An international consortium of scientists led by a group from the University has announced a new advance in understanding the mechanisms of cancer and how to target it more effectively with new treatments.

Two papers published in the same issue of the world-leading Journal of Cell Biology have arisen from research work led by Professor Andrew Fry from the Department of Biochemistry. Both papers suggest that new understanding of the mechanics of cell division can reveal new targets for cancer therapy.

Professor Fry, who is Director of Research in the College of Medicine, Biological Sciences and Psychology at Leicester, said: “Together, these two papers provide exciting new insights on how cells ensure that they faithfully pass on the right amount of genetic material to their offspring when they divide. They also highlight potential new targets for the development of novel cancer treatments.”

The team studies cell division and how this process is controlled in normal cells,
how it goes wrong in cancer and how it might be targeted with drugs that can more effectively eradicate the tumor whilst causing less side-effects for cancer patients.

The first of these two papers, led by Dr Laura O’Regan, demonstrates that an enzyme called Nek6 controls the stability of the structural scaffold upon which the genetic material, encoded on chromosomes, is separated. In the second paper, work led by Dr Suzanna Prosser demonstrates that an enzyme belonging to the same family as Nek6, in this case called Nek5, also provides a key function in enabling timely assembly of the structural scaffold required for chromosome division with loss of Nek5 leading to genetic damage.

Source: University of Leicester [1]

Source URL (retrieved on 05/24/2015 - 9:29pm): http://www.dddmag.com/news/2015/05/potential-new-cancer-treatment-targets-identified