香港城市大學
City University of Hong Kong

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Professional·Creative
For The World

Matchmaking Symposium for Innovation Projects at City University of Hong Kong

Date: 28 January 2016
Time: 2:30 - 4:30pm
Venue: Room 8210, AC3, City University of Hong Kong, Tat Chee Avenue, Kowloon Tong

Introduction

What is it?

The "Matchmaking Symposium for Innovation Projects at City University of Hong Kong" will introduce industry representatives, entrepreneurs, and potential investors to several creative and innovative CityU projects. These projects have led to new product prototypes, new practices, and new intellectual property. The matchmaking symposium aims at exploring the possibility of commercialisation through this industry-university meeting and dialog.

When and Where?

Date: 28 January 2016
Time: 2:30-4:30pm
Venue: Room 8210, AC3, City University of Hong Kong, Tat Chee Avenue, Kowloon Tong
(Route map: http://www6.cityu.edu.hk/wayfinder/GettingToU/bymtr-kt1.htm#ac31)

Why join the symposium?

The symposium offers a speed-networking opportunity to promote business cooperation between the academics and industry, so as to explore the feasibility and potential of new idea/product/service dissemination via different platforms. The principal investigators of the following projects will introduce their projects to potential investors and members of entrepreneurship associations, who are invited to comment and share their views.

1. pro-siRNA: A technology platform for disease gene discovery and disease therapy
2. Ed-tech on gamification for learning mathematics
3. Ready-to-Feed Bottle

A programme run-down and an executive summary briefly describing the projects are enclosed.

How to join?

The symposium will be an excellent platform for you to promote your organisation. It may also help trigger collaborations with other participants. Please contact Miss Bell Wong at bell.wong@cityu.edu.hk or 3442-9187 by **25 January 2016** if you are interested in participating. Thank you.

Online Registration :
http://www6.cityu.edu.hk/dfest/public/Event.aspx?id=42

Agenda

Facilitator: **Dr Hongyi SUN**, Associate Professor, Department of Systems Engineering and Engineering Management

Venue: Room 8210, AC3, City University of Hong Kong	
2:30 – 2:40	Registration
2:40 – 2:50	Opening Remarks by Mr David AI, Director of Knowledge Transfer Office
2:50 – 3:20	**pro-siRNA: A technology platform for disease gene discovery and disease therapy** Presentation by Dr Linfeng HUANG and Dr Guneet KAUR, Department of Biomedical Sciences Q&A session
3:20 – 3:50	**Ed-tech on gamification for learning mathematics** Presentation by Dr TAN Chee Wei, Department of Computer Science Q&A session
3:50 – 4:20	**Ready-to-Feed Bottle** Presentation by WONG Ka Po, WONG Wing Sze and YIM Ho Yee, CityU Graduates Q&A session
4:20 – 4:30	Closing Remarks by Professor Christian WAGNER, Associate Provost (Quality Assurance)

Executive summary for participating projects

1. pro-siRNA: A technology platform for disease gene discovery and disease therapy

Dr Linfeng HUANG and Dr Guneet KAUR
Department of Biomedical Sciences

Proteins are the fundamental building blocks of human body and they are made from DNA through a number of steps, involving an important intermediate molecules, RNA. Interfering RNA function is a revolution in biology that provides an advanced way to cure diseases by preventing disease-causing proteins from being made. After almost 15 years of clinical development, siRNA (short interfering RNA) drugs are close to getting administrative approval for treating multiple diseases. However, the cost of producing siRNA molecules (mainly by chemical synthesis) is so high that it limits their application as therapeutic modality. Its production process is also time consuming.

pro-siRNA is a proprietary technology platform that provides a cost-effective way to making siRNA molecules to help cure diseases. ***pro-siRNA***

- is the world's first and only cell-based method for producing highly potent and specific siRNAs in bacteria.
- has less side effects as compared to chemically synthesised siRNA.
- is easily adaptable to an industry setting for large-scale production.
- is particularly suitable for targeting more variable genes like cancer genes and viral genes.

Our proprietary platform is patent protected. We are

- developing the technological capacity of producing large amount of ***pro-siRNAs*** targeting important diseases like Ebola, HBV and cancers.
- establishing a "personalised" diagnostic tool for the identification of cancer causing genes and potential drug targets for human cancers.

We are seeking investment to fund a startup and commercialise our technology platform:

- We position our startup as a contract research organisation, receiving outsourced orders from research institutions or pharmaceutical companies and delivering within a week the required siRNA molecules at a low price.
- We will also use the investment to scale up the production line for large scale production.

Executive summary for participating projects

2. Ed-tech on gamification for learning mathematics

Dr TAN Chee Wei
Department of Computer Science

'Computer coding is being touted as a "foundation skill" of the future that this generation of children will need to get jobs' (The Age, June 7 2015)[1].

To aid learning, the market is filled with educational toy/game/software and different kinds of elearning aids/platforms. Most products for primary school students are on improving their basic skills including language and numeracy. What about the "new" foundation skill for the children?

At the Computer Science Department at the City University of Hong Kong, we have developed a novel gamification software and data analytics platform (including mobile apps, Facebook apps) which is a new two-way educational technology in the era of *personalised learning*.

Children players can:

- learn elementary mathematics by playing brilliantly-crafted games.
- "see" the source-code and remix them to create variants to enhance their computational thinking.

Educators can gain insights to these learning processes that can be analysed by big data analytics. Children's online game-playing learning behaviour can be integrated into offline in-class teaching under the supervision of their teachers, an approach to unlock the online-to-offline (O2O) business in education.

Beyond enhancing numeracy and computational thinking skills, our gamification software can be useful to children with dyscalculia – a math disability in learning or comprehending arithmetic (one in twenty).

The initial prototypes can be accessed at: http://www.algebragamification.com. We are rolling out trials in partnership with some local primary schools to demonstrate that children can *play to learn mathematics*. In parallel with worldwide K-12 STEM outreach events such as the *MIT Scratch Day* and *the Hour of Code Week* that inculcate computational thinking, we have created an OHAHOA Day[2] for play-testing trials that will evolve into multi-pronged learning: *Learn to code, code to learn mathematics.*

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[1] http://www.theage.com.au/national/education/coding-education-in-schools-crucial-as-english-and-maths--or-is-it-20150529-ghct42.html#ixzz3wQaWTWdk

[2] OHAHOA Day stands for "Oh Hooray! Another Hour Of Algebra" Day. Notably, OHAHOA is a well-known mnemonic for "Oh Heck, Another Hour Of Algebra" that expresses a sense of frustration in teaching mathematics. We want to turn frustration into fun.

Executive summary for participating projects

3. Ready-to-Feed Bottle ("RTF Bottle")

WONG Ka Po, WONG Wing Sze and YIM Ho Yee
CityU Graduates

Ready-to-Feed Bottles for babies on the go!

All parents have experienced the hassle of going out with babies. To improve the experience, it would be desirable to have a bottle that stores pre-measured amount of formula milk powder and water in separate compartments which can be mixed up easily when needed. The ***RTF Bottle*** is the solution!

The ***RTF Bottle*** will provide an innovative and convenient experience to parents. By simplifying the process of milk preparation, feeding babies outside home becomes an easy task. Parents only need to bring the ***RTF Bottle*** instead of numerous containers (i.e. vacuum flask, milk powder container, and milk bottle) when bringing their babies out. Milk powder will be mixed with the water efficiently. The unique design of silicone rings in the bottle minimises friction and smoothens the rotation. Milk will be prepared quickly and safely anywhere.

The demand for baby products has continued to grow in Hong Kong. In 2014, Hong Kong's birth rate was approximately 62,300 and the local baby product market had a sales growth of 6%. Parents are also more willing to spend a lot on quality products for their children. There is a promising niche market for baby products. Since baby bottles are a necessity, each baby owns 3 baby bottles on average and 8 at most. All the above support our product positioning that emphasises on quality and functionality.