

HIV/AIDS and the Tumor Niche

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RFA Purpose

Continue Advancing our Understanding of the

- Risks
- Development
- Progression
- Biology
- Diagnosis
- Treatment

of Malignancies observed in individuals with an underlying HIV infection

HIV's role in the tumor niche current state of knowledge:

T Cells

Monocyte/Macrophage

Dendritic Cells

Role largely unknown:

Stroma

B Cells

Extracellular Matrix

Others?

Scientific Question 1

Does HIV influence the tumor niche?

- How does HIV directly or indirectly establish a tumor niche?
- Do HIV induced activities lead to altered risks of various tumors in the HIV positive population?
- How is the stroma affected during acute or chronic HIV infection?

Scientific Question 2

Do inflammation & immune dysfunction direct & establish the tumor niche?

- Does inflammation contribute to establishing and maintaining the tumor niche?
- Do changes in the extracellular matrix alter the environment to make it an attractive tumor niche?
- Does immunosuppression contribute to an increased risk of developing rare AIDS-defining tumors or non-AIDS-defining tumors?
- Does co-infection of HIV+ with infectious agents (HBV, HCV, HPV, KSHV, EBV) also contribute to the tumor niche?

Administrative

- Mechanism: R01 (5 years)
- Two Receipt Dates
 - Anticipated Award Dates
 - ~December, 2017
 - ~ July, 2018
- Anticipate Funding 4-5 applications per each receipt date

Budget

- First Year Budget Set Aside (per receipt date): \$ 2 million
- Source of Funds: RPG
- Total Budget for Project Period: ~\$ 20 million
- Funding through OAR

Background

- Each year NIH OAR requests new AIDS-related Initiatives from ICs that receive funds for OAR-defined “High” or “Medium” Priority AIDS research.
- NCI’s Requests to OAR were submitted to the NCI Director for Prioritization and submitted to OAR.
- This topic corresponds to relevant areas of emphasis in the NIH OAR FY2017 Plan for HIV-related Research.

Current Portfolio Analysis

175 total NCI AIDS Funded Grants 2015-2016
(searching terms “AIDS” and “all”)

then added Terms to the above search for

- AIDS tumor microenvironment 3
- AIDS and Tumor Niche 0
- HIV and Tumor Niche 0
- AIDS cancer and microenvironment 0
- AIDS-malignancy & tumor environment 0
- AIDS-environment 0
- Tumor Niche and AIDS 0

Justification for Use of an RFA

- As an incentive to propose projects that will address the Tumor Niche with an underlying HIV infection, set aside funds are necessary.
- The requested budget set-aside may attract applications from AIDS/HIV investigators who may be new to cancer research.
- Applications will be reviewed by a panel of area experts convened by NCI DEA.

Evaluation of the HIV Infection and the Tumor Niche RFA

- Extramural scientific staff from DCB, OHAM and other DOCs (Committee) will;
 - Track all applications from receipt and evaluations of responsiveness through funding plan approval.
 - Comment on progress/accomplishments.
 - Track the number and impact factors of publications and the subsequent new awards.
 - Solicit input from the BSA ad hoc sub-committee on HIV and AIDS Malignancies.

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Questions?