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**Title of project:** The ASPIRE study: Assessing and simulating (pre-)miRNA expression for diabetes prediction and prevention

## ABSTRACT

The **A**ssessing and **S**imulating **P**re-mi**R**NA **E**xpression (ASPIRE) Study will test the role of protein-non-coding molecules (called “microRNAs”), in differentiation of pancreatic stem/progenitor cells. Previous studies by the group have identified such microRNA molecules that may improve the levels of insulin hormone produced by progenitor cells. A specific set of these microRNA molecules will also be assessed for their potential to detect the death of insulin-producing cells from a drop of blood, in individuals with or at risk of type 1 diabetes. Hopefully, study outcomes may provide better ways to stratify risk of type 1 diabetes, predict progression to diabetes complication and also identify potential targets for treatment of diabetes.