Title of the project
Towards Deciphering the Interaction between Diabetes and Cancer

Category (translational/bioengineering/biodesign): Translational

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Statement of research
Emerging evidence points towards an association between inflammation, diabetes and cancer (Demaria et al 2010). The association of obesity-linked inflammation with diabetes and with cancer is well known. However, in the absence of obesity, the relationship between inflammation & diabetes [Lean diabetes (Mary George et al, 2015), often the case in Indian subcontinent] and cancer remains to be characterized. To address this gap in knowledge, we propose to study the immune-metabolic profiles (Grivennikov et al 2010) of patients with cancer that either have or do not have diabetes as a co-morbidity. Such a study is likely to help in predicting a possible association of cancer risk in diabetics and will potentially result in the identification of specific immunological diagnostic markers for the progression of these diseases. An increased understanding of the immunometabolic profiles of diabetics is likely to help in predicting a possible association of cancer risk among them.

Representative blood cytokine analysis of cancer patients