Anatomic Pathology Markets in China

Excerpts from our new report
TABLE OF CONTENTS – ANATOMIC PATHOLOGY MARKETS IN CHINA

Country Summary................................................................. 7
• Anatomic pathology market overview.................................................. 8
• What’s new with China’s healthcare markets........................................... 9
• The healthcare system in China.......................................................... 11
• Medical insurance............................................................................. 15
• A brief guide to the bureaucracy......................................................... 18
• The rise of commercial reference labs................................................. 19
• Private medical practice................................................................. 21
• Product registration....................................................................... 22
• Reimbursement (or so they call it) .................................................... 27
• Tenders......................................................................................... 29
• Reagent rental................................................................................ 30
• Quality control.............................................................................. 31
• Point-of-care testing.................................................................... 32
• Second-hand instruments............................................................... 33
• Intellectual property..................................................................... 34

Cervical Cancer Testing............................................................... 37
• Market synopsis, pricing, sales volume forecasts................................. 38
• Market segments........................................................................ 39
• Competitors................................................................................. 40

Histology Basics........................................................................ 45
• Market synopsis, pricing, sales volume forecasts................................. 46
• Market segments........................................................................ 47
• Competitors................................................................................. 48

Immunohistochemistry............................................................... 53
• Market synopsis, pricing, sales volume forecasts................................. 54
• Market segments........................................................................ 55
• Competitors................................................................................. 56

Conventional and Digital Microscopy........................................... 61
• Market synopsis, pricing, sales volume forecasts................................. 62
• Market segments........................................................................ 63
• Competitors................................................................................. 65

Company Profiles – The Multinationals....................................... 71
The Big Three of Histology Basics.................................................. 73
• Leica......................................................................................... 74
• Sakura..................................................................................... 75
• Thermo Fisher ........................................................................ 76
The Big Three of Cervical Cancer Testing..................................... 77
• Hologic..................................................................................... 78
• Qiagen..................................................................................... 79
• BD......................................................................................... 80
The Big Three of IHC................................................................... 81
• Roche..................................................................................... 82
• Dako....................................................................................... 83
• BioGenex................................................................................. 84
The Big Three of Digital Pathology............................................... 85
• Aperio..................................................................................... 86
• Olympus................................................................................ 87
• Hamamatsu............................................................................. 88
# TABLE OF CONTENTS – ANATOMIC PATHOLOGY MARKETS IN CHINA

- **Company Profiles – The Chinese Companies**: 89
- **The Three Histology Specialists**: 91
  - Jinhua Yidi: 92
  - Tianjin Aihua: 93
  - Xiaogan Nuopu: 94
- **The Five Cervical Cancer Testing Specialists**: 95
  - Guangzhou Hong Qi: 96
  - Guangzhou LBP: 97
  - Changsha Combine: 98
  - Fujian Triplex: 99
  - Hong Kong Hybribio: 100
- **The IHC/ISH Specialists**: 101
  - Beijing China Medical: 102
  - Fuzhou Maixin: 103
  - Wuhan Proteintech: 104
  - Shanghai Sun Biotech: 105
- **The Microscopy Specialists**: 107
  - Xiamen Motic: 108
  - Beijing Unic: 109
  - Shenzhen Golden Imaging: 110
- **The Importing Distributors**: 111
  - Beijing Gene Company: 112
  - Beijing Labtech: 113
  - Beijing TCT Medical: 114
  - Shanghai Bio: 115
  - Beijing O&D Biotech: 116
- **Lab Profiles**: 117
  - Beijing Hospital: 118
  - Beijing PUMCH: 119
  - Beijing Army Hospital #301: 120
  - Beijing Fuwai Hospital: 121
  - Beijing Tiantan Hospital: 122
  - Beijing Chao-Yang Hospital: 123
  - Beijing Tongren Hospital: 124
  - Beijing Ob/Gyn Hospital: 125
  - Beijing CAMS Cancer Institute: 126
  - Beijing Cancer Hospital: 127
  - Beijing University First Hospital: 128
  - Beijing University People’s Hospital: 129
  - Beijing University Third Hospital: 130
  - Beijing Friendship Hospital: 131
  - Shanghai Changhai Hospital: 132
  - Shanghai Ruijin Hospital: 133
  - Shanghai Huashan Hospital: 134
  - Shanghai Ob/Gyn Hospital, Fudan University: 135
  - Shanghai Cancer Center, Fudan University: 136
  - Chengdu West China Hospital, Sichuan University: 137
  - Changsha Xiangya Hospital, Central-South University: 138
  - Wuhan Tongji Hospital: 139
  - Guangzhou PLA General Hospital: 140
  - Guangzhou First Hospital, Sun Yat-Sen University: 141
  - Xi’an Xiijing Hospital, Fourth PLA Medical University: 142
  - Nanjing Jiangsu Provincial Hospital: 143
What's new in China

China’s 8,000+ active anatomic pathology labs will spend about RMB 2.56 billion with their suppliers in 2012, which works out to be roughly US$410 million. China is now the world’s #3 market for products used by anatomic pathologists, having passed Germany last year. At current growth rates — which range from 12% to 50% for the market segments analyzed in this report — China will pass Japan next year to become the world’s #2 market.

China has an enormous appetite for new instrumentation, but much of it is bought from local suppliers at prices far below world market standards. More than 500 new hospitals have been opening per year in recent years, and we expect at least that many to open in 2013. In addition, the central government has thrown large sums of money at upgrading rural health centers. So for those making pap testing systems, microtomes, cryotomes, embedding stations, tissue processors, microscopes, and routine H&E staining instrumentation; China is probably one of your three biggest opportunities in 2013.

For those in the HPV, IHC, and WSI businesses, the market is still small, but the arms race will ramp up considerably in 2013, after Hologic’s acquisition of Gen-Probe, Agilent’s acquisition of Dako, and Leica’s acquisition of Aperio. As more Chinese companies move into cervical cancer testing, IHC, and WSI markets, we will see lots of second-tier labs test drive these new technologies with the more affordable local products. Then once they start to see these as being profitable businesses, they will begin to upgrade to imported automated systems, as the first-tier labs did over the last three to five years.
We have pages like this on China’s 25 most important suppliers to AP labs (see contents pages).

COMPANY PROFILE: QIAGEN/PG

Asia Pacific Headquarters: Qiagen
Block 20, 88 Da Er Wen Road
Zhangjiang Hi-Tech Park
Pudong, Shanghai 201203 Phone: 86/21/3865-3818

PG Office: PG Biotech (Shenzhen PG)
F6/7, R3-B, Shenzhen High Tech Industrial Park
Shen Nan Street, Shenzhen 518057
website: www.szpg.com Phone: 86/755/8636-6188

Local Contacts: Dr. Victor Shi - President, Asia Pacific/ victor.shi@qiagen.com

Qiagen Products: Molecular diagnostic products including HIV 1, PCR mixes, and hybrid capture HPV tests

PG Products: Real-time thermal cyclers
SFDA approved real-time kits for HIV, HBV, HCV, TB, SARS, CT, HPV NG and many others that are not yet approved

Genetimes Technology – Shanghai (www.genetimes.com.cn)

Comments: Qiagen, and the Digene team it acquired, has placed 250+ of their second-generation HPV instruments at Chinese labs. They bought the Chinese company PG in 2005 and are combining PG’s detection kits with Qiagen’s purification kits and selling these products through PG. They have PG focus on the clinical side while Qiagen looks after the research and life science side. On November 28, 2012, after grueling but ultimately successful clinical trials in Shanxi province, Qiagen announced the SFDA approval of their new careHPV test, which is being manufactured by PG in Shenzhen. This test is based on Digene’s Hybrid Capture 2 technology, but is designed for public health use in rural and low-resource settings. Good news for women in the countryside; bad news for Hologic.
We have pages like this on China’s 25 most important AP labs (see contents pages).

<table>
<thead>
<tr>
<th>LAB PROFILE</th>
<th>PUMCH</th>
</tr>
</thead>
</table>
| **Name & Contact Numbers:** | Peking Union Medical College Hospital (PUMCH)  
No. 1 Shuaifuyuan Wangfujing  
Beijing 100730  
Phone: (010) 65296114  
Fax: (010) 88068793  
Web: [http://www.pumch.cn](http://www.pumch.cn) |
| **Key Decision Makers:** | Dr. Yupei Zhao - Hospital Administrator  
Dr. Jie Chen - Pathology Director |
| **Setting:** | Government Hospital |
| **Bed Capacity:** | 1,836 |
| **Average Occupancy:** | 100% |
| **Histology Specimens/day:** | 130 |
| **Cytology Specimens/day:** | 60 |
| **Number of Pathology Techs:** | 32 |
| **Instrumentation:** | Whole Slide Imaging: Aperio Scanscope XT, Hamamatsu Nanozoomer  
Microscopes: Olympus, Motic  
IHC/ISH: Leica Bond, Ventana XT, and Dako Autostainers  
Routine H&E: Leica ST 5020, Sakura Prisma  
Tissue Processing: Leica Peloris, TF Excelsior, Sakura VIP  
Embedding: ThermoFisher Histocenter  
Cryosectioning: Leica CM 1900/3050/1950, TF Cryotome E  
Microtomy: Leica RM 2255  
Liquid Pap: Hologic ThinPrep 2000  
HPV: Digene HC2 |
| **Why Important:** | Peking Union Medical College Hospital is affiliated with both Peking Union Medical College and the Chinese Academy of Medical Sciences. PUMCH serves as a national medical technical support center for diagnosis and treatment of severe and complicated diseases. The hospital was initially funded by the Rockefeller Foundation in 1921. |
Qiagen’s new HPV tests were developed with support from the Gates Foundation. We expect these kits to force local-kit prices down a further 15-20% from the averages cited above. The importers’ prices will be affected as well, despite their best efforts to differentiate their kits.

**Market Segments**

There are between 8,100 and 8,500 anatomic pathology labs in China, as compared with nearly 20,000 clinical labs that do serum-based testing. These labs are currently segmented into four levels, in terms of their workloads and instrumentation.

- 250-275 top-tier labs
- 520-560 second-tier labs
- 3,300-3,500 third-tier labs
- 4,000-4,200 fourth-tier labs

The 250-275 top-tier labs would all be working with imported liquid-based pap systems. Nearly all of them have a ThinPrep 2000; the few that don’t have a BD system. Nearly all of them use a Qiagen Hybrid Capture II instrument for their HPV work.

The 520-560 second-tier labs would also be working with imported liquid-based pap systems. Hologic is also #1 in this market with their ThinPrep 2000, BD is #2. None of these labs have imported HPV instrumentation, but perhaps a quarter of them are doing HPV work with one of the local PCR kits.
Our study of anatomic pathology markets in China was first published in January of 2011, after research that was done between June and December of 2010. It was then updated and re-released in January of 2013.

The China report can be purchased in its entirety, or in abridged editions…

- Cervical Cancer Testing US$9,000
- Histology Basics US$9,000
- IHC US$9,000
- Digital Pathology US$9,000

- Histology Basics and IHC US$12,000
- Digital Pathology and IHC US$12,000

- Histology Basics, IHC, and Digital Pathology US$15,000

- Complete report US$18,000

We offer same-day delivery upon receipt of payment.

Similar reports have recently been published on The US, Brazil, and India, and can also be delivered immediately. Our reports on Japan, Germany, and France are currently in progress, and will be delivered during the third and fourth quarters of 2013.