

**CURRICULUM VITAE**  
**Amin Nassar, M.D.**

**Name:** Amin Nassar, M.D.

**Version date:** 1/3/2024

**Born:** February 13, 1992, in Deir El Zahrani, Lebanon

**Education:** B.S., American University of Beirut, 09/01/2010 - 06/30/2013  
M.D., American University of Beirut Faculty of Medicine, 07/01/2013 – 06/1/2017

**Career:**

06/20/2017- 06/19/2019

Brigham and Women's Hospital/Dana Farber Cancer Institute Postdoctoral Research fellow; Advisors:  
David J. Kwiatkowski (M.D, Ph.D), Matthew L. Freedman (M.D.) and Toni K. Choueiri (M.D.)

06/20/2019-6/28/2022

Intern and Resident, Internal Medicine, Brigham and Women's Hospital, Boston, MA

6/29/2021-9/6/2021

Chief Resident, Internal Medicine, Brigham and Women's Faulkner Hospital, Boston, MA

7/1/2022-6/30/2023

Clinical Oncology fellow, Yale New Haven Hospital, New Haven, CT

7/1/2023-Present

Physician Scientist in the Department of Medical Oncology, Yale New Haven Hospital, New Haven, CT

**Board Certification:** ABIM 2022

**Professional Honors & Recognition:**

***International/National/Regional***

2019 Marquis Who's Who Top Doctors, Uniondale, NY

***University***

2016 Alpha Omega Alpha Honor Medical Society, American University of Beirut Faculty of Medicine, Beirut, Lebanon

2010-2017 Dean's Honor List, American University of Beirut Faculty of Medicine, Beirut, Lebanon

**Grants:**

Agency: PRIME CENTER, Veterans Health Administration

[11/14/2022-9/30/2023]

LIPS [SW-011]

VA HSR&D CIN 13-407

Title: Mutational patterns of Agent Orange exposure in patients with non-small cell lung cancer by Genetic Ancestral Populations and Sex

Role: PI

Total costs for project period: \$17,000

**Invited Speaking Engagements, Presentations, Symposia & Workshops International/National**

- 2023 TEMPUS Grant Rounds “Ancestry-driven recalibration of tumor mutational burden and disparate clinical outcomes to immune checkpoint inhibitors”
- 2023 Annual Meeting of the American Association for Cancer Research (AACR); 2023 April 14-19  
2023 “Ancestry-driven recalibration of tumor mutational burden and disparate clinical outcomes to immune checkpoint inhibitors”
- 2023 16th Annual Meeting of the Korean Society of Medical Oncology & 2023 International Conference - American Society of Clinical Oncology/ Korean Society of Medical Oncology session. Topic “Ancestry-specific differences in TMB.”
- 2023 16<sup>th</sup> AACR Conference on the Science of Cancer Health Disparities in Racial/Ethnic Minorities and the Medically Underserved. Topic “Biomarker benchmarking across ancestral populations”
- 2023 Prostate Cancer Foundation 30<sup>th</sup> Annual Scientific Retreat. Topic “Biomarker benchmarking across ancestral populations”
- 2023 XXIV SBOC 2023 Congress. Topic “Disparities and Cancer Outcomes: Ancestry-driven recalibration of tumor mutational burden and disparate clinical outcomes in response to immune checkpoint inhibitors”

**Peer-Reviewed Presentations & Symposia Given at Meetings Not Affiliated with Yale:**

***International/National***

1. Nassar AH, Agarwal A, Nagy R, Curran C, Abou Alaiwi S, McGregor BA, Talasaz A, Lanman RB, Sonpavde G. Genomic landscape of circulating tumor (ct)-DNA alterations in patients with penile cancer. 2020 Genitourinary Cancers Symposium, San Francisco, CA, February 2020 (Poster presentation).
2. Abou Alaiwi S, Nassar AH, Bakouny ZE, Berchuck J, Nuzzo PV, Flippot R, Flaifel A, Steinharter J, Baca S, Margolis C, Vokes N, Du H, Shukla S, Braun D, Signoretti S, Sonpavde G, Van Allen E, Kwiatkowski DJ, Choueiri TK. Association of polybromo-associated baf (PBAF) complex mutations with overall survival (OS) in cancer patients (pts) treated with checkpoint inhibitors (ICIs). American Society of Clinical Oncology Annual Meeting, Chicago, IL, June 2019 (Oral presentation)
3. Nassar A, Mouw KW, Esplin ED, Yang S, Callis T, Nuzzo PV, Chanza NM, Choueiri TK, Kwiatkowski DJ, Sonpavde G. Germline alterations in urothelial carcinoma (UC) patients with

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- family history of UC. 2019 Genitourinary Cancers Symposium, San Francisco, CA, February 2019 (Poster presentation).
4. Nassar A, Mouw KW, Curran C, Agarwal A, Acosta A, Preston MA, Mossanen M, Ravi A, Hirsch MS, Choueiri TK, Kwiatkowski DJ, Sonpavde G. Genomic Profiling of Variant Urinary Tract Tumor Histologies. 2019 Genitourinary Cancers Symposium, San Francisco, CA, February 2019 (Poster presentation).
  5. Mouhieddine TH, Park J, Redd RA, Gibson CJ, Manier S, Nassar AH, Capelletti M, Huynh D, Bustoros M, Pistofidis RS, Hornbrug K, Dumke H, Itani MM, Boehner CJ, Liu CJ, AlDubayan SH, Reardon B, Van Allen E, Auclair D, Schlossman RL, Munshi N, Anderson K, Steensma DP, Laubach J, Richardson P, Ritz J, Ebert BL, Soiffer RJ, Neuberg DS, Ghobrial IM. The Role of Clonal Hematopoiesis of Indeterminant Potential (CHIP) in Multiple Myeloma: Immunomodulator Maintenance Post Autologous Stem Cell Transplant (ASCT) Predicts Better Outcome. 2018 American Society of Hematology, San Diego, CA, November 2018 (Oral presentation).
  6. Nassar AH, Umeton R, Lundgren K, Harshman LC, Van Allen EM, Choueiri TK, Steele G, Bellmunt J, Mouw KW, Sonpavde G, Kwiatkowski DJ. Comprehensive genomic characterization of urothelial carcinomas. 2018 American Society of Clinical Oncology Annual Meeting, Chicago, IL, June 2018 (Poster presentation).
  7. Nassar AH, Mouw KW, Liu CJ, Lundgren K, Van Allen EM, Harshman LC, Pomerantz M, Preston MA, Wei XX, McGregor BA, Choudhury AD, Bellmunt J, Choueiri TK, Kwiatkowski DJ, Sonpavde G. Model combining genomic and clinical factors to predict clinical benefit from PD1/PD-L1 inhibitors for advanced UC. 2018 American Society of Clinical Oncology Annual Meeting, Chicago, IL, June 2018 (Poster presentation).
  8. Nassar A, Lundgren K, Pomerantz M, Van Allen EM, Choudhury AD, Harshman LC, Preston MA, Mouw KW, Wei XX, McGregor BA, Choueiri TK, Bellmunt J, Kwiatkowski DJ, Sonpavde G. FGFR3-TACC3 fusion in bladder cancer: Enrichment in the young, never-smokers, and Asians. 2018 Genitourinary Cancers Symposium, San Francisco, CA, February 2018 (Poster presentation).

### ***Regional***

1. Nassar AH, Merz L, Winkler ML, Gaffney R, Little J, AbdelHameid D, Schwartz AL, Walker KH. A Puzzling Pair: Macrophage Activation Syndrome Hiding Behind a Lupus Flare. 2019 American College of Physicians Massachusetts Chapter, Waltham, MA, October 2019 (Poster presentation).

### **Professional Service**

#### ***Journals:***

##### Guest Editor:

2022-present Guest Editor, *Frontiers in Oncology*

2022-present. Guest Editor, *Journal of Clinical Medicine*

##### Editorial Boards:

2021-present Editorial board, *Frontiers in Oncology*

2020-present Editorial board, *Translational Oncology*

2017-present Editorial board, *Molecular Biology Reports*

##### Reviewer

*Cancer Cell*

*Gastroenterology*

*The Journal for ImmunoTherapy of Cancer*  
*Clinical Genitourinary Cancer*  
*Therapeutic Advances in Medical Oncology*  
*Frontiers in Immunology*  
*Clinical Epigenetics*

**Editorial Contributor:**

2022-present Editorial Contributor, PracticeUpdate

**Professional Organizations:**

American College of Physicians

2019 Member

American Society of Clinical Oncology

2018-present Member

**American University of Beirut/Hospital System:**

University Committees

2013-2014 Vice-President, AUB Football Club, American University of Beirut, Beirut, Lebanon

2012-2013 Founding member and Secretary, AUB Football Club, American University of Beirut, Beirut, Lebanon

2011-2013 Student Representative Council, Faculty of Arts and Sciences, American University of Beirut, Beirut, Lebanon

**Bibliography:**

**Peer-Reviewed Original Research**

1. Bou Farhat E, Adib E, Daou M, Naqash AR, Matulonis U, Ng K...Nassar AH. Benchmarking mismatch repair testing for patients with cancer receiving immunotherapy. *Cancer Cell*. 2023
2. El Zarif T\*, Nassar AH\*, Pond GR, Zhuang TZ, Master V, Nazha B, et al. Safety and efficacy of immune checkpoint inhibitors in advanced penile cancer: report from the Global Society of Rare Genitourinary Tumors. *J Natl Cancer Inst*. 2023;115(12):1605-15 (\* denotes co-first author)
3. El Zarif T, Machaalani M, Nawfal R, Nassar AH, Xie W, Choueiri TK, Pomerantz M. TERT Promoter Mutations Frequency Across Race, Sex, and Cancer Type. *Oncologist*. 2023.
4. Zhou Y, Borcsok J, Adib E, Kamran SC, Neil AJ, Stawiski K, Freeman D, Stormoen DR, Sztupinszki Z, Samant A, Nassar A, Bekele RT, et al. ATM deficiency confers specific therapeutic vulnerabilities in bladder cancer. *Sci Adv*. 2023 Nov 24;9(47):eadg2263.
5. Fujiwara Y, Horita N, Adib E, Zhou S, Nassar AH, Asad ZU, Cortellini A, Naqash AR. Treatment-related adverse events, including fatal toxicities, in patients with solid tumours receiving neoadjuvant and adjuvant immune checkpoint blockade: a systematic review and meta-analysis of randomised controlled trials. *Lancet Oncol*. 2023 Nov 24:S1470-2045(23)00524-7.
6. Jang A, Sella A, Nassar AH, Koshkin AH. Editorial: Methods in genitourinary oncology. *Front Oncol*. 2023 Aug 24;13:1274264.
7. Gjuka D\*, Adib E\*, Garrison K, Chen J, Zhang Y, Li W, Boutz D, Lamb C, Tanno Y, Nassar A, et al. Enzyme-mediated depletion of methylthioadenosine restores T cell function in MTAP-deficient tumors and reverses immunotherapy resistance. *Cancer Cell*. 2023 Oct 9;41(10):1774-1787.e9.

8. El Zarif T\*, Nassar AH\*, Adib E\*, Fitzgerald BG, Huang J, Mouhieddine TH, et al. Safety and Activity of Immune Checkpoint Inhibitors in People Living With HIV and Cancer: A Real-World Report From the Cancer Therapy Using Checkpoint Inhibitors in People Living With HIV-International (CATCH-IT) Consortium. *J Clin Oncol.* 2023;JCO2202459. (\* denotes co-first author)
9. Nassar AH\*, Abou Alaiwi S\*, Baca SC\*, Adib E, Corona RI, Seo JH, et al. Epigenomic charting and functional annotation of risk loci in renal cell carcinoma. *Nat Commun.* 2023;14(1):346 (\* denotes co-first author)
10. Groha S, Alaiwi SA, Xu W, Naranbhai V, Nassar AH, Bakouny Z, et al. Germline variants associated with toxicity to immune checkpoint blockade. *Nat Med.* 2022;28(12):2584-91.
11. Nassar AH\*, Adib E\*, Abou Alaiwi S\*, El Zarif T, Groha S, Akl EW, et al. Ancestry-driven recalibration of tumor mutational burden and disparate clinical outcomes in response to immune checkpoint inhibitors. *Cancer Cell.* 2022.(\* denotes co-first author)
12. Shi DD, Youssef GC, Nassar AH, Lim-Fat MJ, Ligon KL, Wen PY, et al. Improved survival among females and association with lymphopenia in patients with newly diagnosed glioblastoma. *Neuro Oncol.* 2022.
13. Ramamurthy C\*, Nassar AH\*, Abou Alaiwi S, Adib E, Akl EW, Yang S, et al. Prevalence of pathogenic germline cancer risk variants in testicular cancer patients: Identifying high risk groups. *Urol Oncol.* 2022.(\* denotes co-first author)
14. Adib E\*, Nassar AH\*, Abou Alaiwi S, Groha S, Akl EW, Sholl LM, Michael KS, Awad MM, Jänne PA, Gusev A, Kwiatkowski DJ. Variation in targetable genomic alterations in non-small cell lung cancer by genetic ancestry, sex, smoking history, and histology. *Genome Medicine.* 2022;14(1):39. doi: 10.1186/s13073-022-01041-x. (\* denotes co-first author)
15. Nuzzo PV, Adib E, Weise N, Curran C, Stewart T, Freeman D, Nassar AH, Abou Alaiwi S, Bakouny Z, McGregor BA, Choueiri TK, Jain RK, McKay RR, Sonpavde G. Impact of renin-angiotensin system inhibitors on outcomes in patients with metastatic renal cell carcinoma treated with immune-checkpoint inhibitors. *Clin Genitourin Cancer.* 2022. Epub 2022/05/26. doi: 10.1016/j.clgc.2022.04.012. PubMed PMID: 35614012.
16. Adib E\*, El Zarif T\*, Jain RK, Skelton WPT, Freeman D, Curran C, Akl E, Nassar AH, Ravi P, Mantia C, Kwiatkowski DJ, Choueiri TK, Sonpavde G. FGFR2/3 genomic alterations and response to Enfortumab Vedotin in metastatic urothelial carcinoma. *BJUI Compass.* 2022;3(2):169-72. Epub 2022/03/01. doi: 10.1002/bco2.125. PubMed PMID: 35224552; PMCID: PMC8880907. (\* denotes co-first author)
17. McGregor BA, Xie W, Adib E, Stadler WM, Zakharia Y, Alva A, Michaelson MD, Gupta S, Lam ET, Farah S, Nassar AH, Wei XX, Kilbridge KL, Harshman L, Signoretti S, Sholl L, Kwiatkowski DJ, McKay RR, Choueiri TK. Biomarker-Based Phase II Study of Sapanisertib (TAK-228): An mTORC1/2 Inhibitor in Patients With Refractory Metastatic Renal Cell Carcinoma. *JCO Precis Oncol.* 2022;6:e2100448. Epub 2022/02/17. doi: 10.1200/PO.21.00448. PubMed PMID: 35171658.
18. Adib E\*, El Zarif T\*, Nassar AH\*, Akl EW, Abou Alaiwi S, Mouhieddine TH, Esplin ED, Hatchell K, Nielsen SM, Rana HQ, Choueiri TK, Kwiatkowski DJ, Sonpavde G. CDH1 germline variants are enriched in patients with colorectal cancer, gastric cancer, and breast cancer. *Br J Cancer.* 2021. Epub 2021/12/25. doi: 10.1038/s41416-021-01673-7. PubMed PMID: 34949788. (\* denotes co-first author)
19. Jain RK, Skelton IV WP, Pond GR, Naqvi M, Kim Y, Curran C, Freeman D, Nuzzo PV, Alaiwi SA, Nassar AH, Jain RK, Sonpavde G. Angiotensin Blockade Modulates the Activity of PD1/L1 Inhibitors in Metastatic Urothelial Carcinoma. *Clin Genitourin Cancer.* 2021;19(6):540-6. Epub 2021/05/21. doi: 10.1016/j.clgc.2021.04.002. PubMed PMID: 34011489; PMCID: PMC8526625.

20. Nebhan CA, Cortellini A, Ma W, Ganta T, Song H, Ye F, Irlmeier R, Debnath N, Saeed A, Radford M, Alahmadi A, Diamond A, Hoimes C, Ramaiya N, Presley CJ, Owen DH, Abou Alaiwi S, Nassar A, Ricciuti B, Lamberti G, Bersanelli M, Casartelli C, Buti S, Marchetti P, Giusti R, Filetti M, Vanella V, Mallardo D, Macherla S, Sussman TA, Botticelli A, Galetta D, Catino A, Pizzutilo P, Genova C, Dal Bello MG, Kalofonou F, Daniels E, Ascierto PA, Pinato DJ, Choueiri TK, Johnson DB, Marron TU, Wang Y, Naqash AR. Clinical Outcomes and Toxic Effects of Single-Agent Immune Checkpoint Inhibitors Among Patients Aged 80 Years or Older With Cancer: A Multicenter International Cohort Study. *JAMA Oncol.* 2021;7(12):1856-61. Epub 2021/11/05. doi: 10.1001/jamaoncol.2021.4960. PubMed PMID: 34734989; PMCID: PMC8569601.
21. Tahri S, Mouhieddine TH, Redd RA, Lampe LM, Nilsson KI, El-Khoury H, Su NK, Nassar AH, Adib E, Bindra G, Abou Alaiwi S, Trippa L, Steensma DP, Castillo J, Treon SP, Ghobrial IM, Sperling AS. Clonal hematopoiesis is associated with increased risk of progression of asymptomatic Waldenstrom macroglobulinemia. *Blood Adv.* 2021. Epub 2021/12/01. doi: 10.1182/bloodadvances.2021004926. PubMed PMID: 34847227.
22. Bekele RT, Samant AS, Nassar AH, So J, Garcia EP, Curran CR, Hwang JH, Mayhew DL, Nag A, Thorner AR, Borcsok J, Sztupinszki Z, Pan CX, Bellmunt J, Kwiatkowski DJ, Sonpavde GP, Van Allen EM, Mouw KW. RAF1 amplification drives a subset of bladder tumors and confers sensitivity to MAPK-directed therapeutics. *J Clin Invest.* 2021;131(22). Epub 2021/09/24. doi: 10.1172/JCI147849. PubMed PMID: 34554931; PMCID: PMC859
23. Yang ES, Nassar AH, Adib E, Jegede OA, Alaiwi SA, Manna DLD, Braun DA, Zarei M, Du H, Pal SK, Naik G, Sonpavde GP. Gene Expression Signature Correlates with Outcomes in Metastatic Renal Cell Carcinoma Patients Treated with Everolimus Alone or with a Vascular Disrupting Agent. *Mol Cancer Ther.* 2021;20(8):1454-61. Epub 2021/06/11. doi: 10.1158/1535-7163.MCT-20-1091. PubMed PMID: 34108261.
24. Adib E\*, Nassar AH\*, Akl EW\*, Abou Alaiwi S, Nuzzo PV, Mouhieddine TH, Sonpavde G, Haddad RI, Mouw KW, Giannakis M, Hodi FS, Shukla SA, Gusev A, Braun DA, Choueiri TK, Kwiatkowski DJ. CDKN2A Alterations and Response to Immunotherapy in Solid Tumors. *Clin Cancer Res.* 2021;27(14):4025-35. Epub 2021/06/03. doi: 10.1158/1078-0432.CCR-21-0575. PubMed PMID: 34074656. (\* denotes co-first author)
25. Abou Alaiwi S\*, Nassar AH\*, Adib E\*, Groha SM, Akl EW, McGregor BA, Esplin ED, Yang S, Hatchell K, Fusaro V, Nielsen S, Kwiatkowski DJ, Sonpavde GP, Pomerantz M, Garber JE, Freedman ML, Rana HQ, Gusev A, Choueiri TK. Trans-ethnic variation in germline variants of patients with renal cell carcinoma. *Cell Rep.* 2021;34(13):108926. Epub 2021/04/01. doi: 10.1016/j.celrep.2021.108926. PubMed PMID: 33789101. (\* denotes co-first author)
26. Nassar AH, Adib E, Kwiatkowski DJ. Distribution of KRAS (G12C) Somatic Mutations across Race, Sex, and Cancer Type. *N Engl J Med.* 2021;384(2):185-7. Epub 2021/01/27. doi: 10.1056/NEJMc2030638. PubMed PMID: 33497555.
27. Zarei M, Giannikou K, Du H, Liu HJ, Duarte M, Johnson S, Nassar AH, Widlund HR, Henske EP, Long HW, Kwiatkowski DJ. MITF is a driver oncogene and potential therapeutic target in kidney angiomyolipoma tumors through transcriptional regulation of CYR61. *Oncogene.* 2021;40(1):112-26. Epub 2020/10/22. doi: 10.1038/s41388-020-01504-8. PubMed PMID: 33082558; PMCID: PMC7796905.
28. Baca SC, Takeda DY, Seo JH, Hwang J, Ku SY, Arafteh R, Arnoff T, Agarwal S, Bell C, O'Connor E, Qiu X, Alaiwi SA, Corona RI, Fonseca MAS, Giambartolomei C, Cejas P, Lim K, He M, Sheahan A,

- Nassar A, Berchuck JE, Brown L, Nguyen HM, Coleman IM, Kaipainen A, De Sarkar N, Nelson PS, Morrissey C, Korthauer K, Pomerantz MM, Ellis L, Pasaniuc B, Lawrenson K, Kelly K, Zoubeidi A, Hahn WC, Beltran H, Long HW, Brown M, Corey E, Freedman ML. Reprogramming of the FOXA1 cistrome in treatment-emergent neuroendocrine prostate cancer. *Nat Commun.* 2021;12(1):1979. Epub 2021/04/01. doi: 10.1038/s41467-021-22139-7. PubMed PMID: 33785741; PMCID: PMC8010057.
29. Bakouny Z, Braun DA, Shukla SA, Pan W, Gao X, Hou Y, Flaifel A, Tang S, Bosma-Moody A, He MX, Vokes N, Nyman J, Xie W, Nassar AH, Abou Alaiwi S, Flippot R, Bouchard G, Steinharter JA, Nuzzo PV, Ficial M, Sant'Angelo M, Forman J, Berchuck JE, Dudani S, Bi K, Park J, Camp S, Sticco-Ivins M, Hirsch L, Baca SC, Wind-Rotolo M, Ross-Macdonald P, Sun M, Lee GM, Chang SL, Wei XX, McGregor BA, Harshman LC, Genovese G, Ellis L, Pomerantz M, Hirsch MS, Freedman ML, Atkins MB, Wu CJ, Ho TH, Linehan WM, McDermott DF, Heng DYC, Viswanathan SR, Signoretti S, Van Allen EM, Choueiri TK. Integrative molecular characterization of sarcomatoid and rhabdoid renal cell carcinoma. *Nat Commun.* 2021;12(1):808. Epub 2021/02/07. doi: 10.1038/s41467-021-21068-9. PubMed PMID: 33547292; PMCID: PMC7865061.
30. McGregor BA, Lalani AA, Xie W, Steinharter JA, Z EB, Martini DJ, Fleischer JH, Abou-Alaiwi S, Nassar A, Nuzzo PV, Kaymakalan MD, Braun DA, Wei XX, Harshman LC, Bilen MA, Choueiri TK. Activity of cabozantinib after immune checkpoint blockade in metastatic clear-cell renal cell carcinoma. *Eur J Cancer.* 2020;135:203-10. Epub 2020/07/01. doi: 10.1016/j.ejca.2020.05.009. PubMed PMID: 32599410.
31. Mouhieddine TH, Sperling AS, Redd R, Park J, Leventhal M, Gibson CJ, Manier S, Nassar AH, Capelletti M, Huynh D, Bustoros M, Sklavenitis-Pistofidis R, Tahri S, Hornburg K, Dumke H, Itani MM, Boehner CJ, Liu CJ, AlDubayan SH, Reardon B, Van Allen EM, Keats JJ, Stewart C, Mehr S, Auclair D, Schlossman RL, Munshi NC, Anderson KC, Steensma DP, Laubach JP, Richardson PG, Ritz J, Ebert BL, Soiffer RJ, Trippa L, Getz G, Neuberg DS, Ghobrial IM. Clonal hematopoiesis is associated with adverse outcomes in multiple myeloma patients undergoing transplant. *Nat Commun.* 2020;11(1):2996. Epub 2020/06/14. doi: 10.1038/s41467-020-16805-5. PubMed PMID: 32533060; PMCID: PMC7293239.
32. Nuzzo PV, Berchuck JE, Korthauer K, Spisak S, Nassar AH, Abou Alaiwi S, Chakravarthy A, Shen SY, Bakouny Z, Boccardo F, Steinharter J, Bouchard G, Curran CR, Pan W, Baca SC, Seo JH, Lee GM, Michaelson MD, Chang SL, Waikar SS, Sonpavde G, Irizarry RA, Pomerantz M, De Carvalho DD, Choueiri TK, Freedman ML. Detection of renal cell carcinoma using plasma and urine cell-free DNA methylomes. *Nat Med.* 2020;26(7):1041-3. Epub 2020/06/24. doi: 10.1038/s41591-020-0933-1. PubMed PMID: 32572266; PMCID: PMC8288043.
33. Lasseter K\*, Nassar AH\*, Hamieh L\*, Berchuck JE\*, Nuzzo PV\*, Korthauer K, Shinagare AB, Ogorek B, McKay R, Thorner AR, Lee GM, Braun DA, Bhatt RS, Freedman M, Choueiri TK, Kwiatkowski DJ. Plasma cell-free DNA variant analysis compared with methylated DNA analysis in renal cell carcinoma. *Genet Med.* 2020;22(8):1366-73. Epub 2020/04/29. doi: 10.1038/s41436-020-0801-x. PubMed PMID: 32341571. (\* denotes co-first author)
34. Abou Alaiwi S\*, Nassar AH\*, Xie W, Bakouny Z, Berchuck JE, Braun DA, Baca SC, Nuzzo PV, Flippot R, Mouhieddine TH, Spurr LF, Li YY, Li T, Flaifel A, Steinharter JA, Margolis CA, Vokes NI, Du H, Shukla SA, Cherniack AD, Sonpavde G, Haddad RI, Awad MM, Giannakis M, Hodi FS, Liu XS, Signoretti S, Kadoch C, Freedman ML, Kwiatkowski DJ, Van Allen EM, Choueiri TK. Mammalian SWI/SNF Complex Genomic Alterations and Immune Checkpoint Blockade in Solid

- Tumors. *Cancer Immunol Res.* 2020;8(8):1075-84. Epub 2020/04/24. doi: 10.1158/2326-6066.CIR-19-0866. PubMed PMID: 32321774; PMCID: PMC7415546. (\* denotes co-first author)
35. Nassar AH\*, Abou Alaiwi S\*, AlDubayan SH\*, Moore N, Mouw KW, Kwiatkowski DJ, Choueiri TK, Curran C, Berchuck JE, Harshman LC, Nuzzo PV, Chanza NM, Van Allen E, Esplin ED, Yang S, Callis T, Garber JE, Rana HQ, Sonpavde G. Prevalence of pathogenic germline cancer risk variants in high-risk urothelial carcinoma. *Genet Med.* 2020;22(4):709-18. Epub 2019/12/18. doi: 10.1038/s41436-019-0720-x. PubMed PMID: 31844177; PMCID: PMC7118025. (\* denotes co-first author)
36. Alessandrino F, Williams K, Nassar AH, Gujrathi R, Silverman SG, Sonpavde G, Shinagare AB. Muscle-invasive Urothelial Cancer: Association of Mutational Status with Metastatic Pattern and Survival. *Radiology.* 2020;295(3):572-80. Epub 2020/04/02. doi: 10.1148/radiol.2020191770. PubMed PMID: 32228295.
37. Nuzzo PV, Pond GR, Abou Alaiwi S, Nassar AH, Flippot R, Curran C, Kilbridge KL, Wei XX, McGregor BA, Choueiri T, Harshman LC, Sonpavde G. Conditional immune toxicity rate in patients with metastatic renal and urothelial cancer treated with immune checkpoint inhibitors. *J Immunother Cancer.* 2020;8(1). Epub 2020/04/03. doi: 10.1136/jitc-2019-000371. PubMed PMID: 32234849; PMCID: PMC7174062.
38. Martinez Chanza N, Xie W, Issa M, Dzimitrowicz H, Tripathi A, Beuselinck B, Lam E, Zakharia Y, McKay R, Shah S, Mortazavi A, M RH, Sideris S, Kaymakcalan MD, Abou Alaiwi S, Nassar AH, Nuzzo PV, Hamid A, T KC, L CH. Safety and efficacy of immune checkpoint inhibitors in advanced urological cancers with pre-existing autoimmune disorders: a retrospective international multicenter study. *J Immunother Cancer.* 2020;8(1). Epub 2020/03/29. doi: 10.1136/jitc-2020-000538. PubMed PMID: 32217762; PMCID: PMC7174076.
39. Abou Alaiwi S, Xie W, Nassar AH, Dudani S, Martini D, Bakouny Z, Steinharter JA, Nuzzo PV, Flippot R, Martinez-Chanza N, Wei X, McGregor BA, Kaymakcalan MD, Heng DYC, Bilen MA, Choueiri TK, Harshman LC. Safety and efficacy of restarting immune checkpoint inhibitors after clinically significant immune-related adverse events in metastatic renal cell carcinoma. *J Immunother Cancer.* 2020;8(1). Epub 2020/02/19. doi: 10.1136/jitc-2019-000144. PubMed PMID: 32066646; PMCID: PMC7057439.
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***Peer-Reviewed Reviews, Practice Guidelines, Standards, and Consensus Statements***

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***Peer-Reviewed Case Reports and Technical Notes***

1. Nassar AH, Lundgren K, Kim J, Choueiri TK, Sonpavde GP, Kwiatkowski DJ, Bellmunt J. Sequential Response to FGFR3 Inhibition With Subsequent Exceptional Response to Atezolizumab in a Patient With FGFR3-TACC3 Fusion-Positive Metastatic Urothelial Carcinoma. *JCO Precis Oncol.* 2018;2. Epub 2018/07/24. doi: 10.1200/PO.18.00117. PubMed PMID: 33604497; PMCID: PMC7885951
2. Nassar AH, Abdul-Jawad BM, Barnes DS. Hepatic Failure Due to Cholestatic Hepatitis C in an Immunosuppressed Patient Treated With Elbasvir and Grazoprevir. *ACG Case Rep J.* 2018;5:e6. Epub 2018/02/03. doi: 10.14309/crj.2018.6. PubMed PMID: 29392153; PMCID: PMC5772065.