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I am delighted to nominate Dr Deepali Jain's work for prestigious Sun Pharma Science Foundation Research Awards

30.08.23

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August 28, 2023

Citation (summary) on the outstanding research work on which the award is claimed (250 words)

I am delighted to nominate Dr Deepali Jain's work for prestigious **Sun Pharma Science Foundation Research Awards.**

In the recent work done by Deepali Jain's lab, investigators characterized the immune landscape of small cell lung cancer (SCLC) by analysing the expression of various immune regulatory molecules on tumor cells as well as in the tumor microenvironment along with evaluation of the levels of immune-regulatory, inflammatory and other protein mediators in blood of these patients. SCLC patients showed immune- suppressive milieu in their peripheral circulation. The findings in the study suggest predictive usefulness of theragnostic biomarkers IDO1, s-CTLA-4, IFN-γ, TNF-α and IL-2. Much talked about biomarker programmed death ligand-1 (PD-L1) poorly expressed in SCLC tumor cells/ tumor microenvironment. (**Sci Rep**. 2023 Mar 6;13(1):3739. **IF 4.6**)

In her another piece of work, she has identified specific algorithms based on known cytomorphologic features for accurate and successful subtyping of non-small cell lung carcinoma (NSCLC) on cytology. A total of 13 expert cytopathologists from all over the world representing cytology working group of IASLC participated to subtype more than 100 NSCLC cytology cases using 23 predefined cytopathologic features. Data were analyzed using machine learning algorithms. In addition to identifying multiple cytomorphologic features, machine learning algorithms were able to reduce NSCC-NOS rates however only at the cost of increasing misclassification rates. The work reinforces the importance of using ancillary studies for subclassifying NSCLC into adenocarcinoma and squamous cell carcinoma, which is not considered in many laboratories. (**J Thorac Oncol**. 2022 Jun;17(6):793-805. **IF 20.4**)

(Anurag Agrawal)