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.

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Roche Diagnostics

Juergen Schwiezer, CEO Diagnostics Division

Roche Diagnostics Overview

Roche Diagnostics Strategy
Roche Group – Diagnostics Division represents 20% of Group Sales

Roche Group Sales H1 ‘08

<table>
<thead>
<tr>
<th>Category</th>
<th>CHF bn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genentech</td>
<td></td>
</tr>
<tr>
<td>Chugai</td>
<td></td>
</tr>
<tr>
<td>Diagnostics</td>
<td></td>
</tr>
<tr>
<td>Pharma</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>22</strong></td>
</tr>
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</table>

Roche Diagnostics H1 ‘08

<table>
<thead>
<tr>
<th>Category</th>
<th>CHF m</th>
<th>% of Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>4,747</td>
<td>11%</td>
</tr>
<tr>
<td>Growth LC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R&amp;D spend</td>
<td>437</td>
<td>9.2%</td>
</tr>
<tr>
<td>% of sales</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating profit</td>
<td>581</td>
<td>12.2%</td>
</tr>
<tr>
<td>% of sales</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. employees</td>
<td>25,150</td>
<td></td>
</tr>
</tbody>
</table>

Roche Diagnostics – Structured around Customers

*Five business areas covering three distinct markets*

<table>
<thead>
<tr>
<th>Life Science Researchers</th>
<th>In vitro diagnostics Professionals</th>
<th>In vitro diagnostics Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied Science</td>
<td>Molecular Diagnostics</td>
<td>Diabetes Care</td>
</tr>
<tr>
<td></td>
<td>Tissue Diagnostics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Professional Diagnostics</td>
<td></td>
</tr>
</tbody>
</table>

Shared services and expertise
Professional Laboratory Testing Largest Segment

Strong representation from EMEA

<table>
<thead>
<tr>
<th>Business Area</th>
<th>Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied Science</td>
<td>North America</td>
</tr>
<tr>
<td>Molecular Diagnostics</td>
<td>Latin America</td>
</tr>
<tr>
<td>Tissue Diagnostics</td>
<td>Asia Pacific</td>
</tr>
<tr>
<td>Professional Diagnostics</td>
<td>Japan</td>
</tr>
<tr>
<td>Diabetes Care</td>
<td>Others</td>
</tr>
</tbody>
</table>

1 Europe, Middle East and Africa

Roche Diagnostics

#1 in-vitro diagnostics company

Estimated market share 2007

1 Source: company reports, Boston Biomedical Consultants, Roche analysis based on peer sales 2007
2 In vitro diagnostics market; excludes Life Science research market; * Includes Ventana
Roche Diagnostics

Strongly positioned in growth markets

Roche Diagnostics Overview

Roche Diagnostics Strategy
Diagnostics Market Environment

An important and highly attractive market

Challenges …
- Industry consolidation
- Customer consolidation
- Labor shortages
- Cost containment
- Increasing regulatory requirements

... and growth opportunities
- Aging population
- Emerging markets
- Demand for automation and process optimisation
- Demand for novel markers and personalised healthcare

Role and importance of Diagnostics in Healthcare will continue to increase

Innovation is key for success!

Roche Diagnostics Strategy

Improve efficiency and add medical value

Key Drivers of Differentiation

- Increasing Medical Value
- Testing Efficiency

An opportunity to truly differentiate:
- Novel Markers
- PHC (including Companion Dx)

A prerequisite;
“Blood, Sweat & Tears”
Improve Healthcare Delivery through Innovation
Innovation in instrumentation, tests and new uses of both

Testing Efficiency
- Instrument Innovation
- Menu Breadth
- Workflow & IT

Medical Value
- Decentralise Testing
- Apply Content for New Uses
- Develop New Content

Full range of capabilities required
Strategic acquisitions to fill gaps, strengthen current business, enter new markets

<table>
<thead>
<tr>
<th>Research</th>
<th>IVD Development</th>
<th>IVD Commercial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sequencing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Microarray Analysis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real-time PCR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IHC/ISH*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELISA**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemistry</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Immunohistochemistry / In situ hybridization
**Enzyme-linked ImmunoSorbent Assay
Roche’s Competitive Advantage
Diagnostics and Pharma under one roof to maximise opportunities in personalised healthcare

**Life Sciences**
- Leading position in genomics
  - Microarrays
  - Sequencing
  - PCR

**In Vitro Diagnostics**
- Leader in largest market segments
  - Improve lab efficiency
  - Broaden menu
  - Develop new tests

**Pharma**
- Become Pharma’s “partner of choice”
  - Interfaces
  - Breadth of technologies
  - Biomarker expertise

Increasing medical value to patients & physicians

---

Roche Diagnostics
Personalised Healthcare

Robert Yates, Head of Business Development
Personalised Healthcare

Biomarker Development

PHC at Roche

---

Today, most patients are treated the same

- 25-80% of patients do not receive effective treatment\(^1\)
- >100,000 deaths/yr from adverse drug reactions in US\(^2\)

**Personalised Healthcare – Definition**

*Use of molecular insights and diagnostic tests to better tailor medicines and manage a patient’s disease*

---

**Personalised Healthcare – Familiar examples**

*Tailoring the treatment to the patient*

**Virology: HIV/AIDS and HCV**
- Measuring viral load before and during treatment; identification of HCV viral subtypes to guide treatment duration

**Diabetes: Blood glucose measurement**
- To ensure the right timing and dosage of insulin

**Oncology: Herceptin**
- Herceptin treatment is indicated only for patients identified to have HER2 over expressing breast cancer

---

**Personalised Healthcare**

*Provides benefits for all stakeholders*

- **Patients**: Best treatment
- **Physicians & Providers**: Maximum benefit, Minimum toxicity
- **Regulators & Policy Makers**: Increased efficacy & safety, Reduced healthcare costs
- **Industry**: Differentiated medicines, New Diagnostic tests
- **Payers & Reimbursers**: Efficient use of healthcare budgets, Increased cost benefit per patient
Personalised Healthcare
Dispelling the myths

Myth #1
- Pharma companies are not interested in pursuing PHC because it will reduce eligible patient populations

Myth #2
- Identifying viable Biomarkers is easy

Personalised Healthcare – Benefits
PHC creates patient benefits and commercial incentives

Increased:
- Penetration
- Market share
- Duration of therapy
- Compliance
- Line extensions

Patient benefits:
- Increased efficacy
- Reduced unnecessary treatment/side effects
- Decreased uncertainty
- Increased safety
A biomarker might be more difficult to find than a drug

Biomarker = Any biological parameter used as indicator of disease process or drug response

Biomarker Development

PHC at Roche
Biomarker Development – Why?
Offers value to patients and clinicians - on many levels

The Patient
• What do I have?
• What caused it?
• What explains my symptoms?
• What are my prospects?
• Has it spread?
• What is my treatment?
• Will I be cured?
• Will I be hurt?
• How will I be followed?
• Will it return?
• Will others in my family get it?

The Doctor
• Diagnosis
• Etiology: Infections/Genetic
• Pathogenesis
• Prognosis
• Metastasis
• Therapeutic Targets
• Response Prediction
• Toxicity Prediction
• Monitoring
• Relapse
• Predisposition Screening

Biomarker Development – What it takes!
A plethora of tools, skills and capabilities

Highly linked Information Network

Samples, Clinical Trials, Patient Data
Diagnostic Skills & Expertise
Successful Biomarker Program
Portfolio of Dx platforms and tools
Understanding of Molecular Biology
Biomarker Development – Required Capabilities

Significant hurdles

- Generation of a biomarker hypothesis
- Develop prototype assay
- Identification of candidate markers
- Discovery
- Clinical validation of candidate markers using assay
- Assay refinement & development IVD test
- Validation
- Regulatory test approval
- Commercialisation
- Auditor for result consistency
- Distribution to laboratories
- Clinician/Lab education
- Commercialisation

Biomarker Development – Challenges

Numerous challenges associated with biomarker testing

- Sample quality & quantity
- Variations in testing methods
- Complex & lengthy Validation
- Quick & reliable Prototyping
- Stakeholder Consensus
- New methods & Technologies
Biomarker Development – Roche’s Distinctiveness

Roche’s competitive edge is driving Personalised healthcare in-house and with selected partners

- Joint research at molecular biology level
- Full availability of technological expertise & platforms
- Open exchange of knowledge & IP

- IVD development expertise
- Large clinical trial programs with outcomes
- Clinical sample databank

- Leading IVD company
- Label defined on launch
- Established Clinician/Lab network

---

Personalised Healthcare

Biomarker Development

PHC at Roche
**PHC at Roche – It’s at our Core!**
Diagnostics input for all Pharma projects - from discovery to market

**Discovery Phase**
- Target Selection
- Biomarker development
- Target identification
- Research assay

- Lead Generation/Optimization
- Companion diagnostic feasibility & attractiveness
- Patient selection
- Technically validated assay

**Confirmatory Phase**
- Phase 0
- Phase I
- Phase II
- Phase III
- Filing
- Market Phase IV
- Dx launch/ Post-launch assessment
- Tailored prescribing & monitoring
- Clinically validated IVD assay

**PHC at Roche – Roche’s Distinctiveness**
Align Diagnostics to Pharma Disease Biology Areas
**PHC at Roche – Oncology**

*Implementing biomarker strategy for all pipeline drugs*

### Ph I / II

- **Prospectively assessing opportunities for patient selection**
  - IGF-1R mAb (R1507)
  - MDM2 antag (R7112)
  - PLX4032 (R7204)
  - T-DM1 (R3502)

### Ph III / Market

- **Identifying patients who have an improved clinical benefit to launched drugs**
  - Herceptin
  - Avastin
  - Pertuzumab
  - Tarceva

- **Range of candidate markers for investigation**
  - HER2 expression
  - HER2 gene amplification
  - KRAS mutations
  - EGFR expression (IHC)
  - EGFR gene copy # (FISH)
  - EGFR mutations

---

**PHC at Roche – Summary**

*Differentiation through Personalised Healthcare*

- Personalised Healthcare is here to stay – it brings value to patients and the healthcare system

- Challenges to overcome in biomarker discovery, validation and commercialisation

- Diagnostics capabilities and technologies play a crucial role in discovering & harvesting biomarkers

- Having Diagnostics’ capabilities intertwined throughout all stages of drug development is a significant advantage for Roche
Roche Professional Diagnostics

Ann Costello, Head of Serum Work Area, Professional Dx

Professional Diagnostics Overview

Professional Diagnostics Strategy
Professional Diagnostics - Market Participation
*Covers a broad customer spectrum*

**In Vitro Diagnostics Market**

<table>
<thead>
<tr>
<th>Health Care Professionals</th>
<th>Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Labs</td>
<td>Hospitals</td>
</tr>
<tr>
<td>Central Labs</td>
<td>ER</td>
</tr>
<tr>
<td>ICU</td>
<td>Outpatients</td>
</tr>
<tr>
<td></td>
<td>Self Testing</td>
</tr>
</tbody>
</table>

**Professional Diagnostics - Business Scope**
*Serum work area is largest & most important segment*

**Roche Revenue (2007) by segment**
- Immunoassay: 30%
- Clin. Chem: 32%
- Serum Work Area: 62%
- POC Testing: 19%
- Services, IT & Workflow: 11%
- Coag, Haem. & Urinalysis: 8%

**Competitive position**

**Roche Strengths**
- 14% market share
- Growing above market
- Strong growth in Immunoassay
- Leader in Hospital Glucose & Coagulation monitoring

**Roche Opportunities**
- US Market (3rd)
- Infectious diseases
Professional Diagnostics – Performance H1 ‘08

Immunoassay continues to gain market share

CHF m

<table>
<thead>
<tr>
<th></th>
<th>H1 ‘06</th>
<th>H1 ‘07</th>
<th>H1 ‘08</th>
</tr>
</thead>
<tbody>
<tr>
<td>POC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clin. Chem.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Immunoassay</td>
<td>+9%¹</td>
<td></td>
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</tbody>
</table>

¹ local growth
Source: Roche estimates, Company Reports, Boston Biomedical Consulting

<table>
<thead>
<tr>
<th>RPD Growth H1 ‘08</th>
<th>Market Share %</th>
</tr>
</thead>
<tbody>
<tr>
<td>11%</td>
<td>15%</td>
</tr>
<tr>
<td>2%</td>
<td>20%</td>
</tr>
<tr>
<td>19%</td>
<td>17%</td>
</tr>
</tbody>
</table>

Professional Diagnostics Overview

Professional Diagnostics Strategy
Roche Professional Diagnostics Strategy

*Innovate to improve healthcare*

**The Challenge…**
- Cost pressures
- Unmet medical needs
- Information complexity
- Skilled labor shortages

**Our Response…**

We will innovate in
- **Testing Efficiency**
- **Medical Value**

…to improve healthcare

**Testing Efficiency**

*Addressing customer complexity*

- **Instrument Innovation**
- **Menu Breadth**
- **Workflow & IT**
Testing Efficiency - cobas modular platforms
Strengthening our portfolio to address all laboratory segments

cobas® 8000 analyzer series
Large Volume

cobas® 6000 analyzer series
Mid Volume

cobas® 4000 analyzer series
Small Volume

* Modular platform for all lab sizes
* Multiple configurations allowing easy expansion
* Improved efficiency and productivity

* In development

Testing Efficiency – Breadth Immunoassay Menu
Broadest menu on a single platform

Endocrinology
- Thyroid
  - TSH, fT4, fT3, T4, T3, T-Uptake, anti-TPO, anti-TG, TG, anti-TSH receptor
- Fertility
  - LH, FSH, Prolactin, Estradiol, Testosterone, Progesterone, SHBG, HCG, HCG+beta, DHEA-S.
- Other Hormones
  - C-Peptide, Insulin, Cortisol, ACTH

Anemia
- Ferritin, B12, Folate (+ RBC)

Oncology
- PSA (total), PSA (free), AFP, CEA, Cyfra, NSE, CA 15-3, CA 19-9, CA 125-5, CA 72-4

Cardiac
- CK-MB, Myoglobin, Trop-T, TnT ha, Tni, NT-proBNP, Digoxin, Digitoxin

Rheumatoid Arthritis
- Anti CCP

Bone
- PTH, N-MID Osteocalcin, ß-CrossLaps, P1NP, Vit. D

Retrovirology
- HIV Ag
- HIV antigen Conf.
- HIV combi

Hepatitis
- Anti-HAV, HAV-IgM
- HBsAg, anti-HBs, anti-HBe, anti-HBc-IgM, HBeAg, anti-HBe, anti-HCV

TORCH
- Toxo IgG/M
- Rubella IgG/M
- CMV IgG/M

Preg. Surveillance
- Free ß hCG, PAPP-A
- PLGF, sFlt

Blue indicates assays launched or planned for launch in 2008

* Not all assays approved in all markets
Testing Efficiency – Workflow & IT solutions
Optimising lab performance and efficiency

Data complexity

- Limited interoperability of instruments/data
- Limited/manual traceability of results
- Lower quality control

Medical Value
Address unmet medical needs

- Develop New Content
- Apply Content for New Uses
- Decentralise Testing
Medical Value – Developing New Content

*PlGF and sFlt-1, two novel markers for Preeclampsia*

- Preeclampsia affects 5%-7% of all pregnancies and is a leading cause of maternal mortality
- Estimated annual cost to healthcare system in the U.S ~$7 bn
- No specific diagnostic test available
- Early detection and management can have a major impact on patient outcome and healthcare costs

Source: Preeclampsia Foundation website  * In development

Medical Value – Applying Content for New Uses

*Clinical development strategies to expand claims*

**Congestive Heart Failure**

- 5.4% of healthcare spending
- More costly than cancer
- Symptoms unspecific

**NT-proBNP blood test**

**Clinical Trial Program**

- Rule-out HF (ER)
- Short-term monitoring (ER)
- Rule-out HF (Primary Care)
- Targeted screening (Primary Care)
- Long-term monitoring (Outpatient/Primary Care)
- Therapy stratification ACS (ER)
- Preoperative testing (Inpatient)
- Population screening (Primary Care)

2003 ➔ 2008

Medical Value - Decentralise Testing

*Time-critical testing closer to the patient*

**Coagulation Monitoring**

- Warfarin treatment for many serious diseases
- Dosing needs tight control
- Over- or underdosing can have serious consequences

**Patient Self-testing**

- Patients who self-test achieve **superior anticoagulation control** compared to those receiving routine medical care


---

Roche Professional Diagnostics - Summary

- Strong industry fundamentals
- Well positioned in the fastest growing Professional Dx segments
- Executing on strategy to drive market share gains
- Continuous menu expansion with novel markers and claims extension for existing markers
Roche Molecular Diagnostics

Daniel O'Day, Head of Molecular Diagnostics

Molecular Diagnostics Overview

Molecular Diagnostics Strategy
Roche Molecular Diagnostics
Global leader in molecular diagnostics

- 1.1 billion CHF annual sales
- 35% market share
- 1000+ employees at 3 sites
- Broad product portfolio:
  - Key segments
    - Infectious disease
    - Blood Screening
  - Preparing to enter new markets (HPV in US, oncology, MRSA)

Molecular Diagnostics H1 '08
CHF 551 m, +4% LC

Molecular Diagnostics Market
Growth & drivers

Est. Mol Dx Market Size & Growth*

Drivers
+ Screening programs (HPV and CT/NG)
+ Control efforts for hospital-acquired infections
+ Novel biomarkers – e.g. Oncology
+ More patients and novel anti-viral treatments
± In Blood Screening, geographic expansion and trend to lower pool sizes / Individual donor NAT
– Increasing competition – price erosion

*Roche Analysis, Company Reports, Boston Biomedical Consultants
Molecular Diagnostics Overview

Molecular Diagnostics Strategy

**Strategy - Provide New Tools to Improve Patient Care**

*Leveraging our unparalleled experience & global presence*

- **Maximise Testing Efficiency**: Robust, automated diagnostic platforms for reliable results & improved workflow

- **Improve Medical Value**: New clinically relevant molecular tests for improved treatment planning and response
Maximise Testing Efficiency
Reduce complexity and increase automation, throughput

**Complexity Today**
- Amplicor
- LightCycler 2.0
- Cobas Amplicor
- CAP/CTM 96/48 & cobas s 201
- cobas s 4800*

**Near-Term**
- Virology & Blood Screening
- cobas s 4800*
- CAP/CTM & cobas s 201
- Other (HPV, CT/NG, Micro/Oncology)
- AmpliChip
- cobas 401*

**Long-Term**
- Next generation systems**

* Not approved for use in all markets ** in development

---

Maximise Testing Efficiency
Expand menu on platforms to maximise lab investment

<table>
<thead>
<tr>
<th>TODAY*</th>
<th>FUTURE**</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Virology</strong></td>
<td><strong>Blood Screening</strong></td>
</tr>
<tr>
<td>- US HIV</td>
<td>- US: WNV</td>
</tr>
<tr>
<td>- EU: HIV, HCV, HBV</td>
<td>- EU: MPX v1</td>
</tr>
<tr>
<td>- J: HIV, HCV, HBV</td>
<td>- J: MPX v1</td>
</tr>
<tr>
<td>- Additional tests planned</td>
<td>- MPX v2, HAV/ Parvo-B19</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>HPV &amp; CT/NG</strong></th>
<th><strong>Oncology</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- EU: HPV and CT/NG</td>
<td>- US/EU/J: CYP450</td>
</tr>
<tr>
<td>- US: CT/NG</td>
<td>- KRAS, EGFR distrib.</td>
</tr>
<tr>
<td>- HPV in US</td>
<td>- Companion diagnostics</td>
</tr>
<tr>
<td>- HPV &amp; CT/NG automation</td>
<td>- p53</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Microbiology</strong></th>
<th><strong>Additional tests planned</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- EU: SeptiFast</td>
<td>- MRSA</td>
</tr>
<tr>
<td>- Additional tests planned</td>
<td></td>
</tr>
</tbody>
</table>
### Improve Medical Value

**HPV in the U.S. - significant mid-term growth opportunity**

#### Clinical Applications

<table>
<thead>
<tr>
<th>Clinical Application</th>
<th># HPV tests, US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triage of patients with positive Pap test</td>
<td>1.1 MM</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>ASCUS triage; approx 4% of women</td>
<td></td>
</tr>
<tr>
<td>Pap &amp; HPV tests for women 30 yrs or older</td>
<td></td>
</tr>
<tr>
<td>Adjunct HPV screening</td>
<td>Up to 28 MM</td>
</tr>
<tr>
<td>(Pap only for patients younger than 30 yrs.)</td>
<td></td>
</tr>
<tr>
<td>Primary screening of all patients w/ HPV test</td>
<td></td>
</tr>
<tr>
<td>(Pap becomes triage for HPV positives)</td>
<td>50 MM</td>
</tr>
</tbody>
</table>

#### U.S. Market:

- **$200 MM, 32% growth p.a.**

---

### Improve Medical Value – Next Generation HPV

**Unique combination of testing efficiency & medical value**

- New trial underway to support US registration
- Enables Roche to:
  - Increase automation
  - Address changes in US screening guidelines
- EU markets different stages of adoption

<table>
<thead>
<tr>
<th></th>
<th><strong>Today</strong></th>
<th><strong>Future</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Manual PCR</td>
<td>Separate tests for HPV detection and genotyping</td>
<td>Simultaneous high-risk HPV Types 16+18 result gives actionable information to physician</td>
</tr>
<tr>
<td>Separate tests for HPV detection and genotyping</td>
<td>No differentiation in clinical action for cytology-negative &amp; HPV positive patients</td>
<td>Real-time PCR</td>
</tr>
<tr>
<td>No differentiation in clinical action for cytology-negative &amp; HPV positive patients</td>
<td>Automated platform</td>
<td></td>
</tr>
</tbody>
</table>
Improve Medical Value

Strong market growth expected for MRSA testing

- HAIs occur most frequently in hospitals & healthcare facilities
- MRSA - Methicillin-resistant *Staphylococcus aureus*
  - Deadly if not caught early; resistant to certain antibiotics.
- LightCycler MRSA test in development
  - Real-time PCR for results in hours instead of days
- Strong market growth expected for molecular testing
  - Estimated $60-70 million in 2008, 65% in U.S. and 35% in Europe

Improve Medical Value

Oncology tests for therapy selection

- Leveraging in-house capabilities and expertise
- Collaborations with Roche Rx and other pharma companies
- Partnering for content (e.g., DxS KRAS & EGFR)

<table>
<thead>
<tr>
<th>Companion Dx Programs</th>
<th>Initial applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>KRAS*</td>
<td>metastatic colorectal cancer</td>
</tr>
<tr>
<td>BRAF V600E**</td>
<td>PLX4032 co-developed by Roche &amp; Plexxikon for malignant melanoma</td>
</tr>
<tr>
<td>p53**</td>
<td>Breast cancer, Nutlins</td>
</tr>
<tr>
<td>EGFR*</td>
<td>Tarceva</td>
</tr>
<tr>
<td>+ other programs</td>
<td></td>
</tr>
</tbody>
</table>

* Not approved for use in all markets  
** Tests in development
Roche Molecular Diagnostics - Summary

Roche leads the molecular diagnostic market

- Strongly positioned in core segments (Virology & Blood Screening)
- Strong pipeline to support growth in US
- Advancing and streamlining automation; maximising platform menu
- Positioned to enter high-growth segments (HPV in US, Oncology, MRSA)
- Leveraging in-house expertise in molecular diagnostic development to advance Personalised Healthcare

Roche Tissue Diagnostics

Chris Gleeson, Head of Tissue Diagnostics
Tissue Diagnostics Market

Roche Tissue Diagnostics Overview

Implementing Personalised Healthcare

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Roche Tissue Diagnostics

A growth market improving medical value

*Diagnostic analysis of tissue samples*

… to detect cancer & infectious disease

… to provide information that enables Pathologists and Oncologists to determine the treatment of the disease (predictive) and patient outcome (prognostic)
Histopathology market – “Tissue based” diagnostics
A significant growth opportunity

**Worldwide Market Sales**

- **CHF bn**
  - 2007: 2.0
  - 2013E: 4.3
  - +14%

**Market Trends**

- Strong sector growth – 14% CAGR
- Continued growth in lab automation
- US & Europe key markets; emerging markets provide strong future growth
- Funding/reimbursement drives faster adoption of new technologies in the US
- New technologies enabling prognostic and predictive cancer information

*Source: Company reports, internal analysis

*Estimate includes Pre-Analytical, IHC, ISH, SS, H&E, Imaging, Lab workflow informatics and Research

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### Tissue Diagnostics - Market Trends

*Driven by need for improved workflow & new high-value tests*

**Stakeholders**

- Patients
- Providers
- Pharma
- Labs
- Payers & Policy Makers
- IVD manufacturers

**Key market trends**

- Manual workflow leads to quality & safety issues
- Critical shortage lab technicians
- Healthcare costs drive need for better diagnosis & prognosis
- Pharma companies’ shift from blockbuster model to PHC
- Evidence that multiplexing yields better prognostic information
**Tissue Diagnostics - Competitive Environment**

Roche clear market leader in Advanced Staining

**Market segmentation**

- Primary staining
- Pre-analytical
- Image analysis
- Special stains

**Advanced staining market***

- Roche
- Dako
- Abbott/Vysis
- Other/Manual
- Leica

Source: Estimate based on internal analysis and analyst reports

*Estimates includes IHC and ISH

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**Industry Dynamics**

*Mission of cancer diagnostics is evolving*

- From Single Analyte
- From Qualitative
- From Glass
- From Slide Technology
- to Multiplexing
- to Quantitative
- to Digital
- to Multiple Technologies

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Roche
Tissue Diagnostics Market

Roche Tissue Diagnostics Overview

Implementing Personalised Healthcare

Roche Tissue Diagnostics

*Changing the practice of tissue-based cancer diagnosis*

- 88 patents issued and pending
- 5,200+ systems installed in 1,900+ labs across 27 countries worldwide
- Product portfolio:
  - Advanced staining
  - Primary staining
  - Image analysis

![RTD (Ventana) sales on a stand-alone basis](chart.png)
Continuous Innovation
Superior technologies and rapid growth

* Not all products available in all markets

Roche Tissue Diagnostics - Product Portfolio
Solutions across three high growth areas
Key Launches – Advanced Staining*

Improving lab efficiency and productivity

BenchMark ULTRA – planned launch H2 ’08
Continuous access, patient case-centric
IHC/ISH staining system to enhance laboratory workflow

• Walk away automation; true continuous and random access; any test, any time
• 90+ slides in one 8 hr shift
• LIS connectivity

* Subject to appropriate regulatory approvals; US approval and launch may be later than indicated

Key Launches – Workflow Management*

Improving lab efficiency and productivity

VANTAGE – Launched H1 ’08
First complete workflow management system designed to improve productivity and patient safety

• Includes positive sample tracking throughout the laboratory

* Subject to appropriate regulatory approvals; US approval and launch may be later than indicated
Tissue Diagnostics Market

Roche Tissue Diagnostics Overview

Implementing Personalised Healthcare

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Personalised Healthcare

*A patient driven strategy*

**DIAGNOSTIC**
- Cancer type/-subtype
- Cancer location
- Cancer stage

**PREDICTIVE (Companion Dx)**
- Response prediction
- Toxicity prediction
- Dosing/monitoring

**PROGNOSTIC**
- Likelihood of recurrence
- Likelihood of survival
- Disease management
Roche Tissue Diagnostics

Uniquely positioned to develop Companion Diagnostics

Roche has the full set of capabilities to make PHC a reality

The Pathology Lab of the Future

A unique opportunity for Roche
Roche Tissue Diagnostics – Summary
Focus on testing efficiency and medical value

• Strongly positioned in attractive, high-growth advanced staining segments
• Well positioned to automate primary staining with Symphony
• Driving workflow and lab automation with VIAS and Vantage
• Strong R&D pipeline focused on high-value predictive and prognostics tissue-based tests
• Industry leading expertise in pharma co-development for tissue diagnostics