Interview: Yongvut Saovapruk, Governor – Thailand Institute of Scientific and Technological Research (TISTR)



24.07.2015

Tags: R&D, investment, government, policy, innovation

The Thailand Institute of Scientific and Technological Research's (TISTR) governor shares the institute's role in facilitating R&D, the use of herbal medicine in Thailand and the future growth of R&D in Thailand.

Currently, what are the main priorities for the Thailand Institute of Scientific and Technological Research (TISTR)?

The organization is 52 years old and we have transitioned to an R&D focused organization in the bio industry. Currently, we focus on agricultural technology, food technology, pharmaceutical and natural products. We also have a Thai packaging center and a culture collection center. Moreover, we conduct R&D in sustainable development in energy, materials innovation and environmental development. We also have an engineering team that operates under the highest standards. Beside, we fully implement the quality testing system, often referred to as measurement, standard, testing, quality or MSTQ. We also have a back office to support the services we provide, such as business development and technology transfer. It is my personal belief that in order to continue growing as an organization we must be innovative by conducting R&D, but besides innovation it is crucial to perform the technology transfer. We mainly focus on our Thai clientele at the moment, although other Thai companies might be more focused on a technology platform. We believe that

focusing on certain technological niches, such as engineering for agricultural technologies to produce more foods is the way that our organization will remain the most competitive. We also produce many pharmaceutical products, which gives our organization a competitive advantage because we service specific market niches.

What is TISTR doing to promote technology transfer?

TISTR not only provides companies R&D, but we are their associates, mentors and friends and help guide them. We are under the Ministry of Science & Technology (MOST), but we have a memorandum of undersatnding (MoU) with additional parties. For example, with the Institute for Small & Medium Enterprises Promotion (ISMEP), which is under the Ministry of Industry and now directly under the prime minister's office, we bring support and help the companies with their business by registering the company and help create a business plan. Basically, we guide them through the entire process the way the company can go to the bank and get a loan.

Thanks to our partnership with the Ministry of Finance and the Thai Credit Guarantee Corporation (TCG) the companies have more opportunitities presented to them. For example, they can get loans up to three times the collateral's worth. Once the company gets the loan and starts the business, they will have a small factory and for distribution they will not need to invest in logistics. Here, the Ministry of Information and Communication Technology works with them, along with the Thai postal service and they pick up the products and deliver them for the company. Then the Department of Export Promotion, under the Ministry of Commerce, brings the companies to exhibitions and helps them with information on importers and logistics.

There are five ministries involved under the "TISTR and Friends", which include the Ministry of Science and Technology, the Ministry of Industry, the Ministry of Finance, the Ministry of Information and Communications Technology and the Ministry of Commerce. Overall, through our collobrative work we have become a one-stop shop for companies and this helps facilitate technology transfer.

How do you find companies to purchase and use your technology?

We post the new innovative product on our website and link it with the Ministry of Industry, as well as other organizations and corporations we have collaborated with in the past, so that people can read and learn about our new products. We also host exhibitions to showcase our products. We work with other industry players, such as banks who help fund investors who want to purchase our patent and products. It is a collaborative effort that involves various stakeholders to facilitate and advise potential clients on testing, packaging and design.

What major changes have you instituted since you took over the leadership position of governor three years ago?

TISTR has always been a forward thinking organization. For example, we began using ethanol fuel 40 years ago, which is a less polluting way of powering different machines. Since becoming governor of the organization I identified several necessary changes and have since worked with a team to address those issues. First, TISTR identified that there was a need to develop “greener” innovations and promote a more environmentally friendly economy. We have since changed the fuels we use in order to align with our new company’s objective to conduct more R&D in this sector. For example, we focus much of our research on bio-based fuels, biomass, energy mixes and renewables. Moreover, we work in partnership with the Petroleum Authority of Thailand (PTT) with our development of bioenergy from algae and have currently the third largest algal collection center in Asia. We have more than 1,000 strains of algae in Thailand and use new and modern ways of extracting the oil when we cultivate it at our facilities.

What importance does the TISTR give to the herbal and non-natural pharmaceutical industry?

TISTR has a large portfolio, but we currently prioritize natural herbal products and renewable energy. At the organization, we have a team dedicated to the development of natural products because our Thai consumers believe in the value of natural medicine. The organization has a 350-acre research center located two hours from Bangkok dedicated to the cultivation and development of natural products. We conduct studies for natural medicine as we believe that natural medicine can help cure an abundance of illnesses. For example, we have studied and concluded that there are certain herbal remedies that can help fight cancer. Although natural medicine is not accepted all over the globe as a major way to treat chronic illnesses, we ensure that our products are safe and reliable by performing clinical tests at our animal testing center, as well as conducting clinical trials on patients. Moreover, we also use the highest technology equipment for the extraction of certain products from plants and measurements. We plan to use a machine called the liquid chromatography–mass spectrometer (LC-MS), which can tests the active ingredient in the drug. All in all, we believe that natural products can function just as well, or better, than chemical based products.

What is the current climate for R&D in Thailand as compared to other Southeast Asian (SEA) nations?

Thailand ranks below Singapore and Malaysia because they have a higher budget dedicated to R&D, but I am proud to state that the current government supports R&D in Thailand and the budget for R&D is gradually moving from 0.4 percent to 3 percent. Our neighboring nations offer economic incentives for foreign investors by providing tax breaks, but the advantage of conducting R&D in Thailand, as opposed to our neighboring SEA nations, is the space we have to conduct clinical trials, as well as the strategic geographic location. Moreover, there is a push for university researchers to work hand-in-hand with the pharmaceutical industry through different collaborations that unite both the educational and pharmaceutical sectors. In addition, the Talent Mobility Policy allows for researchers and the industry to work together for three months to two years. This is a strong indication that the government supports R&D. There are also tax incentives that give a 300 percent tax deduction for local and international industry players to conduct R&D in Thailand. Furthermore, there are also talks about placing a new system in place where a single department from the government will facilitate all R&D measures to expedite the bureaucratic process.

Do you believe that intellectual property rights in Thailand are protected?

In my expert opinion, I believe that it is only consumer goods, such as movies and electronic products, which are sold on the black market. With regards to pharmaceutical drugs, I do not believe it is possible to copy drugs because it is too difficult and requires expertise and precision to copy the exact formulas. In the case where there are duplicated products they do not have the same effects because the quality is poor and the brand is different. Consumers typically have the knowledge about the drugs they are purchasing.

What is being done to ensure that Thailand has a high skilled workforce and what role is TISTR playing?

The Thai educational system has dramatically changed over the last few years. Historically, there was a more country-centered educational system, which seemed to disregard international standards, but more recently there has been an internationalization of the educational system by incorporating language, as well as qualitative skills, to help create a more global and competitive workforce. There has also been a rise in income, which has allowed for many parents to send their students abroad, as well as bring in international teachers to local schools. The tremendous change we have seen is because the middle-income class has grown at an exponential rate, which translates into a more skilled labor force.

I am proud to report that TISTR is playing a role in helping shape Thailand’s workforce by bringing in international scientists and sending our chemists abroad to observe and learn how other

international players conduct research. Thailand’s strategic location in Asia, as well as the abundance of natural resources offers us a competitive advantage. What we currently see is Thailand moving towards the next level of excellence and TISTR is proud to help facilitate the process!

Click here to read more articles and interviews from Thailand, and to download the latest free pharma report on the country.

See more interviews