Lung Cancer

Janaki Deepak (jadeepak@som.umaryland.edu): Dr. Deepak's clinical research focuses on lung nodule evaluation, lung cancer screening and tobacco health. Dr. Deepak's areas of research interests are Lung cancer, and COPD. She is the director of the VA lung mass clinic. She has looked at the outcomes of COPD patients with early and late-stage lung cancer and role of the pulmonologist in improving stage specific treatment and in overall survival. She is in the process of evaluating racial and socioeconomic differences in the outcomes of veterans who are seen in a dedicated lung mass clinic, in regard to time to diagnosis and treatment and overall survival. She is interested in lung cancer screening and in helping further define the high-risk populations for lung cancer by evaluating the genetic profiles in addition to the clinical characteristics. She is currently working with DR Mann and Dr. Jiang in an NCI cooperative project of looking at genetic profiles of patients with lung nodules found on their screening CT for lung cancer. This will help differentiate those who are at higher risk for developing lung cancer. She is also working on evaluating lung cancer outcomes in the female veteran population.

In addition, she is working on creating a lung nodule curriculum for the fellows which includes asynchronous learning through web-based video presentations, in person didactics and includes a pre and post Qualtrics survey.

She has also studied use of web-based videos of Tobacco Health curriculum on pulmonary fellows and is working to expand this for the internal medicine residents.

She is the local site PI in the Baltimore VAMC for the Lung Cancer Precision Oncology Program and the Veterans Affairs Lung Cancer Surgery Or Stereotactic Radiotherapy (VALOR) study.

Highlighted Publications:

1. Jiang F, Qiu Q, Khanna A, Todd NW, Deepak J, Xing L, Wang H, Liu Z, Su Y, Stass SA, Katz RL. Aldehyde dehydrogenase 1 is a tumor stem cell-associated marker in lung cancer. Mol Cancer Res. 2009 Mar; 7(3):330-8. Epub 2009 Mar 10. PubMed PMID: 19276181.

2. Xie Y, Todd NW, Liu Z, Zhan M, Fang H, Peng H, Alattar M, Deepak J, Stass SA, Jiang F. Altered miRNA expression in sputum for diagnosis of non-small cell lung cancer. Lung Cancer. 2010 Feb; 67(2):170-6. Epub 2009 May 14. PubMed PMID: 19446359; PubMed Central PMCID: PMC2846426.

3. Nevins W Todd, Jean Jeudy, Sachin Lavania, Teri J Franks, Jeffrey R Galvin, Janaki Deepak, Edward J Britt, Sergei P Atamas. Centrilobular emphysema combined with pulmonary fibrosis results in improved survival. Fibrogenesis & Tissue Repair 2011, 4:6

4. DeLisle S, Kim B, Deepak J, Siddiqui T, Gundlapalli A, Samore M, D'Avolio L: PLoS One. 2013 Aug 13; 8(8). Using the electronic medical record to identify community-acquired pneumonia: toward a replicable automated strategy.

5. J Wang, X Tian, R Han, X Zhang, X Wang, H Shen, L Xue, Y Liu, X Yan, J Shen, K Mannoor, J Deepak, J M Donahue, S A Stass, L Xing and F Jiang: Oncogene advance online publication 11 March 2013; :Downregulation of miR-486-5p contributes to tumor progression and metastasis by targeting protumorigenicARHGAP5 in lung cancer

6. Janaki Deepak, Xinyi Ng, Josephine Feliciano, Li Mao, Amy J. Davidoff.Annals ATS. First published online 11 Mar 2015 DOI10.1513/AnnalsATS.201406-230OC: Pulmonologist Involvement, Stage-Specific Treatment, and Survival in Adults with Non-Small Cell Lung Cancer and COPD.

Links:

Faculty webpage: http://www.medschool.umaryland.edu/profiles/Deepak-Janaki/

Feng Jiang (FJiang@som.umaryland.edu)**:** The Jiang lab focuses on identifying and charactering molecular genetic changes that occur in lung cancer, understanding the complex functional networks underlying tumorigenesis, translating the new discovers to laboratory settings that can advance health care of lung cancer patients, and developing biomarkers for lung cancer early detection and diagnosis.

Highlighted Publications:

1. Microbiota Biomarkers for Lung Cancer. Q Leng, VK Holden, J Deepak, NW Todd, F Jiang. Diagnostics 11 (3), 407, 2021. https://pubmed.ncbi.nlm.nih.gov/33673596/
2. High-Throughput Detection of Multiple miRNAs and Methylated DNA by Droplet Digital PCR. N Li, P Dhilipkannah, F Jiang. Journal of personalized medicine. 11 (5), 359. 2021. https://pubmed.ncbi.nlm.nih.gov/33946992/
3. Rapid and sensitive detection of SARS-CoV-2 using clustered regularly interspaced short palindromic repeats. JH Tsou, H Liu, SA Stass, F Jiang. Biomedicines 9 (3), 239, 3, 2021. https://pubmed.ncbi.nlm.nih.gov/33673601/
4. Autoantibodies against tumor-associated antigens in sputum as biomarkers for lung cancer. N Li, VK Holden, J Deepak, NW Todd, F Jiang. Translational Oncology 14 (2), 2021. https://pubmed.ncbi.nlm.nih.gov/33333369/
5. Integrated analysis of miRNAs and DNA methylation identifies miR-132-3p as a tumor suppressor in lung adenocarcinoma. Y Su, A Shetty, F Jiang. Thoracic cancer 11 (8), 2112-2124, 2020. https://pubmed.ncbi.nlm.nih.gov/32500672/
6. A non-coding RNA landscape of bronchial epitheliums of lung cancer patients. Y Lin, V Holden, P Dhilipkannah, J Deepak, NW Todd, F Jiang. Biomedicines 8 (4), 88, 7, 2020. https://pubmed.ncbi.nlm.nih.gov/32294932/
7. A CRISPR Test for Rapidly and Sensitively Detecting Circulating EGFR Mutations. JH Tsou, Q Leng, F Jiang. Diagnostics 10 (2), 114,20120.https://pubmed.ncbi.nlm.nih.gov/32093010/

Links:

Med School faculty page: http://www.medschool.umaryland.edu/profiles/Jiang-Feng/