

CURRICULUM VITAE  
Sylvester Comprehensive Cancer Center  
Leonard M. Miller School of Medicine at the University of Miami

**Breelyn A. Wilky, MD**  
**September 19, 2014**

CURRENT POSITION / CONTACT INFORMATION

Assistant Professor  
Department of Medicine, Division of Hematology/Oncology  
Sylvester Comprehensive Cancer Center  
University of Miami Miller School of Medicine  
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EDUCATION AND TRAINING

- Undergraduate  
Bates College, Lewiston, Maine. Bachelor of Science, (8/1997-5/2001)  
Majors: Biology, Music.  
Honors: Graduated *Cum Laude*, Honors Thesis in Music.
- Doctoral/graduate  
University of Medicine and Dentistry of New Jersey –  
Robert Wood Johnson Medical School, Piscataway, New Jersey.  
Doctor of Medicine with Distinction in Research, (8/2002 – 5/2006).
- Postdoctoral  
Johns Hopkins Hospital, Baltimore, Maryland.  
Internship and Residency, Internal Medicine (July 2006-June 2009)  
  
Johns Hopkins University/Sidney Kimmel Comprehensive Cancer Center,  
Baltimore, Maryland.  
Clinical and Research Fellowship, Medical Oncology (July 2009 – June 2013)

PROFESSIONAL EXPERIENCE

Dates	Positions	Institutions
7/1/06-6/30/09	Intern and Resident	Osler Medicine Residency Johns Hopkins Hospital
7/1/09 – 6/30/10	Clinical Fellow	Johns Hopkins University Medical Oncology
7/1/10 – 6/30/13	Postdoctoral Fellow	Johns Hopkins University Medical Oncology

7/1/11-6/30/12	Chief Fellow	Johns Hopkins University Medical Oncology
7/1/13- present	Assistant Professor	University of Miami – Leonard M. Miller School of Medicine Department of Medicine, Division of Hematology/Oncology

## RESEARCH EXPERIENCE

Year	Indication	Role	Research Project
2013-	Generic Phase I, sarcomas	PI	A Phase I open-label, dose-escalation study of RK-33, an RNA Helicase DDX3 inhibitor, in advanced solid malignancies with a sarcoma expansion cohort (In development)
2014	Solid tumors	Sub-I	A Phase 1, multicenter, open-label, dose-escalation, safety, pharmacokinetic, pharmacodynamics, and clinical activity study of orally administered AG-129 in subjects with advanced solid tumors, including glioma, with an IDH1 mutation (in development)
2014	Solid tumors	PI	A Phase 1, Multicenter, Open-Label, Dose-Escalation, Safety, Pharmacokinetic, Pharmacodynamic, and Clinical Activity Study of Orally Administered AG-221 in Subjects with Advanced Solid Tumors, Including Glioma, and Angioimmunoblastic T-Cell Lymphoma with an IDH2 Mutation (in development)
2014	PVNS	PI	A Double-blind, Randomized, Placebo-controlled Phase 3 Study of Orally Administered PLX3397 in Subjects With Pigmented Villonodular Synovitis or Giant Cell Tumor of the Tendon Sheath (in development)
2014	Soft tissue sarcomas	PI	Radiation Therapy With or Without Combination Chemotherapy or Pazopanib Hydrochloride Before Surgery in Treating Patients With Newly Diagnosed Non-Rhabdomyosarcoma Soft Tissue Sarcomas That Can be Removed by Surgery (PAZNTIS) (COG ARST1321/NRG) (in development)
2014-	GIST	Sub-I	A prospective, multicenter, randomized, open-label, active-controlled, phase III study to compare efficacy and safety of masitinib to imatinib at 400 or 600 mg in treatment of patients with gastrointestinal stromal tumour in first line medical treatment
2014-	GIST	Sub-I	A prospective, multicenter, randomised, open-label, active controlled, two-parallel groups, phase 3 study to compare the efficacy and safety of masitinib to sunitinib in patients with gastrointestinal stromal tumor after progression with imatinib at 400mg as first line treatment

2014	Sarcomas	PI	Correlation of Circulating Tumor Cells with Clinical Outcomes and Treatment Response in Sarcoma Patients
2013-	PVNS	Initial Sub-I, now PI	A Phase II randomized, double-blind, placebo controlled study to assess safety, tolerability and effect on tumor size of MCS110 in patients with pigmented villonodular synovitis (PVNS)
2013-	Sarcomas	Sub-I	A sarcoma tissue banking protocol to facilitate the discovery of biomarkers involved in pathogenesis, recurrence, response and resistance.
2013-2014	Sarcomas	Sub-I	A study of the Safety and Efficacy of the Combination of Gemcitabine and Docetaxel with MORAb-004 in Metastatic Soft Tissue Sarcoma
2013-	Sarcomas	Sub-I	A Randomized Controlled Study of Yondelis (Trabectedin) or Dacarbazine for the Treatment of Advanced Liposarcoma or Leiomyosarcoma
2013	Generic Phase I	Data analysis (fellow)	A Phase I trial of vertical inhibition of IGF signaling using IMC-A12, an IGF1-R inhibitor, and AZD6244, a MEK 1/2 inhibitor, in patients with advanced solid tumors
2012	Sarcomas	Protocol Development (fellow)	Combination of External Beam Radiotherapy With <sup>153</sup> Sm-EDTMP to Treat High Risk Osteosarcoma
2012	Sarcomas	Correlative Studies, Patient Accrual (fellow)	A dose finding study of temsirolimus and liposomal doxorubicin for patients with recurrent and refractory bone and soft tissue sarcoma.

7/1/12 – present

Sidney Kimmel Comprehensive Cancer Institute, Department of Chemical Therapeutics

Mentor: Nilofer Azad, MD, Director, Phase I Clinical Trials

Projects: Involved in multiple Phase I studies at various stages, including pazopanib and MEK inhibitor, combination of IGFR inhibitor/MEK inhibitor, and combination of oral 5-azacitidine/romidepsin in solid tumors

7/1/10 – 6/30/13

Sidney Kimmel Comprehensive Cancer Institute, Department of Pediatric Hematology/Oncology

Mentor: David M. Loeb, MD, PhD

Projects: Laboratory based translational research in sarcomas - investigation of RNA helicase DDX3 and cytotoxicity of helicase inhibitors, characterization of sarcoma stem cells.

6/1/07-9/1/07

Sidney Kimmel Comprehensive Cancer Institute, Division of Genitourinary Cancers / Chemical Therapeutics

Mentor: Roberto Pili, MD

Project: laboratory analysis of patient samples from phase II clinical trial in metastatic renal cell carcinoma combining bevacizumab and histone deacetylase inhibitors.

PUBLICATIONS (chronological order)

**Wilky BA**, Kim C, McCarty G, Montgomery E, Raman V, Loeb DM. RNA Helicase DDX3: A novel therapeutic target in sarcomas. (In review, **Clin Cancer Res**)

**Wilky BA**, Rudek M, Ahmed S, Laheru D, Cosgrove D, Donehower R, Nelkin B, Ball D, Doyle LA, Chen H, Ye X, Buckley G, Womack C, Azad NS. A phase I trial of vertical inhibition of IGF signaling using cixutumumab, an anti-IGF1-R antibody, and selumetinib, a MEK 1/2 inhibitor, in advanced solid tumors. (In press, **Br J Cancer**)

Wilky BA, Goldberg JM. Immunotherapy in sarcoma: a new frontier. *Discov Med*, 2014, 17(94):201-6.

Kikuchi K, Hettmer S, Imran Aslam M, Michalek J, Laub W, **Wilky B**, Loeb D, Rubin B, Wagers A, Keller C. Cell-cycle dependent expression of a translocation-mediated fusion oncogene mediates checkpoint adaptation in rhabdomyosarcoma. *PLOS Genetics*, 2014. 10(1):e1004107.

Trucco MM, Awad O, **Wilky BA**, Goldstein SD, Huang R, Walker RL, Shah P, Katuri V, Gul N, Zhu YJ, McCarthy EF, Paz-Priel I, Meltzer PS, Austin CP, Xia M, Loeb DM. A Novel Chordoma Xenograft Allows In Vivo Drug Testing and Reveals the Importance of NF- $\kappa$ B Signaling in Chordoma Biology. *PLOS One*, 2013. 8(11): e79950.

**Wilky BA**, Montgomery E, Guzzetta A, Ahuja N, Meyer C. Extrathoracic location and “borderline” histology are associated with recurrence of solitary fibrous tumors after surgical resection. *Ann Surg Oncol* 2013, 20(13) 4080-9.

**Wilky BA**, Meyer CF, Trent JC. Pazopanib in sarcomas: Expanding the PALETTE. *Curr Opin Oncol*. 2013, 25(4):373-8.

**Wilky BA**, Loeb DM. Beyond Palliation: Therapeutic Applications of  $^{153}\text{Sm}$ -EDTMP. *Clin Exp Pharmacol*, 2013, 3:131. doi: 10.4172/2161-1459

Thornton KA, Chen AR, Trucco MM, Shah P, **Wilky BA**, Gul N, Carrera-Haro MA, Ferreira MF, Shafique U, Powell JD, Meyer CF, Loeb DM. A dose finding study of temsirolimus and liposomal doxorubicin for patients with recurrent and refractory bone and soft tissue sarcoma. *Int J Cancer*, 2013, 133(4): 997-1005.

Scannell C, Pederson E, Mosher J, Krook M, Nicholls L, **Wilky BA**, Loeb D, Lawlor E. LGR5 is expressed by Ewing sarcoma and potentiates Wnt/ $\beta$ -catenin signaling. *Front Oncol*, 2013, 3:81.

ABSTRACTS / POSTER PRESENTATIONS

**Wilky BA**, Kim C, McCarty G, Kammers K, Ruczinski I, Cole RN, Raman V, Loeb DM. Inhibition of RNA helicase DDX3 disrupts translation of protein targets critical for sarcoma cell physiology. CTOS Annual Meeting, Berlin, Germany, 2014. (Accepted Poster)

Sheth P, del Moral S, Trent JC, Cohen J, **Wilky BA**, Rosenberg AE, Temple HT, Subhawong TK. MRI features of response in the systemic therapy of aggressive fibromatosis. CTOS Annual Meeting, Berlin, Germany, 2014. (Accepted Poster)

Li L, Mejia AP, Johnson B, Galoian K, **Wilky BA**, Rosenberg AE, Bodamer O, Trent JC. Evaluation of IDH mutation, IDH1 inhibition and 2-hydroxyglutarate in human chondrosarcoma cell lines and patient plasma. CTOS Annual Meeting, Berlin, Germany, 2014. (Accepted Poster)

Cheng EY, Kudlidjian A, Block JA, Gitelis S, Henshaw RM, **Wilky BA**, Trent JC, Abraham JA, Schramm U, Pinot P, Pang Y, Valentin M-A, Borah B, Jiang L, Roubenoff R. MCS110, an anti-CSF-1 antibody, for the treatment of pigmented villonodular synovitis (PVNS). CTOS Annual Meeting, Berlin, Germany, 2014. (Accepted Poster)

**Wilky B**, Kim C, Raman V, Loeb DM. RK-33, a small molecule DDX3 inhibitor, enhances radiosensitivity of bone sarcoma cell lines. CTOS Annual Meeting, New York City, NY, October 2013. (Poster)

**Wilky B**, Rudek M, Laheru D, Cosgrove D, Donehower R, Nelkin B, Ball D, Doyle LA, Chen H, Goodman S, Ye X, Azad N. A Phase I trial of vertical inhibition of IGF signaling using IMC-A12, an IGF1-R inhibitor, and AZD6244, a MEK 1/2 inhibitor, in patients with advanced solid tumors. AACR-NCI-EORTC Molecular Targets and Cancer Therapeutics, Boston, MA, October 2013. (Poster)

Azad N, Ball D, Sherman S, Rudek M, Falchook G, Nelkin B, Janku F, Papadopoulos, O'Connor A, Ahmed S, **Wilky B**, Markus S, Gong J, Cosgrove D, Zahurak M, Zinner R, Kurzrock R. A Phase I study determining the safety and tolerability of combination therapy with Pazopanib, a VEGFR/PDGFR/Raf inhibitor, and GSK1120212, a MEK inhibitor, in advanced solid tumors with expansion cohorts in advanced differentiated thyroid cancer, cholangiocarcinoma, and soft tissue sarcoma. AACR-NCI-EORTC Molecular Targets and Cancer Therapeutics, Boston, MA, October 2013. (Poster)

**Wilky B**, Vala M, Montgomery E, Jones R, Raman V, Loeb DM. RNA helicase DDX3: A novel therapeutic target in sarcoma. CTOS Annual Meeting, Prague, Czech Republic. 2012 (Poster)

**Wilky B**, Vala M, Montgomery E, Jones R, Raman V, Loeb DM. RNA helicase DDX3: A novel therapeutic target in Ewing's sarcoma. European Science Foundation Research Conference on Molecular Biology and Innovative Therapies of Childhood Sarcomas, Warsaw, Poland. 2012 (Poster)

**Wilky B**, Vala M, Montgomery E, Jones R, Raman V, Loeb DM. RNA helicase DDX3: A novel therapeutic target in Ewing's sarcoma. Johns Hopkins University Fellow's Research Day, Baltimore, MD. 2012 (Poster)

Trucco M, **Wilky B**, Awad O, Shah P, Gul N, Xia M, Huang R, Loeb D. Establishment of a chordoma xenograft and in vivo testing of compounds identified by high-throughput screening. AACR Annual Meeting. 2012 (Poster)

Trucco M, **Wilky B**, Awad O, Shah P, Gul N, Xia M, Huang R, Loeb D. Establishment of a chordoma xenograft and in vivo testing of compounds identified by high-throughput screening. ASCO Annual Meeting. 2012 (Poster)

**Wilky B**, Montgomery E, Guzzetta A, Ahuja N, Meyer C. Extrathoracic solitary fibrous tumors are more likely to exhibit high-risk pathologic features and recur following resection. CTOS Annual Meeting, Chicago IL. 2011 (Poster)

Pili R, **Wilky B**, et al. "Phase I/II trial of the histone deacetylase inhibitor vorinostat in combination with bevacizumab in patients with renal cell carcinoma: Phase I safety and pharmacokinetic/pharmacodynamic results." ASCO/Genitourinary Cancers Symposium. 2008 (Abstract)

**Wilky B**, Tiku, ML. "Aggrecan Protects Cartilage Collagen Matrix from Chondrocyte-Derived Reactive Oxygen Radical Damage." American College of Rheumatology Annual Scientific Meeting. 2005 (Poster)

**Wilky B**, Tiku ML. "Aggrecan Surrounding Collagen Network in Cartilage Matrix Moderates Effects of Reactive Oxygen Species on Collagen Degradation." UMDNJ-Robert Wood Johnson Medical School Research Day, Piscataway, NJ. (2003)

## RESEARCH SUPPORT

Alpha Omega Alpha Postgraduate Award 2012

Proposal Title: The Role of RNA Helicase DDX3 in Ewing's Sarcoma

Period of Support: 10/1/12 through 9/30/13

Amount: \$2,000

NIH Loan Repayment Program

Proposal Title: The Role of RNA Helicase DDX3 in Ewing's Sarcoma Stem Cells

Period of Support: 7/1/12 through 6/30/14

Amount: \$70,000

Conquer Cancer Foundation/ASCO Young Investigator Award 2012

Sponsor: WWW (QuadW) Foundation, Inc.

Proposal Title: The Role of RNA Helicase DDX3 in Ewing's Sarcoma Stem Cells

Period of Support: 7/1/12 through 6/30/13

Amount: \$50,000

Application ID: 2T32CA009071-31

Proposal Title: Molecular Targets for Cancer Detection and Treatment Training Grant

Period of Support: 8/1/11 through 8/1/12

Project Period Begin/End Date: 09/15/1979-06/30/2016

PIs: William G. Nelson, M.D., Ph.D /Ben Ho Park, M.D., Ph.D

## ADMINISTRATIVE, EDUCATION, AND MENTORING ACTIVITIES

### University of Miami:

Fellow Supervision, ACC East Clinic, Jackson Medical Systems (Fall 2014)

Coordinator of Sarcoma Education Core Curriculum (2014 to present)

Pharmacy and Therapeutics Committee (2013 to present)  
Fellowship Selection Committee (2013 to present)

**Johns Hopkins Hospital:**

Laboratory Mentor: Direct responsibility and supervision of post-baccalaureate student in laboratory, helped with experimental design, methods training, and analysis/interpretation of data. 2012 – present.

Chief Fellow: Acted as liaison between Fellowship Leadership and First-Year Fellows, providing mentorship and support. Served as representative of fellows at Cancer Center organizational and nursing management meetings. Helped to redesign oncology rotations for housestaff and fellows to meet new ACGME work hours guidelines. Coordinated housestaff call scheduling, moonlighting coverage, Solid Tumor Conference, didactic lecture series. Helped design standardized patient simulation session to assess and evaluate first-year fellows in Medical Oncology communication skills. 2011-2012.

Discharge Committee: Served as Oncology Fellow representative on task force for Solid Tumor Service to improve discharge efficiency, medication reconciliation, and patient satisfaction. 2010-2011.

Medical Oncology Fellowship Selection Committee: Served on committee to interview and select candidates for Johns Hopkins Medical Oncology Fellowship, 2011 and 2012.

Preceptor, Palliative Care Simulation with Johns Hopkins University School of Medicine. Participated in standardized patient exercise for medical students and provided feedback and guidance on breaking bad news. 2012.

INVITED TALKS/PANELS

Sarcoma/GIST Awareness Day, 2014. University of Miami, Miami, Florida. July 13, 2014.

Oncology Exchange: Evidence-based Recommendations for Gastrointestinal Stromal Tumors, Billings Clinic, Billings, Montana. April 29, 2014.

LifeRaft Group GIST Day of Learning, 2014. University of Miami, Miami, Florida. February 9, 2014.

Panel Member, Internal Medicine Interest Group, Johns Hopkins University School of Medicine, Baltimore, MD, November 9, 2011.

WORKSHOPS/SEMINARS

- Cancer Education Consortium Merrill J. Egorin Workshop in Cancer Pharmacology, Leesburg, Virginia, October 2012
- Introduction to Clinical Research, Johns Hopkins School of Public Health, July 2012
- Cancer Education Consortium Molecular and Translational Oncology Workshop, Ft. Myers, Florida, 2012
- Southeastern Fellows Research Skills Retreat, Duck, North Carolina, April 2011

## HONORS

- Connie Caplan Medical Oncology Fellowship, 2011-2012 (Johns Hopkins University)
- Alpha Omega Alpha, elected in junior year (UMDNJ-Robert Wood Johnson Medical School)
- Gold Humanism Honor Society (UMDNJ-Robert Wood Johnson Medical School)
- Glasgow-Rubin Certificate of Commendation for Academic Achievement (UMDNJ-Robert Wood Johnson Medical School)
- Pomeroy Scholarship for Excellence in Post-Graduate Work – Bates College.

## MEMBERSHIPS

SARC – Sarcoma Alliance for Research Through Collaboration  
Children’s Oncology Group  
American Society of Clinical Oncology  
Connective Tissue Oncology Society  
American Association of Cancer Research  
NRG Oncology

## LICENSURES

Licensed Physician, State of Florida, ME116554 (2013 to present)  
Licensed Physician, State of Maryland, D69614 (2009 to 2013)  
Diplomate, American Board of Internal Medicine:  
    Internal Medicine (2009 - 2019)  
    Medical Oncology (2011 - 2021)

## REFERENCES

Jonathan Trent, MD, PhD. JTrent@med.miami.edu  
Joseph Rosenblatt, MD, Division Chair. JRosenblatt@med.miami.edu  
David M. Loeb, MD, PhD. loebda@jhmi.edu  
Ross C. Donehower, MD, Fellowship Program Director. donehro@jhmi.edu