CURRICULUM VITAE

PERSONAL INFORMATION

Name: Ethan Basch, M.D., M.Sc., FASCO
Email: ebasch@med.unc.edu

EDUCATION

Undergraduate and Graduate Education

M.Sc.	(Epidemiology)	Harvard School of Public Health Boston, MA	2003-2005
M.D.	(Medicine)	Harvard Medical School Boston, MA	1994-1998
M.Phil.	(Literature)	Oxford University England	1989-1991
B.A.	(Literature)	Brown University Providence, RI	1985-1989

Postgraduate Education

Clinical Fellow in Oncology	Memorial Sloan Kettering Cancer Center	2002-2005
Clinical Fellow in Medicine	Weill Cornell Medical College New York, NY	2002-2005
Postdoctoral Fellow in Health Services Research	Memorial Sloan Kettering Cancer Center New York, NY	2003-2005
Assistant in Medicine	Massachusetts General Hospital Boston, MA	2001-2002
Resident in Medicine	Massachusetts General Hospital	1999-2001
Clinical Fellow in Medicine	Harvard Medical School Boston, MA	1998-2001
Intern in Medicine	Massachusetts General Hospital	1998-1999

PROFESSIONAL EXPERIENCE

Academic Appointments

Professor of Medicine, with Tenure	University of North Carolina Chapel Hill, NC *Dept. of Medicine*	2016-present
Professor of Public Health, with Tenure	University of North Carolina *Dept. of Health Policy and Management*	2016-present
Associate Chief, Division of Oncology	University of North Carolina *Dept. of Medicine*	2016-present
Professor of Urology	University of North Carolina *Dept. of Urology*	2016-present
Associate Professor of Medicine, with Tenure	University of North Carolina *Dept. of Medicine*	2012-2016
Associate Professor of Public Health, with Tenure	University of North Carolina *Dept. of Health Policy and Management*	2012-2016

Associate Professor of Urology	University of North Carolina *Dept. of Urology*	2012-2016
Director, Cancer Outcomes Research Program	University of North Carolina *Lineberger Comprehensive Cancer Center*	2012-present
Co-Leader, Cancer Prevention and Control	University of North Carolina *Lineberger Comprehensive Cancer Center*	2012-present
Member, Cancer Center	University of North Carolina	2012-present
Faculty Fellow	Sheps Center for Health Services Research University of North Carolina	2012-present
Adjunct Associate Member	Memorial Sloan Kettering Cancer Center New York, NY	2012-present
Associate Member	Memorial Sloan Kettering Cancer Center New York, NY	2011-2012
Associate Professor of Public Health	Weill Cornell Medical College New York, NY	2011-2012
Assistant Member *(Level II)*	Memorial Sloan Kettering Cancer Center	2008-2011
Assistant Professor of Public Health	Weill Cornell Medical College	2007-2011
Assistant Member *(Level I)*	Memorial Sloan Kettering Cancer Center	2005-2008
Instructor in Medicine	Harvard Medical School	2001-2002

Professional Appointments

Founder/Board of Directors	Natural Standard Corporation	2001-2013
Guest Worker	Food and Drug Administration *Study Endpoints and Labeling Development*	2005-2011

Honors

Fellow, American Society of Clinical Oncology (FASCO)	2016-present
Associate Editor, *Journal of the American Medical Association (JAMA)*	2014-present
America Top Doctor & Top Doctor for Cancer, Castle Connolly	2013-present
Appointee, Board of Scientific Advisors, National Cancer Institute	2012-present
Federal Appointee, Methodology Committee, Patient-Centered Outcomes Research Institute (PCORI)	2011-present
Board of Directors, International Society for Quality of Life Research	2011-2014
Visiting Professor, Johns Hopkins School of Medicine	2012
Career Development Award, American Society of Clinical Oncology (ASCO)	2006
Research Merit Awards, ASCO	2004, 2005, 2006
Investigator Award, Geriatric Oncology Consortium	2004
Clinical Research Award, CALGB	2004
Lally Research Award, Harvard University	1997
Joseph Collins Research Award, Harvard University	1996

Albert Schweitzer Fellowship	1996
Research Award, American College of Rheumatology	1994
British Overseas Research Fellowship, Oxford University	1989-1991
Fulbright Scholarship	1989-1991
Harvey Baker Research Award, Brown University	1989
Magna cum laude, Brown University	1989
Phi Beta Kappa, Brown University	1989

BIBLIOGRAPHY

Refereed Papers/Articles

1. **Basch E**. Patient-Reported Outcomes – Harnessing Patients' Voices to Improve Clinical Care. N Engl J Med. 2017 Jan 12;376(2):105-108. PMID: 28076708.

2. Atkinson TM, Rogak LJ, Heon N, Ryan SJ, Shaw M, Stark LP, Bennett AV, **Basch E**, Li Y. Exploring differences in adverse symptom event grading thresholds between clinicians and patients in the clinical trial setting. J Cancer Res Clin Oncol. 2017 Jan 16. doi: 10.1007/s00432-016-2335-9. [Epub ahead of print]. PMID: 28093637.

3. Reeve BB, McFatrich M, Pinheiro LC, Freyer DR, **Basch EM**, Baker JN, Withycombe JS, Sung L, Mack JW, Waldron MK, Mowbray C, Palma D, Hinds PS. Cognitive Interview-based Validation of the Patient-Reported Outcomes Version of the Common Terminology Criteria for Adverse Events (PRO-CTCAE) in Adolescents with Cancer. J Pain Symptom Manage. 2017 Jan 3. pii: S0885-3924(16)31216-7. doi: 10.1016/j.jpainsymman.2016.11.006. [Epub ahead of print] PMID: 28062347.

4. Ferrell BR, Temel JS, Temin S, Alesi ER, Balboni TA, **Basch EM**, Firn JI, Paice JA, Peppercorn JM, Phillips T, Stovall EL, Zimmermann C, Smith TJ. Integration of Palliative Care Into Standard Oncology Care: American Society of Clinical Oncology Clinical Practice Guideline Update. J Clin Oncol. 2017 Jan;35(1):96-112. PMID: 28034065.

5. Wicks P, Hotopf M, Narayan VA, **Basch E**, Weatherall J, Gray M. It's a long shot, but it just might work! Perspectives on the future of medicine. BMC Med. 2016 Nov 7;14(1):176. PMID: 27817747.

6. Check DK, Reeder-Hayes KE, Zullig LL, Weinberger M, **Basch EM**, Dusetzina SB. Examining racial variation in antiemetic use and post-chemotherapy health care utilization for nausea and vomiting among breast cancer patients. Support Care Cancer. 2016 Dec;24(12):4839-4847. PMID: 27465051.

7. Cowan RA, Suidan RS, Andikyan V, Rezk YA, Einstein MH, Chang K, Carter J, Zivanovic O, Jewell EJ, Abu-Rustum NR, **Basch E**, Chi DS. Electronic patient-reported outcomes from home in patients recovering from major gynecologic cancer surgery: A prospective study

measuring symptoms and health-related quality of life. Gynecol Oncol. 2016 Nov;143(2):362-366. PMID: 27637366

8. Bottomley A, Pe M, Sloan J, **Basch E,** Bonnetain F, Calvert M, Campbell A, Cleeland C, Cocks K, Collette L, Dueck AC, Devlin N, Flechtner HH, Gotay C, Greimel E, Griebsch I, Groenvold M, Hamel JF, King M, Kluetz PG, Koller M, Malone DC, Martinelli F, Mitchell SA, Moinpour CM, Musoro J, O'Connor D, Oliver K, Piault-Louis E, Piccart M, Pimentel FL, Quinten C, Reijneveld JC, Schürmann C, Smith AW, Soltys KM, Taphoorn MJ, Velikova G, Coens C; Setting International Standards in Analyzing Patient-Reported Outcomes and Quality of Life Endpoints Data (SISAQOL) consortium. Analysing data from patient-reported outcome and quality of life endpoints for cancer clinical trials: a start in setting international standards. Lancet Oncol. 2016 Nov;17(11):e510-e514. doi: 10.1016/S1470-2045(16)30510 PMID: 27769798

9. Jensen RE, Snyder CF, **Basch E**, Frank L, Wu AW. All together now: findings from a PCORI workshop to align patient-reported outcomes in the electronic health record. J Comp Eff Res. 2016 Nov;5(6):561-567. PMID: 27586855

10. Green AK, Wood WA, **Basch EM**. Time to Reassess the Cancer Compendia for Off-label Drug Coverage in Oncology. AMA. 2016 Oct 18;316(15):1541-1542. doi: 10.1001/jama.2016.12770. PMID: 27561002

11. Atkinson TM, Wagner JS, **Basch E**. Trustworthiness of Patient-Reported Outcomes in Unblinded Cancer Clinical Trials. JAMA Oncol. 2016 Sep 22. doi: 10.1001/jamaoncol.2016.3328. [Epub ahead of print] No abstract available. PMID: 27658006.

12. Cowan RA, Suidan RS, Andikyan V, Rezk YA, Einstein MH, Chang K, Carter J, Zivanovic O, Jewell EJ, Abu-Rustum NR, **Basch E**, Chi DS. Electronic patient-reported outcomes from home in patients recovering from major gynecologic cancer surgery: A prospective study measuring symptoms and health-related quality of life. Gynecol Oncol. 2016 Nov;143(2):362-366. PMID: 27637366.

13. Check DK, **Basch EM**. Appropriate Use of Antiemetics to Prevent Chemotherapy-Induced Nausea and Vomiting. JAMA Oncol. 2016 Sep 15. doi: 10.1001/jamaoncol.2016.2616. [Epub ahead of print] No abstract available. PMID: 27631790.

14. Chung AE, Jensen RE, **Basch EM**. Leveraging Emerging Technologies and the "Internet of Things" to Improve the Quality of Cancer Care. J Oncol Pract. 2016 Sep 13. pii: JOPR015784. [Epub ahead of print] No abstract available. PMID: 27624946.

15. Stover AM, **Basch EM**. Implementation of Symptom Questionnaires Into Oncology Workflow. J Oncol Pract. 2016 Sep 6. pii: JOPR015610. [Epub ahead of print] No abstract available. PMID: 27601508.

16. Mitchell AP, **Basch EM**, Dusetzina SB. Financial Relationships with Industry Among National Comprehensive Cancer Network Guideline Authors. JAMA Oncol. 2016 Dec 1;2(12):1628-1631. PMID: 27561170.

17. Green AK, Wood WA, **Basch EM**. Time to Reassess the Cancer Compendia for Off-label Drug Coverage in Oncology. JAMA. 2016 Oct 18;316(15):1541-1542. PMID: 27561002.

18. Check DK, Reeder-Hayes KE, Zullig LL, Weinberger M, **Basch EM**, Dusetzina SB. Examining racial variation in antiemetic use and post-chemotherapy health care utilization for nausea and vomiting among breast cancer patients. Support Care Cancer. 2016 Jul 27. [Epub ahead of print] PMID: 27465051.

19. Freeman AT, Meyer AM, Smitherman AB, Zhou L, **Basch EM**, Shea TC, Wood WA. Statewide geographic variation in outcomes for adults with acute myeloid leukemia in North Carolina. Cancer. 2016 Oct;122(19):3041-50. doi: 10.1002/cncr.30139. Epub 2016 Jun 28. PMID: 27351768.

20. **Basch E**, Dueck AC. Patient-reported outcome measurement in drug discovery: a tool to improve accuracy and completeness of efficacy and safety data. Expert Opin Drug Discov. 2016 Aug;11(8):753-8. doi: 10.1080/17460441.2016.1193148. Epub 2016 Jun 16. PMID: 27310432.

21. Atkinson TM, Ryan SJ, Bennett AV, Stover AM, Saracino RM, Rogak LJ, Jewell ST, Matsoukas K, Li Y, **Basch E**. The association between clinician-based common terminology criteria for adverse events (CTCAE) and patient-reported outcomes (PRO): a systematic review. Support Care Cancer. 2016 Aug;24(8):3669-76. doi: 10.1007/s00520-016-3297-9. Epub 2016 Jun 3. Review. PMID: 27260018.

22. Doll KM, **Basch EM**, Meng K, Barber EL, Gehrig PA, Brewster WR, Meyer AM. Clinical Benefits Associated With Medicaid Coverage Before Diagnosis of Gynecologic Cancers. J Oncol Pract. 2016 Jun;12(6):e724-33. doi: 10.1200/JOP.2016.011080. Epub 2016 May 31. PMID 27246688.

23. **Basch E**. Toward a Patient-Centered Value Framework in Oncology. JAMA. 2016 May 17;315(19):2073-4. PMID: 27187297.

24. Arnold B, Mitchell SA, Lent L, Mendoza TR, Rogak LJ, Barragán NM, Willis G, Medina M, Lechner S, Penedo FJ, Harness JK, **Basch EM**. Linguistic validation of the Spanish version of the National Cancer Institute's Patient-Reported Outcomes version of the Common Terminology Criteria for Adverse Events (PRO-CTCAE). Support Care Cancer. 2016 Jul;24(7):2843-51.

25. Pietanza MC, Hellmann MD, Fiore JJ, Smith-Marrone S, **Basch EM**, Schwartz LH, Ginsberg MS, Shouery M, Newman SK, Shaw M, Rogak LJ, Lash AE, Hilden P, Kris MG. Phase II Study of a Non-Platinum-Containing Doublet of Paclitaxel and Pemetrexed with

Bevacizumab as Initial Therapy for Patients with Advanced Lung Adenocarcinomas. J Thorac Oncol. 2016 Mar 8. pii: S1556-0864(16)00441-X. doi: 10.1016/j.jtho.2016.02.018. [Epub ahead of print] PMID: 26964771.

26. Cella D, Li S, Li T, Kheoh T, Todd MB, **Basch E**. Repeated measures analysis of patient-reported outcomes in prostate cancer after abiraterone acetate. J Community Support Oncol. 2016 Apr;14(4):148-54. PMID: 27152513.

27. Falchook AD, Green R, Knowles ME, Amdur RJ, Mendenhall W, Hayes DN, Grilley-Olson JE, Weiss J, Reeve BB, Mitchell SA, **Basch EM**, Chera BS. Comparison of Patient- and Practitioner-Reported Toxic Effects Associated With Chemoradiotherapy for Head and Neck Cancer. JAMA Otolaryngol Head Neck Surg. 2016 May 5. doi: 10.1001/jamaoto.2016.0656. [Epub ahead of print] PMID: 27149571.

28. Bæksted C, Nissen A, Pappot H, Bidstrup PE, Mitchell SA, **Basch E**, Dalton SO, Johansen C. Danish Translation and Linguistic Validation of the U.S. National Cancer Institute's Patient-Reported Outcomes version of the Common Terminology Criteria for Adverse Events (PRO-CTCAE). J Pain Symptom Manage. 2016 Apr 15. pii: S0885-3924(16)30045-8. doi: 10.1016/j.jpainsymman.2016.02.008. [Epub ahead of print] PMID: 27090851.

29. **Basch E**, Rogak LJ, Dueck AC. Methods for Implementing and Reporting Patient-reported Outcome (PRO) Measures of Symptomatic Adverse Events in Cancer Clinical Trials. Clin Ther. 2016 Apr;38(4):821-30. PMID: 27045992.

30. Wood WA, Phillips B, Smith-Ryan AE, Wilson D, Deal AM, Bailey C, Meeneghan M, Reeve BB, **Basch EM**, Bennett AV, Shea TC, Battaglini CL. Personalized home-based interval exercise training may improve cardiorespiratory fitness in cancer patients preparing to undergo hematopoietic cell transplantation. Bone Marrow Transplant. 2016 Mar 21. doi: 10.1038/bmt.2016.73. [Epub ahead of print] PMID: 26999467.

31. Check DK, Reeder-Hayes KE, **Basch EM**, Zullig LL, Weinberger M, Dusetzina SB. Investigating racial disparities in use of NK1 receptor antagonists to prevent chemotherapy-induced nausea and vomiting among women with breast cancer. Breast Cancer Res Treat. 2016 Apr;156(2):351-9. PMID: 26968396.

32. Scher HI, Morris MJ, Stadler WM, Higano C, **Basch E**, Fizazi K, Antonarakis ES, Beer TM, Carducci MA, Chi KN, Corn PG, de Bono JS, Dreicer R, George DJ, Heath EI, Hussain M, Kelly WK, Liu G, Logothetis C, Nanus D, Stein MN, Rathkopf DE, Slovin SF, Ryan CJ, Sartor O, Small EJ, Smith MR, Sternberg CN, Taplin ME, Wilding G, Nelson PS, Schwartz LH, Halabi S, Kantoff PW, Armstrong AJ. Trial Design and Objectives for Castration-Resistant Prostate Cancer: Updated Recommendations From the Prostate Cancer Clinical Trials Working Group 3. J Clin Oncol. 2016 Apr 20;34(12):1402-18. PMID: 26903579.

33. Bennett AV, Dueck AC, Mitchell SA, Mendoza TR, Reeve BB, Atkinson TM, Castro KM, Denicoff A, Rogak LJ, Harness JK, Bearden JD, Bryant D, Siegel RD, Schrag D, **Basch E**;

National Cancer Institute PRO-CTCAE Study Group. Mode equivalence and acceptability of tablet computer-, interactive voice response system-, and paper-based administration of the U.S. National Cancer Institute's Patient-Reported Outcomes version of the Common Terminology Criteria for Adverse Events (PRO-CTCAE). Health Qual Life Outcomes. 2016 Feb 19;14:24. PMID: 26892667.

34. Di Maio M, **Basch E**, Bryce J, Perrone F. Patient-reported outcomes in the evaluation of toxicity of anticancer treatments. Nat Rev Clin Oncol. 2016 May;13(5):319-25. doi: 10.1038/nrclinonc.2015.222. Epub 2016 Jan 20. PMID: 26787278.

35. **Basch E**. Missing Patients' Symptoms in Cancer Care Delivery-The Importance of Patient-Reported Outcomes. JAMA Oncol. 2016 Apr 1;2(4):433-4. PMID: 26720842.

36. **Basch E**, Deal AM, Kris MG, Scher HI, Hudis CA, Sabbatini P, Rogak L, Bennett AV, Dueck AC, Atkinson TM, Chou JF, Dulko D, Sit L, Barz A, Novotny P, Fruscione M, Sloan JA, Schrag D. Symptom Monitoring With Patient-Reported Outcomes During Routine Cancer Treatment: A Randomized Controlled Trial. J Clin Oncol. 2016 Feb 20;34(6):557-65. PMID: 26644527.

37. Stover AM, **Basch EM**. Using patient-reported outcome measures as quality indicators in routine cancer care. Cancer. 2016 Feb 1;122(3):355-7. PMID: 26619153.

38. Bennett AV, Keenoy K, Shouery M, **Basch E**, Temple LK. Evaluation of mode equivalence of the MSKCC Bowel Function Instrument, LASA Quality of Life, and Subjective Significance Questionnaire items administered by Web, interactive voice response system (IVRS), and paper. Qual Life Res. 2016 May;25(5):1123-30. PMID: 26590838.

39. Bennett AV, Reeve BB, **Basch EM**, Mitchell SA, Meeneghan M, Battaglini CL, Smith-Ryan AE, Phillips B, Shea TC, Wood WA. Evaluation of pedometry as a patient-centered outcome in patients undergoing hematopoietic cell transplant (HCT): a comparison of pedometry and patient reports of symptoms, health, and quality of life. Qual Life Res. 2016 Mar;25(3):535-46. PMID: 26577763.

40. **Basch E**, Wood WA, Schrag D, Sima CS, Shaw M, Rogak LJ, Kris MG, Shouery M, Bennett A, Atkinson T, Pietanza MC. Feasibility and clinical impact of sharing patient-reported symptom toxicities and performance status with clinical investigators during a phase 2 cancer treatment trial. Clin Trials. 2015 Nov 4. pii: 1740774515615540. [Epub ahead of print] PMID: 26542025.

41. Hesketh PJ, Bohlke K, Lyman GH, **Basch E**, Chesney M, Clark-Snow RA, Danso MA, Jordan K, Somerfield MR, Kris MG. Antiemetics: American Society of Clinical Oncology Focused Guideline Update. J Clin Oncol. 2016 Feb 1;34(4):381-6. PMID: 26527784.

42. Atkinson TM, Andreotti CF, Roberts KE, Saracino RM, Hernandez M, **Basch E**. The level of association between functional performance status measures and patient-reported

outcomes in cancer patients: a systematic review. Support Care Cancer. 2015 Dec;23(12):3645-52. PMID: 26314706.

43. Dueck AC, Mendoza TR, Mitchell SA, Reeve BB, Castro KM, Rogak LJ, Atkinson TM, Bennett AV, Denicoff AM, O'Mara AM, Li Y, Clauser SB, Bryant DM, Bearden JD 3rd, Gillis TA, Harness JK, Siegel RD, Paul DB, Cleeland CS, Schrag D, Sloan JA, Abernethy AP, Bruner DW, Minasian LM, **Basch E**. Validity and Reliability of the US National Cancer Institute's Patient-Reported Outcomes Version of the Common Terminology Criteria for Adverse Events (PRO-CTCAE). JAMA Oncol. 2015 Nov;1(8):1051-9. PMID: 26270597.

44. Doll KM, Meng K, **Basch EM**, Gehrig PA, Brewster WR, Meyer AM. Gynecologic cancer outcomes in the elderly poor: A population-based study. Cancer. 2015 Oct 15;121(20):3591-9. PMID: 26230631.

45. **Basch E**, Geoghegan C, Coons SJ, Gnanasakthy A, Slagle AF, Papadopoulos EJ, Kluetz PG. Patient-Reported Outcomes in Cancer Drug Development and US Regulatory Review: Perspectives From Industry, the Food and Drug Administration, and the Patient. JAMA Oncol. 2015 Jun;1(3):375-9. PMID: 26181187.

46. Morgans AK, van Bommel AC, Stowell C, Abrahm JL, **Basch E**, Bekelman JE, Berry DL, Bossi A, Davis ID, de Reijke TM, Denis LJ, Evans SM, Fleshner NE, George DJ, Kiefert J, Lin DW, Matthew AG, McDermott R, Payne H, Roos IA, Schrag D, Steuber T, Tombal B, van Basten JP, van der Hoeven JJ, Penson DF; Advanced Prostate Cancer Working Group of the International Consortium for Health Outcomes Measurement. Development of a Standardized Set of Patient-centered Outcomes for Advanced Prostate Cancer: An International Effort for a Unified Approach. Eur Urol. 2015 Nov;68(5):891-8. PMID: 26129856.

47. Rose TL, Deal AM, **Basch E**, Godley PA, Rathmell WK, Kim WY, Whang YE, Dunn MW, Wang A, Chen RC, Nielsen ME, Pruthi RS, Wallen EM, Woods ME, Smith AB, Milowsky MI. Neoadjuvant chemotherapy administration and time to cystectomy for muscle-invasive bladder cancer: An evaluation of transitions between academic and community settings. Urol Oncol. 2015 Sep;33(9):386.e1-6. PMID: 26122712.

48. **Basch E**, Spertus J, Dudley RA, Wu A, Chuahan C, Cohen P, Smith ML, Black N, Crawford A, Christensen K, Blake K, Goertz C. Methods for Developing Patient-Reported Outcome-Based Performance Measures (PRO-PMs). Value Health. 2015 Jun;18(4):493-504. PMID: 26091604.

49. Wood WA, Bennett AV, **Basch E**. Emerging uses of patient generated health data in clinical research. Mol Oncol. 2015 May;9(5):1018-24. PMID: 25248998.

50. Chung AE, **Basch EM**. Incorporating the Patient's Voice into Electronic Health Records through Patient-Reported Outcomes as the "Review of Systems". J Am Med Inform Assoc. 2015 Jul;22(4): 914-6. PMID: 25614143.

51. Green AK, Corty RW, Wood WA, Meeneghan M, Reeder-Hayes KE, **Basch E**, Milowsky MI, Dusetzina SB. Comparative effectiveness of mitoxantrone plus prednisone versus prednisone alone in metastatic castrate-resistant prostate cancer after docetaxel failure. Oncologist. 2015 May;20(5):516-22. PMID: 25888270.

52. **Basch E**. Patient-related outcomes for metastatic prostate cancer. Lancet Oncol. 2015 May;16(5):477-8. doi: 10.1016/S1470-2045(15)70171-3. Epub 2015 Apr 14. PMID: 25888262.

53. Green AK, Reeder-Hayes KE, Corty RW, **Basch E**, Milowsky MI, Dusetzina SB, Bennett AV, Wood WA. The project data sphere initiative: accelerating cancer research by sharing data. Oncologist. 2015 May;20(5):464-e20. doi: 10.1634/theoncologist.2014-0431. Epub 2015 Apr 15. PMID: 25876994.

54. Meyer AM, **Basch E**. Big data infrastructure for cancer outcomes research: implications for the practicing oncologist. J Oncol Pract. 2015 May;11(3):207-8. doi: 10.1200/JOP.2015.004432. Epub 2015 Apr 14. PMID: 25873058.

55. Chung AE, **Basch EM**. Potential and challenges of patient-generated health data for high-quality cancer care. J Oncol Pract. 2015 May;11(3):195-7. doi: 10.1200/JOP.2015.003715. Epub 2015 Apr 7. PMID: 25852139.

56. Dusetzina SB, **Basch E**, Keating NL. For uninsured cancer patients, outpatient charges can be costly, putting treatments out of reach. Health Aff (Millwood). 2015 Apr;34(4):584-91. doi: 10.1377/hlthaff.2014.0801. PMID: 25847640.

57. Wood WA, Deal AM, Bennett AV, Mitchell S, Abernethy AP, **Basch E**, Bailey C, Reeve BB. Comparison of Seven-Day and Repeated 24-Hour Recall of Symptoms in the First 100 Days Following Hematopoietic Cell Transplantation. J Pain Symptom Manage. 2015 Mar;49(3):513-20. doi: 10.1016/j.jpainsymman.2014.06.011. Epub 2014 Aug 13 PMID: 25128608.

58. **Basch EM**, Autio KA, Smith MR, Bennett AV, Weitzman AL, Scheffold C, Sweeney C, Rathkopf DE, Smith DC, George DJ, Higano CS, Harzstark AL, Sartor AO, Gordon MS, Vogelzang NJ, de Bono JS, Haas NB, Corn PG, Schimmoller F, Scher HI. Effects of Cabozantinib on pain and narcotic use in patients with castration-resistant prostate cancer: Results from a phase 2 nonrandomized expansion cohort. Eur Urol 2015 Feb;67(2):310-8. doi: 10.1016/j.eururo.2014.02.013. Epub 2014 Feb 20. PMID: 24631409.

59. Schwartz LH, **Basch E**. MR/ultrasound fusion-guided biopsy in prostate cancer: what is the evidentiary standard? JAMA. 2015 Jan 27;313(4):367-8. doi: 10.1001/jama.2014.17943. PMID: 25626034.

60. **Basch E**, Loblaw DA, Rumble RB. Systemic therapy in men with metastatic castration-resistant prostate cancer: American Society of Clinical Oncology and Cancer Care Ontario clinical practice guideline summary. J Oncol Pract. 2014 Nov;10(6):e418-20. doi: 10.1200/JOP.2014.001701 [Epub ahead of print]. PMID: 25398964.

61. Smith MR, Sweeney CJ, Corn PG, Rathkopf DE, Smith DC, Hussain M, George DJ, Higano CS, Harzstark AL, Sartor AO, Vogelzang NJ, Gordon MS, de Bono JS, Haas NB, Logothetis CJ, Elfiky A, Scheffold C, Laird AD, Schimmoller F, **Basch EM**, Scher HI. Cabozantinib in Chemotherapy-Pretreated Metastatic Castration-Resistant Prostate Cancer: Results of a

Phase II Nonrandomized Expansion Study. J Clin Oncol. 2014 Oct;32(30):3391-9. PMID: 25225437.

62. **Basch E**, Loblaw DA, Oliver TK, Carducci M, Chen RC, Frame JN, Garrels K, Hotte S, Kattan MW, Raghavan D, Saad F, Taplin ME, Walker-Dilks C, Williams J, Winquist E, Wootton T, Rumble RB, Dusetzina SB, Virgo KS. Systemic Therapy in Men With Metastatic Castration-Resistant Prostate Cancer: American Society of Clinical Oncology and Cancer Care Ontario Clinical Practice Guideline. J Clin Oncol. 2014 Oct 20;32(30):3436-48. doi: 10.1200/JCO.2013.54.8404. Epub 2014 Sep 8. PMID: 25199761.

63. Frank L, **Basch E**, Selby JV; For the Patient-Centered Outcomes Research Institute. The PCORI Perspective on Patient-Centered Outcomes Research. JAMA. 2014 Oct 15;312(15):1513-4. doi: 10.1001/jama.2014.11100. PMID: 25167382

64. **Basch E**, Reeve BB, Mitchell SA, Clauser SB, Minasian LM, Dueck AC, Mendoza TR, Hay J, Atkinson TM, Abernethy AP, Bruner DW, Cleeland CS, Sloan JA, Chilukuri R, Baumgartner P, Denicoff A, St Germain D, O'Mara AM, Chen A, Kelaghan J, Bennett AV, Sit L, Rogak L, Barz A, Paul DB, Schrag D. Development of the National Cancer Institute's patient-reported outcomes version of the common terminology criteria for adverse events (PRO-CTCAE). J Natl Cancer Inst. 2014 Sep 29;106(9). pii:dju244. doi: 10.1093/jnci/dju244. Print 2014 Sep [Epub ahead of print]. PMID: 25265940.

65. Halpern MT, Viswanathan M, Evans TS, Birken SA, **Basch E**, Mayer DK. Models of Cancer Survivorship Care: Overview and Summary of Current Evidence. J Oncol Pract. 2014 Sep 9. pii: JOP.2014.001403. [Epub ahead of print]. PMID: 25205779.

66. Kirsch M, Mitchell SA, Dobbels F, Stussi G, **Basch E**, Halter JP, De Geest S. Linguistic and content validation of a German-language PRO-CTCAE-based patient-reported outcomes instrument to evaluate the late effect symptom experience after allogeneic hematopoietic stem cell transplantation. Eur J Oncol Nurs. 2014 Sep 1. pii: S1462-3889(14)00103-3. doi: 10.1016/j.ejon.2014.07.007. [Epub ahead of print]. PMID: 25190633.

67. Fizazi K, Scher HI, Miller K, **Basch E**, Sternberg CN, Cella D, Forer D, Hirmand M, de Bono JS. Effect of enzalutamide on time to first skeletal-related event, pain, and quality of life in men with castration-resistant prostate cancer: results from the randomised, phase 3 AFFIRM trial. Lancet Oncol. 2014 Sep;15(10):1147-56. doi: 10.1016/S1470-2045(14)70303-1. Epub 2014 Aug 4. PMID: 25104109.

68. **Basch E**, Bennett AV. Patient-reported outcomes in clinical trials of rare diseases. J Gen Intern Med. 2014 Aug;29 Suppl 3:801-3. PMID: 25029974.

69. Wood WA, Deal AM, Bennett AV, Mitchell S, Abernethy AP, **Basch E**, Bailey C, Reeve BB. Comparison of Seven-Day and Repeated 24-Hour Recall of Symptoms in the First 100 Days Following Hematopoietic Cell Transplantation. J Pain Symptom Manage. 2014 Aug 13. pii: S0885-3924(14)00399-6. doi: 10.1016/j.jpainsymman.2014.06.011. [Epub ahead of print]. PMID: 25128608.

70. Damast S, Alektiar K, Eaton A, Gerber NK, Goldfarb S, Patil S, Jia R, Leitao M, Carter J, **Basch E**. Comparative patient-centered outcomes (health state and adverse sexual symptoms) between adjuvant brachytherapy versus no adjuvant brachytherapy in early stage endometrial cancer. Ann Surg Oncol 2014 Aug;21(8):2740-54. doi: 10.1245/s10434-014-3562-4. Epub 2014 Mar 12. PMID: 24619493.

71. Wheeler SB, **Basch E**. Cancer care research in North Carolina: the state of the state. N C Med J. 2014 Jul-Aug;75(4):248-52. PubMed PMID: 25046088.

72. Meyer AM, Olshan AF, Green L, Meyer A, Wheeler SB, **Basch E**, Carpenter WR. Big data for population-based cancer research: the Integrated Cancer Information and Surveillance System. N C Med J. 2014 Jul-Aug;75(4):265-9. PMID: 25046092.

73. Reeve BB, Mitchell SA, Dueck AC, **Basch E**, Cella D, Reilly CM, Minasian LM, Denicoff AM, O'Mara AM, Fisch MJ, Chauhan C, Aaronson NK, Coens C, Bruner DW. Recommended patient-reported core set of symptoms to measure in adult cancer treatment trials. J Natl Cancer Inst. 2014 Jul 8;106(7):dju129. PMID: 25006191.

74. Jensen RE, Snyder CF, Abernethy AP, **Basch E**, Potosky AL, Roberts AC, Loeffler DR, Reeve BB. Review of electronic patient-reported outcomes systems used in cancer clinical care. J Oncol Pract 2014 Jul;10(4):e215-22. doi: 10.1200/JOP.2013.001067. Epub 2013 Dec 3. PMID: 24301843.

75. **Basch E**, Snyder C, McNiff K, Brown R, Maddux S, Smith ML, Atkinson TM, Howell D, Chiang A, Wood W, Levitan N, Wu AW, Kryzyzanowska M. Patient-reported outcome performance measures in oncology. J Oncol Pract 2014 May;10(3):209-11. PMID: 24756142.

76. Wilt TJ, Scardino PT, Carlsson SV, **Basch E**. Prostate-specific antigen screening in prostate cancer: perspectives on the evidence. J Natl Cancer Inst. 2014 Mar 1;106(3):dju010 [Epub 2014 Mar 4]. PMID: 24594482.

77. **Basch E**, Trentacosti AM, Burke LB, Kwitkowski V, Kane RC, Autio KA, Papadopoulos E, Stansbury JP, Kluetz PG, Smith H, Justice R, Pazdur R. Pain palliation measurement in cancer clinical trials: the US Food and Drug Administration perspective. Cancer 2014 Mar 1;120(5):761-7. PMID: 24375398.

78. Ulbricht C, **Basch E**, Cheung L, Goldberg H, Hammerness P, Isaac R, Khalsa KP, Romm A, Rychlik I, Varghese M, Weissner W, Windsor RC, Wortley J. An evidence-based systematic review of elderberry and elderflower (Sambucus nigra) by the Natural Standard Research Collaboration. J Diet Suppl 2014 Mar;11(1):80-120. PMID: 24409980.

79. Hay JL, Atkinson TM, Reeve BB, Mitchell SA, Mendoza TR, Willis G, Minasian LM, Clauser SB, Denicoff A, O'Mara A, Chen A, Bennett AV, Paul DB, Gagne J, Rogak L, Sit L, Viswanath V, Schrag D, **Basch E**. Cognitive interviewing of the US National Cancer Institute's Patient-Reported Outcomes version of the Common Terminology Criteria for Adverse Events (PRO-CTCAE). Qual Life Res 2014 Feb;23(1):257-69. doi: 10.1007/s11136-013-0470-1. Epub 2013 Jul 20. PMID: 23868457.

80. Patel JD, Krilov L, Adams S, Aghajanian C, **Basch E**, Brose MS, Carroll WL, de Lima M, Gilbert MR, Kris MG, Marshall JL, Masters GA, O'Day SJ, Polite B, Schwartz GK, Sharma S, Thompson I, Vogelzang NJ, Roth BJ. Clinical cancer advances 2013: Annual report on progress against cancer from the American Society of Clinical Oncology. J Clin Oncol 2014;32(2):129-60. PMID: 24327669.

81. **Basch E**. New frontiers in patient-reported outcomes: Adverse event reporting, comparative effectiveness, and quality assessment. Annu Rev Med 2014;65:307-17. doi: 10.1146/annurev-med-010713-141500. Epub 2013 Nov 20. PMID: 24274179.

82. Banerjee AK, Okun S, Edwards IR, Wicks P, Smith MY, Mayall SJ, Flamion B, Cleeland C, **Basch E**. Patient-reported outcome measures in safety event reporting: PROSPER Consortium guidance. Drug Safety 2013;36(12):1129-49. PMID: 24092596.

83. **Basch E**, Autio K, Ryan CJ, Mulders P, Shore N, Kheoh T, Fizazi K, Logothetis CJ, Rathkopf D, Smith MR, Mainwaring PN, Hao Y, Griffin T, Li S, Meyers ML, Molina A, Cleeland C. Abiraterone acetate plus prednisone versus prednisone alone in chemotherapy-naive men with metastatic castration-resistant prostate cancer: patient-reported outcome results of a randomised phase 3 trial. Lancet Oncol 2013;14(12):1193-9. PMID: 24075621.

84. Autio KA, Bennett AV, Jia X, Fruscione M, Beer TM, George DJ, Carducci MA, Logothetis CJ, Kane RC, Sit L, Rogak L, Morris MJ, Scher HI, **Basch EM**. Prevalence of pain and analgesic use in men with metastatic prostate cancer using a patient-reported outcome measure. J Oncol Pract 2013;9(5):223-9. PMID: 23943897.

85. **Basch, E**. Toward patient-centered drug development in oncology. N Engl J Med 2013;369(5):397-400. PMID: 23822654.

86. **Basch E**, Torda P, Adams K. Standards for patient-reported outcomes-based performance measures. JAMA 2013;310(2):139-140. PMID: 23839744.

87. Judson TJ, Bennett AV, Rogak LR, Sit L, Barz A, Kris MG, Hudis C, Scher HI, Sabattini P, Schrag D, **Basch E**. Feasibility of long-term patient reporting of toxicities from home via the Internet during routine chemotherapy, J Clin Oncol 2013;31(20):2580-5. PMID: 23806501.

88. Tinetti ME, **Basch E**. Patients' responsibility to participate in decision making and research. JAMA 2013;309(22):2331-2. PMID: 23700165.

89. Pietanza MC, **Basch EM**, Lash A, Schwartz LH, Ginsberg MS, Zhao B, Shouery M, Shaw M, Rogak LJ, Wilson M, Gabow A, Latif M, Wu Q, Kass SL, Miller CP, Tyson L, Sumner DK, Berkowitz A, Sima CS, Kris MG. Harnessing Technology to Improve Clinical Trials: Study of Real-Time Informatics to Collect Data, Toxicities, Image Response Assessments, and Patient-Reported Outcomes (PROs) in a Phase II Clinical Study. J Clin Oncol 2013;31(16):2004-9. PMID: 23630218.

90. Wood WA, Deal AM, Reeve BB, Abernethy AP, **Basch E**, Mitchell SA, Shatten C, Hie Kim Y, Whitley J, Serody JS, Shea T, Battaglini C. Cardiopulmonary fitness in patients undergoing hematopoietic SCT: a pilot study. Bone Marrow Transplant 2013 Oct;48(10):1342-9. doi: 10.1038/bmt.2013.58. Epub 2013 Apr 15. PMID: 23584437.

91. **Basch E**. Systematic collection of patient-reported adverse drug reactions: A path to patient-centred pharmacovigilance. Drug Safety 2013;36(4):277-8. PMID: 23508543.

92. Morris MJ, Autio KA, **Basch EM**, Danila DC, Larson S, Scher HI. Monitoring the clinical outcomes in advanced prostate cancer: what imaging modalities and other markers are reliable? Semin Oncol 2013;40(3):375-92. PMID: 23806501.

93. Reilly C, Bruner D, Mitchell S, Minasian L, **Basch E**, Dueck A, Cella, D, Reeve B. A literature synthesis of symptom prevalence and severity in persons receiving active cancer treatment. J Supp Care Cancer 2013;21(6):1525–1550. PMID: 23314601.

94. Wood WA, Deal AM, Abernethy A, **Basch E**, Battaglini C, Kim YH, Whitley J, Shatten C, Serody J, Shea T, Reeve BB. Feasibility of Frequent Patient-Reported Outcome Surveillance in Patients Undergoing Hematopoietic Cell Transplantation. Biol Blood Marrow Transplant. 2013 Mar;19(3):450-9. PMID: 23253558.

95. Ryan CJ, Smith MR, de Bono JS, Molina A, Logothetis CJ, de Souza P, Fizazi K, Mainwaring P, Piulats JM, Ng S, Carles J, Mulders PF, **Basch E**, Small EJ, Saad F, Schrijvers D, Van Poppel H, Mukherjee SD, Suttmann H, Gerritsen WR, Flaig TW, George DJ, Yu EY, Efstathiou E, Pantuck A, Winquist E, Higano CS, Taplin ME, Park Y, Kheoh T, Griffin T, Scher HI, Rathkopf DE; COU-AA-302 Investigators. Abiraterone in metastatic prostate cancer without previous chemotherapy. N Engl J Med 2013;368(2):138-48. PMID: 23228172.

96. Bennett AV, Jensen RE, **Basch E**. Electronic patient-reported outcome systems in oncology clinical practice. CA Cancer J Clin 2012;62(5):336-47. PMID: 22811342.

97. **Basch E**, Abernethy AP, Mullins CD, Reeve BB, Smith ML, Coons SJ, Sloan J, Wenzel K, Chauhan C, Eppard W, Frank ES, Lipscomb J, Raymond SA, Spencer M, Tunis S. Recommendations for Incorporating Patient-Reported Outcomes Into Clinical Comparative-Effectiveness Research in Adult Oncology. J Clin Oncol 2012;30(34):4249-55. PMID: 23071244.

98. **Basch E**, Aronson N, Berg A, Flum D, Gabriel S, Goodman SN, Helfand M, Ioannidis JP, Lauer M, Meltzer D, Mittman B, Newhouse R, Normand SL, Schneeweiss S, Slutsky J, Tinetti M, Yancy C (Methodology Committee of the Patient-Centered Outcomes Research Institute [PCORI]). Methodological Standards and Patient-Centeredness in Comparative Effectiveness Research: the PCORI Perspective. JAMA 2012;307(15):1636-40. PMID: 22511692.

99. **Basch E**, Oliver TK, Vickers A, Thompson I, Kantoff P, Howard Parnes, Loblaw A, Roth B, Williams J, Nam RK. Screening for Prostate Cancer with Prostate-Specific Antigen (PSA) Testing: American Society of Clinical Oncology Recommendations (Provisional Clinical Opinion). J Clin Oncol 2012;30(24):3020-3025. PMID: 22802323.

100. **Basch E**. Beyond the FDA PRO Guidance: Steps toward integrating meaningful patient-reported outcomes into regulatory trials and US drug labels. Value Health 2012;15:401 403. PMID: 22583448.

101. Damast S, Alektiar KM, Goldfarb S, Eaton A, Patil S, Mosenkis J, Bennett A, Atkinson T, Jewell E, Leitao M, Barakat R, Carter J, **Basch E**. Sexual Functioning Among Endometrial Cancer Patients Treated With Adjuvant High-Dose-Rate Intra-Vaginal Radiation Therapy. Int J Radiat Oncol Biol Phys 2012;84(2):e187-93. PMID: 22572074.

102. Loblaw DA, Prestrud AA, Somerfield MR, Oliver TK, Brouwers MC, Nam RK, Lyman GH, **Basch E**. American Society of Clinical Oncology Clinical Practice Guidelines: Formal Systematic Review-Based Consensus Methodology. J Clin Oncol 2012 Sep 1;30(25):3136-40. doi: 10.1200/JCO.2012.42.0489. Epub 2012 Jul 9. PMID: 22778311.

103. Nam RK, Oliver TK, Vickers AJ, Thompson I, Kantoff PW, Parnes HL, Loblaw A, Roth BJ, Williams J, Temin S, **Basch E**. Prostate-specific antigen test for prostate cancer screening: American Society of Clinical Oncology provisional clinical opinion. J Oncol Pract 2012;8(5):315-7. PMID: 23277770.

104. Ulbricht C, **Basch E**, Chao W, Conquer J, Costa D, Culwell S, Flanagan K, Guilford J, Hammerness P, Hashmi S, Isaac R, Rusie E, Serrano JM, Ulbricht C, Vora M, Windsor RC, Woloszyn M, Zhou S. An evidence-based systematic review of vitamin A by the Natural Standard research collaboration. J Diet Suppl 2012;9(4):299-416. PMID: 23157584.

105. Logothetis CJ, **Basch E**, Molina A, Fizazi K, North SA, Chi KN, Jones RJ, Goodman OB, Mainwaring PN, Sternberg CN, Efstathiou E, Gagnon DD, Rothman M, Hao Y, Liu CS, Kheoh TS, Haqq CM, Scher HI, de Bono JS. Effect of abiraterone acetate and prednisone compared with placebo and prednisone on pain control and skeletal-related events in patients with metastatic castration-resistant prostate cancer: exploratory analysis of data from the COU-AA-301 randomised trial. Lancet Oncol 2012 Dec;13(12):1210-7. PMID: 23142059.

106. Ahmed S, Berzon RA, Revicki DA, Lenderking WR, Moinpour CM, **Basch E**, Reeve BB, Wu AW; on behalf of the International Society for Quality of Life Research. The Use of Patient-reported Outcomes (PRO) Within Comparative Effectiveness Research: Implications for Clinical Practice and Health Care Policy. Med Care 2012 Dec;50(12):1060-70. doi: 10.1097/MLR.0b013e318268aaff. PMID: 2292243.

107. Atkinson TM, Halabi S, Bennett AV, Rogak L, Sit L, Li Y, Kaplan E, **Basch E** (Cancer and Leukemia Group B). Measurement of affective and activity pain interference using the brief pain inventory (BPI): Cancer and Leukemia Group B 70903. Pain Med 2012 Nov;13(11):1417-24. doi: 10.1111/j.1526-4637.2012.01498.x. Epub 2012 Oct 30. PMID: 23110676.

108. Andikyan V, Rezk Y, Einstein MH, Gualtiere G, Leitao MM Jr, Sonoda Y, Abu-Rustum NR, Barakat RR, **Basch EM**, Chi DS. A prospective study of the feasibility and acceptability of a Web-based, electronic patient-reported outcome system in assessing patient recovery after major gynecologic cancer surgery. Gynecol Oncol 2012;127(2):273-7. PMID: 22871467.

109. Ulbricht C, Abrams TR, **Basch E**, Davies-Heerema T, Foppa I, Hammerness P, Rusie E, Tanguay-Colucci S, Taylor S, Ulbricht C, Varghese M, Weissner W, Woods J. An evidence-based systematic review of gymnema (Gymnema sylvestre R. Br.) by the Natural Standard Research Collaboration. J Diet Suppl 2011;8(3):311-30. PMID: 22432729.

110. **Basch E**, Somerfield M, Partridge A, Schnipper L, Lyman GH. Should cost and comparative value of treatments be considered in clinical practice guidelines? J Oncol Pract 2011;7(6):398-401. PMID: 22379426.

111. **Basch E**, Hesketh PJ, Kris MG, Prestrud AA, Temin S, Lyman GH. Antiemetics: American Society of Clinical Oncology Clinical Practice Guideline Update. J Oncol Pract 2011;7(6):395-8. PMID: 22379425.

112. Smith TJ, Temin S, Alesi ER, Abernethy AP, Balboni TA, **Basch EM**, Ferrell BR, Loscalzo M, Meier DE, Paice JA, Peppercorn JM, Somerfield M, Stovall E, Von Roenn JH. American Society of Clinical Oncology Provisional Clinical Opinion: The Integration of Palliative Care into Standard Oncology Care. J Clin Oncol 2012;30(8):880-7. PMID: 22312101.

113. **Basch E**, Bennett A, Pietanza MC. Use of patient-reported outcomes to improve the predictive accuracy of clinician-reported adverse events. J Natl Cancer Inst 2011;103(24):1808-10. PMID: 22157639.

114. **Basch E**, Abernethy AP, Reeve BB. Assuring the patient centeredness of patient-reported outcomes: content validity in medical product development and comparative effectiveness research. Value Health 2011;14(8):965-6. PMID: 22152164.

115. Romanus D, Kindler HL, Archer L, **Basch E**, Niedzwiecki D, Weeks J, Schrag D; Cancer and Leukemia Group B. Does Health-Related Quality of Life Improve for Advanced Pancreatic Cancer Patients Who Respond to Gemcitabine? Analysis of a Randomized Phase III Trial of the Cancer and Leukemia Group B (CALGB 80303). J Pain Symptom Manage 2012;43(2):205:17. PMID: 22104618.

116. Vickers AJ, Sjoberg D, **Basch E**, Sculli F, Shouery M, Laudone V, Touijer K, Eastham J, Scardino PT. How Do You Know If You Are Any Good? A Surgeon Performance Feedback System for the Outcomes of Radical Prostatectomy. Eur Urol 2012;61(2):284-9. PMID: 22078336.

117. Blinder VS, Patil S, Thind A, Diamant A, Hudis CA, **Basch E**, Maly RC. Return to work in low-income Latina and non-Latina white breast cancer survivors: A 3-year longitudinal study. Cancer 2012;118(6):1664-74. PMID: 22009703.

118. Atkinson TM, Li Y, Coffey CW, Sit L, Shaw M, Lavene D, Bennett AV, Fruscione M, Rogak L, Hay J, Gönen M, Schrag D, **Basch E**. Reliability of adverse symptom event reporting by clinicians. Qual Life Res 2012;21:1159-1164. PMID: 21984468.

119. **Basch E**, Prestrud AA, Hesketh PJ, Kris MG, Feyer PC, Somerfield MR, Chesney M, Clark-Snow RA, Flaherty AM, Freundlich B, Morrow G, Rao KV, Schwartz RN, Lyman GH. American Society of Clinical Oncology Clinical Practice Guideline Update on Antiemetics. J Clin Oncol 2011;29(31):4189-98. PMID: 21947834.

120. Scher H, Morris MJ, **Basch E**, Heller G. Endpoints and outcomes in castration-resistant prostate cancer: from clinical trials to clinical practice. J Clin Oncol 2011;29(27):3695-704. PMID: 21859988.

121. **Basch E**, Reeve BB, Mitchell SA, Clauser SB, Minasian L, Sit L, Chilukuri R, Baumgartner P, Rogak L, Blauel E, Abernethy AP, Bruner D. Electronic toxicity monitoring and patient-reported outcomes. Cancer J 2011;17(4):231-4. PMID: 21799330.

122. Abernethy AP, **Basch E**. Clinical cancer informatics: creating pathways for personalized medicine and rapid learning cancer care. Cancer J 2011;17(4):195-6. PMID: 21799324.

123. **Basch E**, Abernethy A. Encouraging Clinicians to Incorporate Longitudinal Patient-Reported Symptoms in Routine Clinical Practice. J Oncol Pract 2011;7(1):23-5. PMID: 21532806.

124. Bruner DW, Hanisch LJ, Trotti A, Reeve BB, Schrag D, Sit L, Minasian L, O'Mara A, Denicoff A, Rowland J, Montello M, Geoghegan C, Abernethy A, Clauser S, Castro K, Mitchell S, Burke L, Trentacosti AM, **Basch E**. Stakeholder Perspectives on Implementing the National Cancer Institute's Patient-Reported Outcomes Version of the Common Terminology Criteria for Adverse Events (PRO-CTCAE). Trans Behav Med 2011;1:110-122.

125. Dworkin RH, Turk DC, **Basch E**, Berger A, Cleeland C, Farrar JT, Haythornthwaite JA, Jensen MP, Kerns RD, Markman J, Porter L, Raja SN, Ross E, Todd K, Wallace M, Woolf CJ. Considerations for extrapolating evidence of acute and chronic pain analgesic efficacy. Pain 2011;152(8):1705-8. PMID: 21396781.

126. Swartz RJ, Schwartz C, **Basch E**, Cai L, Fairclough DL, McLeod L, Mendoza TR, Rapkin B; SAMSI Psychometric Program Longitudinal Assessment of Patient-Reported Outcomes Working Group. The king's foot of patient-reported outcomes: current practices and new developments for the measurement of change. Qual Life Res 2011;20(8):1159-67. PMID: 21336659.

127. **Basch E**, Abernethy AP. Supporting Clinical Practice Decisions with Real-Time Patient-Reported Outcomes. J Clin Oncol 2011;29(8):954-6. PMID: 21282536.

128. Atkinson, TM, Rosenfeld, BD, Sit, L, Mendoza, TR, Fruscione, M, Lavene, D, Shaw, M, Li, Y, Hay, J, Cleeland, C, Scher, HI, Breitbart, WS, **Basch, E**. Using Confirmatory Factor Analysis to Evaluate Construct Validity of the Brief Pain Inventory. J Pain Symptom Manage 2011;41(3):558-65. PMID: 21131166.

129. Movsas B, Vikram B, Hauer-Jensen M, Moulder J, **Basch E**, Brown SL, Kachnic LA, Dicker A, Coleman CN, Okunieff P. Decreasing the adverse effects of cancer therapy: National Cancer Institute guidance for the clinical development of radiation injury mitigators. Clin Cancer Res 2011;17(2):222-8. PMID: 21047979.

130. Abernethy AP, Aziz NM, **Basch E**, Bull J, Cleeland CS, Currow DC, Fairclough D, Hanson L, Hauser J, Ko D, Lloyd L, Morrison S, Otis-Green S, Pantilat S, Portenoy RK, Ritchie C, Rocker G, Wheeler JL, Zafar SY, Kutner JS. A strategy to advance the evidence base in Palliative Medicine: Formation of a palliative care research cooperative group. J Palliat Med 2010;13(12):1407-13. PMID: 21105763.

131. Vickers AJ, Savage CJ, Shouery M, Eastham JA, Scardino PT, **Basch E**. Validation study of a web-based assessment of functional recovery after radical prostatectomy. Health Qual Life Outcomes 2010;8:82-89. PMID: 20687938.

132. Vickers AJ, Salz T, **Basch E**, Cooperberg MR, Carroll PR, Tighe F, Eastham J, Rosen RC. Electronic patient self-assessment and management (SAM): a novel framework for cancer survivorship. BMC Med Inform Decis Mak 2010;10:34. PMID: 20565745.

133. Gilligan TD, Seidenfeld J, **Basch E**, Einhorn LH, Smith DC, Stephenson AJ, Vaughn DJ, Cosby R, Hayes DF; American Society of Clinical Oncology. American Society of Clinical

Oncology Clinical Practice Guideline on uses of serum tumor markers in adult males with germ cell tumors. J Clin Oncol 2010;28(20):3388-404. PMID: 20530278.

134. **Basch E**. The missing voice of patients in drug-safety reporting. N Engl J Med 2010;362(10):865-9. PMID: 20220181.

135. Jang TL, Bekelman JE, Liu Y, Bach PB, **Basch E**, Elkin EB, Zelefsky MJ, Scardino PT, Begg CB, Schrag D. Physician visits prior to treatment for clinically localized prostate cancer. Arch Intern Med 2010;170(5):440-50. PMID: 20212180.

136. Lacouture ME, Maitland ML, Segaert S, Setser A, Baran R, Fox LP, Epstein JB, Barasch A, Einhorn L, Wagner L, West DP, Rapoport BL, Kris MG, **Basch E**, Eaby B, Kurtin S, Olsen EA, Chen A, Dancey JE, Trotti A. A proposed EGFR inhibitor dermatologic adverse event-specific grading scale from the MASCC skin toxicity study group. Support Care Cancer 2010;18(4):509-22. PMID: 20145956.

137. Mularski RA, Campbell ML, Asch SM, Reeve BB, **Basch E**, Maxwell TL, Cuny J, Clauser SB, Snyder C, Seow H, Wu AW, Dy S. A review of quality of care evaluation for the palliation of dyspnea. Am J Respir Crit Care Med. 2010;181(6):534-8. PMID: 20056904.

138. Atkinson TM, Mendoza TR, Sit L, Passik S, Scher HI, Cleeland C, **Basch E**. The Brief Pain Inventory and its "pain at its worst in the last 24 hours" item: clinical trial endpoint considerations. Pain Med 2010;11(3):337-46. PMID: 20030743.

139. Wang XS, Shi Q, Lu C, **Basch E**, Johnson VE, Mendoza TR, Mobley GM, Cleeland CS. Prognostic value of symptom burden for overall survival in patients receiving chemotherapy for advanced nonsmall cell lung cancer. Cancer 2010;116(1):137-45. PMID: 19852033.\

140. **Basch E**. Patient-reported outcomes in drug safety evaluation. Ann Oncol 2009;20(12):1905-6. PMID: 19934250.

141. **Basch E**, Jia X, Heller G, Barz A, Sit L, Fruscione M, Appawu M, Iasonos A, Atkinson T, Goldfarb S, Culkin A, Kris MG, Schrag D. Adverse symptom event reporting by patients vs clinicians: relationships with clinical outcomes. J Natl Cancer Inst 2009;101(23):1624-32. PMID: 19920223.

142. Coons SJ, Gwaltney CJ, Hays RD, Lundy JJ, Sloan JA, Revicki DA, Lenderking WR, Cella D, **Basch E**; ISPOR ePRO Task Force. Recommendations on evidence needed to support measurement equivalence between electronic and paper-based patient-reported outcome (PRO) measures: ISPOR ePRO Good Research Practices Task Force report. Value Health 2009;12(4):419-29. PMID: 19900250.

143. **Basch E**, Goldfarb S. Electronic patient-reported outcomes for collecting sensitive information from patients. J Support Oncol 2009;7(3):98-9. PMID: 19507457.

144. Ulbricht C, Weissner W, **Basch E**, Giese N, Hammerness P, Rusie-Seamon E, Varghese M, Woods J. Maitake mushroom (Grifola frondosa): systematic review. J Soc Integr Oncol 2009;7(2):66-72. PMID: 19476741.

145. Kramer BS, Hagerty KL, Justman S, Somerfield MR, Albertsen PC, Blot WJ, Ballentine Carter H, Costantino JP, Epstein JI, Godley PA, Harris RP, Wilt TJ, Wittes J, Zon R, Schellhammer P, and Collaborators (Busby E, Dahut W, Levin B, **Basch E**, Lichtenfeld JL, Bajorin DF, Roth BJ, Budd E, Hubbard H); American Society of Clinical Oncology Health Services Committee; American Urological Association Practice Guidelines Committee. Use of 5-alpha-reductase inhibitors for prostate cancer chemoprevention: American Society of Clinical Oncology/American Urological Association 2008 Clinical Practice Guideline. J Clin Oncol 2009;27(9):1502-16. PMID: 19252137

146. Morris MJ, **Basch E**, Wilding G, Hussain M, Carducci MA, Higano C, Kantoff P, Oh WK, Small EJ, George D, Mathew P, Beer TM, Ryan C, Logothetis C, Scher HI. Department of Defense prostate cancer clinical trials consortium: a new instrument for prostate cancer clinical research. Clin Genitourin Cancer 2009;7(1):51-7. PMID: 19213669.

147. Ulbricht C, **Basch E**, Basch S, Bent S, Boon H, Burke D, Costa D, Falkson C, Giese N, Goble M, Hashmi S, Mukarjee S, Papaliodis G, Seamon E, Tanguay-Colucci S, Weissner W, Woods J. Systematic review of Bilberry (Vaccinium myrtillus). J Diet Suppl. 2009;6(2):162-200. PMID: 22435415.

148. Vickers AJ, **Basch E**, Kattan MW. Against diagnosis. Ann Intern Med 2008;149(3):200-3. PMID: 18678847.

149. Scher HI, Halabi S, Tannock I, Morris M, Sternberg CN, Carducci MA, Eisenberger MA, Higano C, Bubley GJ, Dreicer R, Petrylak D, Kantoff P, **Basch E**, Kelly WK, Figg WD, Small EJ, Beer TM, Wilding G, Martin A, Hussain M; Prostate Cancer Clinical Trials Working Group. Design and end points of clinical trials for patients with progressive prostate cancer and castrate levels of testosterone: recommendations of the Prostate Cancer Clinical Trials Working Group. J Clin Oncol 2008;26(7):1148-59. PMID: 18309951.

150. Motzer RJ, **Basch E**. Targeted drugs for metastatic renal cell carcinoma. Lancet 2007;370(9605):2071-3. PMID: 18156012.

151. Bekelman JE, Zelefsky MJ, Jang TL, **Basch E**, Schrag D. Variation in adherence to external beam radiotherapy quality measures among elderly men with localized prostate cancer. Int J Radiat Oncol Biol Phys 2007;69(5):1456-66. PMID: 17689880.

152. **Basch E**, Iasonos A, Barz A, Culkin A, Kris MG, Artz D, Fearn P, Speakman J, Farquhar R, Scher HI, McCabe M, Schrag D. Long-term toxicity monitoring via electronic patient-reported outcomes in patients receiving chemotherapy. J Clin Oncol 2007;25(34):5374-80. PMID: 18048818.

153. **Basch E**, Somerfield MR, Beer TM, Carducci MA, Higano CS, Hussain MH, Scher HI; American Society of Clinical Oncology. American Society of Clinical Oncology endorsement of the Cancer Care Ontario Practice Guideline on nonhormonal therapy for men with metastatic hormone-refractory (castration-resistant) prostate cancer. J Clin Oncol 2007;25(33):5313-8. PMID: 17925542.

154. Trotti A, Colevas AD, Setser A, **Basch E**. Patient-reported outcomes and the evolution of adverse event reporting in oncology. J Clin Oncol 2007;25(32):5121-7. PMID: 17991931.

155. **Basch E**, Bent S, Collins J, Dacey C, Hammerness P, Harrison M, Smith M, Szapary P, Ulbricht C, Vora M, Weissner W. Flax and flaxseed oil (Linum usitatissimum): systematic review. J Soc Integr Oncol 2007;5(3):92-105. PMID: 17761128

156. **Basch E**, Artz D, Iasonos A, Speakman J, Shannon K, Lin K, Pun C, Yong H, Fearn P, Barz A, Scher HI, McCabe M, Schrag D. Evaluation of an online platform for cancer patient self-reporting of chemotherapy toxicities. J Am Med Inform Assoc 2007;14(3):264-8. PMID: 17329732.

157. **Basch E**. Expectations for specialized knowledge in oncology: time to reassess. Nat Clin Pract Oncol 2007;4(5):263. PMID: 17464334.

158. Ulbricht C, Armstrong J, **Basch E**, Basch S, Bent S, Dacey C, Dalton S, Foppa I, Giese N, Hammerness P, Kirkwood C, Sollars D, Tanguay-Colucci S, Weissner W. An evidence-based systematic review of Aloe vera by the Natural Standard Research Collaboration. J Herb Pharmacother 2007;7(3-4):279-323. PMID: 18928148.

159. Ulbricht C, **Basch E**, Burke D, Cheung L, Ernst E, Giese N, Foppa I, Hammerness P, Hashmi S, Kuo G, Miranda M, Mukherjee S, Smith M, Sollars D, Tanguay-Colucci S, Vijayan N, Weissner W. Fenugreek (Trigonella foenum-graecum L. Leguminosae): systematic review. J Herb Pharmacother 2007;7(3-4):143-77. PMID: 18928139.

160. Keifer D, Ulbricht C, Abrams TR, **Basch E**, Giese N, Giles M, DeFranco Kirkwood C, Miranda M, Woods J. Peppermint (Mentha piperita): systematic review. J Herb Pharmacother 2007;7(2):91-143. PMID: 18285310.

161. **Basch E**, Iasonos A, McDonough T, Barz A, Culkin A, Kris MG, Scher HI, Schrag D. Patient versus clinician symptom reporting using the National Cancer Institute Common Terminology Criteria for Adverse Events. Lancet Oncol 2006;7(11):903-9. PMID: 17081915.

162. Ulbricht C, **Basch E**, Bent S, Boon H, Corrado M, Foppa I, Hashmi S, Hammerness P, Kingsbury E, Smith M, Szapary P, Vora M, Weissner W. Evidence-based systematic review of saw palmetto by the Natural Standard Research Collaboration. J Soc Integr Oncol 2006;4(4):170-86. PMID: 17022925.

163. Ulbricht C, **Basch E**, Weissner W, Hackman D. An evidence-based systematic review of herb and supplement interactions. Expert Opin Drug Saf 2006;5(5):719-28. PMID: 16907661.

164. Kligler B, Ulbricht C, **Basch E**, Kirkwood CD, Abrams TR, Miranda M, Singh Khalsa KP, Giles M, Boon H, Woods J. Andrographis paniculata for the treatment of upper respiratory infection: a systematic review by the Natural Standard Research Collaboration. Explore (NY). 2006;2(1):25-9. PMID: 16781605.

165. **Basch E**, Bent S, Foppa I, Haskmi S, Kroll D, Mele M, Szapary P, Ulbricht C, Vora M, Yong S. Marigold (Calendula officinalis L.): systematic review. J Herb Pharmacother 2006;6(3-4):135-59. PMID: 17317655.

166. Brendler T, Gruenwald J, Ulbricht C, **Basch E**. Devil's Claw (Harpagophytum procumbens DC): systematic review. J Herb Pharmacother 2006;6(1):89-126. PMID: 17135164.

167. Ulbricht C, **Basch E**, Szapary P, Hammerness P, Axentsev S, Boon H, Kroll D, Garraway L, Vora M, Woods J; Natural Standard Research Collaboration. Guggul for hyperlipidemia: a review by the Natural Standard Research Collaboration. Complement Ther Med 2005;13(4):279-90. PMID: 16338199.

168. Ulbricht C, **Basch E**, Boon H, Ernst E, Hammerness P, Sollars D, Tsourounis C, Woods J, Bent S. Safety review of kava (Piper methysticum) by the Natural Standard Research Collaboration. Expert Opin Drug Saf 2005;4(4):779-94. PMID: 16011454.

169. **Basch E**, Artz D, Dulko D, Scher K, Sabbatini P, Hensley M, Mitra N, Speakman J, McCabe M, Schrag D. Patient online self-reporting of toxicity symptoms during chemotherapy. J Clin Oncol 2005;23(15):3552-61. PMID: 15908666.

170. Ulbricht C, Brendler T, Gruenwald J, Kligler B, Keifer D, Abrams TR, Woods J, Boon H, Kirkwood CD, Hackman DA, **Basch E**, Lafferty HJ; Natural Standard Research Collaboration. Lemon balm (Melissa officinalis L.): an evidence-based systematic review by the Natural Standard Research Collaboration. J Herb Pharmacother 2005;5(4):71-114. PMID: 16635970.

171. Giles M, Ulbricht C, Khalsa KP, Kirkwood CD, Park C, **Basch E**; National Standard Research Collaboration. Butterbur: an evidence-based systematic review by the natural standard research collaboration. J Herb Pharmacother 2005;5(3):119-43. PMID: 16520304.

172. **Basch E**, Ulbricht C, Basch S, Dalton S, Ernst E, Foppa I, Szapary P, Tiffany N, Orlando CW, Vora M. An evidence-based systemic review Echinacea E. angustifolia DC, E. pallida, E. purpurea by the Natural Standard Research Collaboration. J Herb Pharmacother 2005;5(2):57-88. PMID: 16260410.

173. Sweeney B, Vora M, Ulbricht C, **Basch E**. Evidence-based systematic review of dandelion (Taraxacum officinale) by Natural Standard Research Collaboration. J Herb Pharmacother 2005;5(1):79-93. PMID: 16093238.

174. **Basch EM**, Servoss JC, Tedrow UB. Safety assurances for dietary supplements policy issues and new research paradigms. J Herb Pharmacother 2005;5(1):3-15. PMID: 16093231.

175. **Basch E**, Thaler HT, Shi W, Yakren S, Schrag D. Use of information resources by patients with cancer and their companions. Cancer 2004;100(11):2476-83. PMID: 15160355.

176. Ulbricht C, **Basch E**, Hammerness P, Vora M, Wylie J Jr, Woods J. An evidence-based systematic review of belladonna by the Natural Standard Research Collaboration. J Herb Pharmacother 2004;4(4):61-90. PMID: 15927926.

177. **Basch E**, Boon H, Davies-Heerema T, Foppo I, Hashmi S, Hasskarl J, Sollars D, Ulbricht C. Boswellia: an evidence-based systematic review by the Natural Standard Research Collaboration. J Herb Pharmacother 2004;4(3):63-83. PMID: 15829470.

178. **Basch E**, Foppa I, Liebowitz R, Nelson J, Smith M, Sollars D, Ulbricht C. Lavender (Lavandula angustifolia Miller). J Herb Pharmacother 2004;4(2):63-78. PMID: 15364646.

179. **Basch E**, Ulbricht C, Hammerness P, Bevins A, Sollars D. Thyme (Thymus vulgaris L.), thymol. J Herb Pharmacother 2004;4(1):49-67. PMID: 15273078.

180. Hammerness P, **Basch E**, Ulbricht C, Barrette EP, Foppa I, Basch S, Bent S, Boon H, Ernst E. St John's wort: a systematic review of adverse effects and drug interactions for the consultation psychiatrist. Psychosomatics 2003;44(4):271-82. PMID: 12832592.

181. **Basch E**, Gabardi S, Ulbricht C. Bitter melon (Momordica charantia): a review of efficacy and safety. Am J Health Syst Pharm 2003;60(4):356-9. PMID: 12625217.

182. **Basch E**, Ulbricht C, Kuo G, Szapary P, Smith M. Therapeutic applications of fenugreek. Altern Med Rev 2003 Feb;8(1):20-7. PMID: 12611558.

183. Ulbricht C, **Basch E**, Ulbricht C, Sollars D, Hammerness P, Hashmi S. Wild yam (Dioscoreaceae). J Herb Pharmacother 2003;3(4):77-91. PMID: 15277124.

184. Ulbricht C, **Basch E**, Vora M, Sollars D, Rogers A, Basch S, Smith M, Moffet H, Hammerness P. Chaparral monograph:a clinical decision support tool. J Herb Pharmacother 2003;3(1):121-33. PubMed PMID: 15277076.

185. **Basch E**, Ulbricht C, Harrison M, Sollars D, Smith M, Dennehy C, Szapary P. Alfalfa (Medicago sativa L.):a clinical decision support tool. J Herb Pharmacother 2003;3(2):69-90. PMID: 15277068.

186. **Basch E**, Ulbricht C, Hammerness P, Vora M. Marshmallow (Althaea officinalis L.) monograph. J Herb Pharmacother 2003;3(3):71-81. PMID: 15277059.

187. Tiffany N, Boon H, Ulbricht C, **Basch E**, Bent S, Barrette EP, Smith M, Sollars D, Dennehy CE, Szapary P. Horse chestnut: a multidisciplinary clinical review. J Herb Pharmacother 2002;2(1):71-85. PMID: 15277109.

188. Hammerness P, Ulbricht C, Barrette EP, Boon H, Szapary P, Sollars D, Smith M, Tsourounis C, Bent S, **Basch E**. Shark cartilage monograph: a clinical decision support tool. J Herb Pharmacother 2002;2(2):71-93. PMID: 15277099.

189. Nelsen J, Ulbricht C, Barrette EP, Sollars D, Tsourounis C, Rogers A, Basch S, Hashmi S, Bent S, **Basch E**. Red clover (Trifolium pratense) monograph: a clinical decision support tool. J Herb Pharmacother 2002;2(3):49-72. PMID: 15277090.

190. **Basch E**, Ulbricht C, Hammerness P, Tsouronis C, Sollars D, Rogers A, Basch S, Bent S, Boon H, Ernst E. Kava monograph: a clinical decision support tool. J Herb Pharmacother 2002;2(4):65-91. PMID: 15277083.

191. **Basch E**, Bonfiglio MF. Pharmaceutical manufacturer sponsorship and drug information. Arch Intern Med 2001;161(21):2625-6. PMID: 11718607.

192. **Basch E**, Cruz ME, Tapia D, Cruz A. Prevalence of epilepsy in a migrant population near Quito, Ecuador. Neuroepidemiology 1997;16(2):94-8. PMID: 9057171.

Books, Chapters, White Papers

1. Kluetz PG, Chingos DT, **Basch EM**, Mitchell SA. Patient-Reported Outcomes in Cancer Clinical Trials: Measuring Symptomatic Adverse Events With the National Cancer Institute's Patient-Reported Outcomes Version of the Common Terminology Criteria for Adverse Events (PRO-CTCAE). Am Soc Clin Oncol Educ Book. 2016;35:67-73. doi: 10.14694/EDBK_159514. PMID: 27249687

2. **Basch E**. "The rationale for collecting patient-reported symptoms during routine chemotherapy." In: 2014 ASCO Educational Book. Alexandria, VA: American Society of Clinical Oncology; 2014 (pp. 161-5).

3. Viswanathan M, Halpern M, Swinson Evans T, Birken SA, Mayer DK, **Basch E**. Models of cancer survivorship care. Rockville (MD): Agency for Healthcare Research and Quality; 2014 April (Reprt No. 14-EHC011-EF).

4. **Basch E**, Wu A, Moinpour C, Santana M, Pusic A, Snyder C, Wee H, Valderas JM, Reeve BB, on behalf of the Board of Directors of the International Society for Quality of Life Research (ISOQOL). Steps for assuring rigor and adequate patient representation when using patient-reported outcome (PRO) performance measures. Plymouth Meeting, PA: National Quality Measures Clearinghouse (NQMC), ECRI Institute; 2013 (pp. 1-5).

5. Gutman SI, Piper M, Grant MD, **Basch E**, Oliansky DM, Aronson N. Progression-Free Survival: What Does It Mean for Psychological Well-Being or Quality of Life? Rockville (MD): Agency for Healthcare Research and Quality; 2013 April. Available at http://www.ncbi.nlm.nih.gov/books/NBK137759. PubMed PMID: 23678517 (pp.1-34).

6. **Basch E**, Goertz C, Dudley RA, Wu A, Black N, Christensen K, Spertus J. Best Practices for Developing and Evaluating Patient-Reported Outcome (PRO) Performance Measures. Chicago, IL: American Medical Association-Convened Physician Consortium for Performance Improvement (PCPI); 2012 (pp. 1-28).

7. Aronson N, **Basch E**, Berg A, Flum D, Gabriel S, Goodman SN, Helfand M, Ioannidis JP, Lauer M, Meltzer D, Mittman B, Newhouse R, Normand SL, Schneeweiss S, Slutsky J, Tinetti M, Yancy C (Methodology Committee of the Patient-Centered Outcomes Research Institute ([PCORI]). Methodology Report: Our Questions, Our Decisions: Standards for Patient-Centered Outcomes Research. Washington, DC: Patient-Centered Outcomes Research Institute; 2012 (pp. 1-240).

8. Bennett A, **Basch E**. Chapter 5: "Use of PROs in Registries." In: Registries for Evaluating Patient Outcomes: A User's Guide. Washington, DC: Agency for Healthcare Research and Quality; 2012 (pp. 93-127)**.**

9. **Basch E**, Abernethy A, Mullins DC, Spencer M. Effectiveness Guidance Document: Recommendations for Incorporating Patient-Reported Outcomes (PROs) into Clinical Comparative Effectiveness Research (CER) in Adult Oncology. Baltimore, MD: Center for Medical Technology Policy; 2012 (pp. 1-62).

10. **Basch E,** Prestrud AA, Hesketh PJ, Kris MG, Somerfield MR, Lyman GH. "Antiemetic Use in Oncology: Updated Guideline Recommendations from ASCO." In: Govindan R (ed). 2012 ASCO Educational Book. Alexandria, VA: American Society of Clinical Oncology; 2012 (pp. 532-544).

11. Watkins Bruner D, Movsas B, **Basch E**. **"**Capturing the Patient Perspective: Patient-Reported Outcomes as Clinical Trial Endpoints." In: Govindan R (ed). 2012 ASCO

Educational Book. Alexandria, VA: American Society of Clinical Oncology; 2012 (pp. 139-145).

12. **Basch E**, Ulbricht CE. Complementary, "Alternative, and Integrative Therapies in Cancer Care." In: Devita VT, Hellman S, Rosenberg SA (eds). Cancer: Principles & Practice of Oncology (8th edition). Philadelphia, PA: Lippincott Williams & Wilkins; 2007 (pp. 1176-1212).

13. Danso M, **Basch E**. Hematology & Oncology Pearls. New York: Elsevier Science; 2005 (pp. 1-225).

14. **Basch E**, Ulbricht CE. Complementary, "Alternative, and Integrative Therapies in Cancer Care." In: Devita VT, Hellman S, Rosenberg SA (eds). Cancer: Principles & Practice of Oncology (7th edition). Philadelphia, PA: Lippincott Williams & Wilkins; 2004 (pp. 1247-1288).

15. Ulbricht CE, **Basch E** (eds.). Natural Standard Herb & Supplement Reference Textbook: Evidence-Based Clinical Reviews. St. Louis, MO: Mosby; 2004 (pp. 1-1012).

16. **Basch E**, Ulbricht CE (eds.). Natural Standard Herb & Supplement Handbook: Evidence-Based Clinical Reviews. St. Louis, MO: Mosby; 2004 (pp. 1-963).

17. **Basch E**, Birnbaum, SL, Garza, C, Messersmith, WM (eds). Massachusetts General Hospital Primer of Outpatient Medicine. Philadelphia: Lippincott; 2002 (pp. 1-338).

Oral Presentations (Continuing Education Lectures indicated with *)

1. European Cancer Organisation (ECCO), Annual Meeting, "Overview of the PRO-CTCAE". Amsterdam, The Netherlands; January, 2017.

2. International Society for Quality of Life (ISOQOL), Annual Meeting. "Symposium on PRO-CTCAE". Copenhagen, Denmark; October 2016.

3. Southwest Oncology Cooperative Group (SWOG), "Patient-reported outcomes and the PRO-CTCAE". Chicago, IL; September, 2016.*

4. ASCO Palliative Care Symposium, "Symptom assessment and management". San Francisco, CA; September, 2016.

5. ASCO Annual Meeting, "Integrating patient-reported outcomes into real life medical decision making." Chicago, IL; June 2016.*

6. PCORI Board of Directors, "Cost of Care" Panel. Washington, DC; May, 2016.

7. Friends of Cancer Research Conference on Clinical Cancer Research, "Implementation of the PRO-CTCE in Drug Development Trials." Washington, DC; April 2016.

8. Critical Path Institute/PRO Consortium Annual Meeting, "Patient-reported adverse events in cancer clinical trials." Silver Spring, MD; April 2016.

9. FDA Scientific Meeting, "Measurement of physical functioning in clinical trials." Silver Spring, MD; April 2016.

10. Memorial Sloan Kettering Cancer Center, Survivorship Outcomes and Risk Seminar. New York, NY; April, 2016.*

11. Cancer Quality Symposium, American Society of Clinical Oncology, “Patient-reported quality metrics in oncology”. Phoenix, AZ; February 2016.*

12. Brookings Institution/Friends of Cancer Research Annual Meeting, “Capturing adverse events from the patient perspective”. Washington, DC; November 2015.

13. Harvard Connected Health Symposium, “President’s Cancer Panel; Connected health for improved cancer outcomes”. Boston, MA; October 2015.*

14. Academy Health Concordium, Annual Meeting, “Development of PCORI’s Patient-Centered Methodology Standards”, Washington, DC; September, 2015.*

15. New York University, Wagner School of Public Service, Annual Kovner-Behrman Health Forum, “Emerging models for coordination of care delivery.” New York, NY; April 2015.

16. Partnering For Cures Annual Meeting, FasterCures/Milken Institute, panel discussant. “Patient centeredness in health care.” New York, NY; November 2014.

17. Cancer Quality Symposium, American Society of Clinical Oncology, panel discussant. “Patient-reported outcomes in quality measurement.” Boston, MA; October, 2014.*

18. Brookings Institution, FDA PRO Expert Workshop #2. “Advancing development and use of patient-reported outcomes in drug development.” Washington, DC; October 2014.

19. Brookings Institution, FDA PRO Expert Workshop #1. “Enhancing the Development and Use of Patient-Reported Outcomes in Drug Development.” Washington, DC; July 2014.

20. ASCO Annual Meeting, Panel Chair. “Patient engagement in cancer research.” Chicago, IL; June 2014.*

21. Landes Annual Urology Symposium, University of North Carolina. “Patient-centered outcomes in surgery.” Chapel Hill, NC; June 2014.*

22. Commission on Cancer, Annual Meeting. “Patient-Centered Outcomes Research in Oncology.” Chicago, IL; April 2014.*

23. FDA Accelerating Anticancer Agent Development/Validation Workshop, Plenary Panel Chair. “Bringing the Patient Perspective into Cancer Drug Development.” Washington, DC; April 2014.*

24. Drug Information Association (DIA). “Clinical Outcome Assessments (COAs) in Relation to Payers and Regulators.” Bethesda, MD; March, 2014

25. International Conference on Drug Development (ICDD). “The Patient Perspective

and Drug Development." Austin, TX; February 2014

26. Wake Forest University, Population Sciences Meeting. "Cancer Control Programs and the New NCORP Network." Winston Salem, NC; December 2013.

27. Patient-Centered Outcomes Research Institute (PCORI), EHR Infrastructure Meeting, Symposium Co-Chair. Washington, DC; November 2013.

28. American Society of Clinical Oncology (ASCO), Annual Quality of Care Symposium. "Patient-Centered Quality Assessment Programs." San Diego, CA; November, 2013.

29. American Journal of Managed Care, Oncology Care Meeting, Plenary Speaker. "Patient-Centered Oncology Care." Baltimore, MD; November, 2013.

30. Pfizer Oncology Training Forum. "Patient-Centered Drug Development." New York, NY; October, 2013.

31. PCORI, PRO-EHR Infrastructure Symposium, Meeting Co-Chair. Washington, DC; September 2013.

32. International Society for Pharmaceutical Engineering (ISPE), Annual Meeting, Plenary Speaker. "Patient-Centered Pharmacovigilance." Montreal; August, 2013.

33. ASCO Annual Meeting, Panel Chair. "Prostate cancer screening: past, present, and future." Chicago, IL; June 2013.*

34. ASCO Annual Meeting, Panel Speaker. "Rationale for the PRO-CTCAE." Chicago, IL; June 2013.*

35. Academy Health Annual Research Meeting, Panel Speaker. "Assessing quality of care using patient-reported information." Baltimore, MD; May 2013.*

36. ISPOR Annual Meeting, Panel Chair. "Emerging standards for patient-reported outcomes-based performance measures." New Orleans, LA; May 2013.

37. FDA Accelerating Anticancer Agent Development/Validation Workshop, Panel Chair. "Electronic Data Capture in Clinical Trials." Washington, DC; May 2013.*

38. Center for Medical Technology Policy (CMTP) Green Park Collaborative Symposium. "Development of Effectiveness Guidance Documents (EGDs) for comparative effectiveness research." Baltimore, MD; May, 2013.

39. PRO Consortium, Critical Path Institute. "Patient-reported outcomes in oncology clinical trials and drug labels." Washington DC; April 2013.

40. American Society of Clinical Oncology (ASCO), Information Technology Symposium. "Patient-reported outcomes and electronic health records." Washington, DC; February, 2013.*

41. School of Nursing, UNC. "Patient-centered outcomes research." Chapel Hill, NC; February, 2013.

42. Drug Information Association (DIA). “Adult oncology: Clinical Outcome Assessments (COAs) and patient-reported outcomes (PROs).” Webinar; January, 2013.

43. National Cancer Institute, CTEP Meeting. “PRO-CTCAE Overview.” Bethesda, MD; January, 2013.

44. Center for Medical Technology Policy (CMTP). “Incorporating PROs into CER in adult oncology.” Webinar; December, 2012.

45. Plenary, International Society for Quality of Life (ISOQOL), Annual Meeting, “Methodological standard in patient-centered outcomes research.” Budapest, Hungary; October 2012.

46. International Society for Quality of Life (ISOQOL), Annual Meeting. “Symposium on PRO-CTCAE” (5 presentations). Budapest, Hungary; October 2012.

47. European Society for Medical Oncology (ESMO), Annual Congress. “The Impact of Abiraterone Acetate Therapy on Patient-Reported Pain and Functional Status in Chemotherapy-Naïve Patients With Progressive, Metastatic Castration-Resistant Prostate Cancer.” Vienna, Austria; October 2012.*

48. Academy Health, Leveraging mHealth Solutions for Health Services Research Series, “Integrating PROs into HSR Protocols: Challenges and Strategies.” Webinar; September 2012.*

49. FDA Accelerating Anticancer Agent Development/Validation Workshop, “Patient Reported Regulatory Endpoints.” Washington, DC; May 2012.*

50. Johns Hopkins Bloomberg of Public Health, “Emerging Trends in Comparative Effectiveness Research and Policy.” Baltimore, MD; February, 2012.

51. Dana-Farber Cancer Institute, “Research Program Development in Health Services.” Boston, MA; February, 2012.

52. Brookings/Friends of Cancer Research Conference on Clinical Cancer Research, “Symptoms Measurement in Clinical Trials.” Washington, DC; November 2011.

53. ISOQOL Annual Meeting, “Core Symptoms for Assessment across Cancer Clinical Trials.” Denver, CO; October 2011.

54. NCI Clinical Trials Planning Meeting, “Patient Reporting of Symptom Toxicities.” Washington, DC; September 2011.

55. Cancer and Leukemia Group B (CALGB), “The Patient Perspective on the Value of Treatment.” Boston, MA; June 2011.

56. European School of Oncology (ESO), “Technologies for Data Capture in Clinical Research.” New York, NY; April, 2011.*

57. Radiation Therapy Oncology Group (RTOG), “Patient-Reported Data in Clinical Research.” San Diego, CA; January 2011.

58. Center for Medical Technology Policy (CMTP), “Patient-Reported Outcomes in Oncology Comparative Effectiveness Research.” Baltimore, MD; December 2010.

59. Center for Business Intelligence, Comparative Effectiveness Research Summit, “Patient-Reported Outcomes in Comparative Effectiveness.” Philadelphia, PA; November 2010.

60. Food and Drug Administration, Office of Oncology Drugs, “Using Patient-Reported Outcomes to Evaluate Drug Safety in Clinical Trials.” Silver Spring, MD; November 2010.

61. FDA PRO Working Group, “Enhancing Safety Reporting with Patient-Reported Outcomes.” Silver Spring, MD; November 2010.

62. Supportive Oncology Society, Annual Conference, “Toxicities of Oral Biologics.” Chicago, IL; October 2010.*

63. Center for Medical Technology Policy (CMTP), Policy Briefing on CER, “PROs in Comparative Effectiveness Research., Washington, DC; October 2010.

64. AHRQ Annual Conference, “Patient-Reported Outcomes for AE Monitoring in Clinical Research.” Washington, DC; September 2010.*

65. FDA Accelerating Anticancer Agent Development/Validation Workshop, “Patient-Reported Outcomes in Oncology.” Washington, DC; June 2010.*

66. Drug Information Association, Annual Meeting, “Patient-Reported Outcomes for Adverse Event Monitoring in Clinical Trials.” Washington, DC; June 2010.

67. Drug Information Association, Annual Meeting (DIA), “Patient-Reported Outcomes in Oncology,” Washington, DC; June 2010.

68. NCI NCCCP Annual Meeting, “Advancing the Science of Adverse Symptom Monitoring in Cancer Trials.” Bethesda, MD; May 2010.

69. Society for Clinical Trials, Annual Meeting, “Patient-Reported Outcomes for Adverse Event Monitoring in Clinical Trials.” Baltimore, MD; May 2010.

70. NCI, PRO-CTCAE Annual Meeting, “Progress of the PRO-CTCAE.” Bethesda, MD; May 2010.

71. ISPOR Annual Meeting, “Patient-Reported Outcomes for Adverse Event Monitoring in Clinical Trials.” Atlanta, GA; May 2010.

72. National Cancer Institute, Cross-Division Seminar, “Enhancing Safety Monitoring in Clinical Trials.” Bethesda, MD; April 2010.

73. NCI Director’s CTROC (Clinical/Translational Research Operations) Meeting, “Overview of the PRO-CTCAE.” Bethesda, MD; April 2010.

74. NCI Acute Radiation Toxicity Research (ART-RIM) Meeting, “Patient-Reported Outcomes.” Bethesda, MD; January 2010.

75. Institute of Medicine, Panel on Standards for Clinical Practice Guidelines, “Clinical

Practice Guidelines in Oncology." Washington, DC; January 2010.

76. Drug Information Association, Annual Meeting, "Adverse Event Reporting: A Patient or a Clinician Report?" New Orleans, LA; October 2009.

77. Plenary, International Society for Quality of Life (ISOQOL), Annual Meeting, "Including the Patient Voice in Safety Reporting." New Orleans, LA; October 2009.

78. Food and Drug Administration, "PROs for Adverse Event Reporting." Silver Spring, MD; July 2009.

79. CALGB CARE Forum, "Including the Patient Voice in Safety Reporting." Chicago, IL; June 2009.

80. Ohio State University Medical Center, Cancer Control Seminar, "Patient-Reported Outcomes for Adverse Event Monitoring." Columbus, OH; May 2009.

81. NCI caBIG Population Sciences Meeting, "Patient-Reported Outcomes for Adverse Event Monitoring in Oncology." Virtual Meeting; April 2009.

82. NCI Cancer Therapy Evaluation Program (CTEP), "Patient-Reported Outcomes in Cancer Treatment Trials." Bethesda, MD; March 2009.

83. NCI, PRO-CTCAE Annual Meeting, "Development of the PRO-CTCAE." Bethesda, MD; November 2008.

84. caBIG Annual Meeting, "Patient-Reported Outcomes for Adverse Event Monitoring in Oncology." Washington, DC; August 2008.

85. PHT Annual PRO Meeting, "Patient-Reported Outcomes for Adverse Event Monitoring in Oncology." Boston, MA; August 2008.

86. ASCO Annual Meeting, Educational Session, "Patient-Reported Outcomes in Oncology." Chicago, IL; June 2008.*

87. ASCO Annual Meeting, Health Services Podium Session, "Does Toxicity Symptom Reporting by Patients or Clinicians Predict Outcomes?" Chicago, IL; June 2008.*

88. Center for Business Intelligence, Patient-Reported Outcomes Conference, "Patient-Reported Outcomes for Adverse Event Monitoring." Philadelphia, PA; May 2008.

TEACHING ACTIVITIES

Continuing Education Lectures

See "Oral Presentations" section, above; relevant lectures marked with an asterisk.

Grand Rounds

1. Mt. Sinai Medical Center/Cancer Center, Grand Rounds. "Adverse event reporting and patient-centeredness." New York, NY; May 2016.

2. Rush University, Grand Rounds. “Antiemetic use in oncology.” Chicago, IL; April, 2016.

3. MD Anderson Cancer Center. Cancer Prevention and Control Grand Rounds. “Cancer prevention and control and patient-centered outcomes research.” Houston, TX; February, 2016.

4. St. Jude’s Children’s Hospital, Grand Rounds. “Patient-centered outcomes research.” Memphis, TN; March, 2016.

5. Duke University. Cancer Prevention and Control Seminar. “Patient-reported outcomes in oncology.” Durham, NC; September, 2015.

6. Cleveland Clinic, Neurology Grand Rounds. “Patient-reported outcomes in clinical research and routine care.” Cleveland, OH; May 2015.

7. University of Michigan, Medicine Grand Rounds. “Measuring the Patient Experience: Standards and Standardization.” Ann Arbor, MI; January 2015.

8. Mayo Clinic, Medicine Grand Rounds. “Patient-reported outcomes for toxicity monitoring in oncology.” Rochester, MN; January 2015.

9. University of Nebraska, Oncology Grand Rounds. “Antiemetics and guidelines in cancer care.” Omaha, NE; August 2014.

10. Wake Forest University, Oncology Grand Rounds. “Antiemetics and guidelines in cancer care.” Winston-Salem, NC; June 2014.

11. Washington University in St. Louis, Public Health Grand Rounds. “Adverse Event Reporting in Oncology.” St. Louis, MO; April 2014.

12. Mt. Sinai School of Medicine, Oncology Grand Rounds. New York, NY; May, 2012.

13. Albert Einstein School of Medicine, Medicine Grand Rounds. “CER and Patient-Centered Outcomes Research.” New York, NY; April 2012.

14. Johns Hopkins School of Medicine, Medicine Grand Rounds. Baltimore, MD; March, 2012.

15. Weill Cornell School of Public Health, Oncology Grand Rounds. New York, NY; December, 2011.

16. Columbia University Cancer Center, Oncology Grand Rounds. New York, NY; December 2011.

17. Yale Cancer Center, Oncology Grand Rounds. New Haven, CT; November 2011.

18. Moffitt Cancer Center, Medicine Grand Rounds. Tampa, FL; May 2011.

19. Memorial Sloan Kettering Cancer Center, Surgery Grand Rounds. New York, NY; April 2011.

20. MD Anderson Cancer Center, Oncology Grand Rounds. Houston, TX; September 2010.

21. Memorial Sloan Kettering Cancer Center, Radiation Oncology Grand Rounds. New York, NY; May 2010.

22. Memorial Sloan Kettering Cancer Center, Psychiatry Grand Rounds. New York, NY; September 2009.

23. MD Anderson Cancer Center, Medicine Grand Rounds. Houston, TX; August 2008.

24. Memorial Sloan Kettering Cancer Center, Pediatrics Grand Rounds. New York, NY; April 2008.

Training Grant Director

Director, Cancer Care Quality Research Training Program (NCI R25)

Mentor, Career Development Award (Smith) (AHRQ)

Mentor, Career Development Award (Reeder-Hayes) (ASCO)

Mentor, Career Development Award (Wheeler) (ACS)

Mentor, KL2 Training Grant (Chung) (UNC CTSA)

Mentor, Junior Investigator Training Grant (Bryant) (UNC Cancer Center)

Mentor, Career Development Award (Sanoff) (NCI)

Faculty and Post-Doctoral Research Mentorship

1.	Ray Tan, MD	UNC Faculty	2016-present
2.	Adewole Adamson, MD	UNC Faculty	2015-present
3.	Angela Stover, PhD	UNC Postdoctoral Fellow	2015-present
4.	Aaron Mitchell, MD	UNC Postdoctoral Fellow	2015-present
5.	Anne-Marie Meyer, PhD	UNC Faculty	2015-present
6.	Stephanie Wheeler, PhD	UNC Faculty	2014-present
7.	Justin Trogdon, PhD	UNC Faculty	2014-present
8.	Stacie Dusetzina, PhD	UNC Faculty	2014-present
9.	Jennifer Lund, PhD	UNC Faculty	2014-present
10.	Ronald Chen, MD	UNC Faculty	2014-2016
11.	Ashley Leak Bryant, RN, PhD	UNC Faculty	2013-present
12.	Kemi Doll, MD	UNC Postdoctoral Fellow	2013-2016
13.	Mackenzi Pergolotti, PhD	UNC Postdoctoral Fellow	2013-2016
14.	Hanna Sanoff, MD, MPH	UNC Faculty	2013-present
15.	Katie Reeder-Hayes, MD	UNC Faculty	2012-present
16.	William Wood, MD	UNC Faculty	2012-present
17.	Arlene Chung, MD	UNC Faculty	2012-present
18.	Angie Smith, MD	UNC Faculty	2012-present
19.	Antonia Bennett, PhD	UNC Faculty	2010-2014
20.	Karen Autio, MD	MSKCC Faculty	2011-2013

21.	Victoria Blinder, MD	MSKCC Faculty	2009-2013
22.	Shari Damast, MD	Yale Faculty	2009-2011
23.	Shari Goldfarb, MD	MSKCC Faculty	2008-2010
24.	Thomas Atkinson, PhD	MSKCC Faculty	2008-2010

Doctoral Dissertation Committees

1.	Nirosha Mahendraratnam, MSPH	UNC	2016-present
2.	Aaron Winn, MA	UNC	2015-present
3.	Caroleen Quach, MA	UNC	2015-present
4.	Theresa Coles, MA	UNC	2015-present
5.	Devon Check, PhD Candidate	UNC	2014-2016

Lectures to Trainees/Clinical Teaching

Annual talks to hospital housestaff on service:

- Management of prostate cancer
- Management of germ cell tumors
- Management of bladder cancer
- Management of kidney cancer
- Cost of care
- Health services research

Attending on Clinical Service

E2 Inpatient service (2 weeks annually)
Genitourinary oncology multidisciplinary clinic (1 day weekly)

GRANTS AND CONTRACTS

Active Research

1. Award: PCORI ME-1507-32079
   Source: Patient-Centered Outcomes Research Institute (PCORI)
   Title: Development and Evaluation of a Patient-Centered Approach to Assess Quality of Care: Patient-Reported Outcomes Performance Measures (PRO-PMs).
   Amount: $930,000
   Dates: 08/01/2016 – 07/31/2019
   Role: Principal Investigator
   Effort: 10.0%
2. Award: PCORI IHS-1511-33392
   Source: Patient-Centered Outcomes Research Institute (PCORI)
   Title: Patient-centered Approach to Quality Assessment in Oncology
   Amount: $5,500,000 (total)
   Dates: 10/01/2016 – 08/31/2021
   Role: Principal Investigator
   Effort: 20.0%
3. Award: PCORI PCS-1505-30497

Source: Patient-Centered Outcomes Research Institute (PCORI)
Title: Comparison of Operative versus Medical Endocrine Therapy for Low Risk DCIS
Amount: $13,400,000 (total)
Dates: 08/01/2016 – 07/31/2019
Role: Co-Investigator
Effort: 15.0%

4. Award: 1-UG1-CA189823-01
Source: National Cancer Institute
Title: Alliance NCORP Research Base
Amount: $110,214 (per year)
Dates: 08/01/2014 – 07/31/2019
Role: Site Principal Investigator
Effort: 10.0%

5. Award: 5-R25-CA116339-07
Source: National Cancer Institute
Title: Cancer Care Quality Research Training Program
Amount: $423,379 (per year)
Dates: 07/01/2005 – 8/31/2018
Role: Principal Investigator
Effort: 5.0%

3. Award: 5-U24-NR-014637-02
Source: National Institutes of Health
Title: Refinement and Expansion of the Palliative Cooperative Group
Amount: $470,987 (per year)
Dates: 09/28/2010 – 6/30/2018
Role: Co-Investigator
Effort: 5.0%

4. Award: 5-R01-CA175759-02
Source: National Cancer Institute
Title: Creating and Validating Child Adverse Event Reporting in Oncology Trials
Amount: $470,987 (per year)
Dates: 04/01/2013 – 3/31/2018
Role: Co-Investigator
Effort: 2.0%

5. Award: 1 R01 CA154537-03
Source: National Cancer Institute
Title: Assessing PROMIS and Other Simple Patient-Reported Measures
Amount: $128,289 (per year)
Dates: 01/01/2013 – 5/03/2017
Role: Site Principal Investigator
Effort: 5.0%

6. Award: RSGI-14-030-01-CPHPS
Source: American Cancer Society
Title: Impact of Parity Legislation on Use and Costs of Oral Cancer Medications
Amount: $199,956 (per year)
Dates: 07/01/2014 – 6/30/2016
Role: Co-Investigator
Effort: 5.0%

7. Award: 5-P30-CA016086-39
   Source: National Cancer Institute
   Title: Cancer Center Core Support – Program Leaders
   Amount: $222,809 (per year)
   Dates: 12/01/2010 – 11/30/2015
   Role: Co-Leader, Cancer Prevention and Control
   Effort: 5.0%

8. Award: 5-P30-CA016086-39
   Source: National Cancer Institute
   Title: Cancer Center Core Support – Outcomes
   Amount: $75,390 (per year)
   Dates: 12/01/2010 – 11/30/2015
   Role: Director, Cancer Outcomes Research
   Effort: 5.0%

9. Award: W81XWH 11-1-0639
   Source: Department of Defense
   Title: Development of Pain End Point Models for Use in Prostate Cancer Trials and Drug Approval
   Amount: $496,430 (per year)
   Dates: 09/30/2012 – 09/29/2017
   Role: Principal Investigator
   Effort: 10.0% (0.0% currently; in no-cost extension)

Completed Research

1. Award: N02-PC-2010-00063 (HHSN261201000063C)
   Source: National Cancer Institute
   Title: Implementation of the Patient-Reported Outcomes version of the Common Terminology Criteria for Adverse Events (PRO-CTCAE)
   Amount: $1,259,398 (per year)
   Dates: 09/28/2010 – 09/29/2015
   Role: Principal Investigator
   Effort: 20.0%

2. Award: U10 CA031946
   Source: National Cancer Institute/Alliance for Clinical Trials in Oncology
   Title: Alliance Health Outcomes/QOL Coordinating Center Subcontract
   Amount: $161,938
   Dates: 04/21/2010 – 03/31/2015
   Role: Site Principal Investigator
   Effort: 10.0%

3. Award: K07 CA124851
   Source: National Cancer Institute
   Title: Tracking Symptoms during chemotherapy via online self-reporting
   Amount: $669,890
   Dates: 03/28/2008 – 02/28/2013
   Role: Principal Investigator

4. Award: ARRA N02-PC-2008-00043
   Source: National Cancer Institute
   Title: Expansion of PRO-CTCAE testing in community hospitals that participate in the National Community Cancer Center Program (NCCCP)
   Amount: $862,190
   Dates: 09/30/2009 – 08/29/2012
   Role: Principal Investigator

5. Award: DOD PC081610
   Source: Department of Defense
   Title: Prostate Cancer Clinical Trials Consortium
   Amount: $8,807,492
   Dates: 09/30/2009 – 08/29/2012
   Role: Co-Investigator

6. Award: R21 CA133869
   Source: National Cancer Institute
   Title: Clinically-integrated randomized trial of radical prostatectomy
   Amount: $585,352
   Dates: 08/05/2008 – 07/31/2010
   Role: Co-Investigator

7. Award: Career Development Award
   Source: American Society of Clinical Oncology
   Title: Patient self-reporting of toxicity symptoms during chemotherapy
   Amount: $200,000
   Dates: 07/01/2007 – 06/30/2010
   Role: Principal Investigator

8. Award: Prevention Control and Population Research Program Award
   Source: Goldstein Fund
   Title: Cognitive interview methodology development
   Amount: $50,000
   Dates: 11/16/2007 – 11/31/2009
   Role: Principal Investigator

9. Award: N02-PC-2008-00043 (HHSN261201000043C)
   Source: National Cancer Institute
   Title: Development of the PRO-CTCAE
   Amount: $2,049,680
   Dates: 09/30/2008 – 09/29/2009
   Role: Principal Investigator

10. Award: DOD PC051382
    Source: Department of Defense
    Title: Prostate Cancer Clinical Trials Consortium
    Amount: $4,999,999
    Dates: 01/03/2006 – 09/29/2009
    Role: Co-Principal Investigator

11. Award: Empire Clinical Research Investigator Program Award 7002020
    Source: New York State Department of Health
    Title: Funding for internet-based patient reported outcomes research
    Amount: $120,000
    Dates: 07/01/2005 – 06/30/2007

Role: Principal Investigator

12. Award: Prostate Cancer Foundation Grant
    Source: Kimmel Research Fund
    Title: Development of symptom endpoints in prostate cancer
    Amount: $69,000
    Dates: 06/01/2005 – 05/30/2007
    Role: Principal Investigator

13. Award: Lung Cancer Research Initiative Award
    Source: Steps-for-Breath Fund
    Title: An Internet-based system for lung cancer patients to self-report
    Amount: $130,000
    Dates: 08/17/2004 – 08/16/2006
    Role: Principal Investigator

14. Award: Research Investigator Award
    Source: Cancer and Leukemia Group B (CALGB)
    Title: Feasibility of patient-reported toxicities in cooperative group trials: pilot project funding
    Amount: $50,000
    Dates: 07/01/2004 – 06/30/2005
    Role: Principal Investigator

PROFESSIONAL SERVICE

UNC Service

Standard of Care Leader for Oncology, Department of Medicine: 2016-present

Member, Executive Committee, Division of Oncology, Department of Medicine: 2016-present

Vice-Chief for Solid Tumors, Division of Oncology, Department of Medicine: 2016-present

Oncology Quality Assessment Workgroup, Department of Medicine: 2016-present

Innovation Council, Center for Innovation, UNC Health Care: 2015-present

Member, Institutional Review Board (IRB): 2013-2015

Advisory Committee/PI, Cancer Care Quality Training Program: 2012-present

Steering Committee, Integrated Cancer Information and Surveillance System (ICISS): 2012-present

Fellow, Sheps Center for Health Services Research: 2012-present

Director, Cancer Outcomes Research Program: 2012-present

Co-Leader, Cancer Prevention and Control (CPC) Program, Lineberger Cancer Center: 2012-present

Organizer, UNC Cancer Outcomes Research Monthly Seminar Series: 2012-present

Organizer, UNC Cancer Outcomes Weekly Research Meeting: 2012-present

Member, Protocol Review Committee (PRC): 2012-2014

Member, Task Force on Scientific Review of IRB Applications: 2014

Member, Extended Research Core Team, UNC Epic integration: 2013

Technical Expert Panel, Survivorship Care, Evidence-Based Practice Center (EPC): 2012-13

UNC Search Committees:

- Director, Office of Human Research Ethics (2014-15); Cancer Health Economist (2013); Psychometric Statistician (2013); Cancer Care Quality Trainees (2013); Population Science Methodologist (2012)

Outside Service

American Society of Clinical Oncology (ASCO)

1. Member, Quality of Care Committee, 2015-present
2. Member, Cancer Education Committee, 2014-present
3. Member, Quality Symposium Planning Committee, 2014-present
4. Member, Genitourinary Guideline Advisory Group, 2012-present
5. Chair, Patient-Reported Outcomes Task Force, 2012-present
6. Specialty Editor (Quality Cancer Care), Clinical Cancer Advances, 2013-14
7. Member, CancerLinQ Advisory Group, 2012-2014
8. Co-Chair, Castrate-Resistant Prostate Cancer (CRPC) Guideline Panel, 2009-2014
9. Chair, PSA Screening Recommendation Panel, 2011-2012
10. Member, Rapid Learning System Advisory Group, 2011-2012
11. Co-Chair, Antiemetics Guideline Panel, 2009-2012
12. Member, Clinical Practice Guidelines Committee, 2009-2012
13. Chair, Clinical Practice Guidelines Committee, 2010-2011
14. Member, Palliative Care Guideline Panel, 2010-2011
15. Member, Methodology Subcommittee, 2009-2011
16. Member, Comparative Effectiveness Task Force, 2009-2011
17. Member, Payer-Provider Initiative Planning Group, 2010
18. Member, Germ Cell Tumor Guideline Panel, 2008-2010
19. Member, Health Services Committee, 2006-2009

National Cancer Institute - Cooperative Groups

1. Member, NCI Steering Committee for Cancer Care Delivery Research (CCDR), National Cancer Institute, 2014-present
2. Member, Cancer Care Delivery Research Committee, Alliance for Clinical Trials in Oncology (“Alliance”), 2014-present
3. Steering Committee, Cancer Control, Prevention, and Health Outcomes, Alliance, 2013-present
4. Co-Chair, Health Outcomes Committee, Alliance, 2011-present
5. Executive Committee, Cancer Control, Prevention, and Health Outcomes, Alliance, 2011-present
6. Member, Executive Committee, Cancer and Leukemia Group B (CALGB), 2010-2011

7. Member, QOL Committee, North Central Cancer Treatment Group (NCCTG), 2010-2011
8. Chair, Health Outcomes/QOL Committee, Cancer and Leukemia Group B (CALGB), 2009-2011
9. Member, Cancer Control/Health Outcomes Steering Committee, CALGB, 2009-2011
10. Vice-Chair, Health Services Committee, CALGB, 2007-2009
11. Member, Health Services Committee, CALGB, 2006-2009
12. Member, Research Communications Committee, CALGB, 2005-2009

Patient-Centered Outcomes Research Institute (PCORI)

1. Federal Appointee, Methodology Committee (MC), 2011-present
2. Chair, Patient-Centeredness Working Group, MC, 2011-present
3. Member, Heterogeneity of Treatment Effects Working Group, MC, 2012
4. Study Section Chair, Palliative Care, 2017

Other Committees/Standing Panels

1. Consultant, Research Triangle Institute (RTI), CMMI Oncology Care Model Implementation, 2016-present
2. Advisor, Noona Healthcare, 2016-present
3. Advisor, Cancer*Care nongovernmental organization*, 2015-2016
4. Member, Prostate Cancer Working Group 3, 2014-2015
5. Expert Panel Member, Critical Path Institute (C-Path), PRO Consortium, Non-Small Cell Cancer Regulatory Endpoint Measure Workgroup, 2014-2016
6. Prostate Cancer Working Group, International Consortium for Health Outcomes Measurement (ICHOM), 2014-2015
7. Advisory Committee for CCDR/Population Science, Wake Forest Comprehensive Cancer Center, 2014-present
8. Scientific Advisory Board, PatientsLikeMe, 2013-2015
9. Priority Setting/Advisory Committee for Patient-Centered Care and Outcomes, National Quality Forum (NQF), 2013-2014
10. Advisory Committee, Center for Medical Technology Policy (CMTP), Green Park Collaborative, 2013-2015
11. Board of Scientific Advisors, National Cancer Institute, 2012-present
12. Technical Expert Panel, ONC-HITECH Functional Status Assessment eMeasures, National Committee for Quality Assurance (NCQA), 2012-2014
13. Member/Writing Group Chair, PRO Performance Measures Workgroup, American Medical Association (AMA)-Convened Physician Consortium for Performance Improvement (PCPI), 2011-2013
14. Member/Writing Group Chair, PRO Performance Measures Workgroup, AMA-Convened Physician Consortium for Performance Improvement (PCPI), 2011-2013

15. Technical Expert Panel, Oncology CER, BlueCross BlueShield Evidence-Based Practice Center (EPC), 2011-2012
16. Expert Advisory Panel, Patient-Reported Outcomes, National Quality Forum, 2012
17. Technical Expert Panel, CAHPS (Consumer Assessment of Healthcare Providers and Systems) Program for Cancer Care, 2010-2012
18. Chair, Technical Expert Panel, Patient-Reported Outcomes Effectiveness Guidance Development, Center for Medical Technology Policy (CMTP), 2011-2012
19. Advisor, CER Advisory Committee, Friends of Cancer Research (FOCR), 2011-2012
20. Executive Committee, Prostate Cancer Clinical Trials Consortium (PCCTC), 2006-2012
21. Member, Patient-Reported Outcomes Working Group, FDA, 2009-2011
22. Patient-Reported Outcomes Mixed Modalities Working Group, ISPOR, 2009-2011
23. Guest Worker, Food and Drug Administration, Study Endpoints and Labeling, 2005-2011
24. Chair, Symptoms in Oncology Labels Panel, Friends of Cancer Research (FOCR), 2011
25. Planning Committee, NIH Health Information Technology/PRO Conference, 2011
26. Advisor, Registry of Patient Registries (RoPR) Stakeholder Panel, AHRQ Outcome Decide Center, 2010
27. Member, Planning Committee, Oncology Comparative Effectiveness Research Symposium, Center for Medical Technology Policy (CMTP), 2010
28. Annual Meeting Program Committee, AACR, 2010
29. Member, Survivorship Task Force, American Association for Cancer Research (AACR), 2010
30. Member ePRO Systems Validation Working Group, ISPOR, 2009-2010
31. Technical Expert PROOF-C Symptom Assessment Consortium, Mapi Values, 2008-2010
32. Member Leadership Group, ePRO Task Force, International Society for Pharmacoeconomics and Outcomes Research (ISPOR), 2007-2009
33. Member, Prostate Cancer Working Group 2, 2007-2008

Journal Editorial/Reviewer Roles

- **Associate Editor**, Journal of the American Medical Association, 2014-present
- **Editorial Board**, Journal of Oncology Practice, 2014-present
- **Associate Editor**, Clinical Trials, 2013-present
- **Reviewer:** Annals of Internal Medicine; Cancer; Clinical Trials; Drug Safety; European Urology; Health Affairs; Journal of Clinical Oncology; Journal of Oncology Practice; Journal of the American Medical Association (JAMA); JAMA-Oncology; JAMA-Internal Medicine; Journal of the American Medical Informatics Association; Journal of Clinical Epidemiology; Journal of the National Cancer Institute; Lancet; Lancet Oncology; New England Journal of Medicine (NEJM); Value in Health

Professional Memberships

- Academy Health; Alliance for Clinical Trials in Oncology; American Society of Clinical Oncology (ASCO); Drug Information Association (DIA); International Society for Pharmacoeconomics and Outcomes Research (ISPOR); International Society for Pharmacoepidemiology (ISPE); International Society for Quality of Life Research (ISOQOL)

RESEARCH STATEMENT

I am a medical oncologist and health services researcher focused on developing methods to bring the patient perspective into cancer clinical research and routine care delivery. For over a decade, my group has developed and implemented patient-reported outcome (PRO) tools in these contexts, and worked closely with public and private agencies to effect policy changes based on our findings.

Adverse event monitoring: My research program pioneered the use of PROs for improving detection of adverse events in cancer clinical trials. We established that the current standard approach to documenting adverse events in oncology—which involves clinician interviews of patients and documentation in medical charts—is inefficient and prone to information loss. Symptomatic toxicities are systematically underestimated during drug development, and often go unrecognized in routine care.

Building on these findings, we developed methods for patient self-reporting that improve detection of adverse events and enhance symptom management. This includes development of questionnaires, technology platforms, models of care, analytic techniques, and regulatory endpoints. Results have been published in the *New England Journal of Medicine*, *JAMA*, *JAMA-Oncology*, the *Journal of Clinical Oncology*, *Lancet Oncology*, the *Journal of the National Cancer Institute*, and other high-impact journals. Funding has included grants and contracts from the NCI, Department of Defense, NY State, Cancer and Leukemia Group B, Alliance cooperative group, American Society of Clinical Oncology (ASCO), and other foundations.

In 2008, I received the first of two contracts from the National Cancer Institute (NCI) to develop a standard system for patients to report their own adverse events in cancer trials (called the "Patient-Reported Outcomes version of the Common Terminology Criteria for Adverse Events" or PRO-CTCAE). This ongoing work involves developing and testing over 120 adverse event questions for self-report, and an accompanying web-based administration platform. Multicenter studies have assessed patient acceptance, psychometric properties, technology usability, translations, and feasibility. I am working with the NCI, industry, and regulatory agencies to refine the role of this approach in drug development, and the FDA has recently publicly stated that they intend to recommend the PRO-CTCAE for broad inclusion in oncology drug development programs. Multiple cancer trials are open which employ the PRO-CTCAE and methods for toxicity assessment that we have developed.

Clinical trial endpoint design: I work closely with the FDA and with industry drug developers on the design of patient-centered endpoints in regulatory trials. For seven years, I served as a "Guest Worker" at the FDA, participating in reviews of drug applications and guidance development related to PROs. I have authored multiple methods papers including with FDA and industry collaborators on this topic, including in *JAMA-Oncology*, *Cancer*, and the *New England Journal of Medicine*, and currently assist multiple industry sponsors to design PRO endpoints in trials. My group's work was instrumental establishing standards for pain measurement in oncology, which now are widely used across industry and have resulted in U.S. labeling claims.

My goal in these efforts is to foster inclusion of PROs in product development and FDA labels. Without such information, we cannot adequately understand people's experiences during treatment, or make informed treatment decisions. I still work closely with the FDA on issues related to enhancing the patient-centeredness of drug development and continue to lead panels on this topic for the FDA and other agencies.

Comparative effectiveness research: I currently lead several PRO registry studies, which are used as prototypes by AHRQ in their methods manual. In 2010, I was appointed to the Methodology Committee of PCORI for which I led the Patient-Centeredness workgroup, which established PCORI's standards for patient engagement and PROs. These standards, published in *JAMA*, have been widely disseminated and implemented, and patient engagement and PROs are becoming de rigueur in CER. I previously led an effort for the Center for Medical Technology Policy (CMTP) to develop standards for PROs in oncology CER, published in the *Journal of Clinical Oncology*.

Quality measurement: More recently, I have been involved in initiatives for using PROs in quality of care measurement. This is an area of increasing interest in the U.S., particularly as electronic health records become widely available with the capacity to aggregate patient-reported information. I lead efforts for ASCO and for a technical expert panel hosted by the American Medical Association-convened Physician Consortium for Practice Improvement (PCPI) in this area, and participate in related initiatives with the National Quality Forum (NQF) and National Committee for Quality Improvement (NCQA). I have published several standards papers in this area, including in *JAMA* and the *Journal of Oncology Practice*.

TEACHING STATEMENT

In my role as Director of the Cancer Outcomes Research Program in the Lineberger Comprehensive Cancer Center at UNC, I focus on developing careers of faculty members and trainees engaged in cancer health services research across the university, and identifying cross-disciplinary programmatic goals. We have instituted a weekly well-attended research seminar (30-40 attendees weekly), grant assistance programs, recruited methodologists, and created core facilities related to PROs and claims database analysis. I consider mentoring to be an essential activity, and have mentored multiple postdoctoral fellows and junior faculty members, with a strong record of external funding and faculty appointments for them. I spend substantial time counseling mentees on study selection, methodological design, analysis, grant proposals, and career development strategy. I currently mentor 14 UNC faculty members, 1 postdoctoral fellow, and 1 PhD candidate (primary mentor for 6 of these). I am Co-PI for the NCI R25 Cancer Care Quality Training Program, and Co-Lead the Cancer Prevention and Control Program. I teach medical students, residents, and fellows in clinic and on service with formal and informal didactics, particularly focused on genitourinary oncology (my clinical expertise), and on health services research (access to care, disparities, cost).

SERVICE AND ENGAGEMENT STATEMENT

My clinical expertise is in prostate cancer. Caring for patients is highly rewarding and informs all aspects of my research and committee work. I have chaired and authored multiple ASCO prostate cancer guideline panels, serve on ASCO's Genitourinary Guideline Advisory Committee, was Co-PI for the Prostate Cancer Clinical Trials Consortium (PCCTC), and design industry trials evaluating PROs in prostate cancer. I have been selected as an "America's Top Doctor" by Castle Connolly for the past three cycles.

Outside of UNC, in the Alliance cooperative group, I Co-Chair the Health Outcomes Committee. This committee oversees more than 30 national studies and correlatives evaluating symptoms, quality of life, and cost-effectiveness. Projects are generated by committee members and affiliates, whose concepts are refined iteratively through multidisciplinary feedback and collaboration.

I have been involved in committee work in the American Society of Clinical Oncology (ASCO) for many years. This work has focused on the use of methodological standards to improve care. I chaired the Clinical Practice Guidelines Committee and several guidelines panels, currently chair the ASCO PRO Task Force, serve as a current member of the Quality of Care Committee and Education Committee, and serve on the planning committee for the annual ASCO Quality Symposium.

These involvements are enhanced by my role on the Board of Scientific Advisors of the National Cancer Institute for which I represent the perspective of population scientists, as an Associate Editor for *JAMA* for which I cover oncology, as an Associate Editor for *Clinical Trials*, and on the Editorial Board of the *Journal of Oncology Practice*.

SUMMARY

The objective of my research and committee work is to bring the patient voice into clinical research and care delivery processes. It is my hope that this work will lead to safer drug development, improved quality of care, enhanced patient-clinician communication, and better patient experiences with disease and treatment. As a mentor and program leader, I am committed to the career development of health services researchers who employ rigorous methods to improve the quality and compassion of care delivery.