

CWSF 2017 - Regina, Saskatchewan



Kanishka Raval

Artificial Pancreas ? End to Finger Pricks, A Boon for Diabetics

Challenge: Health

Category: Intermediate

Region: Edmonton

City: Edmonton, AB

School: Aurora Charter School

Abstract: The Artificial Pancreas is a device that continually senses blood glucose levels, determines accurate insulin level and delivers insulin into the body to regulate blood glucose levels for diabetic patients. For my project, I have built a model of an artificial pancreas to investigate the challenges of getting such a device to work and have done several tests to research problems it could technically face.

Biography

My name is Kanishka Raval. I am a science enthusiast and a passionate dancer studying in grade 9 at Aurora Academic Charter School from Edmonton, Alberta. I have been an academic honors student throughout my education and have been a recipient for several academic, citizenship, volunteer, dance and sports awards. Recently, I won bronze in badminton, silver in science Olympics, and bronze in regional science fair along with a special NAIT Women in Technology Award. I volunteer at the Grey Nuns community hospital for past 2 years and am passionate about people's service. My future plan is to pursue a career in medical science and would love to become a pediatrician. I got inspiration for my Artificial Pancreas project from my volunteer and some personal experience as someone close in my family has diabetes which made me curious to do some research on the topic. For further investigation, I would willingly look into how we could use such a device and substitute other medications so it not only can be used by diabetics but can be used by all patients. My advice to students looking into doing a project would be to stay focused and know your subject thoroughly.

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