

Taiwan Pharmaceutical Industry Cooperation

Workshop/Business Matching Event

(Turkey and Czechia)

- A. **Aim:** Taiwan's biomedicine industry has many of the ingredients for success. The island has strong scientific talent, rich clinical-trial experience, abundant capital, a treasure trove of medical data (from the National Health Insurance system), information-technology expertise, and strong intellectual property rights protection bolstered by the recent passage of legislation to tighten patent safeguards for pharmaceuticals.

To further strengthen the mutual understanding, and meet the medical procurements needs, TAITRA organizes the aforementioned event.

B. Organizer:

Bureau of Foreign Trade

Taiwan External Trade Development Council (TAITRA)

Pharmaceutical Industry Technology Development Center (PITDC)

C. Info:

(A) Time: Nov. 26, 2020 8:30-10:45 (GMT+2, tentative)

(B) Venue: TICC, Taipei, Taiwan/ Online

(C) Through organizing such events, we would like to promote more exchange and cooperation between the two countries and Taiwan. In the meantime, we would like the local businesses to have a better understanding of the targeted markets.

D. Participant list: (Top-notch pharmaceutical companies in Taiwan)

1. ADIMMUNE Corporation : **COVID-19 and H1N1 vaccine**

<http://www.adimmune.com.tw/en/index.php>

2. Golden Biotechnology Corp.: **COVID-19 medication development**

<https://goldenbiotech.com/>

3. Sun Ten Pharmaceutical Co., LTD:COVID-19 Traditional Chinese

medication

<https://w3.sunten.com.tw/>

4. TTY Biopharm Company **Limited :Research & development and innovation of antitumor and against severe infection's areas.**

<http://eng.tty.com.tw/>

5. China Chemical & Pharmaceutical Co., Ltd.: **complexity API/generic drugs and the so-called 505(b)(2) new drugs (such as new route of administration, new derivatives, new use, etc.) to the US market.**

<http://www.ccpc.com.tw/>

6. Taiwan Biotech Co., LTD

Customized and professional services including Finished Products, APIs and OEM service. The core competence includes BFS (Blow-Fill-Seal) products, TDDS (Transdermal Drug Delivery System), and isolated manufacturing site for Cephalosporins.

<http://www.sintong.com/>

7. Shiner Pharm Corp.

General Drug Dosage Forms

Tablet、Sugar coated tablet、Film coated tablet、Capsule、Granule & Pellet、Solution、Suspension、Ointment & Cream、Design of Bioequivalent (BE) product.

Specialty Dosage Forms

Controlled Release dosage、Multiparticle capsule、Matrix type tablet、Membrane controlled tablet、Pellet controlled released dosage、Oral disintegrating tablet、self emulsifying /microemulsion dosage、Hydrogel.

<http://shiner.weblink.services/zh/>

8. Pharmaceutical Industry Technology Development Center

<http://www.pitdc.org.tw/en/index.php>

【Natural Drugs R&D】

The team targets at developing active substance from botanical medicine,

become the core laboratory for natural drug gene control and resource application and leader in traditional Chinese medicine development in Taiwan and Asia, and consequently expand to Chinese and Asian markets.

【Pharmaceutical Preparation R&D】

The R&D core consists of development in pharmaceutical new drug form technology, using customized preparation design to provide pharmaceutical industries with technical counseling, assisting with drug PIC/S GMPS certification counseling and the counseling on demand for developing industry internationalization.

【Medical Device R&D】

The development of medical devices not only need to emphasize on function and safety but also must understand the user practice of medical professionals and patients. Moreover the development analyzes the characteristics of existing products in the market in order to optimize product design. For suppliers with developed products, the service also offers pre-release regulatory consultation on medical devices and products, technical counseling and assisting with the establishment of quality management system services, thereby advocating for the product release and international development of medical device suppliers.

【Industry Internationalization Services】

Providing medical professional strength core, including: GMP counseling, counseling on consultation of medical laws and regulations, regulation and information services; assisting the state with pharmaceutical policy promotion and training for medical and professional talents, and industry upgrade with medical and professional strength.

E. Tentative Agenda: (Taiwan Local Time, GMT+8)

Time	Event	Speaker
14:30-15:00	Register	
15:00-15:05	Organizer Remarks	Mr. James C. F. Huang , Chairman of Taiwan External Trade Development Council
15:05-15:10	VIP remarks	Mr. Patrick RUMLAR , Representative from the Czech Economic and Cultural Office
15:10-15:15	VIP remarks	Mr. Muhammed BERDIBEK , Representative of Turkish Trade Office in Taipei
15:15-15:20	Group photo	
15:20-15:35	“Medical and Pharmaceutical Industry Import/Export Regulation in Turkey” (Livestream)	
15:35-15:50	Presentation on the Pharmaceutical Market in Czechia (Livestream)	
15:50-16:05	Keynote: “Key Legal Considerations for Taiwanese Companies to Invest/Do Business in the Healthcare Sector”. Trisheet Chatterjee, J. Sagar Associates I advocates & solicitors	
Discussion I: COVID-19 vaccines and medicines developed by Taiwan		
16:05-16:20	Panel discussion	1. ADIMMUNE Corporation 2. Golden Biotechnology Corp. 3. Sun Ten Pharmaceutical Co., Ltd.
Discussion II: Global opportunities for Taiwan		
16:20-16:35	Panel discussion	PITDC
Online business matching		
16:35-17:00	Meetings	Interested potential partners

(India Local Time, GMT+5:30)

Time	Event	Speaker
12:00-12:30	Register	
12:30-12:35	Organizer Remarks	Mr. James C. F. Huang , Chairman of Taiwan External Trade Development Council
12:35-12:40	VIP remarks	Mr. Patrick RUMLAR , Representative from the Czech Economic and Cultural Office
12:40-12:45	VIP remarks	Mr. Muhammed BERDIBEK , Representative of Turkish Trade Office in Taipei
12:45-12:50	Group photo	
12:50-13:05	“Medical and Pharmaceutical Industry Import/Export Regulation in Turkey” (Livestream)	
13:05-13:20	Presentation on the Pharmaceutical Market in Czechia (Livestream)	
13:20-13:35	Keynote: “Key Legal Considerations for Taiwanese Companies to Invest/Do Business in the Healthcare Sector”, Trisheet Chatterjee, J. Sagar Associates I advocates & solicitors	
Discussion I: COVID-19 vaccines and medicines developed by Taiwan		
13:35-14:50	Panel discussion	4. ADIMMUNE Corporation 5. Golden Biotechnology Corp. 6. Sun Ten Pharmaceutical Co., Ltd.
Discussion II: Global opportunities for Taiwan		
14:50-15:05	Panel discussion	PITDC
Online business matching		
15:05-15:30	Meetings	Interested potential partners

Czech Local Time, GMT+1

Time	Event	Speaker
7:30-8:00	Register	
8:00-8:05	Organizer Remarks	Mr. James C. F. Huang , Chairman of Taiwan External Trade Development Council
8:05-8:10	VIP remarks	Mr. Patrick RUMLAR , Representative from the Czech Economic and Cultural Office
8:10-8:15	VIP remarks	Mr. Muhammed BERDIBEK , Representative of Turkish Trade Office in Taipei
8:15-8:20	Group photo	
8:20-8:35	“Medical and Pharmaceutical Industry Import/Export Regulation in Turkey” (Livestream)	
8:35-8:50	Presentation on the Pharmaceutical Market in Czechia (Livestream)	
8:50-9:05	Keynote: “Key Legal Considerations for Taiwanese Companies to Invest/Do Business in the Healthcare Sector”. Trisheet Chatterjee, J. Sagar Associates I advocates & solicitors	
Discussion I: COVID-19 vaccines and medicines developed by Taiwan		
9:05-9:20	Panel discussion	7. ADIMMUNE Corporation 8. Golden Biotechnology Corp. 9. Sun Ten Pharmaceutical Co., Ltd.
Discussion II: Global opportunities for Taiwan		
9:20-9:35	Panel discussion	PITDC
Online business matching		
9:35-10:00	Meetings	Interested potential partners

Turkey Local Time (GMT+3)

Time	Event	Speaker
9:30-10:00	Register	
10:00-10:05	Organizer Remarks	Mr. James C. F. Huang , Chairman of Taiwan External Trade Development Council
10:05-10:10	VIP remarks	Mr. Patrick RUMLAR , Representative from the Czech Economic and Cultural Office
10:10-10:15	VIP remarks	Mr. Muhammed BERDIBEK , Representative of Turkish Trade Office in Taipei
10:15-10:20	Group photo	
10:20-10:35	“Medical and Pharmaceutical Industry Import/Export Regulation in Turkey” (Livestream)	
10:35-10:50	Presentation on the Pharmaceutical Market in Czechia (Livestream)	
10:50-11:05	Keynote: “Key Legal Considerations for Taiwanese Companies to Invest/Do Business in the Healthcare Sector”. Trisheet Chatterjee, J. Sagar Associates I advocates & solicitors	
Discussion I: COVID-19 vaccines and medicines developed by Taiwan		
11:05-11:20	Panel discussion	10.ADIMMUNE Corporation 11.Golden Biotechnology Corp. 12.Sun Ten Pharmaceutical Co., Ltd.
Discussion II: Global opportunities for Taiwan		
11:20-11:35	Panel discussion	PITDC
Online business matching		

11:35-12:00	Meetings	Interested potential partners
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E、Participant list

1. 國光疫苗 ADIMMUNE Corporation

H1N1 Vaccine and COVID-19 Vaccine Development

Website: <http://www.adimmune.com.tw/en/index.php>

2. 國鼎生技 Golden Biotech

Coronavirus Covid-19 Clinical Trial – Partnering with Ascension Via Christi in USA Advancing GoldenBiotech’ s New Drug Antroquinonol

Website: <https://goldenbiotech.com/>

3. 順天堂 Sun Ten Pharmaceutical Co.,

<https://w3.sunten.com.tw/>

Taiwan Develops Traditional Chinese Medicine for COVID-19

Traditional Chinese medicine has been treating ailments for more than 2,000 years, and Taiwan has actively participated in research on treatments using Chinese medicine after experiencing the painful experience of SARS 17 years ago. Since COVID-19 emerged at the beginning of this year, Chinese medicine has provided a helping hand; currently a total of 5 hospitals across Taiwan have invested in the treatment of COVID-19 with Chinese medicine and participated in the cure of 21 patients, including 1 critically ill, and 5 patients in serious condition, showing that Chinese medicine treatment has clear empirical effects in avoiding complications, and shortening the length of hospital stays.

Effective in Treating COVID-19, Taiwan’s Traditional Chinese Medicine Set to Enter European and American Markets

On June 1, 2020, the National Research Institute of Chinese Medicine, MOHW, announced the "Guidelines for Clinical Stage and Treatment of

COVID-19 in Traditional Chinese Medicine", formulating treatment recommendations for patients with mild, severe, and critical symptoms, as well as convalescent COVID-19 patients. Wen-hui Chiu, deputy director of the National Research Institute of Chinese Medicine, pointed out that Chinese medicine treatments focus on two aspects: virus suppression and prevention of hormone storms. For example, *Scutellaria baicalensis* (Huang Qin) has antiviral and immunomodulatory effects; heartleaf houttuynia herb and radix isatidis mainly have antiviral effects.

13. 東洋 TTY Biopharm Company Limited

Website: <http://ch.tty.com.tw/>

TTY Groups

ATB Thailand

In 2000, ATB Thailand was established in Bangkok. With comparable profitability like other MNCs, ATB Thailand is the one and only Taiwanese company that markets its products with its own brand name and its own commercial team based in Thailand.

ATB Philippines

In 2004, with the successful business track records in Thailand, TTY decided to break into the 2nd most populated ASEAN markets (Philippines) by establishing ATB Philippines in Manila, and with the focus on developing and marketing new specialty generic products, ATB Philippines has become the most professional company in commercializing oncology products locally.

TTY founded PharmaEngine, Inc. in 2001. Its main investors included TTY as well as National Development Fund, Executive Yuan and other major domestic biotech venture capital firms. Stocks of PharmaEngine, Inc. was registered and traded over the counter in 2013. PharmaEngine, Inc. is a new drug development company, dedicated in anti-cancer drug development. PharmaEngine successfully authorized its new pancreatic cancer drug to US pharmaceutical company, Merrimack in 2011. PharmaEngine will continue its efforts in new drug development

for treatment of pancreatic cancer, colorectal cancer, gastric cancer, lung cancer, and brain cancer.

Worldco Int. Co., Ltd.

In 2005, TTY registered a wholly owned subsidiary company in Hong Kong, and founded Worldco International Co., Ltd. in Beijing. Worldco is focusing on disease categories of antibiotic ID, CNS, and Liver, and its mission is to enter Chinese market with its high-barrier, efficacy-proven drugs with innovative formulations.

TSH Biopharm Co., Ltd.

In 2010, TTY spin-off the medical drugs business office to set up a TSH Biopharm Co., Ltd. TSH started stock registered and traded over the counter in 2012. TSH is dedicated on R&D and marketing of cardiovascular, gastrointestinal, and auto-immune disease drugs.

CY Biotech.

In 2011, TTY split its "Consumer Healthcare Business" to establish "CY Biotech." CY Biotech is committed to the medical services of healthcare. Aiming at improving health condition and life quality of consumers, CY Biotech provides quality, effective and innovative products and services to satisfy consumers' needs in health.

EnhanX Biopharm Inc.

In 2017, TTY Biopharm Company Limited and 2-BBB Medicines BV set up the Taiwan-based joint venture company EnhanX Biopharm Inc. for the clinical and commercial development of a liposomal drug with targeting ability by utilizing the so-called G-Technology, which enables the drug to pass the Blood-Brain-Barrier to enhance treatment of brain metastases and primary brain tumors. In the future, TTY will be responsible for the mass production of the liposomal product and becoming the leading global manufacturing base and technology platform for the specialty formulation drugs.

14. 中化 China Chemical & Pharmaceutical Co., Ltd.

<http://www.ccpc.com.tw/>

ounded in 1952, China Chemical & Pharmaceutical Co., Ltd. (CCPC) is dedicated to the innovation, research and development, manufacturing, and upgrade of services in the pharmaceutical industry. Since its establishment, CCPC has made numerous advances in the development of generic pharmaceutical and healthcare products for use in humans and animals. Widely used in every hospital and family household, the company's advanced medical and health products help ensure better health and quality of life.

The CCPC scope of operations is primarily centered on generic pharmaceuticals. In an attempt to explore global generic markets, CCPC is closely collaborating with its sister companies as an integrated pharmaceutical company. At this point, our strategy is to provide niche and high manufacturing complexity API/generic drugs and the so-called 505(b)(2) new drugs (such as new route of administration, new derivatives, new use, etc.) to the US market. Our initial attempts are to develop the technology in Asia (some may have already been developed) and then move the technology into the USA and work with our US collaborative partners CMOs and CROs to get regulatory approval. At the same time, CCPC is actively trying to partner with overseas pharmaceutical companies or wholesalers to market and distribute our niche products in specific territories.

15. 信東 Taiwan Biotech Co., LTD

http://www.sintong.com/en_aboutus.php?idno=1

Innovative Resolution & Quality Insistence

Taiwan Biotech Co., Ltd. heeds the government development policy by upgrading itself from a GMP certified manufacture to cGMP in 2005 and our products have accredited with the National Pharmaceutical Quality Award.

The Taoyuan main production plant

The Taoyuan plant encompasses an expansive 324,000 square foot facility that houses four production plants including the parenteral plant, BFS (Blow-Fill-Seal) parenteral plant, solid product

manufacturing plant and TDDS (Transdermal Drug Delivery System) plant.

The parenteral plant marks the longest running operations in company history as it began from the earlier days of production of glass bottles and injection syringes to the present day of fully automated operations for producing perfect injection fluid, noticeably of the 500 c.c. injectable fluid. Manufactured under the automated KT production line brought in from Japan offers a fully automated production process from ultrasonic rinsing, auto filling and capping, sterilization, automatic foreign particle detection, automatic labeling, and boxing. The hemo-dialysis fluid produced by the parenteral plant with high standard and production know-how share more than 45% of the market demand.

In 1979, we took the lead in Asia for introducing a Bottle Pack machine from Rommelag Switzerland, offering an automatic production from PE blowing, filling, and sealing to produce sterile parenteral agents including injection, inhalation solution, eye care and ophthalmic treatment solution which remained uncontested across Taiwan. All these products that come with the advantages of sterile, unit dosage, free of preservatives and easy carry, the PE material used for container is of high medical grade, safe and free of toxicity to warrant higher safety than the conventional glass ampoule and sparing the risk of getting hurt by glass cuts which happened sometime when glass ampoule is used.

The solid product manufacturing plant is firm's emerging latecomer, supported by automation, high capacity output and with excellent quality to produce 78 BE products before 2005, Taiwan Biotech Co., Ltd. installed a high speed encapsulation machine equipped with weight checker from Bosch, Germany, which could produce 150,000 capsules per hour with an individual weight checking to ensure weight of each capsule is a control range.

The TDDS (Transdermal Drug Delivery System) plant mainly produces suspend release patch, the nicotine patch that currently launched in the market is the leading formula developed by Taiwan Biotech Co., Ltd. in synchronization with premier world producer, and is the only one containing medicine in Taiwan.

Biotech Production Plant at the Hsinchu Science-based Industrial Park

Plant located in the Hsinchu Science-based Industrial Park concentrates in the research and development of health beneficial biotech foods and Chinese herbal medicine, noticeably of the successful extraction of active substances derived from the American ginseng working with the Pharmaceutical Technology Center that offers beneficial yield for gastrointestinal and bodily health.

7. 旭能醫藥生技股份有限公司 Shiner Pharm Corp.
www.shinerpharm.com



In-House Product

Product	Indication	Dosage
Metformin 850mg	Diabetes	Tablet
Fenofibrate 160mg	Hypercholesterolemia	Tablet
Levocarnitine 1gm	(Orphan drug) Carnitine deficiency	Injection
Phenylbutyrate 500mg	(Orphan drug) Urea cycle disorder	Tablet
Trientine 300mg	(Orphan drug) Wilson disease	Capsule

