

The logo features the letters 'TTV' in a bold, red, italicized font, followed by 'BIOPHARM' in a white, italicized font with a registered trademark symbol. The entire logo is set against a black diamond-shaped background.

**TTV** BIOPHARM®

台灣東洋藥品

**WELCOME TO JOIN US**

May, 2016

# Safe Harbor Statement

## This presentation contains certain forward-looking statements.

These forward-looking statements may be identified by words such as 'believes', 'expects', 'anticipates', 'projects', 'intends', 'should', 'seeks', 'estimates', 'future' or similar expressions or by discussion of, among other things, strategy, goals, plans or intentions. Various factors may cause actual results to differ materially in the future from those reflected in forward-looking statements contained in this presentation, among others:

1. pricing and product initiatives of competitors;
2. legislative and regulatory developments and economic conditions;
3. delay or inability in obtaining regulatory approvals or bringing products to market;
4. fluctuations in currency exchange rates and general financial market conditions;
5. uncertainties in the discovery, development or marketing of new products or new uses of existing products, including without limitation negative results of clinical trials or research projects, unexpected side-effects of pipeline or marketed products;

6. increased government pricing pressures;
7. interruptions in production
8. loss of or inability to obtain adequate protection for intellectual property rights;
9. litigation;
10. loss of key executives or other employees; and
11. adverse publicity and news coverage.

TTY Biopharm cautions that this foregoing list of factors is not exhaustive. There may also be other risks that management is unable to predict at this time that may cause actual results to differ materially from those in forward-looking statements.

**You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date on which they are made. TTY Biopharm undertakes no obligation to update publicly or revise any forward-looking statements.** Any statements regarding earnings growth is not a profit forecast and should not be interpreted to mean that TTY Biopharm's earnings or earnings per share for this year or any subsequent period will necessarily match or exceed published earnings or earnings per share forecasts of TTY Biopharm Company Limited.

# Our Mission

We have been striving to extend liposomal & microsphere depot platform technologies for treatment of various diseases.

**Our Target is to improve health and quality of life through innovative, cost-effective therapeutics and specialty drugs.**

Our focus is on the **“Unmet Medical Needs”** in challenging diseases throughout the world, such as Cancer, CNS, Autoimmune, Diabetes Mellitus & Infectious Diseases.

# Agenda

## Company Overview

Product Strategy

Product Pipeline

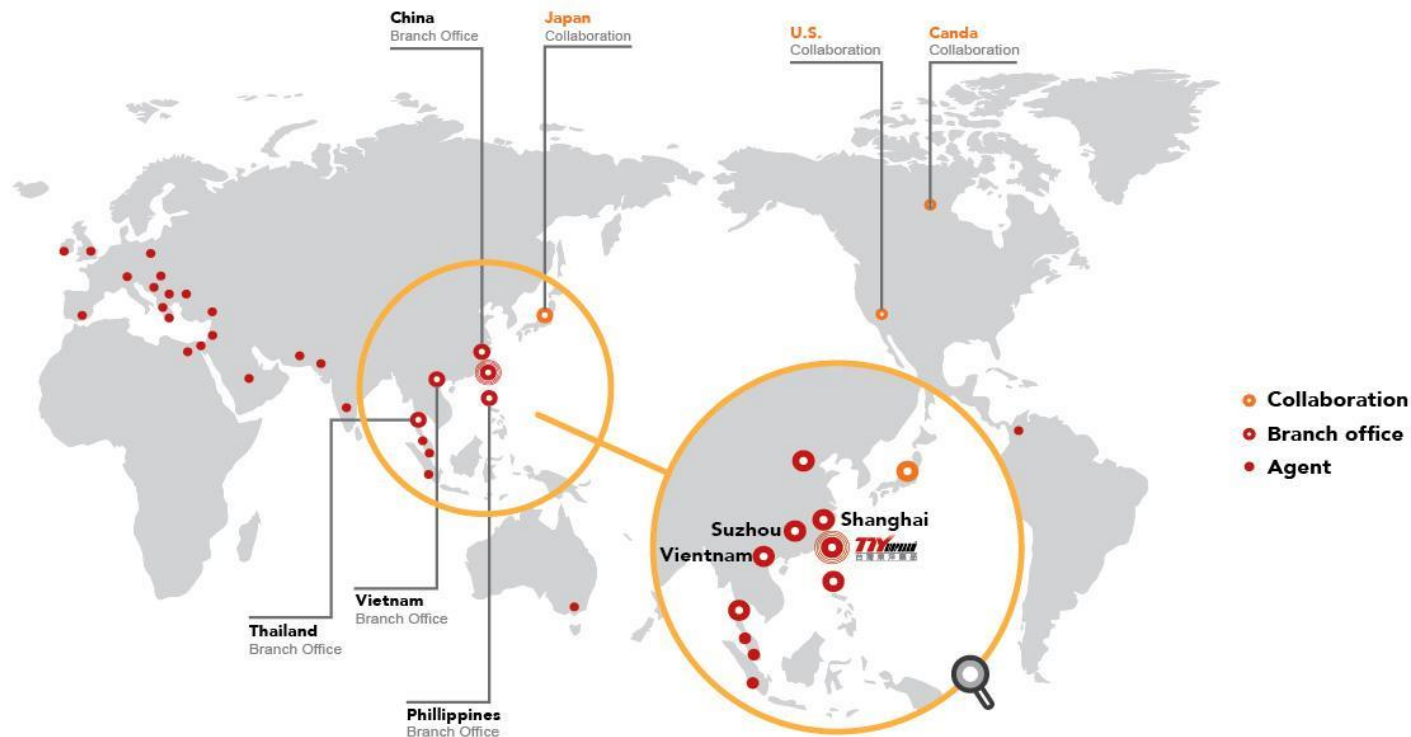
Manufacture Facilities

Successful Product Categories

In Progress Status

Biotech Success

# Company Overview



- **Founded in 1960, restructured in 1996**
- **Traded in the Taiwan TPEX**  
(2001, Code: 4105);  
**Shares outstanding: 248 Million Shares**  
(January, 2016)

- **TTY Biopharm consolidated sales as of**  
2015- NTD 3.20 Billion, USD 97.4 Million
- **Headquarters: Taipei, Taiwan**  
Number of employees: 450

**TTY BIOPHARM**  
台灣東洋藥品



- **TTY Biopharm is a global leader in Super-Generic Drugs and novel bio-drug development with strong growth potentials (targeting for 20% sales CAGR in 2014-19).**
- **TTY is Taiwan's largest biotechnology conglomerate with the most completed biotechnology products pipeline including oncology drugs, new formulations, ... etc.**
- **Market cap US\$890mn. as of 12/31/2015**
- **Currently has three major subsidiaries:  
PharmaEngine (listed), market cap US\$819mn, 19.33% holding;  
TSH Biopharm (listed), market cap US\$60mn, 56.48% ownership;  
CY Biotech, 27.84% holding**
- **Shareholder value creation-**
  - **TTY's ROE 19.2% in 2011-2015, ROE 24.1% in 2015 (above industry average 7.35%).**
  - **TTY targets for 28%-35% ROE in 2016~2020.**
  - **TTY aims to be a world-class biotechnology public listed company with multi-bn market capitalization in coming years.**





**Major Investments**  
**轉投資主要架構**  
**China**  
**Taiwan**  
**South-East Asia**

**東生華製藥**  
**TSH (56.48%)**

- New Drug Development & Marketing of Chronic Diseases (CV/GI/Immune)

**智擎生技**  
**PharmaEngine (19.33%)**

- New Drug Development

**創益生技**  
**CY Biotech (27.84%)**

- Probiotics & Obesity Diseases

**榮港生技**  
**WORLDCO (100%)**

- New Drug Development (Liver/ID/CNS)
- Marketing

**ABT泰/ABT菲/越辦事處**  
**40%/87%/100%**

- New Drug Development & Marketing

# TTY Core Competences





# Agenda

Company Overview

**Product Strategy**

Product Pipeline

Manufacture Facilities

Successful Product Categories

In Progress Status

Biotech Success

# Product Strategy

## Trends for Pharmaceutical Industry









Market Scope  
(Risk)



Entry Barrier  
(Profit)



# TTY Super Generics Pipeline

| Programs                     | Indication(s)   | R&D (BE;BA+CT)   | ANDA (EU/USA)           |
|------------------------------|---|--|-------------------------|
| Caelyx/Doxil (Lipo-Dox)      | Metastatic breast cancer BC \\<br>AIDS-related Kaposi's sarcoma \\<br>Multiple myeloma, MM \\<br>Ovarian cancer   |    | Approved                |
| Caelyx II                    |   |    |                         |
| Lipo-Amphotericin B          | Leishmaniasis \\<br>Concurrent renal toxicity invasive bacterial infection \\<br>The infected bursa meningitis HIV patients \\<br>Systemic Fungal Infection | <br> | Filing<br>(TW Approved) |
| Leuprolide Acetate Injection | Prostate Cancer \\<br>Management of Endometriosis \\<br>Uterine Fibroids \\<br>Central Precocious Puberty   |    | Filing                  |
| Risperidone Injection        | Schizophrenia   |   | Filing                  |
| SPL206                       | Functional gastric, intestinal, pancreatic endocrine tumors   |    |                         |
| LGIA10                       | Type II Diabetes Mellitus   |    |                         |

# TTY Super Generics Pipeline

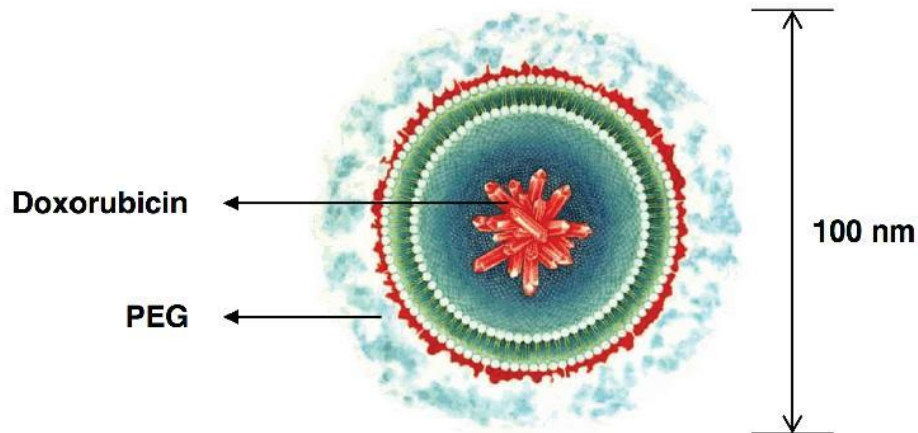
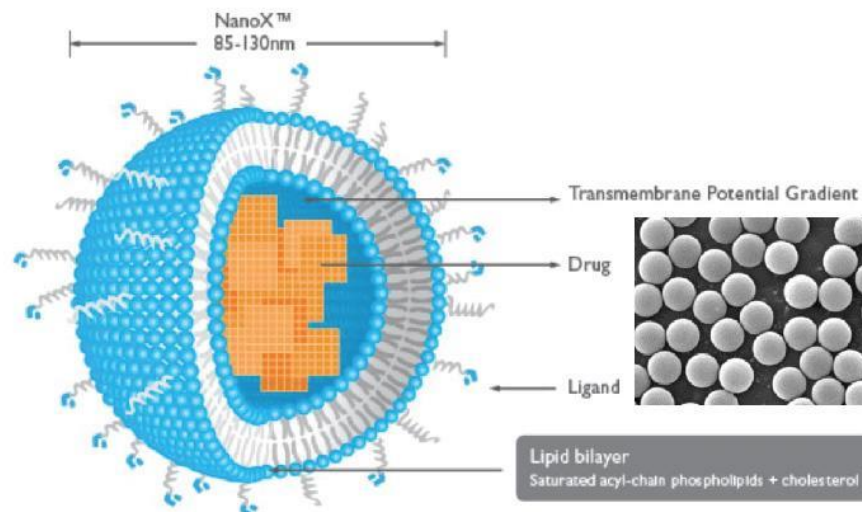
| Programs<br>產品組合                        | Indication(s)<br>適應症  | World Market<br>(USD/M est.) | Core Technology<br>核心技術                    | Advantages<br>產品優勢   |
|---|---|------------------------------|--|--|
| <b>Caelyx/Doxil<br/>(Lipo-Dox)</b>      | Metastatic breast cancer BC、<br>AIDS-related Kaposi's sarcoma、<br>Multiple myeloma, MM、<br>Ovarian cancer | 600                          | Pegylated<br>Liposome<br>Technology        | Worldwide manufacturing<br>patent                                |
| <b>Lipo-<br/>Amphotericin B</b>         | Systemic Fungal Infection   | 440                          | Liposome<br>Technology                     | Worldwide manufacturing<br>patent                                |
| <b>Leuprolide<br/>Acetate Injection</b> | Prostate Cancer、<br>Management of Endometriosis、<br>Uterine Fibroids、<br>Central Precocious Puberty       | 1,240                        | Lupron Depot<br>Microsphere<br>Formulation | Worldwide manufacturing<br>patent                                |
| <b>Risperidone<br/>Injection</b>        | Schizophrenia   | 960                          | Microsphere<br>Formulation                 | Worldwide manufacturing<br>patent                                |
| <b>SPL206</b>                           | Functional gastric, intestinal,<br>pancreatic endocrine tumors  | 1,500                        | Microsphere<br>Formulation                 | PLGA used for particular<br>star polymers synthesized<br>by TTY. |
| <b>LGIA10</b>                           | Type II Diabetes Mellitus   | 910                          | Microsphere<br>Formulation                 | Worldwide manufacturing<br>patent<br>Microsphere Depot Platform  |

# Specialties- Caelyx®/Doxil®

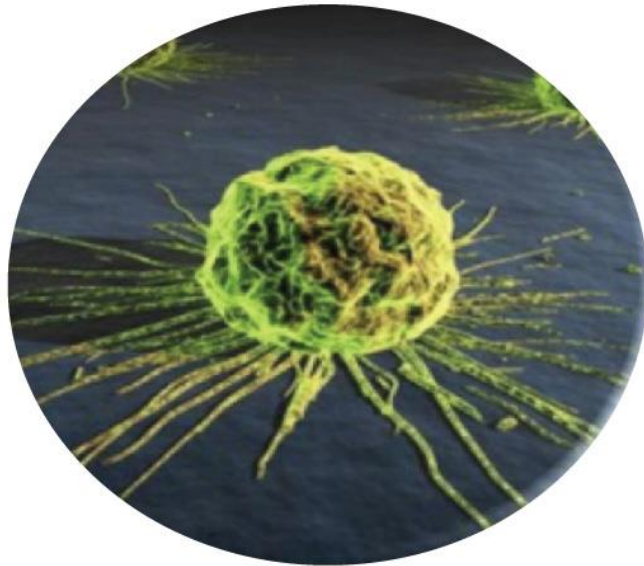
## Caelyx®/Doxil® (Doxorubicin HCl Injection)

**Liposome:** A tiny bubble that can be filled with drugs and carry drugs into tissues.

**How does liposome treat cancer?** Healthy human blood vessels are encapsulated by endothelial cells which are bounded by tight junctions (BBB->Blood Brain Barrier). Tight junctions will stop large particles like liposome leaking out of the vessel. Tumor vessels do not have tight junctions. Therefore, liposomes can penetrate tumor cells from the blood but blocked out by endothelial wall of healthy cells. In another word, liposome can "target" tumors by nature.

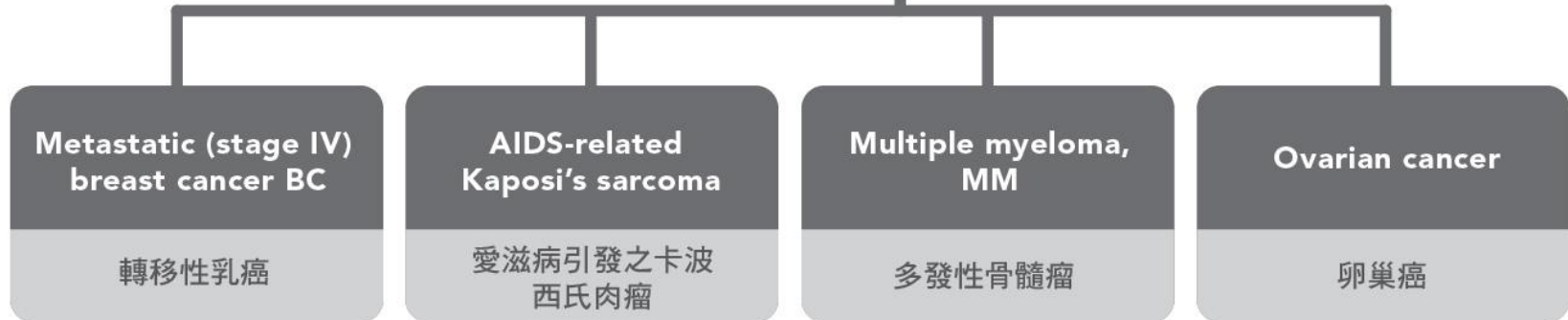


Source: Asia Pacific Equity Research,  
March 4<sup>th</sup>, 2011, JP Morgan

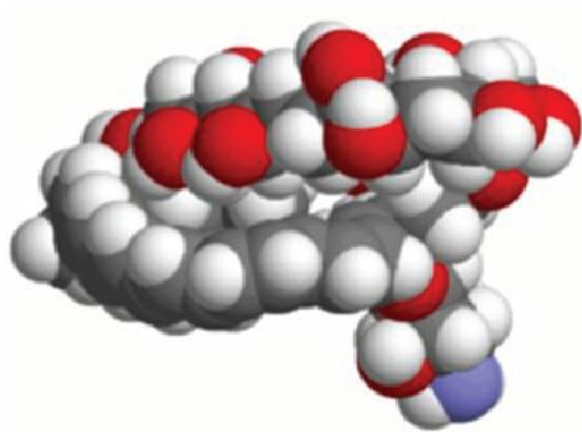


## Caelyx®/Doxil®/Caelyx II®

Global market: USD\$600 Million  
Taiwan: NTD\$200 Million



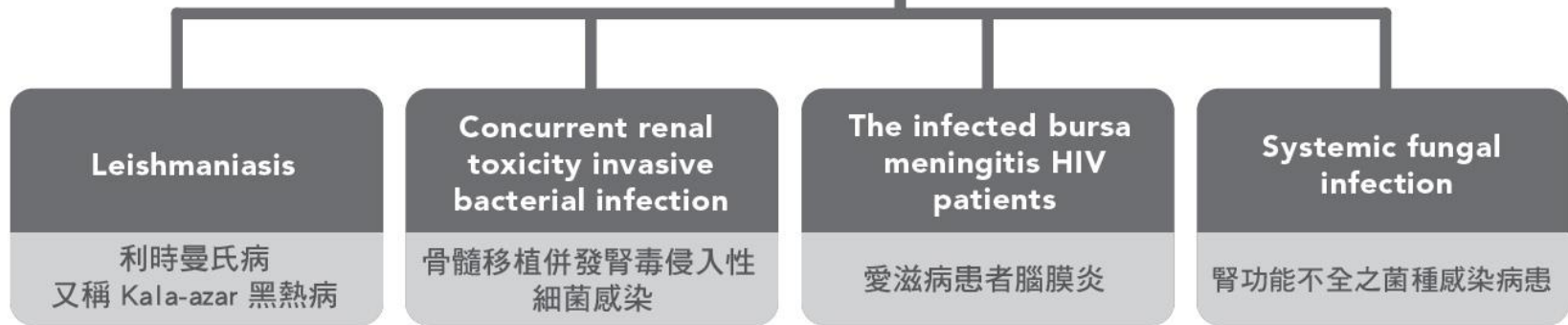
Source: 2011 Evaluate Pharma report; +2008 WHO report

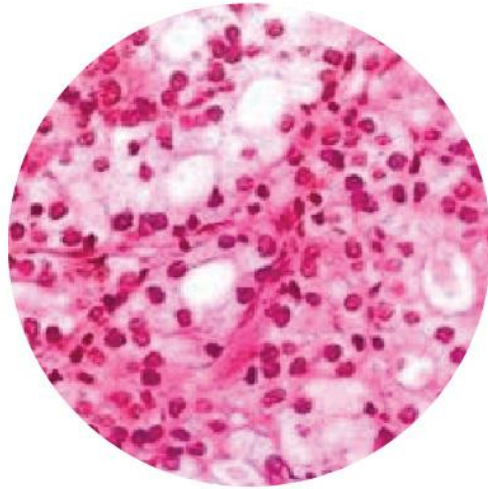


## Specialty- Lipo-Amphotericin B

Global Market: USD\$440 Million

Target:Worldwide 35~50%

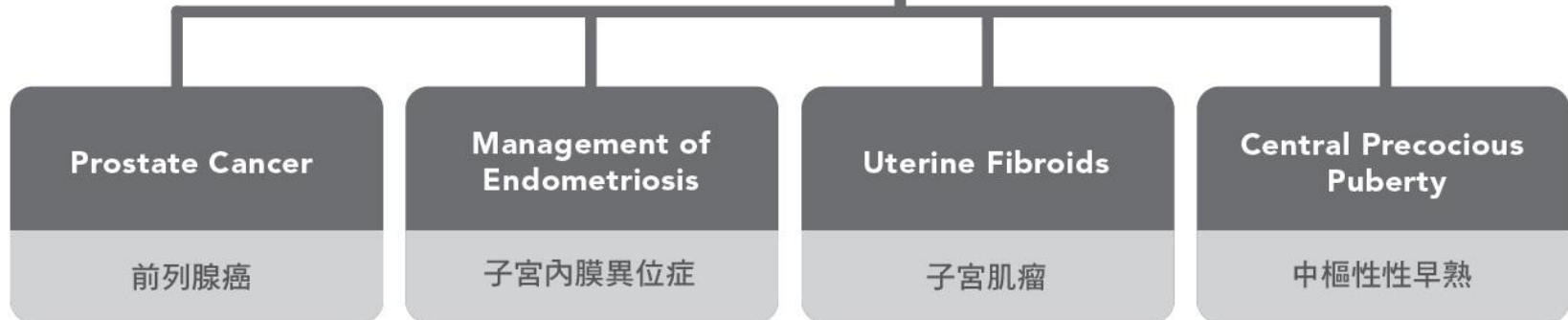




## Specialty- Leuprolide Acetate Injection

Global 2014 Lupron/Leuprolide  
Market: USD\$1.24 Billion

Target: Worldwide 20~35%





# Specialty- Leuprolide Acetate Injection

## Schedule for launch:

- EU- 2016 est.
- USA- 2018



11.25mg  
3-Month

3.75mg  
1-Month

Diluent

Table 4-5

## World Hormone Therapy Market

### Estimated Products Sales by Cancer Type, 2008

(in million of dollars at the manufacturers level)

| Cancer Type | Revenues Estimates | % of Market | Number of top Active Ingredients* |
|-------------|--------------------|-------------|-----------------------------------|
| Breast      | \$5,073            | 55.6        | 7                                 |
| Prostate    | 4,032              | 44.2        | 4                                 |
| Others      | 20                 | 0.2         | 0                                 |
| Prostate    | \$9,125            | 100         | 10                                |

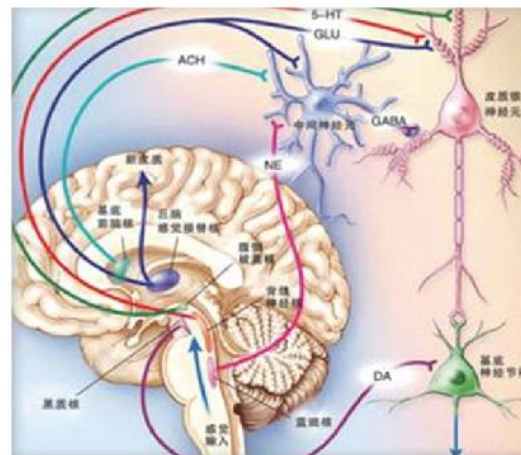
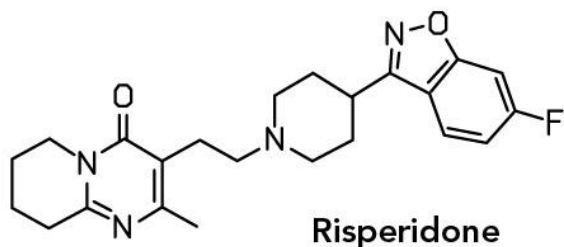
active ingredients with combined sales exceeding \$100 million annually.

Source: Kalorama Information: (Cancer Therapeutics and Biotherapeutics 2009)

# Specialty- Risperidone Injection

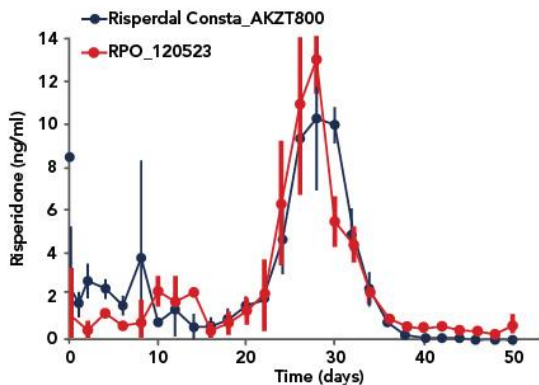
Indication: Schizophrenia

Global market: USD\$960 Million

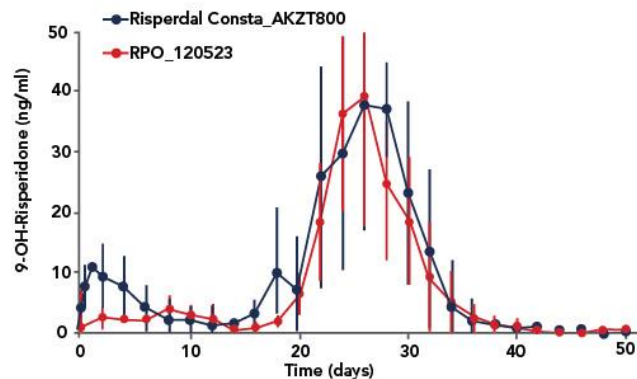


Beagle in vivo release

Risperidone



9-OH-Risperidone



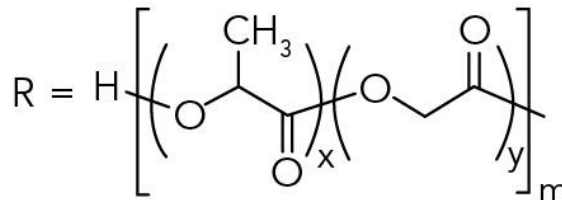
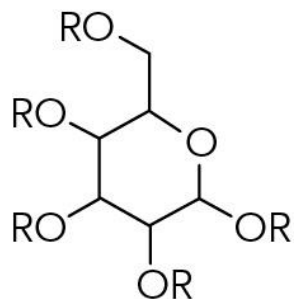


## Indications:

- Acromegaly
- Severe diarrhea/flushing episodes associated with metastatic carcinoid tumors
- Profuse watery diarrhea associated with VIP-secreting tumors

Synthesized by TTY

**TTY synthetic star polymers as a carrier!!**

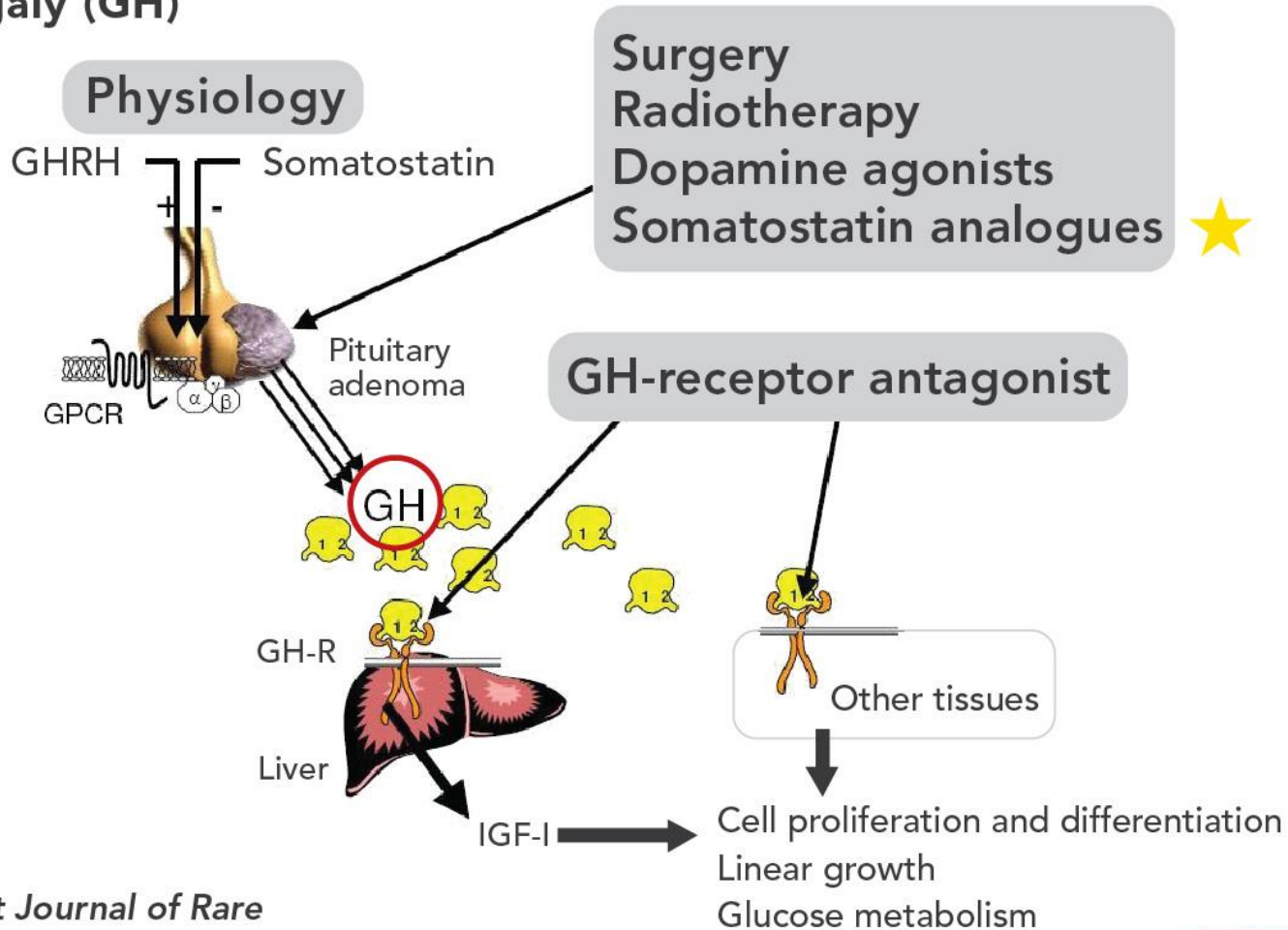


| Polymer  | Lot        | MW(K Da) | PI   |
|--|------------|----------|------|
| Poly(lactide-co-glycolide) star,<br>glucose core LA:GA=1:1 | TTY#783053 | 53       | 1.67 |

# Mechanism of SPL206



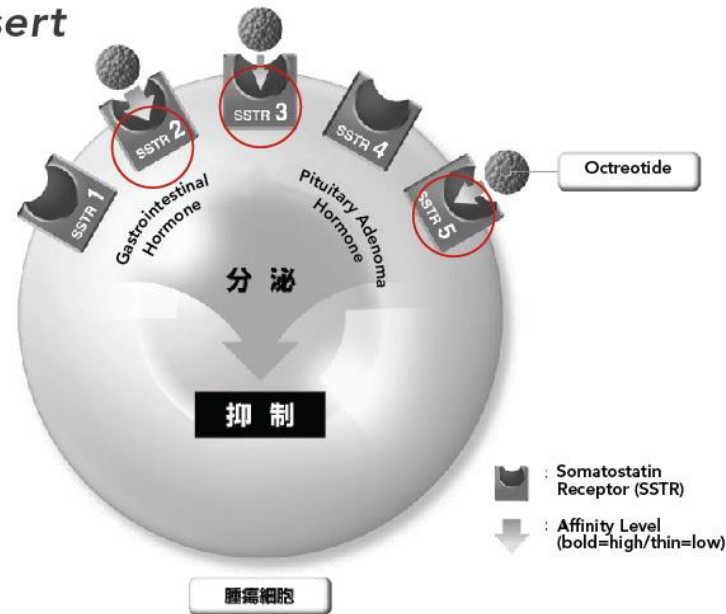
## Acromegaly (GH)



Orphanet Journal of Rare Diseases 2008,3:17.

# Mechanism of Action (SPL206)

## Sandostatin LAR, JP insert

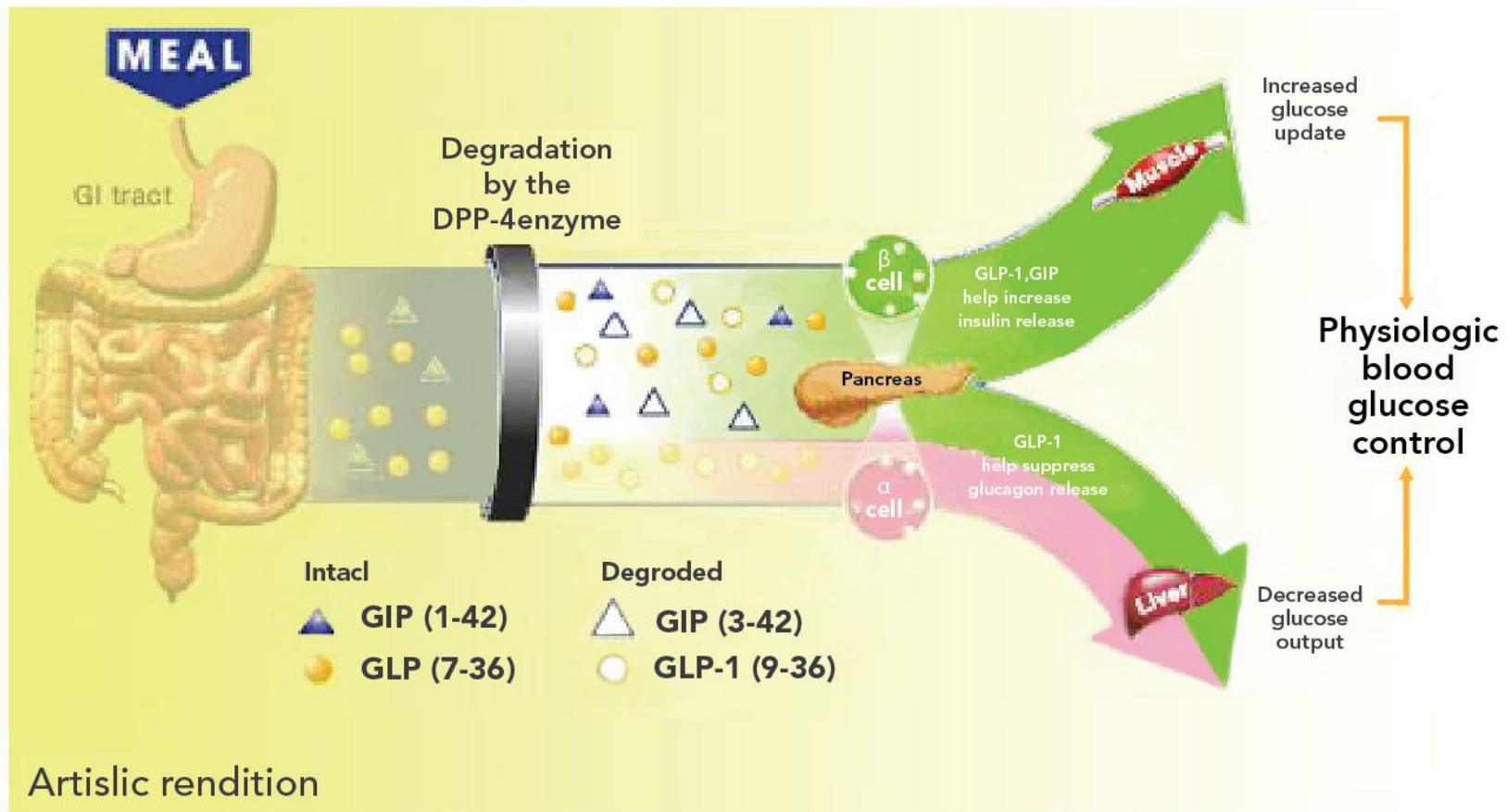


Somatostatin binds to somatostatin receptors (SSTR), exert a variety of physiological effects on various tissues, organs. SSTR has five subtypes (SSTR1 ~ 5), the binding affinity of octreotide varies depending on the sub-type, high in the order of SSTR2> SSTR5> SSTR3

Octreotide is presumed to bind to SSTR present on the cells of the pituitary adenoma and gastrointestinal hormone-producing tumor, VIP, it suppresses the secretion of gastrointestinal hormones and GH of gastrin.

# Specialty- LGIA10

## The Role of Incretins (GLP-1 and GIP) in Glucose Control

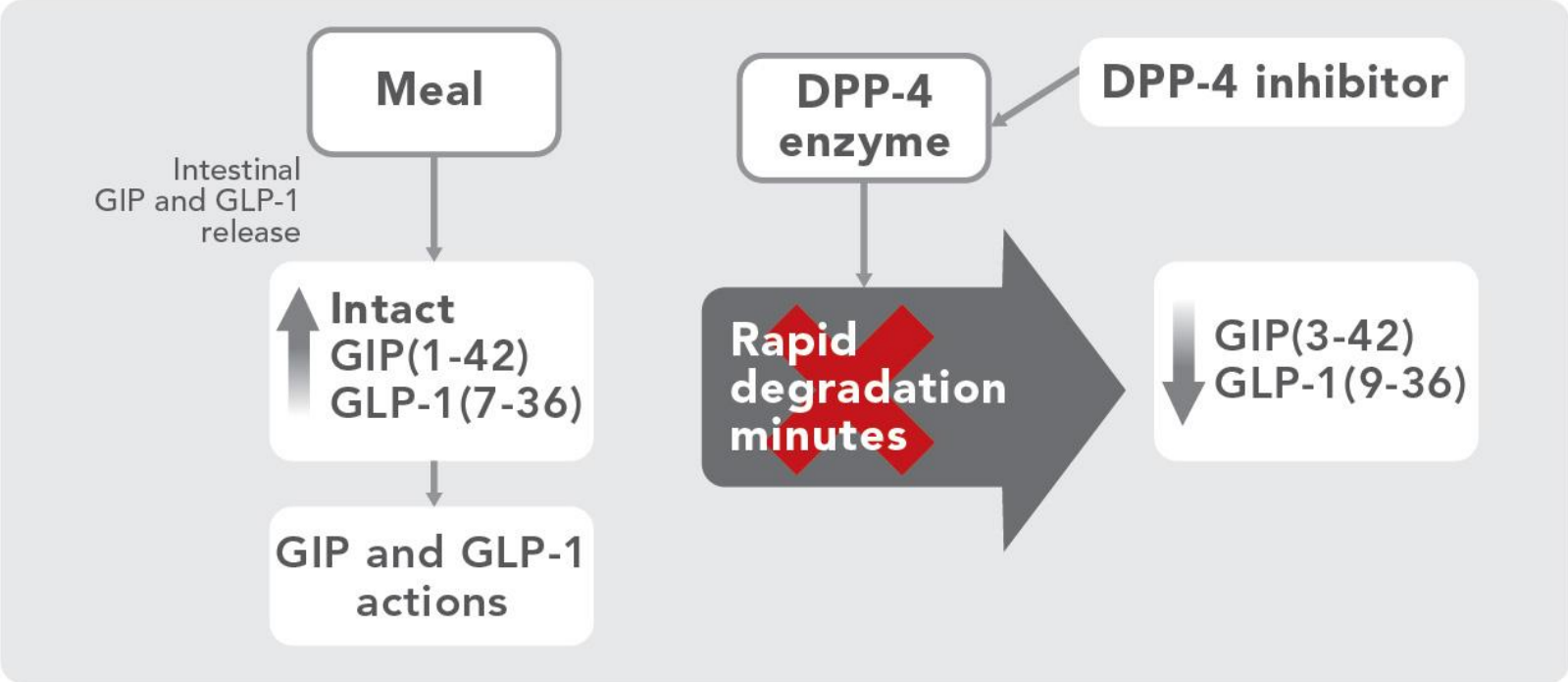


# Mechanism of LGIA10



## DPP-4 Inhibition: A Means to Achieve Enhancement of Intact Incretins

In vitro and in vivo DPP-4 inhibition increases levels of intact incretins (GLP-1 and GIP). <sup>1-3,5,15</sup>

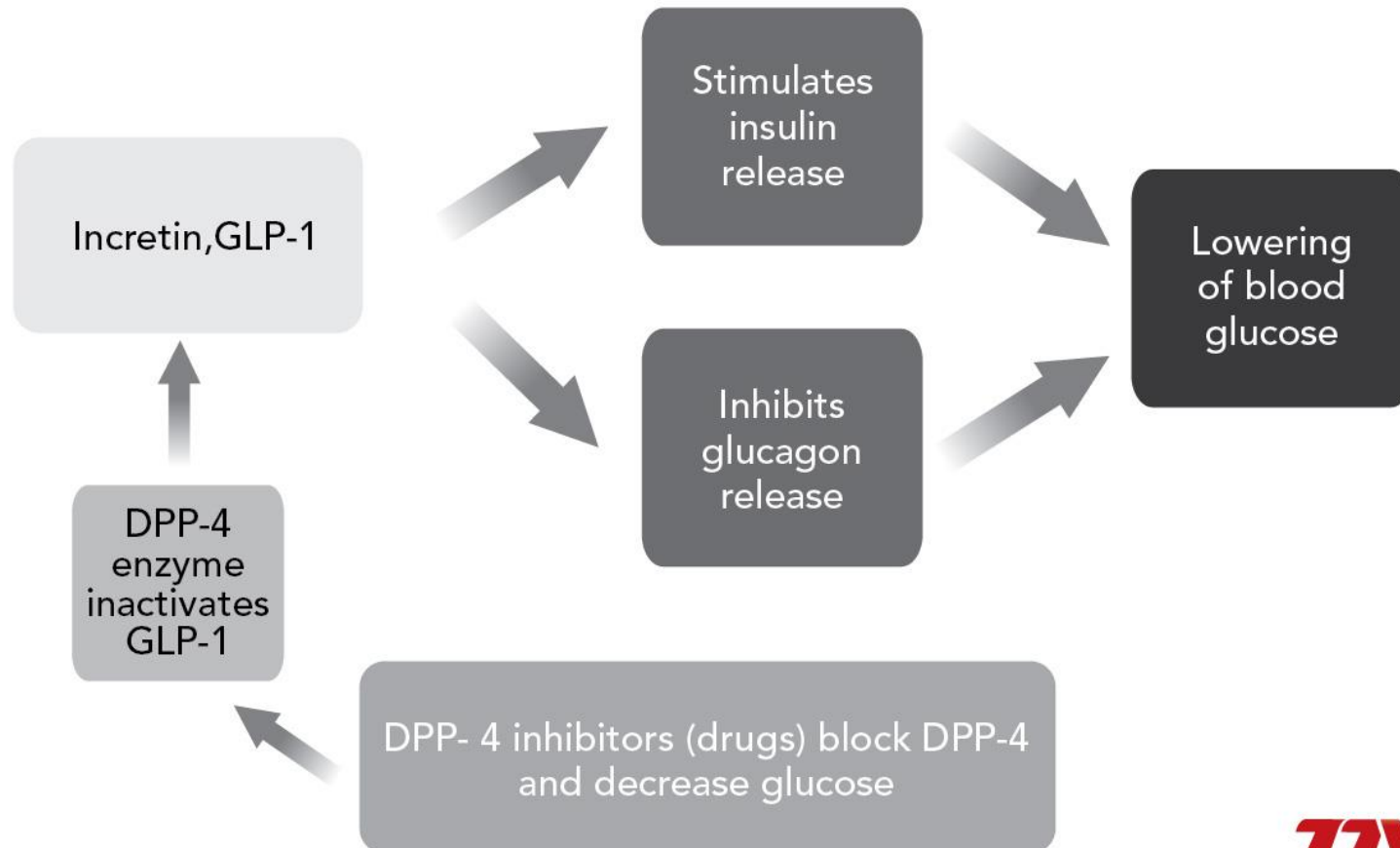


# Mechanism of LGIA10



## GLP-1 and Diabetes

Indication: Type II Diabetes Mellitus

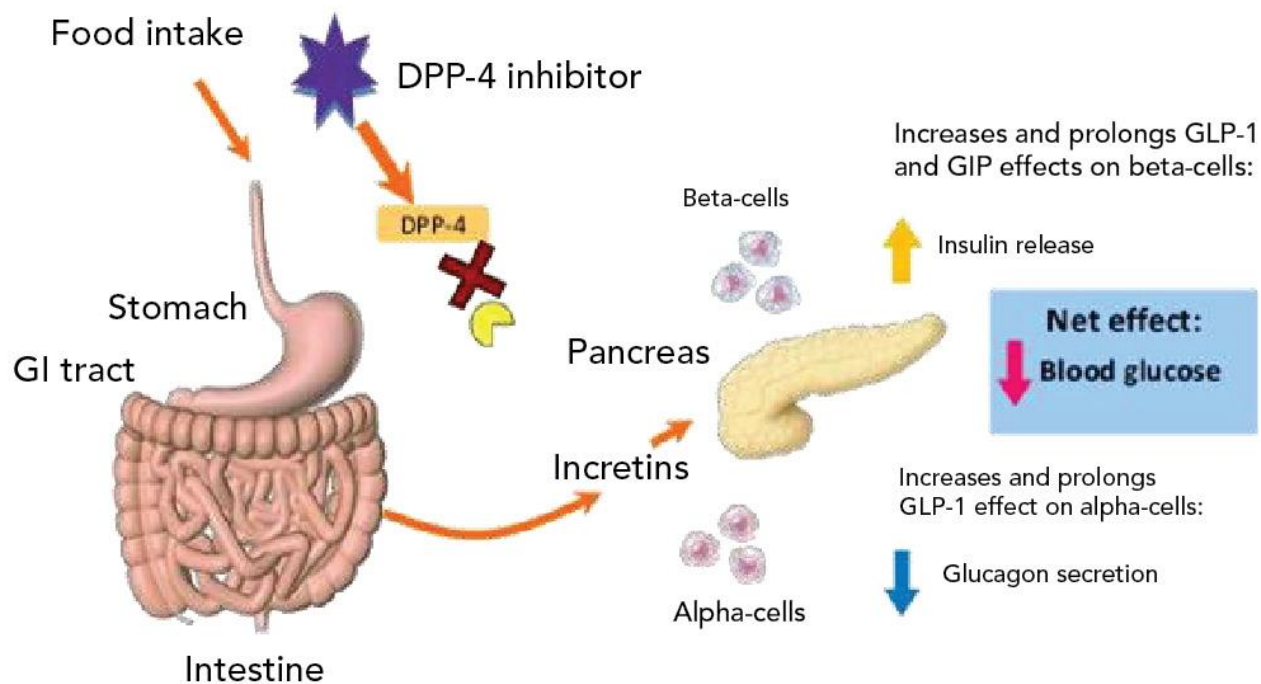




# Mechanism of LGIA10



## DPP-4 Inhibitors Enhance Incretin and Insulin Secretion



Adapted from: Barnett A. Int J Clin Pract 2006;60:1454-70  
Drucker DJ, Nauck MA. Nature 2006;368:1696-705  
Idris I, Donnelly R. Diabetes Obes Metab 2007;9:153-65

# Agenda

Company Overview

Product Strategy

Product Pipeline

**Manufacture Facilities**

Successful Product Categories

In Progress Status

Biotech Success

# Manufacture Facilities

- The only PIC/S GMP certified manufacture sites for high potency oncology, 2008/2013/2016 EMA, 2010/2014 Japan, 2013 US FDA, 2013 Brazil, Australia
- High standard Validation of
  - Equipment qualification/ Laboratory instruments qualification/ HVAC system/ Water system/ Compressed air system/ Nitrogen system/ Cleaning/ Analytical method/ Process/ Computer/ Logistic
- Individual flow management
  - Air flow/ Man flow/ Material flow/ Product flow/ Waste flow
  - To prevent cross contamination and environmental pollution

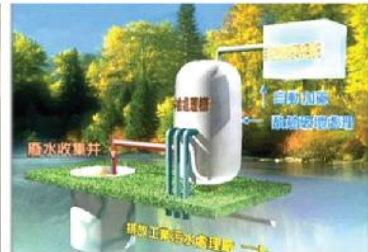
HVAC System



Work Safety



Environmental Protection





# Agenda

**Company Overview**

**Product Strategy**

**Product Pipeline**

**Manufacture Facilities**

**Successful Product Categories**





**In Progress Status**

**Biotech Success**

# Successful Products (Oncology, Taiwan & Segment Market)

| Products 產品名稱   | Indications 適應症  | Market(s) 行銷地區                                      |
|---|--|---|
| Asadin (伸定注射液)<br>               | Acute promyelocytic leukemia, APL (急性前骨髓細胞白血病)   | Taiwan、Thailand、<br>Malaysia、Philippine、<br>Vietnam |
| Gemis (健仕注射液)<br>                | inoperable, locally-advanced (stage IIIa or IIIb) or Metastatic (stage IV)<br>Non-small cell lung cancer (非小細胞肺癌)<br>Inoperable (stage II or III) or metastatic (stage IV) Pancreatic cancer, PC (胰臟癌)<br>Metastatic (stage IV) Urinary bladder cancer, UBC (膀胱癌)<br>Metastatic (stage IV) Breast cancer, BC (轉移性乳癌)<br>Recurrent (stage IV) Ovarian cancer, OC (卵巢癌)                          | Taiwan、Vietnam、<br>Malaysia、Sri Lanka、<br>Nigeria   |
| Lipo-Dox (力得微脂體注射液)<br>          | AIDS-related Kaposi's sarcoma in patients with low CD4 counts and extensive mucocutaneous or visceral disease. (愛滋病引發之卡波西氏肉瘤)<br>Metastasis carcinoma of the ovary with recurrent to both first line platinum- and paclitaxel-based chemotherapy regimens (復發性卵巢癌)<br>Metastatic (stage IV) Breast cancer, BC (轉移性乳癌)<br>Combination with bortezomib in 2nd line multiple myeloma, MM (多發性骨髓瘤) | Taiwan、Thailand、<br>Vietnam、Sri Lanka               |
| TS-1 (愛斯萬膠囊)                     | Gastric cancer, GC (胃癌): Stage II & III gastric cancer adjuvant treatment;<br>Advanced gastric cancer (stage IV); Pancreatic cancer, PC (胰臟癌)  | Taiwan、China  |
| Zobonic (抑骨凍晶靜脈注射液)   | Multiple myeloma, MM (多發性骨髓瘤)<br>Hypercalcemia of malignancy (惡性腫瘤之高血鈣併發症)   | Taiwan  |
| Painkyl Fentanyl(平舒疼口<br>類溶片)  | Breakthrough Pain (癌症突發性疼痛)  | Taiwan<br><b>Restricted Drug</b>                    |
| Epicin                         | Oral Mucositis (頭頸癌&HSCT患者口腔潰爛疼痛)  | Taiwan<br><b>Restricted Drug</b>                    |
| Ivic® (癌微可)                    | CML (慢性骨髓性白血病)   | Taiwan  |

# Successful Products (Oncology, Taiwan & Segment Market)

| Products 產品名稱  | Indications 適應症   | Market(s) 行銷地區   |
|--|---|--|
| <p>Oxalip<br/>(歐力普注射劑)</p>  | <p>Colorectal cancer, CRC (結腸直腸癌): stage III colon cancer adjuvant treatment; Metastatic colorectal cancer (stage IV)<br/>Gastric cancer, GC (胃癌): Advanced gastric cancer (stage IV)</p>   | <p>Taiwan、Thailand、Vietnam、Singapore、Nigeria、Sri Lanka</p> |
| <p>Tynen<br/>(汰能注射劑)</p>    | <p>Adjuvant &amp; metastatic (lymph node positive) (stage II-IV)<br/>Breast cancer, BC (乳癌)<br/>Metastatic (stage IV) Non-small cell lung cancer (非小細胞肺癌)<br/>Hormone refractory metastatic prostate cancer, PC (前列腺癌)<br/>Locally advanced(stage III~stage IVB) squamous cell carcinoma of the head and neck (局部晚期頭頸部癌)<br/>Metastatic (stage IV) Gastric gland cancer (胃腺癌)</p>   | <p>Taiwan、Austria、Germany、Sweden、Other EU members、</p>     |
| <p>UFUR (友復膠囊)</p>          | <p>Gastric cancer, GC (胃癌)- Adjuvant Treatment for stage IB, II, III patients after curative surgery; advanced gastric cancer (Stage IV)<br/>Colorectal cancer, CRC (大腸結腸直腸癌)- Stage II &amp; III colorectal cancer; metastatic colorectal cancer (stage IV)<br/>Breast cancer, BC (乳癌), stage II breast cancer; Metastatic breast cancer (stage IV) Lung cancer, LC (肺癌) stage IB; Metastatic lung cancer (stage IV)<br/>Head &amp; Neck cancer (頭頸癌), stage I to IV</p> | <p>Taiwan、Thailand、Vietnam、Malaysia、India、Pakistan</p>     |
| <p>Thado (賽得膠囊)</p>       | <p>Newly diagnosed multiple myeloma, MM (多發性骨髓瘤)<br/>Erythema Nodosum Leprosus, ENL (癩瘋性結節性紅斑)</p>  | <p>Taiwan、Philippines、Malaysia</p>                         |




# Oncology/Successful Products for Global

TTY has successfully registered **62** oncology product licenses in **17** countries.

|         | Country        | UFUR     | Oxalip   | Lipo-Dox | Irino     | Asadin   | Gemmis   | Tynen     | Epicin   | Thado    | Anazo    | Folina   | Total     |
|---------|----------------|----------|----------|----------|-----------|----------|----------|-----------|----------|----------|----------|----------|-----------|
| EU      | Belgium        |          |          |          |           |          |          | 3         |          |          |          |          | 3         |
|         | Czech Republic |          |          |          |           |          |          | 4         |          |          |          |          | 4         |
|         | Portugal       |          |          |          |           |          | 1        |           |          |          |          |          | 1         |
|         | Spain          |          |          |          | 2         |          |          |           |          |          |          |          | 2         |
|         | Austria        |          |          |          |           |          |          | 4         |          |          |          |          | 4         |
| Asia    | Thailand       | 1        | 1        | 1        | 1         | 1        |          |           |          |          |          | 1        | 6         |
|         | Philippines    |          |          | 1        |           |          |          |           |          |          | 1        |          | 2         |
|         | Vietnam        | 1        | 1        | 1        | 2         | 1        | 2        |           |          | 1        | 1        |          | 10        |
|         | Hong Kong      | 1        | 1        |          | 1         |          | 2        | 2         | 3        |          |          |          | 10        |
|         | Malaysia       | 1        | 1        |          |           | 1        | 1        | 1         |          | 1        |          | 1        | 7         |
|         | Singapore      |          |          |          | 1         |          |          |           |          |          |          |          | 1         |
|         | India          | 1        |          |          |           |          |          |           |          |          |          |          | 1         |
|         | Sri Lanka      |          |          | 1        | 1         |          | 1        |           |          |          | 1        |          | 4         |
|         | Pakistan       | 1        |          |          |           |          |          |           |          |          |          |          | 1         |
|         | Jordan         |          |          |          | 1         |          |          |           |          |          |          |          | 1         |
| America | Costa Rica     |          |          |          | 1         |          | 1        |           | 1        |          |          |          | 3         |
| Africa  | Nigeria        |          |          |          | 1         |          | 1        |           |          |          |          |          | 2         |
|         | <b>Total</b>   | <b>6</b> | <b>4</b> | <b>4</b> | <b>11</b> | <b>3</b> | <b>9</b> | <b>14</b> | <b>4</b> | <b>2</b> | <b>3</b> | <b>2</b> | <b>62</b> |



# Successful Products (Anti-Infectives, Taiwan & Segment Market)

| Products 產品名稱   | Indications 適應症   | Market(s) 行銷地區           |
|---|---|--------------------------|
| <p>Cubicin<br/>(救必辛注射劑)</p>  | <p>1. Complicated Skin and Skin Structure Infections caused by susceptible isolates of the following Gram-positive bacteria (治療下列感受性革蘭氏陽性菌引起的複雜性皮膚和皮膚組織感染 (cSSSI)如下): Staphylococcus aureus (including methicillin-resistant isolates), Streptococcus pyogenes, Streptococcus agalactiae, Streptococcus dysgalactiae subsp. equisimilis, and Enterococcus faecalis (vancomycin-susceptible isolates only)</p> <p>2. Staphylococcus aureus Bloodstream Infections (Bacteremia), Including Those with Right-Sided Infective Endocarditis, Caused by Methicillin-Susceptible and Methicillin-Resistant Isolates (引起之血液感染(菌血症)包括由具methicillin感受性及抗藥性菌株造成之右側感染性心內膜炎)</p> | Taiwan                   |
| <p>LIPO-AB</p>               | <p>1. 利時曼氏病leishmaniasis又稱黑熱病Kala-azar</p> <p>2. 骨髓移植後併發腎毒性侵入性細菌感染Concurrent renal toxicity invasive bacterial infection</p> <p>3. 感染囊球菌腦膜炎的HIV患者The infected bursa meningitis HIV patients</p>   | Global(2016/7)<br>Taiwan |
| <p>C+S (博益欣)</p>            | <p>為一抗感染新療效複方新藥對鮑氏不動桿菌(AB菌)治療效果更佳,目前市場尚無cefoperazone/sulbactam複方製劑,上市後可實際提供臨床用藥選擇性實際藥價低於單方用藥,減低醫療浪費</p>   | Taiwan                   |

# Anti-Infectives Portfolio



|    | Categories 類別          | Products 產品                          | Indications 適應症           | Stages 開發階段 |
|----|------------------------|--------------------------------------|---------------------------|-------------|
| 1  | 抗細菌                    | Cubicin                              | G (+)                     | 現有產品        |
| 2  |                        | CMS                                  | G (-)                     | 現有產品        |
| 3  |                        | Exacin                               | G (-)                     | 現有產品        |
| 4  |                        | Brosym                               | Broad spectrum            | 現有產品        |
| 5  |                        | New formulated colistin              | Anti-carbapenem resistant | Formulation |
| 6  |                        | New cephalosporin                    | Broad spectrum            | 評估授權        |
| 7  | 抗黴菌                    | Lipo-AB                              | Broad spectrum            | 現有產品        |
| 8  |                        | Flusine                              | Cryptococcus and Candida  | 現有產品        |
| 9  | Anti-HIV               | DL7014 and TL7014                    | HIV                       | Formulation |
| 10 | Niche generic and TNCE | Antibiotics, Antifungals, Anti-virus | TBD                       | 爭取經銷及自行開發   |

# R&D Investment 研究及臨床

| Subject                                    |                             | Year      |           |           |           |           |           |           |           |           |
|--|-----------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|  |                             | 2007      | 2008      | 2009      | 2010      | 2011      | 2012      | 2013      | 2014      | 2015      |
| *D&C<br>Resource<br><br>營收為<br>總公司+分<br>公司 | Revenue<br>(NTD,000)        | 1,519,680 | 1,773,420 | 2,067,360 | 1,786,500 | 2,098,500 | 2,158,500 | 2,307,540 | 2,384,220 | 2,738,956 |
|  | R&D<br>Expense<br>(NTD,000) | 197,550   | 200,040   | 238,650   | 290,040   | 384,360   | 366,750   | 289,530   | 283,470   | 236,398   |
|  | Total Staff                 | 319       | 339       | 400       | 338       | 374       | 404       | 484       | 494       | 450       |
|  | R&D<br>Manpower             | 82        | 92        | 90        | 94        | 97        | 104       | 111       | 105       | 97        |
|  | R&D<br>Expense/<br>Revenue  | 13.00%    | 11.30%    | 11.50%    | 16.20%    | 18.30%    | 16.90%    | 12.55%    | 11.89%    | 8.63%     |
|  | R&D<br>Total Staff          | 25.70%    | 27.10%    | 22.50%    | 27.80%    | 25.90%    | 25.70%    | 22.93%    | 21.26%    | 21.56%    |

- Continuous investment in development & clinical research:
  - Strong product portfolio
  - Long product life cycle
  - Abundant Asian clinical data

# Agenda

**Company Overview**

**Product Strategy**

**Product Pipeline**

**Manufacture Facilities**

**Successful Product Categories**

**In Progress Status**

**Biotech Success**

# Registration Approval Status

|   | 送件日期<br>Apply | 領證日期<br>Approval | 中文品名               | 英文品名  | 核可類別    | NPD Code |
|---|---------------|------------------|--------------------|---|---------|----------|
| 1 | 2011/09/27    | 2013/07/05       | 立博微微脂粒凍晶乾粉<br>注射劑  | Lipo-AB for Injection                                       | 監視期滿學名藥 | LAIA98   |
| 2 | 2012/05/24    | 2013/02/08       | 佇骨濃縮注射液<br>4毫克/5毫升 | Zobonic Concentrate<br>for Solution<br>for Infusion 4mg/5ml | 新單位含量新藥 | ZLIA08   |
| 3 | 2012/06/29    | 2014/02/19       | 博益欣注射劑             | Brosym for Injection  | 新複方新藥   | CSIA05   |
| 4 | 2013/06/13    | 2014/06/09       | 癌微可膜衣錠100毫克        | Ivic Film-Coated Tablets 100mg                              | 監視期滿學名藥 | IM7011   |
| 5 | 2013/03/29    | 2016 est.        | 霑力微脂粒注射劑           | Pegylipo Liposomal Injection<br>2 mg/mL                     | 監視期滿學名藥 | LDIA09   |
| 6 | 2014/05/14    | 2015/01/20       | 派癌休注射劑             | Pexeda Injection  | 新劑型新藥   | PD8011   |
| 7 | 2014/08/07    | 2015/10/01       | 癒復達注射液<br>50毫克/毫升  | Fupadine Injection 50mg/ml                                  | 非監視學名藥  | FR8013   |
| 8 | 2014/11/27    | 2016 est.        | 瑞伏駁膠囊 25毫克         | Levlimide Capsules 25 mg                                    | 監視學名藥   | LN9012   |

# Agenda

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# Biotech Success Strategy (2016-2020)

## • Marketing Development

- Liposome Doxorubicin into global peak sale
  - TS-1 、Painkyl 、Brosym(C+S) 、Aplidin into Peak sale
  - Liposome Amphotericin B
  - Risperidone PLGA
  - Leuprolide Depot
  - Regional markets integration
  - Thailand ABT IPO
- } Complete listing for global  
(Including China market)

## • R&D

- CMO/CDMO
- PLGA(Microsphere) Development
- 1-2 NCE/NBE Projects
- Dual-Chamber-Filling System ready

# Financial Comparison (Individual)

| Item<br>NTD ,000                     | 2013<br>(Actual) |      | 2014<br>(Actual) |      | 2015<br>(Actual) |      | 2016 Q1<br>(Actual) |      |
|--------------------------------------|------------------|------|------------------|------|------------------|------|---------------------|------|
|                                      | Amount           | %    | Amount           | %    | Amount           | %    | Amount              | %    |
| Net Sales                            | 2,292,163        | 100% | 2,384,207        | 100% | 2,738,956        | 100% | 801,117             | 100% |
| Gross Profit                         | 1,404,003        | 61%  | 1,411,875        | 59%  | 1,777,941        | 65%  | 548,085             | 68%  |
| Operating Expenses                   | -1,121,548       | -49% | -1,144,400       | -48% | -1,035,412       | -38% | -244,972            | -30% |
| Operating Profit                     | 282,455          | 12%  | 267,475          | 11%  | 742,529          | 27%  | 303,113             | 38%  |
| Non-Operating income<br>and expenses | 413,685          | 18%  | 596,585          | 25%  | 705,211          | 26%  | 29,151              | 4%   |
| Income before Tax                    | 696,140          | 30%  | 864,060          | 36%  | 1,447,740        | 53%  | 332,264             | 42%  |
| Net Income                           | 587,440          | 26%  | 779,645          | 33%  | 1,211,018        | 44%  | 280,644             | 35%  |
| <b>EPS</b>                           | <b>2.52</b>      |      | <b>3.14</b>      |      | <b>4.87</b>      |      | <b>1.13</b>         |      |



# Financial Comparison (Consolidated)

| Item<br>NTD ,000                     | 2013<br>(Actual) |      | 2014<br>(Actual) |      | 2015<br>(Actual) |      | 2016 Q1<br>(Actual) |      |
|--------------------------------------|------------------|------|------------------|------|------------------|------|---------------------|------|
|                                      | Amount           | %    | Amount           | %    | Amount           | %    | Amount              | %    |
| Net Sales                            | 3,110,092        | 100% | 2,979,902        | 100% | 3,195,218        | 100% | 912,604             | 100% |
| Gross Profit                         | 2,049,211        | 66%  | 1,898,936        | 64%  | 2,183,144        | 68%  | 637,872             | 70%  |
| Operating Expenses                   | -1,709,349       | -55% | -1,560,841       | -53% | -1,393,357       | -44% | -320,416            | -36% |
| Operating Profit                     | 339,862          | 11%  | 338,095          | 11%  | 789,787          | 24%  | 317,456             | 34%  |
| Non-Operating income<br>and expenses | 496,394          | 16%  | 571,745          | 19%  | 735,808          | 23%  | 47,166              | 5%   |
| Income before Tax                    | 836,256          | 27%  | 909,840          | 30%  | 1,525,595        | 47%  | 364,622             | 39%  |
| Net Income                           | 644,530          | 21%  | 811,695          | 27%  | 1,246,592        | 38%  | 305,191             | 33%  |
| <b>EPS</b>                           | <b>2.52</b>      |      | <b>3.14</b>      |      | <b>4.87</b>      |      | <b>1.13</b>         |      |

# 2014-2015 Net Profit (Individual)

Eliminated the investment traded out

Unit : NTD,000

| Year<br>Season | 2014           |                       | 2015           |                       | 2015 Growth    |                       |
|----------------|----------------|-----------------------|----------------|-----------------------|----------------|-----------------------|
|                | Pretax         | <i>After Tax</i>      | Pretax         | <i>After Tax</i>      | Pretax         | <i>After Tax</i>      |
| Q1+Q2          | 95,926         | <i>76,156</i>         | 321,740        | <i>281,251</i>        | 225,814        | <i>205,095</i>        |
| Q3+Q4          | 284,325        | <i>219,680</i>        | 552,446        | <i>453,717</i>        | 268,121        | <i>234,037</i>        |
| <b>Total</b>   | <b>380,251</b> | <b><i>295,836</i></b> | <b>874,186</b> | <b><i>734,968</i></b> | <b>493,935</b> | <b><i>439,132</i></b> |

# 2015-2016 Net Profit (Individual)

Eliminated the investment traded out

Unit : NTD,000

| Year<br>Season | 2015    |           | 2016    |           | 2016 Growth |           |
|----------------|---------|-----------|---------|-----------|-------------|-----------|
|                | Pretax  | After Tax | Pretax  | After Tax | Pretax      | After Tax |
| Q1             | 117,411 | 98,498    | 332,264 | 280,644   | 210,400     | 177,693   |
| Q2             | 204,330 | 182,753   | --      | --        | --          | --        |
| Q3             | 281,938 | 242,367   | --      | --        | --          | --        |
| Q4             | 270,508 | 211,350   | --      | --        | --          | --        |
| Total          | 874,186 | 734,968   | --      | --        | --          | --        |



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