

Nanotechnology in pancreatic cancer

Rachel Onchuru, Dr. Clare Hoskins
Department of Pure and Applied Chemistry
rachel.onchuru@strath.ac.uk

 @onchuru_rachel



INTRODUCTION

- Pancreatic cancer is the 4th most aggressive cancer in the Western world today.
- The lack of symptoms leads to a delay in the diagnosis and treatment of the disease.

What is nanotechnology?

It is simply a field of research involved in creating small molecules for various purposes.

- In this instance, nanoparticles will be synthesised for the diagnosis and treatment of pancreatic cancer.



How do we do that?

- The project aims to synthesise a hybrid nanoparticle which responds to heat stimulus.
- The nanoparticles will offer the benefit of diagnosing and treating the cancer.
- These will then be taken through a series of tests inside living cells to ensure safety and functionality of the nanoparticles.

How far?

The project is still at the initial stages of synthesising nanoparticles.

What next?

- After synthesis of the nanoparticles, they would undergo sampling analysis.
- After analysis of the surface chemistry of the nanoparticles and how it affects their efficacy, they would be tested on living cells.
- The end goal of this project is to safely optimise a hybrid nanoparticle that can aid in the diagnosis and treatment of pancreatic cancer.

This way, many deaths that occur as a result of late diagnosis of pancreatic cancer will be curbed and patients will be able to get early treatment of the disease which will improve prognosis.

soon.



References:

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