

# Healthcare

## (Overweight)

### Accelerating overseas expansion in a promising segment

- Domestic pharmaceutical firms showing progress in sexual dysfunction treatment segment
- Overseas expansion picking up speed

#### Korean firms making strong inroads in sexual dysfunction treatment segment

We believe that now is the time for investors to begin taking notice of pharmaceutical firms that are finding success with treatments for erectile dysfunction (ED) and premature ejaculation (PE). In our view, sexual dysfunction drugs have the potential to become particularly strong catalysts for their developers. Indeed, because these drugs are not covered by Korea's national health insurance, they are not subject to heavy downward pricing pressure.

In the first three quarters of 2013, the domestic ED treatment market contracted 30.7% YoY to W64bn (on a cumulative basis), as the launches of generic versions of Viagra drove down overall product prices. Hanmi Pharmaceutical has become the third-largest seller of ED drugs in the domestic market, with sales approaching (Pfizer), or even exceeding (Donga ST), those of original drug developers.

The domestic PE treatment market reached W1bn YTD in 3Q13 (+20.4% QoQ). The market started to expand with the entries of domestic players beginning in August 2013. By revenue, Menarini is the dominant leader with a market share of 78.6%. However, in terms of prescriptions, Menarini holds only 33% of the market, followed by Donga ST (30.6%). This suggests domestic firms are quickly expanding their market positions. The market share gap (in terms of revenue) between the top two players is largely due to product price differences.

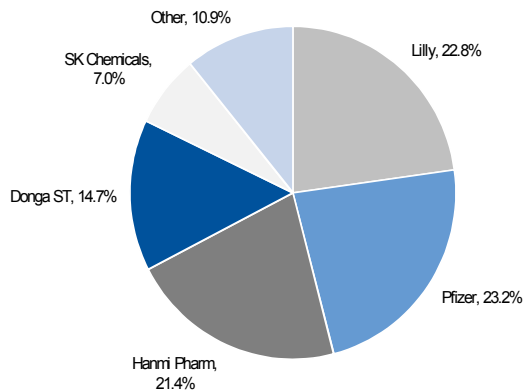
#### Overseas expansion picking up

Korean developers of ED and PE drugs have been seeing tangible results from their overseas expansion, and they are endeavoring to step up their efforts abroad. Among these companies, we take note Mezzion and CTC BIO.

Mezzion holds the patent for udenafil, developed in-house by Dong-A Pharmaceutical, in four countries, including the US. The company is currently developing udenafil as a treatment for ED and prostate hypertrophy in the US in partnership with Actavis. Since the company is likely to submit an application for the drug in the US in 2H, its future value should attract significant attention.

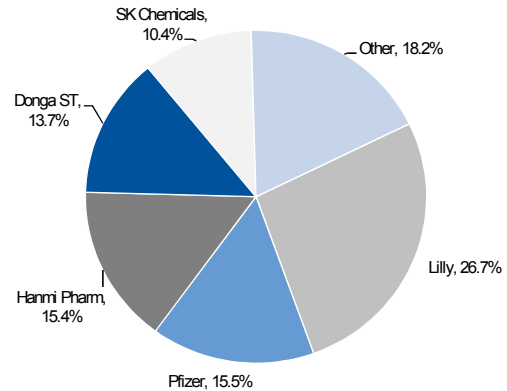
CTC BIO supplies its in-house developed film-type Viagra generic (sildenafil) to five domestic pharmaceutical firms. The company has also signed export contracts with firms in 87 countries (via Teva in six countries). Exports of film-type sildenafil are expected to take off next year. The company is also seeking technology transfer deals for film-type tadalafil (ED treatment) and dapoxetine (PE treatment) with multinational pharmaceutical firms. Some technology transfer negotiations for dapoxetine are likely to be completed in 1Q, while partnerships related to tadalafil are likely to gain traction after the domestic approval of the drug. Growing exports and the technology transfer of film-type ED and PE drugs should boost CTC BIO's medium- to long-term fundamentals.

**Figure 1. Hanmi Pharmaceutical became third-largest seller of ED drugs in 2012**



Note : YTD as of 3Q12  
Source: IMS, KDB Daewoo Securities Research

**Figure 2. Lilly made waves in the domestic ED drug market in 2013**



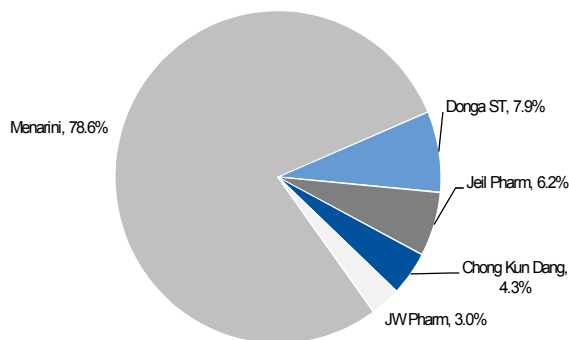
Note: YTD as of 3Q13  
Source: IMS, KDB Daewoo Securities Research

**Table 1. ED and PE drugs sold in the domestic market**

| Product name | Company                   | Drug                     | YTD as of 3Q12 | YTD as of 3Q13 | YoY (Wmn, %) |
|--------------|---------------------------|--------------------------|----------------|----------------|--------------|
| Cialis       | Lilly                     | Tadalafil                | 21,065         | 17,128         | -18.7        |
| Viagra       | Pfizer                    | Sildenafil citrate       | 21,414         | 9,932          | -53.6        |
| PalPal       | Hanmi Pharmaceutical      | Sildenafil citrate       | 19,779         | 9,866          | -50.1        |
| Zydena       | Donga ST                  | Udenafil                 | 13,612         | 8,747          | -35.7        |
| Mvix S       | SK Chemicals              | Mirodenafil              | 4,989          | 5,672          | 13.7         |
| Freeya       | Kunwha Pharmaceutical     | Sildenafil citrate       | 1,471          | 3,200          | 117.5        |
| Nurigra      | Daewoong Pharmaceutical   | Sildenafil citrate       | 1,197          | 1,572          | 31.3         |
| Heragra      | CJ CheilJedang            | Sildenafil citrate       | 919            | 1,490          | 62.1         |
| Mvix         | SK Chemicals              | Mirodenafil              | 1,479          | 1,013          | -31.5        |
| Happygra     | Samjin Pharmaceutical     | Sildenafil citrate       | 394            | 1,000          | 154.0        |
| Forte-V      | Kyung Dong Pharmaceutical | Sildenafil citrate       | 347            | 788            | 127.1        |
| Levitra      | Bayer                     | Vardenafil hydrochloride | 1,652          | 771            | -53.3        |
| Zygra        | Dongkoo Pharmaceutical    | Sildenafil citrate       | 92             | 761            | 725.9        |
| Fortera      | Jeil Pharmaceutical       | Sildenafil citrate       | 323            | 663            | 105.3        |
| Zepeed       | JW Pharmaceutical         | Avanafil                 | 2,454          | 575            | -76.6        |
| Speeden      | Ildong Pharmaceutical     | Sildenafil citrate       | 315            | 433            | 37.5         |
| Yaila        | SK Chemicals              | Vardenafil hydrochloride | 897            | 429            | -52.2        |
| Total        |                           |                          | 92,399         | 64,040         | -30.7        |

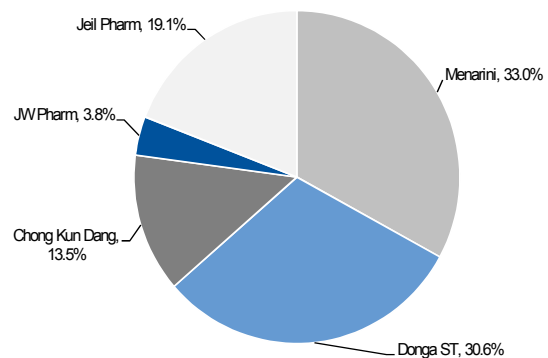
Source: IMS, KDB Daewoo Securities Research

**Figure 3. PE drugs: Menarini's PE drug market share dominance is based on higher prices**



Note: YTD as of 3Q13  
Source: IMS, KDB Daewoo Securities Research

**Figure 4. PE drugs: Domestic companies are far more competitive in terms of total prescriptions**



Note: YTD as of September 2013  
Source: UbiCare, KDB Daewoo Securities Research

**Table 2. Domestic PE drugs and revenue (Wmn)**

| Company             | Product name | Drug                       | 2Q13  | 3Q13  |
|---------------------|--------------|----------------------------|-------|-------|
| Menarini            | Priligy      | Dapoxetine hydrochloride   | 816.0 | 772.5 |
| Donga ST            | Nenoma       | Clomipramine hydrochloride | 0.0   | 77.2  |
| Jeil Pharmaceutical | Condencia    | Clomipramine hydrochloride | 0.0   | 61.4  |
| Chong Kun Dang      | Clojack      | Clomipramine hydrochloride | 0.0   | 42.3  |
| JW Pharmaceutical   | Julian       | Clomipramine hydrochloride | 0.0   | 29.2  |
| Total               |              |                            | 816.0 | 982.6 |

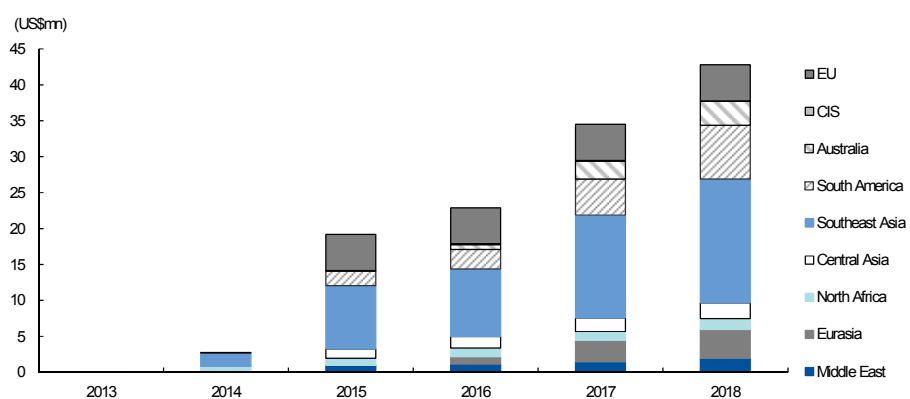
Source: IMS, KDB Daewoo Securities Research

**Table 3. Domestic PE drugs and number of prescriptions**

| Company             | Product name   | September 2013 |
|---------------------|----------------|----------------|
| Menarini            | Priligy - 30mg | 2,430          |
| Menarini            | Priligy - 60mg | 712            |
| Donga ST            | Nenoma         | 2,921          |
| Jeil Pharmaceutical | Condencia      | 1,821          |
| ChongKunDang        | Clojack        | 1,288          |
| JW Pharmaceutical   | Julian         | 360            |
| Total               |                | 9,532          |

Source: UbiCare, KDB Daewoo Securities Research

**Figure 5. CTC BIO expected to export film-type sildenafil**



Source: Company data, KDB Daewoo Securities Research

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# APPENDIX 1

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