

Executive unit	Department of Chemistry, Department of Physics
Project name	Research and development of precision medicine treatment as an innovative teaching resource in 2020 – Project Summary – Development and promotion of using precision-induced targeted drug technology as a teaching module
Project host	Lianhui Hong/Yangwei Lin

1. Project Summary:

The purpose of this project is to improve the national technological literacy of the public in the standard or non-standard education field, to provide rich and enlightening biotechnology and medicine innovation education resources and learning activities, and to enhance the public's understanding of biotechnology and medicine. Therefore, this project will generate interest, appreciation, knowledge, and participation to improve people's technological literacy. Furthermore, we will connect K-12 schools at all levels to create a field for teaching and learning birth technology and medicine. We will also develop curriculum modules to enhance teachers' professional quality for induced target drugs, focus release control drugs, and induced release drugs. Finally, we will organise various biotechnology and medicine promotion and research activities to transform high-end materials into more accessible ones to promote them to the public.

2. Achievements:

(I) Visual teaching aids: Five sets in total. These are MRI diagnostic imaging teaching aids, magnetic guided near-infrared light drug release teaching aids, light and energy teaching aids, light-induced chemical reaction teaching aids, and cancer cell identification teaching aids.

(II) Science Popularisation Articles: Completed four articles: 'Water knows the secrets of the body!', 'Magnetic resonance imaging and cancer detection', 'All-in-one cancer treatment: a grasp of diagnosis and treatment', 'Light and energy', and 'Gathering energy for master stroke and cell identification'.

(III) Science Popularisation activities: In total, 1,860 people participated in the 3 sessions.

Date	Planned events	Target groups	session/participants
2020/03/07	Science Activities of the National	Senior	1/60

	Changhua University of Education College of Science	High school students	
2020/10/27	Science Popularisation Round-the-Island Train Hands-on Activities	Primary School students	1/1500
2020/10/31	College of Science Fun Open Day of Science	Primary School students	1/300

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Supporting photos



Caption: Explaining the principle of light-induced drug release.



Caption: Science Popularisation Round-the-Island Train Hands-on

Activities



Caption: College of Science Fun Open Day of Science Activity: Introducing the DNA Aptamer and configuration changes.



Caption: Science Popularisation Activities: Senior High School Gifted Students Physics Promotion Class.

Related links

None