

COVID-19 VACCINES AND NANOTECHNOLOGY: AN INTERACTIVE GAME

Department:

Stratford School of Interactive Design and Business, Communication Arts

Project type:

Academic Partnership

Project funded by:

The Games Institute, Waterloo Institute for Nanotechnology, and Waterloo Human Computer Interaction Games Group

Project Co-Researchers:

Arnold Dian Abistado, Health Studies; Ekaterina Durmanova, Systems Design Engineering; Johannes Kopf, Graz University of Technology; Dr. Roderick Slavcev, School of Pharmacy, Waterloo Institute for Nanotechnology; Ally Suarez, Health Studies; Dr. Oleg Stukalov, Waterloo Institute for Nanotechnology; Dr. Lisa Pokrajac, Waterloo Institute for Nanotechnology; Alice Yiyang Peng, Mathematics



DR. LENNART NACKE

The Waterloo Institute of Nanotechnology (WIN) has partnered with the Games Institute and the Human Computer Interaction (HCI) Games Group to create knowledge translation tools for explaining how the application of nanotechnology (the manipulation of materials on an atomic or molecular scale) impacts our daily lives. The first of the “Explaining Nanotechnology to the General Public” projects focused on educating the public about how DNA-based nasal sprays can be used as intranasal vaccines.

The HCI Games Group, led by Dr. Lennart Nacke, worked to showcase the research of WIN members Drs. Roderick Slavcev, Emmanuel Ho and Marc Aucoin through an educational game. Players move through a series of chapters that visualize how Covid-19 is transmitted, infects, and spreads through a healthy respiratory system; how different vaccines have been used to fight the virus; and how nanotechnology vaccines work. The game focuses specifically on the “Synthetic Infection Vaccine”, an intranasal vaccine currently being developed by WIN researchers in collaboration with Theraphage. While this technology can be used to fight Covid-19, it also has the potential to combat any future viruses that we may encounter.



For more information scan this QR code.