# The Faculty of Medicine of Harvard University Curriculum Vitae

**Date Prepared:** June 18, 2025

Name: Catherine Belle Meador

Office Address: 55 Fruit Street, Boston, MA, 02114

**Home Address:** 1 Prospect Ave #2 Roslindale, MA 02131

**Work Phone:** (617)-724-1134

Work Email: cbmeador@partners.org

**Education:** 

2006 - 2010 BA Molecular and Cellular Vanderbilt University

Summa cum laude Biology Nashville, TN

2010 - 2017 MD, PhD Cancer Biology Vanderbilt University

Thesis Advisors: Nashville, TN

**Postdoctoral Training:** 

2017 - 2018 Intern Internal Medicine Brigham and Women's

Hospital Boston, MA

2018 - 2019 Resident Internal Medicine Brigham and Women's

Hospital Boston, MA

2019 - 2022 Fellow Hematology and Dana Farber Cancer

Oncology Institute;

Massachusetts General

Hospital Boston, MA

**Faculty Academic Appointments:** 

07/2022 - 11/2024 Instructor Medicine Harvard Medical School

12/2024 - Present Assistant Professor Medicine Harvard Medical School

**Appointments at Hospitals/Affiliated Institutions:** 

2020 - 2022 Fellow Moonlighter Internal Medicine Spaulding Rehabilitation

Hospital

2020 - 2022	Fellow Moonlighter	Hematology and Oncology	Massachusetts General Hospital
2020 - 2022	Fellow Moonlighter	Hematology and Oncology	Dana-Farber Cancer Institute
2022 - Present	Assistant in Medicine	Internal Medicine, Hematology and Oncology	Massachusetts General Hospital

# **Major Administrative Leadership Positions:**

# Local

2024 Conference organizer Massachusetts General Hospital DF/HCC Lung Symposium

# **Committee Service:**

# Local

2024 - Present	Ragon Infusion Scheduling Workgroup	Massachusetts General Hospital Cancer Center
		Working group member

# **Professional Societies**

2010 - Present	Phi Beta Kappa Honor Society
2011 - Present	American Physician Scientist Association
2013 - Present	American Association for Cancer Research
2017 - Present	Alpha Omega Alpha Honor Medical Society
2017 - Present	American Society of Clinical Oncology
2017 - Present	Gold Humanism Honor Society
2017 - Present	International Association for the Study of Lung Cancer
2021 - Present	Eastern Cooperative Oncology Group

# **Editorial Activities:**

# • Ad hoc Reviewer

Cancer Cell Clinical Cancer Research JCO Precision Oncology

# JTO Clinical and Research Reports Lung Cancer

#### **Honors and Prizes:**

2010	Canby Robinson Scholarship	Vanderbilt University School of Medicine	Scholarship
2016	Melinda and Jeffrey Balser MD-PhD Scholar	Vanderbilt University School of Medicine	Leadership
2017	The School of Medicine Award of Distinction	Vanderbilt University School of Medicine	Scholarship
2020 - 2022	Training Program in Cancer Biology and Therapeutics	NIH: T32 CA 071345	
2021	Young Investigators Symposium	ECOG-ACRIN	Research Abstract Selection
2022	ASCO Merit Award	Conquer Cancer Foundation	Research Abstract Selection
2022	Scholar for the Forbeck Forum on Neuroendocrine Cells in Cancer and Development	William Guy Forbeck Research Foundation	Research Abstract Selection
2022	Education Award	IASLC-TTLC	Research Abstract Selection
2024 - 2027	ASCO Career Development Award	Conquer Cancer Foundation	

# **Report of Funded and Unfunded Projects**

#### **Past**

2023 - 2024 Defining the spectrum of SCLC molecular subtypes present in transformed SCLC

and investigating the feasibility of plasma-based sequencing approach to detect

early emergence of SCLC transformation from EGFR-mutant NSCLC.

American Cancer Society (Institutional Research Grant) Institutional Research

Grant 243051 PI (\$30,000)

Test the feasibility of a plasma-based sequencing approach to detect early emergence of EGFR SCLC from EGFR-mutant NSCLC over the course of

treatment.

#### **Current**

2023 - Present A Phase 1 Open-label, Multicenter, Dose Escalation and Dose Expansion Study

of PT217 in Patients with Advanced Refractory Cancers

Expressing DLL3

Phanes Therapeutics Sponsored Clinical Trial DF/HCC #23-036; NCT05652686

Site-PI

Evaluate the safety and efficacy of a novel bi-specific DLL3 antibody in SCLC.

2023 - Present An Open-Label, Multicenter Phase I Study To Evaluate The Safety, Tolerability,

Pharmacokinetics, Pharmacodynamics, And Preliminary

Anti-Tumor Activity Of Ro7616789 In Participants With Advanced Small Cell

Lung Cancer And Other Neuroendocrine Carcinomas

Roche Sponsored Clinical Trial DF/HCC #23-156; NCT05619744

Site-PI

Evaluate the safety and efficacy of a novel tri-specific DLL3 antibody in SCLC.

2024 - 2027 Utilizing cell-free RNA and epigenomic profiling of patient plasma to advance

non-invasive diagnostics in small cell lung cancer

Conquer Cancer Foundation ASCO Career Development Award 245555

PI (\$200,000)

Non-invasively detect SCLC histology and categorize into clinically relevant molecular subtypes -- at diagnosis and longitudinally -- by applying cell free RNA

sequencing and epigenomic profiling assays to patient plasma samples

2024 - Present Epitope expression on circulating tumor cells as a biomarker of response to

DLL3-targeted therapy in SCLC Novartis Sponsored research Co-PI (Avanish Mishra)

Longitudinal assessment of CTC levels and epitope expression in patients with

SCLC on DLL3-targeted therapy.

#### **Projects Submitted for Funding**

Submitted 06/2024 Dynamic monitoring of DLL3 expression using circulating tumor cells in small-

cell lung cancer

NIH R01

Co-investigator (Co-PIs Justin Gainor and Mehmet Toner)

Apply novel CTC technology to understand the relationship between DLL3 expression patterns and outcomes following DLL3 targeted therapy in SCLC.

Expected review date: October 2024

# **Report of Local Teaching and Training**

#### Formal Teaching of Residents, Clinical Fellows and Research Fellows (post-docs):

2022 - Present Hematology-Oncology Core Lecture Massachusetts General Hospital /

Series: SCLC

MGH/DFCI Medical Oncology Fellows

Massachusetts General Hospital Dana-Farber Cancer Institute,

Boston, MA

Yearly talk; 2 hours

# Clinical Supervisory and Training Responsibilities:

2022 - Present Attending, Outpatient Thoracic Medical Massachusetts General Hospital, Oncology Boston, MA
Fellows 4 hours/month

2022 - Present Attending, Inpatient Medical Oncology Service Boston, MA
Students, residents, fellows 4 weeks/year

#### **Other Mentored Trainees and Faculty:**

Julia Rivera / Undergraduate student in biomedical engineering, Tufts University
Julia was a high-school senior and college freshman during my mentorship of her.
I mentored her on multiple retrospective clinical research projects, which resulted in co-authorship on a published research article.

2023 - Present Sarah Waliany, MD, MS / Hematology-Oncology Fellow, Massachusetts General

**Hospital Cancer Center** 

Sarah is currently a second-year medical oncology fellow in our program. I am actively mentoring her on a case series / review project that has resulted in her first authorship poster presentation at the North America Conference on Lung Cancer (December 2023) and a first-author manuscript currently under review.

# Formal Teaching of Peers (e.g., CME and other continuing education courses):

⊠No presentations	below were sponsored by 3 <sup>rd</sup> parties/outside en	tities.
Those presentation identified.	ons below sponsored by outside entities are so n	oted and the sponsor(s) is (are)
2022 - Present	Clinical Approach to Treatment of SCLC: Overview Chinese Oncologist Online	1-hour talk Virtual
	Massachusetts General Hospital (Martinos Center)	

#### Local Invited Presentations:

Local Invited Prese	ntations:
No presentations	s below were sponsored by 3 <sup>rd</sup> parties/outside entities
☐ Those presentation identified.	ons below sponsored by outside entities are so noted and the sponsor(s) is (are)
2021 - Present	ASCO Annual Meeting Updates: SCLC / Invited Talk Mass General Hospital Multi-Disciplinary Thoracic Conference Series, Boston, MA
2023 - Present	SCLC Year in Review / Invited Talk Mass General Hospital Multi-Disciplinary Thoracic Conference Series, Boston, MA
2024 - Present	ASCO Annual Meeting Updates: SCLC / Invited Talk Mass General Hospital Multi-Disciplinary Thoracic Conference Series, Boston, MA

Report of Regional, National and International Invited Teaching and Presentations		
$\square$ No presentations below were sponsored by $3^{rd}$ parties/outside entities		
∑ Those presentati identified.	ions below sponsored by outside entities are so noted and the sponsor(s) is (are)	
Regional		
2022	Small Cell Lung Cancer: Recent Advances / Invited Talk APP Oncology Summit, Boston, MA (Horizon CME)	
2022	Tissue Stewardship in NSCLC / Invited Talk College of American Pathologists (CAP) Annual Meeting, New Orleans, LA (Medscape Oncology)	
2023	SCLC: Current Treatments and Future Directions / Inited Talk State of the Science Summit, Boston, MA (OncLive)	
2023	Small Cell Lung Cancer: State of the Field and Recent Advances / Invited Talk Lahey Oncology Lecture Series, Boston, MA	
2023	SCLC Transformation in Lung Cancer: Current Diagnostic and Therapeutic Landscape / Invited Talk Dana-Farber / Harvard Cancer Center Annual Lung Symposium, Boston, MA	
National		
2021	Olaparib and Temozolomide in Small Cell Lung Cancer (SCLC): Updated Results from Phase I/II Study / Selected Oral Abstract IASLC Hot Topic Meeting on Small Cell Lung Cancer, Virtual only	
2022	Preclinical Models and Therapeutic Approaches for Transformed SCLC / Invited Talk William Guy Forbeck Research Foundation: Forbeck Forum on Neuroendocrine Cells in Cancer and Development, Pacific Grove, California	
2022	Phase I/II Investigator-Initiated Study of Olaparib and Temozolomide in SCLC: Updated Analysis and CNS Outcomes / Invited Talk Summit on Lung Cancer, Kailua-Kona, HI (Dava Oncology)	
2023	Spatiotemporal Heterogeneity of Transcription Factor-Based Subtype Assignment in Small Cell Lung Carcinoma / Selected Oral Abstract Lung SPORE Annual Conference, Boston, MA	
2024	Detecting Small Cell Transformation in Patients with Advanced EGFR Mutant Lung Adenocarcinoma through Epigenomic cfDNA Profiling / Invited Talk William Guy Forbeck Research Foundation: Annual Scholar Retreat, Lake Geneva, WI	
International		
2021	EGFR-Mutant NSCLC with de novo or acquired squamous histology: Molecular features and clinical outcomes / Selected Oral Abstract IASLC World Conference on Lung Cancer, Virtual only	

#### **Report of Clinical Activities and Innovations**

#### Past and Current Licensure and Board Certification:

2019 Certification, American Board of Internal Medicine

2023 Certification, ABIM Medical Oncology

#### **Practice Activities:**

2022 - Present Outpatient Clinic Mass General Cancer 4 sessions / week

Center, Boston, MA

2022 - Present Inpatient Massachusetts General 4 weeks / year

Attending Hospital, Boston, MA

#### **Clinical Innovations:**

Intrinsic and Acquired Mechanisms of Resistance to EGFR targeted therapy in NSCLC (2013 – Present) During my graduate thesis work, I developed and characterized preclinical, patient-derived models of *EGFR*-mutant non-small cell lung cancer (NSCLC) to better understand intrinsic and acquired resistance to EGFR targeted therapies. Together with my colleagues, I helped show that the sequence of treatment with 1st, 2nd, and 3rd-generation EGFR TKIs affects the resistance mechanisms and subsequent TKI sensitivity of *EGFR*-mutant NSCLC in preclinical models. This work culminated in one first-author original research publication (*Mol Cancer Ther must-read collection of 2015*) and one first-author review article (*Clin Cancer Res 2014*), as well as contributing authorship on five additional original research publications in high-impact journals such as *Cancer Res* and *Genome Res*. Collectively, our group's efforts contributed to the now broadly adopted clinical practice of prioritizing repeat biopsies at the time of treatment resistance in *EGFR*-mutant NSCLC. During subsequent clinical training, I was also first author on two review articles focused on mechanisms of sensitivity and resistance to EGFR-mutant NSCLC (*Pharmacol Ther 2020, Cancer Discov 2021*).

My current EGFR-related research efforts have shifted to a focus on histologic transformation as a mechanism of resistance to EGFR-targeted therapies. The goal of these ongoing projects is to further our understanding of molecular predispositions and clinical outcomes of squamous and small cell lung cancer (SCLC) transformation and translate these findings to clinical care of patients. This recent work has resulted in an oral presentation at an international conference (WCLC 2021) as well as an invited first-author editorial (Cancer Discov 2021) and invited first-author review article (Trans Lung Cancer Res 2023).

Liquid biopsies as a diagnostic tool in the care of patients with lung cancer (2015 – Present)

Non-invasive, plasma-based or 'liquid' biopsies are increasingly recognized as a potentially powerful diagnostic tool in the management of patients with lung cancer. I was a contributing author on a manuscript demonstrating feasibility of liquid biopsy assessment for monitoring disease burden and relapse in patients with SCLC (*J Thorac Oncol 2018*) and first author on a publication demonstrating that the clinical interpretation of a negative liquid biopsy in patients with EGFR-mutant NSCLC should be placed in the context of overall plasma tumor content (*JCO Precis Oncol*, 2021). As part of my work in this area, I was invited to write a first-author commentary (*Nat Med*, 2015) and am currently leading two ongoing

collaborations utilizing banked plasma specimens to detect non-genomic mechanisms of resistance, which have been funded by an ASCO CDA award and have led to one first-author manuscript to date (*Clinical Cancer Research*, 2024).

Care of patients with lung cancer diagnosed with Covid-19 pneumonia (2020 - 2022) Patients with lung cancer are at increased risk of complications and death from Covid-19 infection. In the initial phase of the Covid-19 pandemic, I was a key contributor on a project initially describing our institutional (MGH) experience with Covid-19 infection in patients with lung cancer. I then led a study reporting a decline in rate of administration of CDC-recommended Covid-19 vaccine doses among our institutional cohort of patients with lung cancer. These studies have collectively informed our clinical care of patients with lung cancer as the Covid-19 pandemic has evolved and have resulted in two original research publications on which I was the third author (*JTO Clin Res Rep*, 2021) and first author, respectively (*Clin Lung Cancer*, 2023).

Novel therapeutic approaches for patients with SCLC (2021 – Present)

SCLC is an aggressive form of neuroendocrine lung cancer for which patient outcomes remain poor, despite recent marginal advancements in therapies. I am building a research portfolio focused on developing novel therapeutic approaches to improve outcomes for SCLC patients. As part of this effort, I led an updated analysis of our investigator-initiated Phase I/II trial testing the safety and efficacy of PARP inhibitor olaparib plus temozolomide in patients with advanced SCLC. Our data show that the combination of olaparib/temozolomide is potentially compelling in SCLC with an overall response rate of 41%, a subset of patients with durable response to combination therapy, and a post-hoc observation of 87% CNS disease control rate. This manuscript is currently submitted and was the basis for invitations to present at multiple national conferences over the last two years. I am currently the site PI for two trials testing bi- and tri-specific DLL3targeted antibodies in SCLC/other high-grade neuroendocrine cancers, and I am the clinical lead on a collaborative translational effort to evaluate DLL3 expression on circulating tumor cells collected from patients undergoing treatment with DLL3-targeted therapies. As a testament to my emerging reputation in the field of SCLC and neuroendocrine lung cancers, I was invited to participate as a Forbeck Scholar in the Forum on Neuroendocrine Cell Fate in Development and Cancer, have been invited to give several local CME talks on the topic of SCLC, and am a contributing editor of the most recent version of the BMJ Best Practice Guidelines in SCLC.

#### Report of Education of Patients and Service to the Community

No presentations below were sponsored by 3 <sup>rd</sup> parties/outside entities.
Those presentations below sponsored by outside entities are so noted and the sponsor(s) is (are)
identified.

**Educational Material for Patients and the Lay Community:** 

Books, articles, and presentations in other media

2021	I have another oncogene driver! What are the implications of this?	Invited talk for "Ask the Experts" webinar series (EGFR Resisters)
2022	Small Cell, Big Problem	Invited podcast guest (Backstage @ Upstage Podcast)
2022	Liquid Biopses	Contributing editor for teaching booklet (LUNGevity Foundation)

# Report of Scholarship

# Peer-Reviewed Scholarship in print or other media:

### **Research Investigations**

- 1. Jia P, Jin H, **Meador CB**, Xia J, Ohashi K, Liu L, Pirazzoli V, Dahlman KB, Politi K, Michor F, Zhao Z, Pao W. Next-generation sequencing of paired tyrosine kinase inhibitor-sensitive and resistant EGFR mutant lung cancer cell lines identifies spectrum of DNA changes associated with drug resistance. Genome Res. 2013 September; 23(9): 1434-45.
- 2. **Meador CB**, Jin H, de Stanchina E, Nebhan CA, Pirazzoli V, Wang L, Lu P, Vuong H, Hutchinson KE, Jia P, Chen X, Eisenberg R, Ladanyi M, Politi K, Zhao Z, Lovly CM, Cross DA, Pao W. Optimizing the sequence of anti-EGFR-targeted therapy in EGFR-mutant lung cancer. Mol Cancer Ther. 2015 February; 14(2): 542-52.
  - \*Molecular Cancer Therapeutics Must-Read 2015 Collection
- 3. Eberlein CA, Stetson D, Markovets AA, Al-Kadhimi KJ, Lai Z, Fisher PR, **Meador CB**, Spitzler P, Ichihara E, Ross SJ, Ahdesmaki MJ, Ahmed A, Ratcliffe LE, O'Brien ELC, Barnes CH, Brown H, Smith PD, Dry JR, Beran G, Thress KS, Dougherty B, Pao W, Cross DAE. Acquired resistance to mutant-selective EGFR inhibitor AZD9291 is associated with increased dependence on RAS signaling in preclinical models. Cancer Res. 2015 June; 75(12): 2489-500.
- 4. Pirazzoli V, Ayeni D, **Meador CB**, Sanganahalli BG, Hyder F, de Stanchina E, Goldberg SB, Pao W, Politi K. Afatinib plus cetuximab delays resistance compared to single agent erlotinib or afatinib in mouse models of TKI-naïve EGFR L858R-induced lung adenocarcinoma. Clin Cancer Res. 2016 Jan 15;22(2):426-35.
- 5. Amato KR, Wang S, Tan L, Hasting AK, Song W, Lovly CM, **Meador CB**, Ye F, Lu P, Balko JM, Colvin DC, Cates JM, Pao W, Gray NS, Chen J. EPHA2 blockade overcomes acquired resistance to EGFR kinase inhibitors in lung cancer. Cancer Res. 2016 Jan 15;76(2):305-18.
- 6. Ichihara E, Westover D, **Meador CB**, Bauer JA, Lu P, Ye F, Kulick A, de Stanchina E, McEwen R, Ladanyi M, Cross DA, Pao W, Lovly CM. SFK/FAK signaling attenuates the effects of osimertinib in both drug-sensitive and drug-resistant models of EGFR-mutant lung cancer. Cancer Res. 2017 Jun 1;77(11):2990-3000.
- 7. Almodovar K, Iams WT, **Meador CB**, Zhao Z, York S, Horn L, Yan Y, Hernandez J, Chen H, Shyr Y, Lim LP, Raymond CK, Lovly CM. Longitudinal cell-free DNA analysis in patients with

<sup>\*</sup> denotes equal authorship contribution

<sup>\*\*</sup> denotes mentored trainee.

- small cell lung cancer reveals dynamic insights into treatment efficacy and disease relapse. J Thorac Oncol. 2018 Jan; 13(1):112-123.
- 8. Iams WT, Shiuan E, **Meador CB**, Roth M, Bordeaux J, Vaupel C, Boyd KL, Summitt IB, Wang LL, Schneider JT, Warner JL, Zhao Z, Lovly CM. Improved prognosis and increased tumor infiltrating lymphocytes in small cell lung cancer patients with neurology paraneoplastic syndromes. J Thorac Oncol. 2019 Jun 14(11): 1970-1981.
- 9. Piper-Vallillo AJ, Mooradian MJ, **Meador CB**, Yeap BY, Peterson J, Sakhi M, Do A, Zubiri L, Stevens S, Vaughn J, Goodwin K, Gavralidis A, Willers H, Miller A, Farago A, Piotrowska Z, Lin JJ, Dagogo-Jack I, Lennes IT, Sequist LV, Temel JS, Heist RS, Digumarthy S, Reynolds KL, Gainor JF. Coronovirus Disease 2019 Infection in a Patient Population with Lung Cancer: Incidence, Presentation, and Alternative Diagnostic Considerations. JTO Clin Res Rep. 2021 Jan; 2(1):100124.
- Meador CB, Milan MSD, Hu EY, Awad MM, Rabin MS, Paweletz CP, Hartmaier R, Laus G, Oxnard GR. High Sensitivity of Plasma Cell-Free DNA Genotyping in Cases With Evidence of Adequate Tumor Content. *JCO Precis Oncol*. 2021 Jun 1;5:PO.20.00420. doi: 10.1200/PO.20.00420. PMID: 34250382; PMCID: PMC8232070.
- 11. Chen JH, Nieman LT, Spurrell M, Jorgji V, Richieri P, Xu KH, Madhu R, Parikh M, Zamora I, Mehta A, Nabel CS, Freeman SS, Pirl JD, Lu C, Meador CB, Barth JL, Sakhi M, Tang AL, Sarkizova S, Price C, Fernandez NF, Emanuel G, He J, Raay KV, Reeves JW, Yizhak K, Hofree M, Shih A, Sade-Feldman M, Boland GM, Pelka K, Aryee M, Korsunsky I, Mino-Kenudson M, Gainor JF, Hacohen N. Spatial analysis of human lung cancer reveals organized immune hubs enriched for stem-like CD8 T cells and associated with immunotherapy response. bioRxiv [Preprint]. 2023 Apr 6:2023.04.04.535379. doi: 10.1101/2023.04.04.535379. Update in: Nat Immunol. 2024 Apr;25(4):644-658. doi: 10.1038/s41590-024-01792-2. PMID: 37066412; PMCID: PMC10104028.
- 12. **Meador CB**, Naranbhai V, Hambelton G, Rivera J, Nabel CS, Lewinsohn R, Sakhi M, Balazs AB, Iafrate AJ, Gainor JF. Brief Report: Declining Rates of SARS-CoV-2 Vaccine Uptake Among Patients With Thoracic Malignancies. *Clin Lung Cancer*. 2023 Jun;24(4):353-359. doi: 10.1016/j.cllc.2023.01.007. Epub 2023 Jan 25. PMID: 36792425; PMCID: PMC9876008.
- 13. Choudhuri SP, Girard L, Lim JYS, Wise JF, Freitas B, Yang D, Wong E, Hamilton S, Chien VD, Gilbreath C, Zhong J, Phat S, Myers DT, Christensen CL, Stanzione M, Wong KK, Farago AF, Meador CB, Dyson NJ, Lawrence MS, Wu S, Drapkin BJ. Acquired Cross-resistance in Small Cell Lung Cancer due to Extrachromosomal DNA Amplification of MYC paralogs. bioRxiv [Preprint]. 2023 Jun 28:2023.06.23.546278. doi: 10.1101/2023.06.23.546278. Update in: Cancer Discov. 2024 May 1;14(5):804-827. doi: 10.1158/2159-8290.CD-23-0656. PMID: 37425738; PMCID: PMC10327110.
- 14. Dagogo-Jack I, Kiedrowski LA, Heist RS, Lin JJ, Meador CB, Krueger EA, Do A, Peterson J, Sequist LV, Gainor JF, Lennerz JK, Digumarthy SR. Efficacy and Tolerability of ALK/MET Combinations in Patients With ALK-Rearranged Lung Cancer With Acquired MET Amplification: A Retrospective Analysis. JTO Clin Res Rep. 2023 Jun 1;4(8):100534. doi: 10.1016/j.jtocrr.2023.100534. PMID: 37533439; PMCID: PMC10391652.
- 15. Qian Y, Galan-Cobo A, Guijarro I, Dang M, Molkentine D, Poteete A, Zhang F, Wang Q, Wang J, Parra E, Panda A, Fang J, Skoulidis F, Wistuba II, Verma S, Merghoub T, Wolchok JD, Wong KK, DeBerardinis RJ, Minna JD, Vokes NI, Meador CB, Gainor JF, Wang L, Reuben A, Heymach JV. MCT4-dependent lactate secretion suppresses antitumor immunity in LKB1-deficient lung adenocarcinoma. *Cancer Cell*. 2023 Jul 10;41(7):1363-1380.e7. doi: 10.1016/j.ccell.2023.05.015. Epub 2023 Jun 15. PMID: 37327788; PMCID: PMC11161201.

- Mansur A, Potter AL, Nees AT, Sands JM, Meador CB, Fong ZV, Auchincloss HG, Yang CJ. Role of Adjuvant Chemotherapy in Early-Stage Combined Small Cell Lung Cancer. *Ann Thorac Surg.* 2023 Dec;116(6):1142-1148. doi: 10.1016/j.athoracsur.2023.05.014. Epub 2023 May 26. PMID: 37245788.
- 17. Denize T, **Meador CB**, Rider AB, Ganci ML, Barth JL, Kem M, Mino-Kenudson M, Hung YP. Concordance of ASCL1, NEUROD1 and POU2F3 transcription factor-based subtype assignment in paired tumour samples from small cell lung carcinoma. *Histopathology*. 2023 Dec;83(6):912-924. doi: 10.1111/his.15034. Epub 2023 Aug 29. PMID: 37644667.
- 18. Chen JH, Nieman LT, Spurrell M, Jorgji V, Elmelech L, Richieri P, Xu KH, Madhu R, Parikh M, Zamora I, Mehta A, Nabel CS, Freeman SS, Pirl JD, Lu C, **Meador CB**, Barth JL, Sakhi M, Tang AL, Sarkizova S, Price C, Fernandez NF, Emanuel G, He J, Van Raay K, Reeves JW, Yizhak K, Hofree M, Shih A, Sade-Feldman M, Boland GM, Pelka K, Aryee MJ, Mino-Kenudson M, Gainor JF, Korsunsky I, Hacohen N. Human lung cancer harbors spatially organized stem-immunity hubs associated with response to immunotherapy. *Nat Immunol*. 2024 Apr;25(4):644-658. doi: 10.1038/s41590-024-01792-2. Epub 2024 Mar 19. PMID: 38503922.
- 19. Pal Choudhuri S, Girard L, Lim JYS, Wise JF, Freitas B, Yang D, Wong E, Hamilton S, Chien VD, Kim YJ, Gilbreath C, Zhong J, Phat S, Myers DT, Christensen CL, Mazloom-Farsibaf H, Stanzione M, Wong KK, Hung YP, Farago AF, **Meador CB**, Dyson NJ, Lawrence MS, Wu S, Drapkin BJ. Acquired Cross-Resistance in Small Cell Lung Cancer due to Extrachromosomal DNA Amplification of MYC Paralogs. *Cancer Discov*. 2024 May 1;14(5):804-827. doi: 10.1158/2159-8290.CD-23-0656. PMID: 38386926; PMCID: PMC11061613.
- 20. Murayama T, Mahadevan NR, Meador CB, Ivanova EV, Pan Y, Knelson EH, Tani T, Nakayama J, Ma X, Thai TC, Hung YP, Kim W, Watanabe H, Cai KQ, Hata AN, Paweletz CP, Barbie DA, Cañadas I. Targeting TREX1 Induces Innate Immune Response in Drug-Resistant Small-Cell Lung Cancer. *Cancer Res Commun*. 2024 Sep 1;4(9):2399-2414. doi: 10.1158/2767-9764.CRC-24-0360. PMID: 39177280; PMCID: PMC11391691.
- 21. El Zarif T\*, Meador CB\*, Qiu X\*, Seo JH, Davidsohn MP, Savignano H, Lakshminarayanan G, McClure HM, Canniff J, Fortunato B, Li R, Banwait MK, Semaan K, Eid M, Long H, Hung YP, Mahadevan NR, Barbie DA, Oser MG, Piotrowska Z, Choueiri TK, Baca SC, Hata AN, Freedman ML, Berchuck JE. Detecting Small Cell Transformation in Patients with Advanced EGFR Mutant Lung Adenocarcinoma through Epigenomic cfDNA Profiling. *Clin Cancer Res*. 2024 Sep 3;30(17):3798-3811. doi: 10.1158/1078-0432.CCR-24-0466. PMID: 38912901; PMCID: PMC11369616.
  - \*Co-first authors
- 22. **Meador CB**, Digumarthy SR, Yeap BY, Hung YP, Mino-Kenudson M, Farago AF, Heist RS, Marcoux JP, Rangachari D, Barbie DA, and Piotrowska Z. Phase I/II Investigator-Initiated Study of Olaparib and Temozolomide in SCLC: Final Analysis and CNS Outcomes. Clin Cancer Res. 2025 Jan 6;31(1):25-34.
- 23. Waliany S, Hung YP, Rous FA, Luo F, Capelleti M, Ressler S, Do A, Peterson J, Meservey C, Digumarthy SR, Ou S, Gadgeel SM, Lin JJ, **Meador CB**. Lung Carcinoid Tumors with Potentially Actionable Genomic Alterations and Responses to Targeted Therapies. Clin Lung Cancer. *In press*.

# Other peer-reviewed scholarship

1. **Meador CB**, Micheel CM, Levy MA, Lovly CM, Horn L, Warner JL, Johnson DB, Zhao Z, Anderson IA, Sosman JA, Vnencak-Jones CL, Dahlman KB, Pao W. Beyond histology:

- translating tumor genotypes into clinically effective targeted therapies. Clin Cancer Res. 2014 May; 20(9): 2264-75.
- 2. **Meador CB**, Parang B, Musser MA, Haliyur R, Owens D, Dermody TS. A workshop on leadership for senior MD-PhD students. Med Educ Online. 2016 Aug 5; 21 (31534).
- 3. **Meador CB**, Hata AN. Acquired Resistance to Targeted Therapies in NSCLC: Updates and Evolving Insights. Pharmacol Ther. 2020 Jun;210:107522. PMID: 32151666, PMCID: PMC8675642, https://doi.org/S0163-7258(20)30050-4
- Meador CB, Sequist LV, Piotrowska Z. Targeting EGFR Exon 20 Insertions in Non-Small Cell Lung Cancer: Recent Advances and Clinical Updates. Cancer Discov. 2021 Sep;11(9):2145-2157. PMID: 34301786, PMCID: PMC8673432, https://doi.org/10.1158/2159-8290.CD-21-0226.
- 5. **Meador CB** and Piotrowska Z. Biology and Impact of Lineage Plasticity in ALK-Positive NSCLC: A Narrative Review. Trans Lung Cancer Res. 2023 Apr 28;12(4):837-856.
- 6. Leaf RK, Messick BH, **Meador CB**, Loneman D. Case 7-2025: A 65-Year-Old Woman with Weakness, Back Pain, and Pancytopenia. N Engl J Med. 2025 Feb 27;392(9):903-914.

# Non-peer reviewed scholarship in print or other media:

# Reviews, chapters, and editorials

- 1. **Meador CB** and Pao W. Old Habits Die Hard: Addiction of BRAF-mutant cancer cells to MAP kinase signaling. Cancer Discov. 2015 April; 5(4): 348-50.
- 2. **Meador CB** and Lovly CM. Liquid biopsies reveal the dynamic nature of resistance mechanisms in solid tumors. Nat Med, 2015 July 7;21(7):663-665.
- 3. **Meador CB** and Oxnard GR. Effective cancer genotyping Many means to one end. Clin Cancer Res. 2019 Aug; 25(15): 4583-4585.
- 4. **Meador CB** and Lovly CM. A Tale of Two Histologies: Dissecting the Biology of Lineage Transformation in Lung Cancer. Cancer Discov. 2021 Dec; 11(12): 2962-2964.
- 5. BMJ Best Practice: Small cell lung cancer. https://bestpractice.bmj.com/topics/en-us/1081

#### **Letters to the Editor**

1. **Meador CB,** Gainor JF. Letter to the Editor Reply: Kleebayoon A and Wiwanitkit V. Clin Lung Cancer. 2023 Mar 21;S1525-7304(23)00053-0.

#### Thesis:

1. Optimizing the sequence of targeted therapy in EGFR-mutant lung adenocarcinomaLaboratory of William Pao, MD, PhD (Co-mentored by Christine Lovly, MD, PhD)

# Abstracts, Poster Presentations, and Exhibits Presented at Professional Meetings:

- Meador CB, Cobb R, Hung YP, Banwait M, Piper AJ, Muzikansky A, Hata AH, Sequist LV, Piotrowska Z. EGFR-Mutant NSCLC with De Novo or Acquired Squamous Histology: Molecular Features and Clinical Outcomes. Poster Presentation at the IASLC Targeted Therapies of Lung Cancer Meeting, Virtual, February 23-26, 2022.
- 2. **Meador CB**, Digumarthy SR, Yeap BY, Farago AF, Heist RS, Marcoux PJ, Rangachari D, Barbie DA, and Piotrowska Z. Phase I/II Investigator-Initiated Study of Olaparib and Temozolomide in SCLC: Updated Analysis and CNS Outcomes. Poster Presentation at the American Society of Clinical Oncology Annual Meeting, Chicago IL June 3-7, 2022.

# **Narrative Report**

I am a member of the clinical research faculty at the Massachusetts General Hospital Cancer Center and Harvard Medical School. I am a thoracic oncologist who specializes in the care of patients with small cell lung cancer and other thoracic malignancies. I provide clinical care for patients with thoracic malignancies and conduct clinical and translational research aimed at developing new effective therapies for patients with lung cancer.

# Area of Excellence: Clinical Expertise and Innovation

I have a background in laboratory-based research studying mechanisms of resistance to targeted therapies in EGFR-mutant non-small cell lung cancer (NSCLC). In the current phase of my career, I have built on this foundation of investigation to develop a portfolio of clinical and translational research projects. Using patient-derived tissue and plasma samples, I study the biology of lineage plasticity in EGFR-mutant lung cancer, the role of non-invasive plasma-based diagnostics (particularly for detection of lineage transformation), and the development of novel therapeutics for both transformed and *de novo* small cell lung cancer (SCLC). I am currently the site PI of multiple clinical trials testing novel therapeutics for patients with SCLC and am the lead author on an updated analysis of our investigator-initiated trial studying the combination of olaparib plus temozolomide in recurrent extensive stage SCLC. I have also been leading our group's efforts as part of a multi-institutional initiative collecting patient samples for translational research efforts studying biomarkers of sensitivity and resistance to immune checkpoint inhibitors in both early-stage and metastatic NSCLC. Complementing these areas of academic focus, I have developed particular clinical expertise in SCLC and other neuroendocrine cancers of the lung and have a local and emerging national reputation in this area.

# **Contributions in teaching**

I have an active clinical practice in thoracic oncology at the MGH Cancer Center in Boston, spending four clinic sessions per week caring for patients with lung cancer and four weeks per year on the inpatient oncology service. In this role, I also teach Harvard oncology fellows and medical students in both the inpatient setting and ambulatory clinic setting. I have been involved in teaching and supervision of high-school summer internship students, undergraduate students and research assistants in both laboratory-based and clinical research activities over the past three years at MGH. Beyond our institution, I have participated in multiple educational sessions locally and nationally including CME courses and presentations, and my educational efforts also involve participation in patient-facing webinars, educational materials (LUNGevity Foundation), and podcast platforms (Upstage Lung Cancer).

#### **Summary**

During my time in training and since appointment to the MGH and HMS faculty, I have endeavored

to provide excellent clinical care, advance translational research efforts in lung cancer, and contribute to teaching of peers, trainees, and patients. Through my lecturing at the local level, my written works (peer reviewed original research, topical reviews of the literature, editorials, and clinical guidelines), my clinical research, and my involvement with professional societies I am seeking to improve the care of patients with thoracic malignancies and build an academic career as an independent physician-scientist.