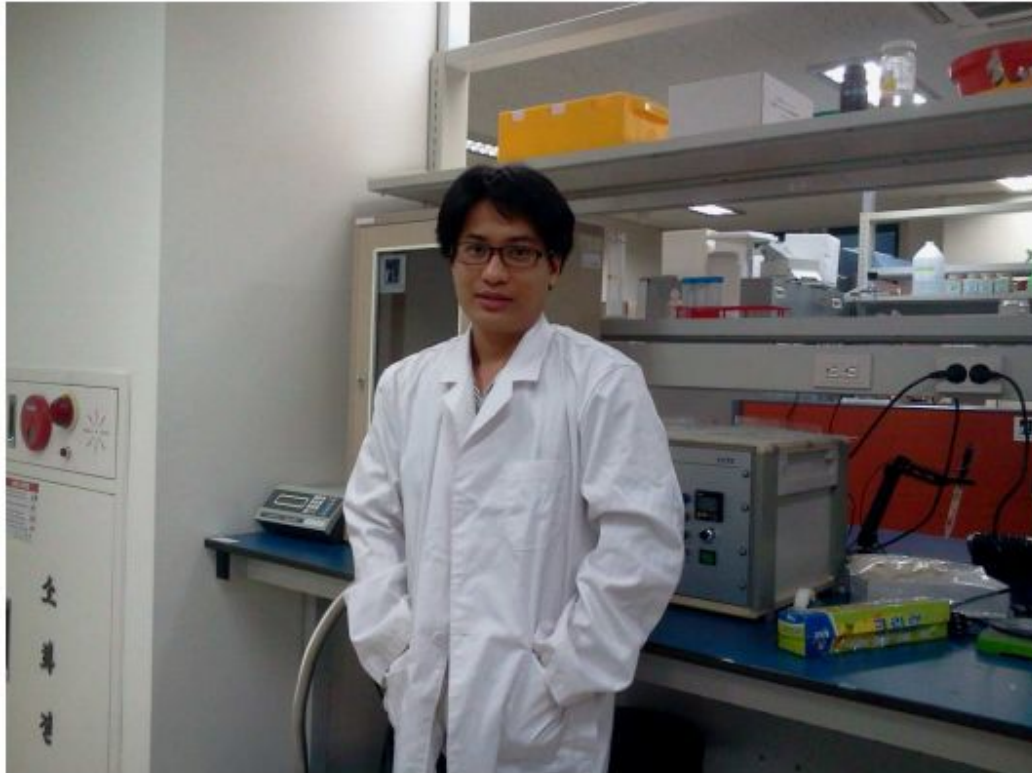


Vu Thanh Cong – Gachon University of Medicine and Science – Republic of Korea

Vu Thanh Cong was an alumnus of Advanced Biotechnology Program course 32. Cong is now studying his Master Degree at Gachon University and carrying his thesis in Nanosensor and Nanocatalyst Laboratory. The main focus of the laboratory is silica nanotube (SNT), applications in pharmaceutical medicine and chemical reaction catalysts. Silica nanotube is a hollow cylindrical tube composed of silica with the diameter ranging from 50 to 90 nm. The silica layers covering at both sides of SNT can bind to different organic groups generating either hydrophobic or hydrophilic characteristic. SNT then can be used to carry protein, DNA or RNA. Besides, with the size of one-dimensional nanoparticle, SNT can hold fluorescent particle (e.g. quantum dot) which can be detected by laser with appropriate wavelength as it is moving inside the cell. When SNT is bound to magnetic nanoparticles (Fe_3O_4), we can orientate it to the target site and then release the biomolecule via a magnetic field. Cong is studying on the transportation of siRNA using SNT with gold nanoparticle being the gate (cổng rào).

The
of

aim
his



Translator: Nguyen Thanh Huy

research is to protect and transport siRNA to cancer cells via SNT.

Cong at the Nanosensor and Nanocatalyst Laboratory

Translator: Nguyen Thanh Huy