

INNOVATION - IMPROVING LIVES

Celebrate World Intellectual Property Day

As the world celebrates World Intellectual Property Day (WIPD) today, global efforts are made to encourage innovation and creativity. In Hong Kong, we reinforce the role intellectual property rights play in fostering innovation that makes our lives healthier, safer and more comfortable.

WORLD INTELLECTUAL PROPERTY DAY

The world comes together on 26 April every year under the auspices of the World Intellectual Property Organization (WIPO) to celebrate the creators and innovators who enrich our world. “We hear a great deal about innovation these days, and for good reason. Innovation lies at the heart of our social and economic wellbeing,” says Francis Gurry, Director General of WIPO. “Innovation – and the technological progress it represents – makes a significant contribution to economic growth and creates opportunities for new and better jobs.

Intellectual property (IP) is a crucial part of a successful innovation system. It provides a return for those who take the risk to introduce the “new” – in terms of products and services – into the economy. It provides a framework for the rather difficult and challenging journey that any idea has to undertake before becoming a

commercially available product or service. “With this year’s World Intellectual Property Day campaign we are celebrating innovation and how it improves our lives. We are also celebrating all the risk-takers, all those who have dared to bring about positive change through innovation.”

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Director General of WIPO



Ada Leung, Director of Intellectual Property (third from right, front row), joins prominent speakers including heads of universities, research institutes and industries, entrepreneurs and technology transfer professionals at the Association of University Technology Managers Asia 2017 conference on 24 April.



HARNESS THE POWER OF INNOVATION

Spearheading Hong Kong’s efforts in promoting intellectual property rights is Gregory So, Secretary for Commerce and Economic Development. Commenting on the WIPD, he says, “Human beings are an ingenious species. Although our time in existence is way shorter than that of Planet Earth, mankind has dreamed up and created many amazing and sometimes mind-blowing things. From the moment our ancestors bashed a rock on the ground to make the first sharp-edged tool, to the debut of the wheel, and to the development of Mars rovers and the Internet, new creations and inventions abound.

“This is essentially what innovation is about – a process driven by the human quest for knowledge, advancement and perfection. Innovation is indeed the buzzword of the day. More than an engine for economic growth and national competitiveness, innovation helps improve our lives on many levels.

“Take communication for example. The Information Age is connecting the world in no time. A defining factor is the built-out of broadband infrastructure supported by optical glass fibres. Use of glass over copper to carry more and more information embedded in electromagnetic signals overcoming limitations in physical properties is certainly a celebrated human innovation which owes much to conceptual and technological breakthroughs tracing back to the 1960s. Our daily lives are now dependent on text,



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Gregory So, Secretary for Commerce and Economic Development

voice, music, images, videos and data which are being transmitted around the globe in a split second.

“Hong Kong is proud to be associated with the Nobel laureate praised for such groundbreaking discoveries. Today we are also thrilled by local innovations that help improve lives. A few examples include the developments of a medical ultrasound technology to deliver drugs into the eye without invasion, a software that detects fatigue of drivers to help reduce car accidents, and an ultra-flexible and super safe battery technology for wearable electronics. And the list goes on.

“The cornerstone of our advancements in research and development is a robust intellectual property regime. It is a principal means for establishing and protecting creations of the mind, and provides a legal foundation for incentivising and commercialising innovations.

“We have been working hard to enhance our IP ecosystem and supporting infrastructure to better the creative

process for all stakeholders.

“A notable development is the enactment of the Patents (Amendment) Ordinance 2016 which paves the way for the introduction of the original grant patent (OGP) system in Hong Kong. The OGP system bears strategic significance to us as it enables applicants to obtain patent protection direct in Hong Kong without first obtaining prior protection in patent offices outside. The Government has been forging ahead with various preparatory tasks with a view to implementing the OGP system in 2019 the earliest.

“We are also assisting our businesses to leverage on their IP assets and engage in cross-sector IP commercialisation in the wake of the knowledge-based economy.

“As we mark the WIPD to raise awareness and celebrate creativity, it should not be taken as a formality that occurs only once a year. Let’s join hands to harness the power of innovation, and make our world a better place to live!”

exceptional performance. Currently we have patents filed in the US, mainland China and Hong Kong where we sell the mask. We are looking at filing an international patent application with an aim to distribute the smart mask in Europe and South East Asia. Our latest invention, the sport smart mask, won the Gold Plus Award at the 2017 Geneva exhibition and we are working on the packaging and collaboration with sportswear brands to produce and market the new mask. We will file for patents before we begin production.”



TECHNOLOGICAL BREAKTHROUGH IN THE FACE MASK INDUSTRY

A sophisticated face mask has captured market attention with its advanced functionality. The purifying and bacteria-killing smart mask uses nanofibre to effectively filter airborne particulates and viruses to N95 standard and kill 99% of bacteria within five minutes, while maintaining high breathability and comfortability. Invented by Dr Boris Tong of the Nano and Advanced Materials Institute (NAMI), the nanofibre smart mask is being manufactured and marketed by a leading pharmaceutical and health care products company in Hong Kong. “The nanofibre smart mask won a silver award at the 2016 International Exhibition of Inventions Geneva. We recognised the market potential of the face mask and collaborated with NAMI to develop it. The smart mask is not just a technological breakthrough; it is also an excellent



example of commercialisation of local R&D results, with the entire production process, from development to marketisation, all done in Hong Kong, making this a truly ‘Made in Hong Kong’ product,” says Sarinda Kwok, Director of the pharmaceutical company. “The smart mask is recognised by industry peers for its

PROMOTING INTELLECTUAL PROPERTY IN HONG KONG

Hong Kong ranks 14th in the 2016 Global Innovation Index (GII) released last August by Cornell University, INSEAD business school and the WIPO. The GI, published annually since 2007, ranked 128 countries and regions on their innovation capability and quality based on the result of 82 different indicators.

“We can do better still,” declares Ada Leung, Director of Intellectual Property. “We rank 25th in the knowledge and technology output sub index, but second in the technology input one. We can do better in the former, including output that can be exported to other countries, by placing more efforts and resources toward it.

“More directly related to IP is patent filing. In terms of application numbers alone, we rank 16th, with approximately 14,000 patents filed each year. However, not many of these are filed by Hong Kong residents or entities, but that is to be expected since Hong Kong is such an external oriented economy with a great number of overseas entities doing business and filing patents here. But that doesn’t mean Hong Kong is not so



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Ada Leung, Director of Intellectual Property

innovative. We do have a lot of inventions here, and we are putting our best efforts in promoting awareness among the public to use patents to protect their inventions. Our local inventions are truly remarkable. Among the most outstanding ones is a practical, award-winning face mask invented by a post 80s young inventor and biomedical science graduate of the University of Hong Kong. Stories of other amazing inventions that are patented and commercialised abound, including the i.Dummy mannequin, the Vitargent toxicity test technology using fish embryos, and the tiny Well Being sensor that easily keeps track of heart rate and other information for users.

“We promote IP throughout the year to the public, from students to small and

medium enterprises, through various activities and support programmes, as well as working with other organisations. This year, our focus is on innovation and commercialisation. For the WIPD, we organise an annual reception for the IP community, and this year we invited inventors to share their experiences in order to increase the awareness of innovation and the benefits they bring.

“On an ongoing basis, we need to foster a culture of innovation in Hong Kong. It’s very inspiring to see how the younger generation innovate and become successful here. We also encourage the public to get on board by appreciating the innovation that lies behind a product and by buying genuine products rather than fakes.”

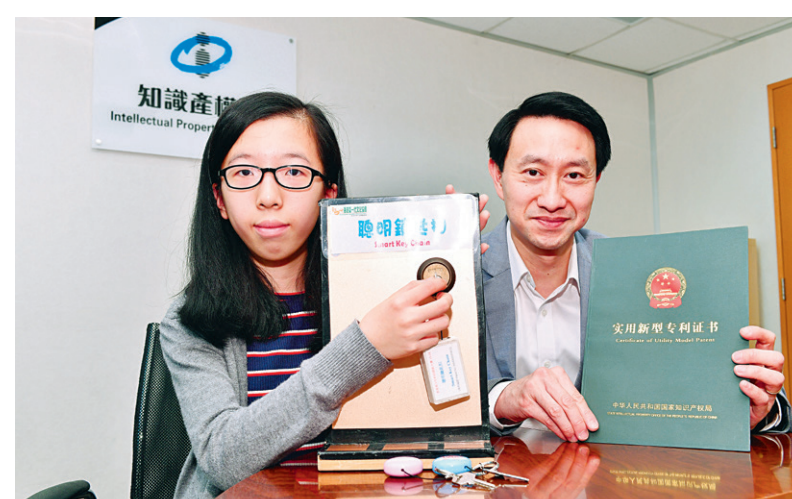
INVENTION KNOWS NO AGE BARRIER

At the tender age of 11, Primary 6 student Sammi Lu invented a Smart Key Chain that won the First Place Grand Award in the Primary School Invention Category of the “Hong Kong Youth Science & Technology Innovation Competition 2013-14” as well as the Best Project Award. It went on to win the Third Place Grand Award in the “29th China Adolescents Science & Technology Innovation Contest (2014)”. In the same year, it was granted patent rights by the State IP Office in mainland China.

Now 15 and a Form 3 student of the Shun Lee Catholic Secondary School, Sammi recalls that it was her father who inspired her to create the smart key chain, a remarkably simple gadget that beeps when the key remains in the lock for a certain period of time, reminding the user to remove the key. It can be used with any keys and do not require alteration to the door lock. “He was always leaving the key

in the lock and I thought of the key chain as an effective solution to the problem,” says Sammi. She worked with her father who’s in the electronics business to come up with the prototype. “The process was challenging as I had to consider different parts and tried many times in order to succeed. I also hurt myself while handling the tools.”

Dr. Jimmy K.Y. Wong, Centre Director of the Hong Kong New Generation Cultural Association Science Innovation Centre, recognised the market potential of the invention and helped Sammi file for a patent in mainland China. “We motivate young people to follow Sammi’s example to be innovative and come up with inventions that solve problems in everyday life.”



HONG KONG INVENTIONS SWEEP INTERNATIONAL AWARDS



Hong Kong inventions won a number of prizes at the 45th International Exhibition of Inventions Geneva, the world’s most prestigious innovation exhibition, held at the end of March. Dr. Jackson C.S. Chan, Vice Chairman of the Federation of Invention and Innovation, successful inventor and entrepreneur,

and an ardent advocate of innovation and commercialisation, enthuses about Hong Kong’s achievements at the Geneva exhibition. “Hong Kong had 51 inventions at the exhibition and the judges were impressed with our entries, regarding them as best overall. Our Federation put forward 12 patented entries and all of them won awards. Going forward,

we need to work hard towards bringing inventions to market. Currently only a small percentage of inventions get commercialised. I tell inventors to always ask themselves first if the product had market value and application. In addition to invention, we need to focus on productisation and commercialisation to create value for the society.”

