 1995-1998: Postdoctoral Research Fellow, under the direction of Dr. L. Kerr, Department of Microbiology and Immunology, Vanderbilt University Medical Center Nashville, TN

Academic Appointments:

- 1998-1998: Research Instructor, Department of Cell Biology, Vanderbilt University, Nashville, TN.
- 1998-1999: Research Assistant Professor, Department of Cell Biology, Vanderbilt University, Nashville, TN. Acting Principal Investigator during absence of Dr. L. Kerr on Robert Woods Johnson Fellowship in Washington.
- 2000-2004: Research Assistant Professor, Department of Cancer Biology, Vanderbilt University, Nashville, TN.
- 2000-2007: Deputy Director Department of Medicine PPG Core B, Vanderbilt University Medical Center.
- 2004-2010: Assistant Professor, Department of Cancer Biology, Vanderbilt University.
- 2010-pres: Associate Professor, Department of Cancer Biology, Vanderbilt University.

Professional Organizations:

- 1986-Pres. Member of Society of General Microbiology (SGM)
- 1997-Pres. Member of Society of Developmental Biology (SDB)
- 1998-Pres. Member of American Association of Cancer Research (AACR)
- 2012-Pres Member of Metastasis Research Society (MRS)
- 2014-Pres Member of International Society for Transgenic Technologies (ISTT)
- 2017-Pres Member of American Association for the Advancement of Science (AAAS)

Professional Activities:

Intramural:

2009-present Member of Vanderbilt IACUC Committee

Extramural:

2004- 2006 Scientist Reviewer, Susan G Komen Foundation Postdoctoral Fellowships
2007-present Scientist member of Nashville VA Biosafety Committee
2011-present Vice Chairman of Nashville VA Biosafety Committee
2012-present Research Compliance Expert for the Department of Cancer Biology
2010-2016 Ad hoc member, DOD BCRP Programmatic Review Panel
2011-2015 Ad hoc reviewer NIH MESH study section
2013- present Mouse management consultant for Nashville VA Facility
2013-2016 Ad hoc reviewer NIH SEP Cancer Health Disparities and Diversity in Basic Cancer Research
2017 Ad hoc reviewer NIH Cancer Immunopathology and Immunotherapy

Special awards or recognition for professional activities

1997 Recipient of DOD Breast Cancer Research Program Fellowship
2002 Recipient of Aventis-sponsored Leadership Development Fellowship

Editorial Responsibilities

Ad Hoc reviewer for the following Journals: *Cancer Research* *Clinical Cancer Research*
Oncogene *Carcinogenesis* *Molecular Cancer Research*
Life Sciences *PLoS* *Journal of Cellular Physiology*
Breast Cancer Research *Journal of Leukocyte Biology* *Nutrition and Cancer*
Molecular and Cellular Endocrinology *GENE*
BMC Immunology *EBioMedicine* *Drug Discovery Today*
Springer Plus *Neoplasia* *Molecular Cancer Therapeutics*
BMC Cancer *Cancer Cell International* *International Journal of Cancer*
Cell and Tissue Research *Biology of Reproduction*

2012-2014 Member of Editorial Board of ISRN Inflammation

Generation of Novel Mouse models

1995- present: Generated multiple murine models including transgenics that act as *in vivo* reporters of NF-kappaB activity, IkappaBalpha knockout mice, transgenics that express an activator of the NF-kappaB alternative pathway in mammary epithelium and multiple doxycycline inducible transgenics that enable activation or inhibition of NF-kappaB in specific cell types *in vivo* or over-expression of PAF-acetylhydrolase or Cox-2.

We have provided these murine tools to many collaborators within Vanderbilt (eg. Ann Richmond, Robert Matusik, Lillian Nanney, Alan Brash, Charles Lin, Brent Polk, Eric Skaar, Greg Mundy, Florent Elefteriou, Owen McGuinness, Bruce Carter, Jonathan Schoenecker, Lawrence Prince, Dineo Khabele).

In addition, we have provided our murine models to over 60 researchers in the US and around the world.

Patents/Licenses

Registered as an Inventor and granted a nonexclusive license for the novel transgenic model termed HLL that serves as an *in vivo* reporter of NF-kappaB activity.

Teaching Activities:

2003: Deputy Director, CANB342 Graduate Course in Cancer Biology, Vanderbilt University, Nashville, TN.

2004 - 2006: Director, CANB342 Graduate Course in Cancer Biology, Vanderbilt University, Nashville, TN.

- Spring 2006: Lecturer, CANB344 Graduate Course in Cancer Biology, Vanderbilt University, Nashville, TN.
- Spring 2007: Lecturer, “Mammary and placental development and structure”, Medical Cell and Tissue Biology Course, VMS1, Vanderbilt University, Nashville, TN.
- 2007: Co-director, CANB340 and CANB342 Graduate Courses in Cancer Biology, Vanderbilt University, Nashville, TN. **New curriculum created for both courses (in collaboration with Dr Barbara Fingleton co-director).**
- 2008-present: Director, CANB340 Graduate Course in Cancer Biology, Vanderbilt University, Nashville, TN.
- 2016-present: FMK Small Group Facilitator, Vanderbilt University School of Medicine

Research supervision:

Integrated Graduate Program Qualifying Exam Committee (IGP):

Sophie Thiolloy -2006, Miao He -2007, Nuruddeen Lewis -2007, Luping Lin -2008, Jillian Pope -2009, Adam Bissonnette – 2010, Matt Varga – 2012.

Doctoral Dissertation Committees and others:

Reader for Masters thesis for Heather Bill (2005)

Member of committee for Bobby Guillory (graduated 2010)

Member of committee for Erin Tillman (graduated 2007)

Member of committee for Kate Berlin (Department of Psychology) (graduated 2007)

Member of committee for Allison Atwood (Department of Molecular Physiology and Biophysics)(graduated 2010)

Member of committee for Yee Mon Thu (Department of Cancer Biology)(graduated 2011)

Member of committee for Preston Campbell (graduated 2012)

Member of committee for Andreia Bates (graduated 2015)

Member of committee for Ashley Dozier (graduated Masters of Laboratory Investigation – 2012)

Member of committee for David Austin (graduated 2015)

Member of committee for Andrea Hill (graduated 2015)

Member of committee for Kayla Boortz (graduated 2016)

Faculty mentor for Amanda Hansen (graduated 2013)

Graduate students:

U. Shivraj Sohur, M.D., Ph.D. (Mentored as senior post-doctoral fellow 1995-1998). Associate Director, Internal Medicine Research Unit, Neuroscience, Pfizer Worldwide Research and Development. Instructor in Neurology, Division of Movement Disorders, Department of Neurology, Harvard Medical School, Massachusetts.

Chih-Li Chen Ph.D. (Mentored as senior post-doctoral fellow 1995-1998). Assistant Professor, Department of Medical Technology, Fu Jen University School of Medicine in Taiwan.

Dana Brantley-Sieders Ph.D. (Mentored as Acting Principal Investigator 1998-2000). Research Assistant Professor, Division of Rheumatology, Vanderbilt University.

Shann Yu (Co-mentored with Dr. Todd Giorgio). Graduated 2012. Postdoctoral Fellow – University of Chicago.

Ryan Ortega (Co-mentored with Dr. Todd Giorgio). Graduated 2015. FDA Fellowship, Washington DC.

Initiative for Maximizing Student Diversity (IMSD) Faculty/Mentor:

2006-2007 Leshana Saint Jean. Vanderbilt IGP program.

2007-2010 April Newsome. Graduate of the Vanderbilt MLI Program.

Postdoctoral Fellows:

Rebecca Muraoka-Cook. (Mentored as Acting Principal Investigator 1998-2000). Assistant Professor, Department of Cancer Biology, Vanderbilt University.

Jiakun Wang – M.D. (2004-2005). Internal Medicine, Bellevue, Washington.

Linda Connelly – Ph.D. (2005-2009). Associate Professor and Chair, Dept of Pharmaceutical Sciences, University of Hawaii at Hilo.

Undergraduates:

2015 – present Esther Liu. Research for credit courses BSCI 3860, 3861, 3961. Mayo undergraduate summer research training (summer 2017).

Research Assistants:

2005-2008 Taylor Sherrill – research assistant (co-mentored with Dr. Timothy Blackwell). Graduated Vanderbilt MLI Program. Lab manager Dept Pulmonary Allergy Critical Care Medicine, VUMC.

2007-2008 Rachel Pigg – research assistant. Assistant Professor of Biology, Presbyterian College, Clinton, South Carolina.

2009- 2012 Halina Onishko – research assistant III. Graduated Vanderbilt MLI Program.

2008 - 2016 Whitney Barham – research assistant. Currently MD/PhD Program at the Mayo Clinic.

Other Significant Activities:

2009 Presentation to promote public awareness of Cancer Research at TJ Martell Foundation fundraiser.

2005, 2010 Presentation at Twister (Tennessee Women in Science and Technology) event. Outreach to inspire high school students to consider careers on science and technology.

Research Program:

Grants:

Ongoing Research Support

1R01CA214043-01A1 (Yull) 03/10/2017-02/28/2022
NCI \$228,750

“Macrophage-based ovarian cancer immunotherapy”

This study will define the impact of increasing NF- κ B signaling specifically in macrophages on the tumor microenvironment and ovarian tumor progression and will show that targeted modulation of NF- κ B in macrophages can be harnessed as a novel therapy.

No number (Yull) 04/01/2017-03/31/2018
Marsha Rivkin Center \$75,000

“Bromodomain inhibition in ovarian cancer and the tumor microenvironment”

The major goals of this project are to test the hypothesis that BETi and PARPi will co-operatively reduce ovarian tumor burden through enhanced DNA damage in tumors and reprogramming of tumor-associated macrophages towards a cytotoxic phenotype in the tumor microenvironment.

2R01 HL116358-04 (Blackwell) 09/25/12-05/30/19
VUMC subcontract/NHLBI

“Imaging Activated Macrophages in the Lungs”

Elucidate if developing molecular imaging techniques to identify functional subsets of activated macrophages will advance understanding of inflammatory lung diseases and could lead to novel, macrophage-targeted therapies. Optimize imaging probes based on folate receptor β expression present on activated macrophages.

5 I01 BX 002378-02 (Blackwell) 04/01/14 – 03/31/18
Department of Veterans Affairs

“Mechanisms Driving Airway Inflammation in Chronic Lung Disease”

Test a novel theory of COPD pathogenesis based on correlations between altered mucosal immunity in small airways and key parameters of COPD, including airway wall thickening, inflammatory cell influx, and airflow.

VA MERIT (Richmond) 10/01/13-9/30/17
 Department of Veterans Affairs
 “Modeling New Therapeutic Approaches for Malignant Melanoma”.
 Investigate combined therapy with Nutlin-3a, and AURKA inhibitor. Express constitutively active IKK β in myeloid cells to induce an antitumor phenotype and evaluate the therapy with MLN8237 and Nutlin-3a. Test combining agonist for DR4 and DR5 with MLN8237 for BRAF inhibitor resistant BRAFV600 melanoma.

2R01DK043748-22A1 (Owen McGuinness) 07/01/15-04/30/19
 NIH/NIDDK
 “Nutrition Infection and Hepatic Carbohydrate Metabolism”

Pending:

BC170652 (Yull) 01/01/2018 – 12/31/2020
 Effort: 15% \$250,000
 Contributions of alternative NF-kappaB signaling to development and progression of Ductal Carcinoma In Situ

METAvivor (Yull) 01/01/18 – 12/31/19
 Effort: 5% \$100,000
 Macrophage-based immunotherapy for eradication of pre-existing breast cancer metastases

VICC Ovarian Cancer Pilot (Yull) 08/01/2017 – 07/31/18
 Effort: 2.5% \$50,000
 Modeling ovarian cancer initiation: serous tubal intraepithelial carcinoma (STIC) induction by aberrant NF- κ B signaling

R21 NCI/NIH (Tantawany, Role – co-Investigator) 01/01/18 – 12/31/19
 Effort: 2.5% \$125,000
 Investigation of ovarian cancer therapy via dissolution of hydroxyapatite

OC170148 (Yull) Response to reviewed pre-proposal pending 03/01/18 – 02/28/21
 Effort: 10% \$150,000
 Combination immunotherapy to address treatment resistance in ovarian cancer

RO1 CA212742-01A1 (Yull) – In preparation
 Harnessing macrophage functions for breast cancer therapy

Completed

1 R01 HL 116358-03 NIH/NHLBI (Blackwell-Prince, Role – Co-Investigator) 9/25/12 - 6/30/15
 Imaging Activated Macrophages in the Lungs

O’Brien internal pilot (Yull – PI) 8/01/12 – 7/31/13
 Role of macrophages in Renal Injury

W81XWH-11-1-0242 DOD Breast Cancer Program (Yull Partnering PI) 7/01/11 - 6/30/14
 Assessment of nanobiotechnology-Targeted siRNA Designed to Inhibit NF-kappaB Classical and Alternative signaling in Breast Tumor Macrophages
 Goals are; 1) exploration of macrophage response to **inhibition** of NF-kB activation by the canonical and alternative pathways using siRNA *in vitro*, 2) develop nanobiotechnology delivery vehicle for specific delivery of siRNA to tumor associated macrophages *in vivo* to modulate NF-kB activity.

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W81XWH-11-1-0509 DOD Ovarian Cancer Program (Wilson) Nuclear factor-kappaB Activity in the Host-tumor Microenvironment of Ovarian Cancer Study patterns of nuclear factor-kappa B activity in the host versus the tumor epithelium during progression of ovarian cancer in a murine model. Bioluminescent reporters in ovarian cancer cell lines or transgenic mice will determine patterns of NF-kB activity and responses to pharmacologic interventions during tumor progression.	7/25/11-8/24/14
5 R01 HL 097195-02 NIH/NHLBI (Prince, Role – Co-Investigator) Role of Fetal Lung Macrophages in Bronchopulmonary Dysplasia	9/14/09 - 7/31/14
2R01 CA076142-11 NIH/NIA (Matusik, Role – Co-Investigator) Transgenic animal models for Prostate Cancer	7/01/09 - 6/30/14
5 R01 78188-02 NIH/NCI (McGuinness, Role – Co-Investigator) Impact of Inflammation on the control of muscle	6/01/09 - 5/31/14
W81XWH-08-1-0547 Department of Defense PCRP (Matusik, Role – Co-Investigator) Stromal/Epithelial Interactions Control Prostate Tumor Progression	9/01/08 - 8/31/11
1R01 CA113734-01A2 NIH/NCI (PI) Epithelial NF-KappaB Signaling in Mammary Tumorigenesis	7/01/07- 6/30/012
VA Merit Review Veterans Administration (Blackwell, Role – Co-Investigator) Chronic Inflammation in the Pathogenesis of Lung Cancer	7/01/07 - 6/30/11
R01 HL085317-01-A1 NIH/NHLBI (Blackwell, Role – Co-investigator) Epithelial-Fibroblast Interactions in Lung Fibrosis	4/10/07 - 2/28/16
Alex Lemonade Stand Foundation (Eid, Role - Co-Investigator) Targeting Wnt in synovial sarcoma models	7/01/09 - 6/30/11
5R01 AR053718-02 NIH/NIAMS (Lin, Role – Co-Investigator) Interaction of Angiopoietin & VEGF Signals in Arthritis	6/01/06 - 5/31/11
Concept award DOD Breast Cancer Program (PI) NF-kappaB activity in macrophages determines metastatic potential of breast tumor cells	9/01/09 - 8/31/10
DOD Breast Cancer Program Concept (PI) NF-kappaB as a critical biological link between psychological stress and breast cancer.	7/1/06-6/30/07
5R01 CA116021-03 NIH/NCI (Richmond, Role – Co-Investigator) Targeting the NF-kB Pathway in Melanoma	8/19/05 - 6/30/10
DOD Breast Cancer Program IDEA (PI) Manipulation of NF-kappaB Activity in the Macrophage Lineage as a Novel Therapeutic Approach.	4/1/04 - 5/31/07
Susan G. Komen Foundation. (PI) The role of NF-kappaB in normal mammary development and neoplasia.	5/1/03 - 4/30/06
Vanderbilt Ingram Cancer Center Transition to Independence Grant (PI)	5/1/02 - 4/30/06
Elsa U. Pardee Foundation. (Acting PI) The Role of NF-Kappa B in Normal and Transformed Mammary Epithelium.	6/01/99 - 5/31/00
American Cancer Society IRG. (PI)	7/1/98-6/30/99

The role of NF-kappaB in normal mammary and transformed mammary epithelium.

NIH R01 GM 51249 National Institutes of Health. (Acting PI)
Regulation of NF-κB Activity Cell Cycle Progression.

7/01/94-12/31/00

Publications and Presentations:

1. Dobson, M.J., **Yull, F.E.**, Molina, M., Kingsman, S.M. and Kingsman, A.J. 1988. Reconstruction of the yeast 2μm plasmid partitioning mechanism. *Nucleic Acids Res.* 16:7103-7117.
2. **Yull, F.E.** and Clark, A.J. 1991. Controlling the expression of genes in transgenic animals: Hybrid transcription circuits. *Genetical Research, 1st Mammalian Genetics and Development Workshop*, London, 6-9 November, 1990, 58:87.
3. Springbett, A.J., Burdon, T.G., **Yull, F.E.**, and Whitelaw, C.B.A. 1993. Comment on the mosaic nature of Go transgenic mice. *Mouse Genome.* 91:113.
4. Clark, A.J., Bissinger, P., Bullock, D., Damak, S., Wallace, R., Whitelaw, C.B.A. and **Yull, F.E.** 1994. Chromosomal position effects and the modulation of transgene expression. *Reproduction, Fertility and Development.* 6:589-598.
5. **Yull, F.E.**, Wallace, R.M. and Clark, A.J. 1995. Restricted tissue-specific but correct developmental expression mediated by a short human 1AT promoter fragment in transgenic mice. *Transgenic Research.* 4:70-74.
6. **Yull, F.E.**, Wallace, R.M. and Clark, A.J. 1995. Feasibility of adapting the *E. coli lac* operator/repressor system for use as an inducible switch in the liver of transgenic mice. *Transgenics.* 1:477-486.
7. **Yull, F.E.**, Harold, G., Wallace, R., Cowper, A., Percy, J., Cottingham, I. and Clark, A.J. 1995. Fixing human factor IX (fIX): Correction of a cryptic RNA splice enables the production of biologically active fIX in the mammary gland of transgenic mice. *Proc. Natl. Acad. Sci. USA.* 92:10899-10903.
8. Clark, A.J., Harold, G., and **Yull, F.E.** 1997. Mammalian cDNA and CAT reporter sequences silence adjacent transgenes in transgenic mice. *Nucleic Acids Research.* 25:1009-1014.
9. **Yull, F.E.**, Binas, B., Harold, G., Wallace, R., and Clark, A.J. 1997. Transgene rescue in the mammary gland is associated with transcription but does not require translation of BLG transgenes. *Transgenic Research.* 6:11-17.
10. Clark, A.J., Iwobi, M., Cui, W., Crompton, M., Harold, G., Hobbs, S., Kamalati, T., Knox, R., Neil, C., **Yull, F.E.** and Gusterson, B. 1997. Selective cell ablation in transgenic mice expressing *E. coli* nitroreductase. *Gene Therapy.* 4:101-110.
11. Bushdid, P.B., Brantley, D.M., **Yull, F.E.**, Blaeuer, G.L., Hoffman, L.H., Niswander, L. and Kerr, L.D. 1998. Inhibition of NF-κB activity results in disruption of the apical ectodermal ridge and aberrant limb morphogenesis. *Nature.* 392:615-618.
12. Chen, C-L., **Yull, F.E.**, and Kerr, L.D. 1999. Differential serine phosphorylation regulates IκB-α inactivation. *Biochem. Biophys. Res. Comm.* 257:798-806.
13. Blackwell, T.S., **Yull, F.E.**, Chen, C-L., Venkatakrisnan, A., Blackwell, T.R., Hicks, D.J., Lancaster, L.H., Christman, J.W., and Kerr, L.D. 1999 Use of genetically altered mice to investigate the role of nuclear factor-kappa B activation and cytokine gene expression in sepsis-induced ARDS. *Chest.* 116:73S-74S.
14. Sohur, U.S., Chen, C.L, Hicks, D., **Yull, F.E.**, and Kerr, L.D. 2000. NF-κB/cRel is apoptogenic in cytokine withdrawal programmed cell death. *Cancer Research.* 60:1202-1205.
15. Chen, C-L., **Yull, F.E.**, Cardwell, N., Nanney, L. and Kerr, L.D. 2000. RAG2^{-/-}, IκB-α^{-/-} chimeras display a psoriasis-like skin disease. *Journal of Investigative Dermatology.* 115:1124-1133.
16. Blackwell, T.S., **Yull, F.E.**, Chen, C-L., Venkatakrisnan, A., Blackwell, T.R., Hicks, D.J., Lancaster, L.H., Christman, J.W., and Kerr, L.D. 2000 Multi-organ NF-κB activation in a transgenic mouse model of systemic inflammation. *Am. J. Respir. Crit. Care Med.* 162:1095-1101.
17. Brantley, D.M., **Yull, F.E.**, Muraoka, R.S., Hicks, D., Cook, C.M., and Kerr, L.D. 2000. Dynamic expression and activity of NF-κB during post-natal mammary gland morphogenesis. *Mechanisms of Development* 97:149-155.

18. Muraoka, R.S., Bushdid, P.B., Brantley, D.M., **Yull, F.E.** and Kerr, L.D. 2000. Mesenchymal expression of Nuclear factor- κ B inhibits epithelial growth and branching in the embryonic chick lung. *Developmental Biology*. 225:322-338.
19. Chen, C-L., Singh, N., **Yull, F.E.**, Strayhorn, D., VanKaer, L., and Kerr, L.D. 2000. Lymphocytes lacking I κ B α develop normally but have selective defects in proliferation and function. *Journal of Immunology*. 165:5418-5427.
20. Hao, C-M., **Yull, F.E.**, Blackwell, T., Komhoff, M., Davis, L.S. and Breyer, M.D. 2000. Dehydration activates a NF-kappaB driven, COX-2 dependant survival mechanism in renal medullary interstitial cells. *Journal of Cellular Immunology*. 106:973-982.
21. Brantley, D.M., Chen, C-L., Muraoka, R.S., Bushdid, P.B., Bradberry, J.L., Kittrell, F., Medina, D., Matrisian, L.M., Kerr, L.D. and **Yull, F.E.** 2001. Nuclear factor-kappa B (NF- κ B) regulates proliferation and branching in mouse mammary epithelium. *Molecular Biology of the Cell*. 12:1445-55.
22. Sadikot, R.T., Jansen, E.D., Blackwell, T.R., Zoia, O., **Yull, F.E.**, Christman, J.W., Blackwell, T.S., 2001. High dose dexamethasone accentuates NF- κ B activation in endotoxin treated mice. *Am. J. Respir. Crit. Care Med*. 164:873-878.
23. Bushdid, P.B., Chen, C-L., Brantley, D.M., **Yull, F.E.**, Raghov, R., Kerr, L.D., and Barnett, L.V. 2001. NF-kappaB mediates FGF signal regulation of Msx-1 expression. *Developmental Biology*. 237:107-115.
24. Sadikot, R.T., Wudel, J., Jansen, D.E., Debelak, J.P., **Yull, F.E.**, Christman, J.W., Blackwell, T.S. and Chapman, W.C. 2002. Hepatic cryoablation-induced multisystem injury. Bioluminescent detection of NF-kappaB activation in a transgenic mouse model. *Journal of Gastrointestinal Surgery*. 6 :264-70.
25. Sadikot, R.T., Han, W., Everhart, M.B., Zioa, O., Jansen, E.D., **Yull, F.E.**, Christman, J.W., Blackwell, T.S. 2003. Selective I- κ B kinase expression in airway epithelium generates neutrophilic lung inflammation. *J Immunol*. 170:1091-1098.
26. **Yull, F.E.**, Han, W., Jansen, E.D., Everhart, M.B., Sadikot, R.T., Christman, J.W. and Blackwell, T.S. 2003. Bioluminescent detection of endotoxin effects on HIV-1 LTR-driven transcription In Vivo. *Journal of Histochemistry and Cytochemistry* 51:1-9.
27. Gray K.D. Simovic M.O. Chapman W.C. Blackwell T.S. Christman J.W. Washington M.K. **Yull F.E.** Jaffal N. Jansen E.D. Gautman S. Stain S.C. 2003. Systemic nf-kappaB activation in a transgenic mouse model of acute pancreatitis. *Journal of Surgical Research*. 110:310-4.
28. Schneider, C., Strayhorn, W.D., Brantley, D.M., Nanney, L.B., **Yull, F.E.**, and Brash, A.R. Upregulation of 8-Lipoxygenase in the Psoriatic Skins of I κ B- α -deficient Mice. 2004. *Journal of Investigative Dermatology* 122: 691-8.
29. Sadikot, R.T., Zeng, H., **Yull, F.E.**, Li, B., Cheng, D-S., Kernodle, D.S., Jansen, E.D., Contag, C.H., Segal, B.H. Holland, S.M., Blackwell, T.S., Christman, J.W. 2004. p46^{phox} deficiency impairs NF- κ B activation and host defense in *Pseudomonas* pneumonia. *J. Immunol*. 172: 1801-8..
30. Ponnappan, U., **Yull, F.E.**, and Soderberg, L.S.F. 2004. Inhaled isobutyl nitrite inhibited macrophage inducible nitric oxide synthase by blocking NF κ B signaling and promoting degradation of inducible nitric oxide synthase-2, *International Immunopharmacology* 4:1075-82.
31. Everhart M.B., Han, W., Parman, K.S., Polosukhin, VV., Zeng, H., Sadikot, R.T., Li, B., **Yull, F.E.**, Christman, J.W., Blackwell, T.S. 2005. Intratracheal administration of liposomal clodronate accelerates alveolar macrophage reconstitution following fetal liver transplantation. *J Leukoc Biol*. 77:173-80.
32. O'donnell, S.M., Hansberger, M.W., Connolly, J.L., Chappell, J.D., Watson, M.J., Pierce, J.M., Wetzel, J.D., Han, W., Barton, E.S., Forrest, J.C., Valyi-Nagy, T., **Yull, F.E.**, Blackwell, T.S., Rottman, J.N., Sherry, B., Dermody, T.S. 2005. Organ-specific roles for transcription factor NF-kappaB in reovirus-induced apoptosis and disease. *J Clin Invest*. 115:2341-2350.
33. Stathopoulos, G.T., Zhu, Z., Everhart, M.B., Kalomenidis, I., Lawson, W.E., Bilaceroglu, S., Peterson, T.E., Mitchell, D., **Yull, F.E.**, Light, R.W., Blackwell, T.S. 2006. Nuclear Factor- κ B Affects Tumor Progression in a Mouse Model of Malignant Pleural Effusion. *Am J Respir Cell Mol Biol*. 34:142-150.
34. Stafforini, D.M., Sheller, J.R., Blackwell, T.S., Sapirstein, A., **Yull, F.E.**, McIntyre T.M., Bonventre, J.V., Prescott, S.M., Roberts, L.J. 2nd. 2006. Release of free F2-isoprostanes from esterified

- phospholipids is catalyzed by intracellular and plasma platelet-activating factor acetylhydrolases. *J Biol Chem.* 281: 4616-4623.
35. Everhart, M.B., Han, W., Sherrill, T.P., Arutiunov, M., Polosukhin, V.V., Burke, J.R., Sadikot, R.T., Christman, J.W., **Yull, F.E.**, Blackwell, T.S. 2006. Duration and Intensity of NF- κ B Activity Determine the Severity of Endotoxin-Induced Acute Lung Injury. *J Immunol.* 176:4995-5005.
 36. Sadikot, R.T., Zeng, H., Joo, M., Everhart, M.B., Sherrill, T.P., Li, B., Cheng, D.S., **Yull, F.E.**, Christman, J.W., Blackwell, T.S. 2006. Targeted Immunomodulation of the NF- κ B Pathway in Airway Epithelium Impacts Host Defense against *Pseudomonas aeruginosa*. *J Immunol.* 176:4923-30.
 37. Connelly, L., Robinson-Benion, C., Chont, M., Saint-Jean, L., Li, H., Polosukhin, V.V., Blackwell, T. and **Yull, F.** 2007. A transgenic model reveals important roles for the NF-kappaB alternative pathway (p100/p52) in mammary development and tumorigenesis *J Biol Chem.* 282: 10028-35.
 38. Cheng, D.S., Han, W., Chen, S.M., Sherrill, T.P., Chont, M., Park, G-Y., Sheller, J.R., Polosukhin, V.V., Christman, J.W., **Yull, F.E.**, Blackwell, T.S. 2007. Airway epithelium controls lung inflammation and injury through the NF-kappaB pathway. *J. Immunol.* 178:6504-13 (co-senior authorship).
 39. Park, G.Y., Hu, N., Wang, X., Sadikot, R., **Yull, F.**, Joo, M., Peebles Jr, R., Blackwell, T., Christman, J. 2007. Conditional regulation of Cyclooxygenase-2 in tracheobronchial epithelial cells modulates pulmonary immunity. *Clinical and Experimental Immunology* 150: 245-254.
 40. Stathopoulos, G.T., Sherrill, T.P., Cheng, D-S., Scoggins, R.M., Han, W., Polosukhin, V.V., Connelly, L., **Yull, F.E.**, Fingleton, B., Blackwell, T.S. 2007 Epithelial nuclear factor-kappaB activation promotes urethane-induced lung carcinogenesis. *Proc Natl Acad Sci* 104:18514-9.
 41. Stathopoulos, G.T., Sherrill, T.P., Han, W., Sadikot, R.T., Polosukhin, V.V., Fingleton, B., **Yull, F.E.**, Blackwell, T.S. 2007. Use of bioluminescent imaging to investigate the role of nuclear factor-kappaB in experimental non-small cell lung cancer metastasis. *Clin and Exp Metastasis* 25:43-51.
 42. Stathopoulos, G.T., Sherrill, T.P., Han, W., Sadikot, R.T., **Yull, F.E.**, Blackwell, T.S. and Fingleton, B. 2008. Host nuclear factor- κ B activation potentiates lung cancer metastasis. *Molecular Cancer Research* 6:364-71.
 43. Jin, R.J., Lho, Y., Connelly, L., Wang, Y., Yu, X., Saint-Jean, L., Case, T.C., Ellwood-Yen, K., Sawyers, C.L., Bhowmick, N.A., Blackwell, T.S., **Yull, F.E.**, Matusik, R.J. 2008. The NF-kappaB pathway controls progression of prostate cancer to androgen independence. *Cancer Research* 68:6762-6769.
 44. Chen, S.M., Cheng, D-S., Williams, B.J., Sherrill, T.P., Han, W., Saint-Jean, L., Christman, J.W., Sadikot, R.T., **Yull, F.E.**, Blackwell, T.S. 2008. The nuclear factor kappa-B pathway in airway epithelium regulates neutrophil recruitment and host defense following *Pseudomonas aeruginosa* infection. *Clin Exp Immunol* 153:420-428.
 45. Han, W., Joo, M., Everhart, M.B., Christman, J.W., **Yull, F.E.**, Blackwell, T.S. 2009. Myeloid cells control termination of lung inflammation through the NF-kappaB pathway. *Am J Physiol Lung Cell Mol Physiol* 296:L320-7.
 46. Singh, M.V., Kapoun, A., Higgins, L., Kutschke, W., Thurman, J.M., Zhang, R., Singh, M., Yang, J., Guan, X., Lowe, J.S., Weiss, R.M., Zimmermann, K., **Yull, F.E.**, Blackwell, T.S., Mohler, P.J., Anderson, M.E. 2009. Ca²⁺/calmodulin-dependent kinase II triggers cell membrane injury by inducing complement factor B gene expression in the mouse heart. *J Clin Invest.* 119:986-96.
 47. Chiang, S-H., Bazuine, M., Lumeng, C.N., Geletka, L., Zhou, J., Mowres, J., Qi, N., Westcott, D., Delproposto, J.B., Blackwell, T.S., **Yull, F.E.**, Maniatis, T., Saltiel, A.R. 2009. The protein kinase IKKepsilon regulates energy expenditure, insulin sensitivity and chronic inflammation in obese mice. *Cell* 138:961-75.
 48. Connelly, L., Barham, W., Pigg, R., Saint-Jean, L., Sherrill, T., Cheng, D-S., Chodosh, L.A., Blackwell, T.S. **Yull, F.E.** Activation of NF-kappaB in mammary epithelium promotes milk loss during mammary development and infection. *Journal of Cellular Physiology* 222:73-81.
 49. Segal BH, Han W, Bushey JJ, Joo M, Bhatti Z, Feminella J, Dennis CG, Vethanayagam RR, **Yull FE**, Capitano M, Wallace PK, Minderman H, Christman JW, Sporn MB, Chan J, Vinh DC, Holland SM, Romani LR, Gaffen SL, Freeman ML, Blackwell TS. 2010. NADPH oxidase limits innate immune responses in the lungs in mice. *PLoS One.* 5:e9631.

50. Connelly, L., Barham, W., Onishko, H., Sherrill, T., Chodosh, L.A., Blackwell, T.S. **Yull, F.E.** 2010. Inhibition of NF-kappaB activity in mammary epithelium increases tumor latency and decreases tumor burden. *Oncogene* 30:1402-12.
51. Yang J, Splittgerber R, **Yull FE**, Kantrow S, Ayers GD, Karin M, Richmond A. 2010. Conditional ablation of *Ikkb* inhibits melanoma tumor development in mice. *J Clin Invest.* 120:2563-74. PMID:20530876
52. Stathopoulos GT, Sherrill TP, Karabela SP, Goleniewska K, Kalomenidis I, Roussos C, Fingleton B, **Yull FE**, Peebles RS Jr, Blackwell TS. 2010. Host-derived interleukin-5 promotes adenocarcinoma-induced malignant pleural effusion. *Am J Respir Crit Care Med.* 182:1273-81. PMID:20595227
53. Lawson WE, Cheng DS, Degryse AL, Tanjore H, Polosukhin VV, Xu XC, Newcomb DC, Jones BR, Roldan J, Lane KB, Morrissey EE, Beers MF, **Yull FE**, Blackwell TS. 2011. Endoplasmic reticulum stress enhances fibrotic remodeling in the lungs. *Proc Natl Acad Sci U S A.* 108:10562-7. PMID:21670280
54. Chen AC, Arany PR, Huang YY, Tomkinson EM, Sharma SK, Kharkwal GB, Saleem T, Mooney D, **Yull FE**, Blackwell TS, Hamblin MR. 2011. Low-level laser therapy activates NF-kB via generation of reactive oxygen species in mouse embryonic fibroblasts. *PLoS One.* 6:e22453. PMID:21814580
55. Chung S, Sundar IK, Hwang JW, **Yull FE**, Blackwell TS, Kinnula VL, Bulger M, Yao H, Rahman I. 2011.
56. NF-κB inducing kinase, NIK mediates cigarette smoke/TNFα-induced histone acetylation and inflammation through differential activation of IKKs. *PLoS One.* 6:e23488. PMID:21887257
57. Zaynagetdinov R, Stathopoulos GT, Sherrill TP, Cheng DS, McLoed AG, Ausborn JA, Polosukhin VV, Connelly L, Zhou W, Fingleton B, Peebles RS, Prince LS, **Yull FE**, Blackwell TS. 2011. Epithelial nuclear factor-κB signaling promotes lung carcinogenesis via recruitment of regulatory T lymphocytes. 2011.*Oncogene.*
58. Zaynagetdinov R, Sherrill TP, Polosukhin VV, Han W, Ausborn JA, McLoed AG, McMahon FB, Gleaves LA, Degryse AL, Stathopoulos GT, **Yull FE**, Blackwell TS. 2011. A critical role for macrophages in promotion of urethane-induced lung carcinogenesis. *J Immunol.* 187:5703-11. PMID: 22048774.
59. Blackwell, TS, Hipps, AN, Yamamoto, Y, Han, W, Barham, WJ, Ostrowski, MC, **Yull, FE**, Prince, LS. NF-kappaB Signaling in Fetal Lung Macrophages Disrupts Airway Morphogenesis.2011. *J Immunol.* 187:2740-7. PMID: 21775686.
60. Connelly L, Barham W, Onishko HM, Chen L, Sherrill T, Zabuwalla T, Ostrowski MC, Blackwell TS, **Yull FE**. 2011. NF-kappaB activation within macrophages leads to an anti-tumor phenotype in a mammary tumor lung metastasis model. *Breast Cancer Res.* 13:R83. PMID: 21884585.
61. Karabela SP, Psallidas I, Sherrill TP, Kairi CA, Zaynagetdinov R, Cheng DS, Vassiliou S, McMahon F, Gleaves LA, Han W, Stathopoulos I, Zakyntinos SG, **Yull FE**, Roussos C, Kalomenidis I, Blackwell TS, Stathopoulos GT. 2012. Opposing effects of bortezomib-induced nuclear factor-κB inhibition on chemical lung carcinogenesis. *Carcinogenesis.* 33:859-67. PMID:22287559
62. Arima Y, Harada M, Kamimura D, Park JH, Kawano F, **Yull FE**, Kawamoto T, Iwakura Y, Betz UA, Márquez G, Blackwell TS, Ohira Y, Hirano T, Murakami M. 2012. Regional neural activation defines a gateway for autoreactive T cells to cross the blood-brain barrier. *Cell.* 148:447-57. PMID:22304915
63. Swartz MA, Iida N, Roberts EW, Sangaletti S, Wong MH, **Yull FE**, Coussens LM, Declerck YA. 2012. Tumor Microenvironment Complexity: Emerging Roles in Cancer Therapy. *Cancer Res.* 72:2473-80. PMID: 22414581.
64. Barham W, Sherrill T, Connelly L, Blackwell TS, **Yull FE**. Intraductal injection of LPS as a mouse model of mastitis: signaling visualized via an NF-κB reporter transgenic. 2012. *J Vis Exp.* 67:e4030. PMID:22971993
65. Berlin KL, Andreotti C, **Yull F**, Grau AM, Compas BE. 2013. Mother-daughter communication about breast cancer risk: interpersonal and biological stress processes. *J Behav Med.* 36:328-39. PMID:22569774
66. Edwards JR, Perrien DS, Fleming N, Nyman JS, Ono K, Connelly L, Moore MM, Lwin ST, **Yull FE**, Mundy GR, Elefteriou F. 2013. Silent information regulator (Sir)T1 inhibits NF-κB signaling to maintain normal skeletal remodeling. *J Bone Miner Res.* 960-9. PMID:23172686
67. Yu SS, Lau CM, Barham WJ, Onishko HM, Nelson CE, Li H, Smith CA, **Yull FE**, Duvall CL, Giorgio TD. 2013. Macrophage-Specific RNAi Targeting via 'Click', Mannosylated Polymeric Micelles. *Mol Pharm.* 10:975-87. PMID:23331322.
68. Han W, Li H, Cai J, Gleaves LA, Polosukhin VV, Segal BH, **Yull FE**, Blackwell TS. 2013. NADPH Oxidase Limits Lipopolysaccharide-Induced Lung Inflammation and Injury in Mice through Reduction-

- Oxidation Regulation of NF- κ B Activity. *J Immunol* 190:4786-94. PMID:23530143 PMCID: PMC3633681.
69. He W, Zhang M, Zhao M, Davis LS, Blackwell TS, **Yull F**, Breyer MD, Hao CM. Increased dietary sodium induces COX2 expression by activating NF κ B in renal medullary interstitial cells. 2013. *Pflugers Arch*. Jul31. PMID:23900806.
 70. Li H, Han W, Polosukhin V, **Yull FE**, Segal BH, Xie CM, Blackwell TS. NF- κ B Inhibition after Cecal Ligation and Puncture Reduces Sepsis-Associated Lung Injury without Altering Bacterial Host Defense. *Mediators Inflamm*. 2013;2013:503213. PMID:24347827
 71. Barham W, Frump AL, Sherrill TP, Garcia CB, Saito-Diaz K, Vansaun MN, Fingleton B, Gleaves L, Orton D, Capecchi MR, Blackwell TS, Lee E, **Yull F**, Eid JE. 2013. Targeting the Wnt Pathway in Synovial Sarcoma Models. *Cancer Discov*. 3:1286-301. PMID: 23921231.
 72. Wilson AJ, Barham W, Saskowski J, Tikhomirov O, Chen L, Lee HJ, **Yull F**, Khabele D. 2013. Tracking NF-kappaB activity in tumor cells during ovarian cancer progression in a syngeneic mouse model. *J Ovarian Res*. 6:63. PMID:24020521
 73. Shi C, Washington MK, Chaturvedi R, Drosos Y, Revetta FL, Weaver CJ, Buzhardt E, **Yull FE**, Blackwell TS, Sosa-Pineda B, Whitehead RH, Beauchamp RD, Wilson KT, Means AL. Fibrogenesis in pancreatic cancer is a dynamic process regulated by macrophage-stellate cell interaction. *Lab Invest*. 2014 Apr; 94:409-21. PMID:24535260. PMCID: PMC3992484.
 74. Buckman LB, Thompson MM, Lippert RN, **Yull FE**, Ellacott KLJ. Evidence for a role of astrocytes in the homeostatic regulation of food intake in mice. *Mol Metab*. 2014; 4:58-63. PMID:25685690
 75. Jin R, Yi Y, **Yull FE**, Blackwell TS, Clark PE, Koyama T, Smith JA Jr, Matusik RJ. NF- κ B gene signature predicts prostate cancer progression. *Cancer Res*. 2014; 74:2763-72. PMID: 24686169. PMCID:PMC4024337.
 76. Stouch AN, Zaynagetdinov R, Barham WJ, Stinnett AM, Slaughter JC, **Yull FE**, Hoffman HM, Blackwell TS, Prince LS. κ B kinase activity drives fetal lung macrophage maturation along a non-M1/M2 paradigm. *J Immunol*. 2014; 193:1184-93. PMID: 24981452. PMCID: PMC4108541.
 77. Yang J, Hawkins O, Barham W, Gilchuk P, Boothby M, Ayers GD, Joyce S, Karin M, **Yull F**, Richmond A. Myeloid IKK β Promotes Anti-tumor Immunity by Modulating CCL11 and the Innate Immune Response. *Cancer Res*. 2014 Oct 21. pii: canres.1091.2014. PMID:25336190.
 78. Ortega RA, Barham WJ, Kumar B, Tikhomirov O, McFadden ID, **Yull FE**, Giorgio TD. Biocompatible mannosylated endosomal-escape nanoparticles enhance selective delivery of short nucleotide sequences to tumor associated macrophages. *Nanoscale*. 2014; 7:500-510. PMID:25408159.
 79. Han W, Zaynagetdinov R, **Yull FE**, Polosukhin VV, Gleaves LA, Tanjore H, Peterson TE, Manning HC, Prince LS, Blackwell TS. Molecular Imaging of Folate Receptor Beta Positive Macrophages During Acute Lung Inflammation. *Am J Respir Cell Mol Biol*. 2015; 53:50-9. PMID:25375039
 80. Cyphert TJ, Morris RT, House LM, Barnes TM, Otero YF, Barham WJ, Hunt RP, Zaynagetdinov R, **Yull FE**, Blackwell TS, McGuinness OP. NF- κ B-dependent airway inflammation triggers systemic insulin resistance. *Am J Physiol Regul Integr Comp Physiol*. 2015; 309:R1144-52. PMID:26377563
 81. Hill AA, Anderson-Baucum EK, Kennedy AJ, Webb CD, **Yull FE**, Hasty AH. Activation of NF-kappaB drives the enhanced survival of adipose tissue macrophages in an obesogenic environment. *Molecular Metabolism* 2015; 4:665-677.
 82. Zaynagetdinov R, Sherrill TP, Gleaves LA, McLeod AG, Saxon JA, Habermann AC, Connelly L, Dulek D, Peebles RS, Fingleton B, **Yull FE**, Stathopoulos GT, Blackwell TS. Interleukin-5 facilitates lung metastasis by modulating the immune microenvironment. *Cancer Res*. 2015; 75:1624-1634. PMID:25691457. PMCID:PMC4401663
 83. Wilson AJ, Saskowski J, Barham W, **Yull F**, Khabele D. Thymoquinone enhances cisplatin-response through direct tumor effects in a syngeneic mouse model of ovarian cancer. *J Ovarian Res*. 2015; 8:46. PMID:26215403. PMCID:PMC4517540.
 84. Barham W, Chen L, Tikhomirov O, Onishko H, Gleaves L, Stricker TP, Blackwell TS, **Yull FE**. Aberrant activation of NF- κ B signaling in mammary epithelium leads to abnormal growth and ductal carcinoma in situ. *BMC Cancer*. 2015; 15 :647. PMID:26424146. PMCID:PMC4590702.

85. Wilson AJ, Saskowski J, Barham W, **Yull F**, Khabele D. Microenvironmental effects limit efficacy of thymoquinone treatment in a mouse model of ovarian cancer. *Molecular Cancer* 2015; 14:192. PMID:26552746. PMCID:PMC4640396.
86. Saxon JA, Cheng DS, Han W, Polosukhin VV, McLoed AG, Richmond BW, Gleaves LA, Tanjore H, Sherrill TP, Barham W, **Yull FE**, Blackwell TS. p52 Overexpression Increases Epithelial Apoptosis, Enhances Lung Injury, and Reduces Survival after Lipopolysaccharide Treatment. *J Immunol.* 2016; 196:1891-9. PMCID:PMC4744539.
87. McLoed AG, Sherrill TP, Cheng DS, Han W, Saxon JA, Gleaves LA, Wu P, Polosukhin VV, Karin M, **Yull FE**, Stathopoulos GT, Georgoulis V, Zaynagetdinov R, Blackwell TS. Neutrophil-Derived IL-1 β Impairs the Efficacy of NF- κ B Inhibitors against Lung Cancer. *Cell Rep.* 2016; 16:120-32. PMCID:PMC4927403.
88. Stouch AN, McCoy AM, Greer RM, Lakhdari O, **Yull FE**, Blackwell TS, Hoffman HM, Prince LS. IL-1 β and Inflammasome Activity Link Inflammation to Abnormal Fetal Airway Development. *J Immunol.* 2016; 196:3411-20. PMID:26951798
89. Saxon JA, Sherrill TP, Polosukhin VV, Sai J, Zaynagetdinov R, McLoed AG, Barham W, Cheng D-S, Hunt RP, Gleaves LA, Richmond A, **Yull FE**, Blackwell TS. Epithelial NF- κ B signaling promoted EGFR-driven lung carcinogenesis via macrophage recruitment. *Oncoimmunology* 2016; 5:e1168549. PMID:27471643
90. Ortega RA, Barham W, Sharman K, Tikhomirov O, Giorgio TD, **Yull FE**. Manipulating the NF- κ B pathway in macrophages using mannosylated, siRNA delivering nanoparticles can induce immunostimulatory and tumor cytotoxic functions. *International Journal of Nanomedicine.* 2016; 11:2163-77. PMCID:PMC4876941.

Presentation at Scientific Meetings:

Invited Talks:

Yull, F.E. Nuclear Factor-kappaB activity in the host regulates cancer cell metastatic potential in vivo. April 2005 AACR Annual Meeting Anaheim, CA.

Connelly, L., Barham, W., Newsome, A., Pigg, R., and **Yull, F.E.** Inhibition of NF-kappaB in mammary epithelium reduces mammary tumor latency and burden. 7th annual host-tumor interactions program and Department of Cancer Biology Joint Retreat, Nov 16-17 2008 Lake Barkley, KY. (Presented by Linda Connelly).

Yull, F.E. A novel model for modulation of NF-kappaB in macrophages. Pulmonary Grand Rounds March 16 2009 Vanderbilt University.

Yull, F.E. Presentation at 3rd Annual "End of the Row Party" T.J. Martell Foundation/Nashville fundraiser. September 10th 2009.

Yull, F.E. Modulation of NF-kappaB in macrophages can produce both pro- and anti-tumor effects during mammary tumor progression. Invited talk. 9th Annual Host-Tumor Interactions Program and Department of Cancer Biology Joint Retreat. November 20-21st 2009, Lake Barkley State Resort Park, Cadiz, KY. (Presented by Whitney Barham).

Barham, W., Onishko, H.M., Connelly, L., Chen, L., Sherrill, T., Ostrowski, M.C., Blackwell, T.S., and **Yull, F.E.** Exploring the potential of macrophage-targeted modulation of NF-kappaB for breast cancer therapy. Tumor Microenvironment and Complexity AACR Meeting, November 3-6, 2011, Orlando, FL. (Presented by Whitney Barham)

Barham, W., Chen, L., Onishko, H., Tikhomirov, O., Sherrill, T., Ortega, R., Connelly, L., Blackwell, T.S., **Yull, F.E.** Education of macrophages through modulation of NF- κ B: an opportunity for targeted therapy. Immunology and Inflammation in Cancer meeting, September 21-22, 2012, MD Anderson, Houston, TX.

Yull, F.E. Macrophage targeting in benign and malignant disease. Department of Medicine Dinner and Data, Vanderbilt

University, Nashville, March 11th, 2013.

Yull, F.E. Aberrant NF-kappaB signaling leads to mammary hyperplasia. Benign Urologic Diseases Retreat, Vanderbilt University, Nashville, June 26th, 2013.

Yull, F.E. Targeted activation of NF-kappa within macrophages as cancer therapy. The Center for Genetics and Molecular Medicine, University of Louisville, September 10th, 2013.

Yull, F.E. Targeted activation of NF-kappaB within macrophages as cancer therapy. University of Hawaii at Hilo, HI. Oct 31st, 2013.

Barham, W., Tikomirov, O., Chen, L., Sherrill, T., Ortega, R., Onishko, H., Connelly, L., Blackwell.S., and **Yull, F.E.** The role of NF-kB in mammary tumor initiation. Host-Tumor Interactions Program & Department of Cancer Biology, 13th Annual Joint Retreat, Nov 8th, 2013.

Yull, F.E. Aberrant activation of NF-kB signaling in mammary epithelium leads to abnormal growth and ductal carcinoma in situ. Vanderbilt Center for Benign Urologic Diseases Scientific Retreat 2015, June 24th.

Ortega, R., Barham, W. McFadden, I., Tikhomirov, O., Sharman, K., **Yull, F.E.**, and Giorgio, T. In Vivo Targeting of Tumor Associated Macrophages Using Mannosylated Endosomal- Escape Nanoparticles. Podium presentation. BMES Annual meeting, Oct 25th 2014.

Yull, F.E. Methods for modulating the phenotype of macrophages in the tumor microenvironment as lung cancer therapy. Lung SPORE application retreat. Oct 22, 2015. VUMC.

Posters (peer reviewed):

Hao, C. M., **Yull, F.E.**, Komhoff, M., Davis, L., Kerr, L., and Breyer, M. D. Water deprivation induces renal COX2 expression in medullary interstitial cells via hypertonic induced activation of an NFkappaB signaling mechanism 32nd Annual Meeting of the American Society of Nephrology, November 1-8, 1999, Miami Beach, FL.

Transgenic and knockout murine models to investigate roles of NF-kappaB in mammary development. Signaling in vertebrate organogenesis. Keystone Symposium Feb 26 – March 2, 2004.

Nuclear Factor-kappaB (NF-kB) signaling in lung metastasis. 4th Annual Host-Tumor interactions program and Dept of Cancer Biology Joint Retreat, November 19-20, 2004.

Transgenic and knockout murine models to investigate roles of NF-kappaB in mammary development. 2005 Keystone Symposium, Keystone CO, February 2005.

The role of NF-kappaB signaling in macrophages on mammary development and neoplasia. Era of Hope DOD Breast Cancer Research Meeting, June 2005.

Normal development and tumorigenesis in the mammary epithelium; role of NF-kappaB. Cancer Biology Dept retreat, Lake Barkley, November (Presented by Linda Connelly postdoctoral fellow)

The role of NF-kappaB in the neoplastic development of the mammary epithelium. Cancer Biology Dept retreat, Lake Barkley, November (Presented by Leshana Saint-Jean IMSD student)

Connelly, L., Robinson-Benion, C., Chont, M., Saint-Jean, L., Blackwell, T., and **Yull, F.E.** Increased expression of NF-kappaB p100/p52 affects both proliferation and apoptosis in the murine mammary gland. 97th Annual AACR Meeting April 2006 Washington DC.

Scoggins, R.M., Stathopoulos, G.T., Sherrill, T.P., Cheng, D.S., Han, W., **Yull, F.E.**, Fingleton, B., and Blackwell, T.S. Chronic NF- κ B Activation in Bronchial Epithelium Induces Airway Inflammation and Enhances Lung Tumorigenesis. Proc. Amer. Thorac. Soc. 3:A480, 2006. American Thoracic Society May 2006.

Chen, S.M., Cheng, D.S., Sherrill, T., Arutiunov, M., Saint-Jean, L., **Yull, F.E.**, Sadikot, R., and Blackwell, T.S. The NF- κ B Pathway in Airway Epithelium Is a Key Determinant of Host Defense Against *Pseudomonas aeruginosa*. Proc. Amer. Thorac. Soc. 3:A810, May 2006.

Sherrill, T.P., Stathopoulos, G.T., **Yull, F.E.**, Fingleton, B., and Blackwell, T.S. Interleukin 5 (IL-5) Increases Metastatic Potential of Lung Cancer in Mice. Proc. Amer. Thorac. Soc. 3:A859, May 2006.

Saint-Jean, L., Connelly, L., Cheng, D-S, Blackwell, T.S., and **Yull, F.E.** An inducible dominant inhibitor transgenic to elucidate the role of classical NF- κ B in mammary development. 6th Annual Host-Tumor Interactions Program and Cancer Biology Department Joint Retreat, Nov 2006.

Han, W., Cheng, D.S., **Yull, F.E.**, Blackwell, T.S. NF- κ B pathway components I κ B α and p50 in macrophages are required for termination of LPS-induced inflammation. Proc. Am. Thorac. Soc. A180, 2007. American Thoracic Society Annual Conference May 18-23 San Francisco, CA.

LKB alpha-deficient mice display increased osteoclast formation and activity and bone loss in vivo. Edwards, J.R. Connelly, L., Han, W., Dumitrescu, L.C., Blackwell, T.S., **Yull F.E.**, and Mundy, G. JOURNAL OF BONE AND MINERAL RESEARCH 2007.

The aging associated gene SIRT-1 regulates osteoclast formation and bone mass in vivo. Edwards, JR; Zainabadi, K; Elefferiou, F, et al. JOURNAL OF BONE AND MINERAL RESEARCH 22: S29-S29 2007.

Molecular Imaging in vivo of *Proteus mirabilis* infection induced stimulation of NF Kappa B expression and FDG uptake Author(s): Hamrahi, V. F.; Hamblin, M. R.; Carter, E. A., et al. Conference Information: 107th General Meeting of the American-Society-for-Microbiology, Date: 2007, Toronto, Canada.

Connelly, L., Saint-Jean, L., Cheng, D-S., Chodosh, L., Blackwell, T., and **Yull, F.E.** Modulation of NF- κ B signaling in the mammary epithelium: investigating links between mammary gland development and breast cancer. AACR annual meeting, April 12-18 2008 San Diego, CA.

Yull, F.E., Sherrill, T., Connelly, L., Fingleton, B., and Blackwell, T. Lung tumor development in response to carcinogen is critically dependent on localized NF- κ B activity AACR annual meeting, April 12-18 2008 San Diego, CA.

Connelly, L., Saint-Jean, L., Sherrill, T., Newsome, A., Pigg, R., Fingleton, B., and **Yull, F.E.** NF- κ B as a critical biological link between psychological stress and breast cancer. DOD BCRP Era of Hope Meeting, June 25-28 2008 Baltimore, MA.

Connelly, L., Saint-Jean, L., Sherrill, T., Newsome, A., Pigg, R., Fingleton, B., Cheng, D-S, Han, W., Zabuwala, T., Ostrowski, M., Blackwell, T., and **Yull, F.E.** Modulation of NF- κ B in the macrophage lineage: effects on mammary development and tumorigenesis. DOD BCRP Era of Hope Meeting, June 25-28 2008 Baltimore, MA.

Molecular Imaging In Vivo of *Proteus mirabilis*, *Staphylococcus aureus* Infection and Turpentine Induced Stimulation of NF Kappa B Expression and FDG Uptake Hamrahi, V. F.; Hamblin, M. R.; Carter, E. A., et al. 108th General Meeting of the American-Society-for-Microbiology, June 01-05, 2008 Boston, MA.

Connelly, L., Barham, W., Chodosh, L., Blackwell, T., and **Yull, F.E.** Inducible inhibition of NF- κ B activity in mammary epithelium reduces tumor latency and burden in the polyoma mouse model. AACR Mouse Models of Cancer meeting, January 12-15 2009, San Francisco, CA.

Connelly, L., Barham, W., Onishko, H., Newsome, A., Sherrill, T., Zabuawala, T., Ostrowski, M., Blackwell, T., **Yull, F.E.** Activation of NF- κ B in macrophages inhibits mammary metastasis to lung in a tail vein model. Role of Inflammation in Oncogenesis, Keystone Meeting. February 7-12 2010, Keystone, CO.

Connelly, L., Barham, W., Onishko, H., Zabuawala, T., Ostrowski, M., Blackwell, T. and **Yull, F.E.** Macrophage specific regulation reveals both pro- and anti-tumor effects of NF- κ B during mammary tumor progression. AACR Annual Meeting, 2010, Washington DC.

Onishko, H., Barham, W., Chen, L., Cheng, D-S., Tikhomirov, O., Connelly, L., Blackwell, T., and **Yull, F.E.** Disruption of alternative and classical NF- κ B signaling patterns: Connections to branching morphogenesis and mammary tumorigenesis. 103rd AACR Annual Meeting, March 31-April 4, 2012, Chicago, IL.

Yu, S.S., Lau, C., Barham, W., Onishko, H.M., Nelson, C., **Yull, F.E.**, Duvall, C.L. and Giorgio, T.D. Environmentally-Responsive Nanoparticles for the Intracellular Delivery of RNAi Therapeutics into Tumor-Associated Macrophages. AACR Annual Meeting, March 31-April 4, 2012, Chicago, IL.

Wilson, A.J., Lee, H-J., Barham, W.J., Chen, L., Onishko, H., Khabele, D., and **Yull, F.E.** Investigating the patterns of nuclear factor- κ B activity in the host-tumor microenvironment during ovarian cancer progression. AACR Annual Meeting, March 31-April 4, 2012, Chicago, IL.

McLoed, A., Zaynagetdinov, R., Sherrill, T., **Yull, F.E.**, and Blackwell, T.S. Impaired NF- κ B signaling in myeloid cells enhances urethane-induced lung carcinogenesis. AACR Annual Meeting, March 31-April 4, 2012, Chicago, IL.

Ausborn, J., Sherrill, T., Zaynagetdinov, R., Polosukhin, V., McMahon, F., **Yull, F.E.**, and Blackwell, T. K-ras- and EGFR-mediated lung tumor formation require epithelial NF- κ B signaling to modulate the inflammatory microenvironment. AACR Annual Meeting, March 31-April 4, 2012, Chicago, IL.

Morris, T., Barham, W., **Yull, F.E.**, and McGuinness, O. Pre-existing Chronic Inflammation does not Amplify High Fat Feeding Induced Insulin Resistance. American Diabetes Association's 72nd Scientific Sessions, June 8-12, 2012, Philadelphia, PA.

Barham W., Tikhomirov O., Chen L., Ortega R., Gleaves L., Onishko H., Sherrill T., Connelly L., Blackwell T.S., and **Yull, F.E.** Education of macrophages through modulation of NF- κ B: an opportunity for targeted therapy. AACR Annual Meeting, April 6-10, 2013, Washington DC.

Ortega, R., Barham, W., Kumar, B., Yu, S.S., **Yull, F.E.**, and Giorgio, T. Reprogramming tumor associated macrophages toward an anti-tumor phenotype by targeting the NF- κ B pathway using novel targeted nanotherapeutics. AACR annual meeting, April 6-10, 2013, Washington DC.

Wilson, A.J., Saskowski, J., Barham, W.J. Chen, L., Khabele, D., and **Yull, F.E.** Opposing effects of the NF- κ B inhibitor thymoquinone in a syngeneic mouse model of ovarian cancer. AACR annual meeting, April 6-10, 2013, Washington DC.

Jamie A. Ausborn, J.A., Sherrill, T., Zaynagetdinov, R., Polosukhin, V., McMahon, F., **Yull, F.E.**, and Blackwell, T. Epithelial NF- κ B signaling is required for different functions in Kras- and EGFR-mediated lung tumorigenesis. AACR annual meeting, April 6-10, 2013, Washington DC.

McLoed, A., Zaynagetdinov, R., Sherrill, T., **Yull, F.E.**, and Blackwell, T. NF- κ B signaling in myeloid cells limits urethane-induced lung tumorigenesis. AACR annual meeting, April 6-10, 2013, Washington DC.

Ortega, R., Barham, W., Tikhomirov, O., Kumar, B., **Yull, F.E.**, and Giorgio, T. A targeted endosomalytic nanoparticle for engineering tumor immunity in macrophages. Host-Tumor Interactions Program & Department of Cancer Biology, 13th Annual Joint Retreat, Nov 8th, 2013.

Ausborn, J., Cheng, D-S., **Yull, F.E.**, and Blackwell, T. Alternative NF-kB signaling promotes inflammatory cell recruitment and lung tumor formation. Host-Tumor Interactions Program & Department of Cancer Biology, 13th Annual Joint Retreat, Nov 8th, 2013.

McLoed, A., Zaynagetdinov, R., Sherrill, T., **Yull, F.E.**, and Blackwell, T. Myeloid NF-kB inhibition unmasks a role for neutrophil-derived IL-1b in lung tumorigenesis. Host-Tumor Interactions Program & Department of Cancer Biology, 13th Annual Joint Retreat, Nov 8th, 2013.

Yang, J., Hawkins, O.E., Barham, W., Boothby, M., Ayers, G.D., **Yull, F.E.**, and Richmond, A. Myeloid Ikkb deletion modulates macrophage function to promote melanoma metastasis. Host-Tumor Interactions Program & Department of Cancer Biology, 13th Annual Joint Retreat, Nov 8th, 2013.

Barham, W., Tikomirov, O., Chen, L., Sherrill, T., Ortega, R., Onishko, H., Connelly, L., Blackwell, T.S., and **Yull, F.E.** The role of NF-κB in mammary tumor initiation. Vanderbilt Ingram Cancer Center Retreat 2014. (Awarded first place in presentation group).

Barham, W., Tikomirov, O., Chen, L., Ortega, R., Onishko, H., Connelly, L., and **Yull, F.E.** The role of NF-kappaB in mammary tumor initiation. Poster, AACR Annual Meeting, April 5-9, 2014, San Diego, CA.

Ortega, R., Barham, W., Tikomirov, O., Sharman, K., **Yull, F.E.**, and Giorgio T. Immunoengineering of tumor associated macrophages using targeted, siRNA delivering nanoparticles. AACR Annual Meeting, April 5-9, 2014, San Diego, CA.

Ortega, R., Barham, W., Tikhomirov, O., Kumar, B., **Yull, F.E.**, and Todd Giorgio. A targeted endosomalytic nanoparticle for engineering tumor immunity in macrophages. Host-Tumor Interactions Program & Department of Cancer Biology, 13th Annual Joint Retreat, Nov 8th, 2013.

Ausborn, J., Cheng, D-S., **Yull, F.E.**, and Blackwell, T.S. Alternative NF-kB signaling promotes inflammatory cell recruitment and lung tumor formation. Host-Tumor Interactions Program & Department of Cancer Biology, 13th Annual Joint Retreat, Nov 8th, 2013.

McLoed, A., Zaynagetdinov, R., Sherrill, T., **Yull, F.E.**, and Blackwell, T. Myeloid NF-kB inhibition unmasks a role for neutrophil-derived IL-1b in lung tumorigenesis. Host-Tumor Interactions Program & Department of Cancer Biology, 13th Annual Joint Retreat, Nov 8th, 2013.

Yang, J., Hawkins, O.E., Barham, W., Boothby, M., Ayers, G.D., **Yull, F.E.**, and Richmond, A. Myeloid Ikkb deletion modulates macrophage function to promote melanoma metastasis. Host-Tumor Interactions Program & Department of Cancer Biology, 13th Annual Joint Retreat, Nov 8th, 2013.

Barham, W., Tikhomirov, O., Ortega, R., Giorgio, T.D. and **Yull, F.E.** Nanoparticles for cell-type specific delivery of siRNA: Immunotherapy through modifying macrophage behavior. Symposium on Infection and Immunology. April 10, 2015. Vanderbilt University Medical Center.

Barham, W., Tikhomirov, O., Ortega, R., Saskowski, J., Thompson, C.S., Wilson, A.J., Blackwell, T., Mirafzali, Z., Khabele, D., Giorgio, T.D., and **Yull, F.E.** A novel cancer therapeutic strategy: Inducing cytotoxic functions in tumor-associated macrophages. AACR Annual Meeting. April 18-22, 2015, Philadelphia, PA.

Dockery, M., Poorman, M., Chaplin, V., Barham, W., Spears, R., Dudzinski, S., **Yull, F.E.**, Caskey, C., Grissom, W., and Giorgio, T. Real-Time *In vivo* Characterization of Spatiotemporal Immunotherapeutic Response to High Intensity Focused Ultrasound with an NF-kB Reporter Model of Human Breast Cancer. VICC Annual Retreat. April 30, 2015.

Yull, Fiona

Barham, W., Tikhomirov, O., Ortega, R., Saskowski, J., Thompson, C.S., Wilson, A.J., Blackwell, T., Mirafzali, Z., Khabele, D., Giorgio, T.D., and **Yull, F.E.** A novel cancer therapeutic strategy: Inducing cytotoxic functions in tumor-associated macrophages. VICC Annual Retreat. April 30, 2015. VUMC. (1st Place in Section prize.

Barham, W., Wilson, A.J., Ortega, R., Saskowski, J., Tikhomirov, O., Giorgio, T., Khabele, D., and **Yull, F.E.** Targeted activation of macrophages to limit ovarian cancer progression. AACR Advances in Ovarian Cancer Research meeting. October 17-20, 2015. Orlando, FL.

Barham, W., Ortega, R., Tikhomirov, O., Liu, E., Thompson, C.S., Mirafzahli, Z., Wilson, A.J., Khabele, D., Giorgio, T.D., and **Yull, F.E.** Harnessing the Therapeutic Potential of Tumor Associated Macrophages. Keystone – Cancer Pathophysiology: Integrating the host and tumor environments. Marc 28 – April 1, 2016. Breckenridge, Colorado.

Barham, W., Ortega, R., Tikhomirov, O., Liu, E., Thompson, C.S., Mirafzahli, Z., Wilson, A.J., Khabele, D., Giorgio, T.D., and **Yull, F.E.** Harnessing the Therapeutic Potential of Tumor Associated Macrophages. VICC Annual Retreat. May 6, 2016. VUMC.