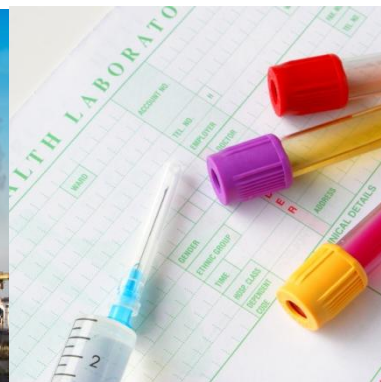




安捷伦科技 生命科学新产品报告

潘鹏
生命科学客户经理 陕西
2011-9-10

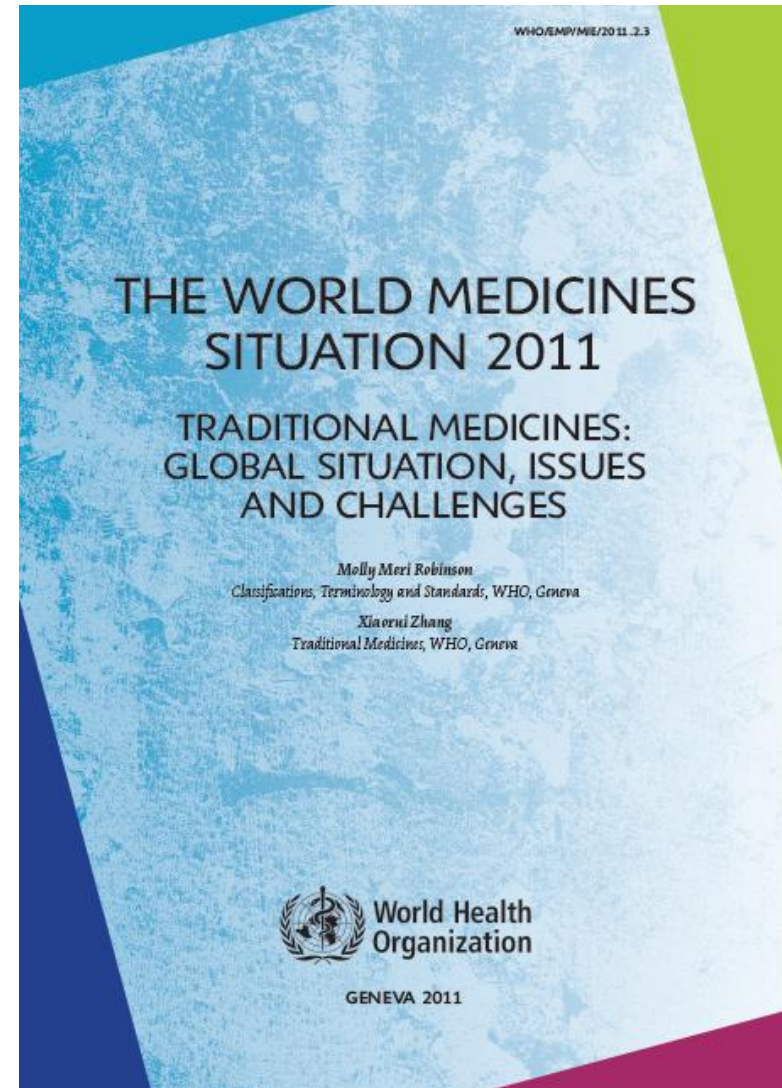


WHO 2011全球药物形势报告

Traditional medicine天然药物，包括草药、汉方制剂，一直在很多国家和地区不同程度的使用。尤其是在发展中国家，有**70%-95%**的人群以**traditional medicine**作为主要的养生用药。

到**2008**年时，全球**TM**的市场有**830**亿美元

目前**TM**的法规监管和科学术语尚未统一，有**OTC**也有非**OTC**药品，有人用于养生，居家备药、膳食补充、药物食补等，品目很多所以国际交流时用语也繁多



WHO 2011全球药物形势报告

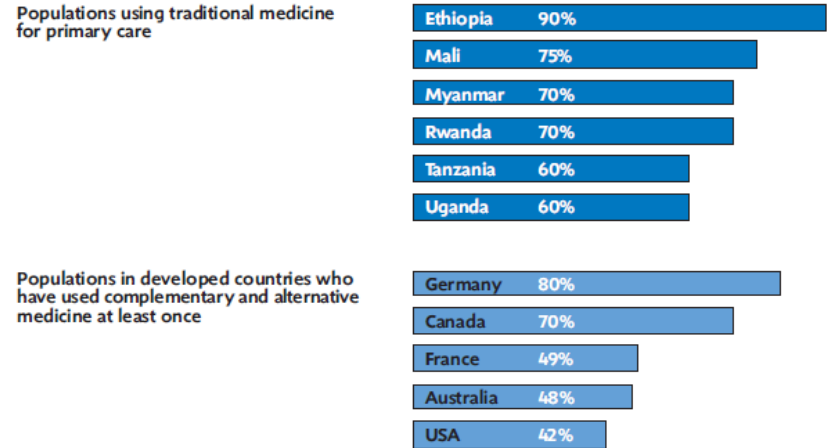
对TM进行类似于西药的严格质量控制或检验，来确保药物安全性和有效性是非常困难的。

WHO正在积极和科学界、以及产业领域的专家组在找到合适的途径以解决TM管理标准化的方法，以提高质量评价系统

TM的法规很难制定，因为产品的质量
和疗效很多决定于药师经验的。

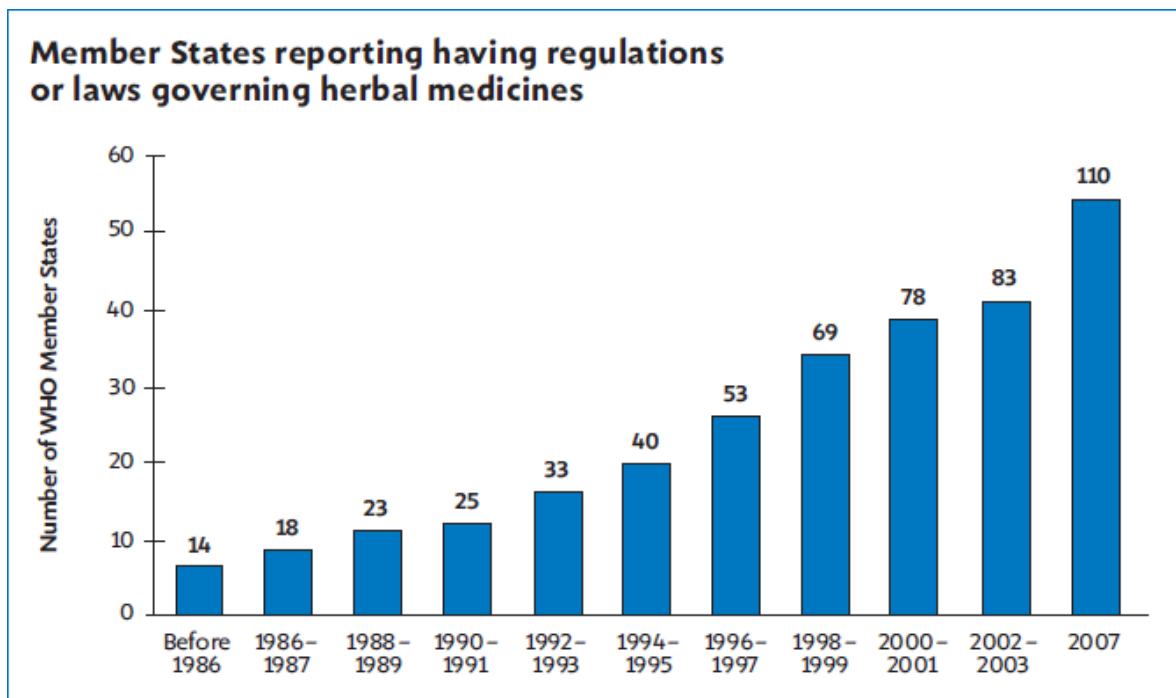
在世界范围内，几个主要参与到TM标准制定的国家有中国、印度、南非，以及地中海和东南亚等国

Use of traditional medicine (TM) in selected developing countries and use of complementary and alternative medicine (CAM) in selected developed countries



WHO 2011全球药物形势报告

WHO 的WHA 解决方案62.13，于2009年开始鼓励和倡议各国家尊重保护TM知识，并通过新技术对TM进行科学研究，建立各国的TM研发体制。



WHO 2011全球药物形势报告

与现有的化学药物研发及控制体系相比，遇到的挑战：

- traditional medicine并非无毒，而且毒理数据很难获取
- 产品受环境因素影响太多，如温湿度、光照、土壤成分、种植和收获的季节、以及作物年龄等
- 药物质量检验的科学性是其产业化道路的最大挑战
- 我们对其活性成分和成分成的在体内的治疗机理了解太少
- 成分复杂，而且很多成分含量很低，要按照现行的安全性和有效性评价方法做，很难实
- 药材植物不能作为专利得到保护，投资回报低，而且研发年限太长
- 所以，天然药物开发的工作复杂，而且代价昂贵。

Traditional

Come to

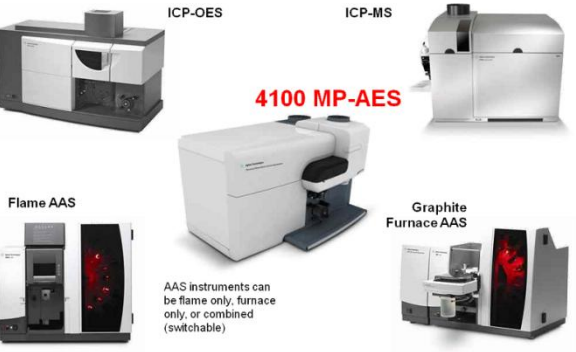
SCIENCE

Varian Becomes a Part of Agilent



- Atomic Spectroscopy
- Automation Solutions
- Bioanalyzer Sample QC
- Dissolution
- Electrophoresis
- Gas Chromatography
- Liquid Chromatography

- Magnetic Resonance
- Mass Spectrometry
- Microarrays
- Molecular Spectroscopy
- PCR & QPCR
- Vacuum Technologies
- X-ray Crystallography



Which Company Sells More Mass Specs Than Any Other?

- 37-Year History of MS Innovation**
- Installed Base > 35,000 Systems**
- Broadest MS Product Line:**
 - LC/MS
 - GC/MS
 - ICP-MS
 - CE-MS
 - MassHunter Software
- Legendary Robustness and Reliability**
- Huge Recent Commitment to High End MS Systems**
- Huge Recent Growth**
- One of the “Big 4” MS Companies**

products | applications | software | services



Mass Spec/tacular!

If you're looking for spectacular MS results, be sure to look at Agilent. With a 37-year track record of innovation and the industry's largest installed base, Agilent's best-in-class portfolio of MS technologies delivers everything you expect from a mass spec leader: Superior analytical performance to enhance your results, and your confidence. 24/7 Agilent reliability to maximize your lab's uptime and productivity. Intelligent, easy-to-use software to help every user get excellent results, every time. And end-to-end MS workflow solutions that help you generate better results, faster than ever.



LC/MS, GC/MS, ICP-MS and MassHunter Software
With the full spectrum of MS solutions, Agilent can exactly match your lab's analytical needs and budget.
www.agilent.com/chem/masspectacular

© Agilent Technologies, Inc. 2008

Our measure is your success.



Agilent Technologies

Agilent's HW Innovation for "Routine Analysis"

Agilent has the **Most Sensitive** mass spectrometers

- **ICP/MS** with **ORS³ Collision/Reaction Cell** technology
Agilent is # 1 in ICP/MS
- **GC/MS** with **Gold Quadrupole** and **Tri-axial Det.**
Agilent is #1 in GC/MS
- **GC/QQQ** with **He Quench Gas Technology**
Agilent is #1 in GC/QQQ
- **LC/MS** with **Agilent Jet Stream Technology**
Agilent is #1 in LC/MS SQ – **6100 Series U**
- **LC/QQQ** and **QTOF** with **iFunnel Technology**
Agilent is #1 in QTOF and #2 in Triple Quad
6550 Introduction – 6420 Introduction
- **RapidFire** with the **Highest Throughput Sampling**

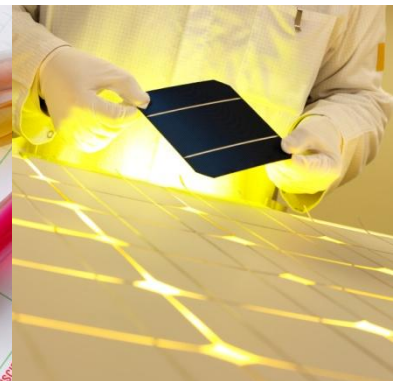


Agilent is #1 in the \$1.5 Billion Aggregated Routine Market and #1 in ALL MASS SPEC SALES

Our Winning Formula for Mass Spec Customers

我们在质谱领域成功的诀窍

- 强化我们的市场领导能力 Strengthening our market leadership in mass spectrometry.
- 提供领先的技术 Providing leading technology.
- 创先开发新的应用 Pioneering new applications.
- 采用由用户测试和验证过的产品型号 Applying a proven Customer Experience model.
- 为用户的整个实验室提供完整的服务和相关耗材 Providing complete services, consumables for the entire lab.
- 拥有行业内最好的团队—支持全球各地的用户取得日新月异的成果 Having a best-in-industry team -- supporting our customers who are making a difference in the world.



Moving Technology and Solutions Forward!

Your Requests – Our New Products



OUR MASS SPEC SOLUTIONS ARE CLEARLY BETTER BECAUSE

- ✓ LC/MS with iFunnel Technology gives you the lowest limits of detection—down to zeptomole levels at conventional flow rates.
- ✓ GC/MS/MS acquisition speed up to 500 MRM transitions per second lets you automatically quantify and confirm more targets in a single method.
- ✓ ICP-MS High Matrix Introduction (HMI) technology enables faster, easier ppt-level quantification of trace elements in the dirtiest samples.
- ✓ CE/MS is the industry's only single-vendor, fully integrated solution delivering flexibility, performance, and productivity—plus the confidence of Agilent reliability.
- ✓ Agilent MassHunter Software makes your MS analyses faster, easier and more productive with software that is consistent for all your MS instruments.

CHECK OUT ALL THE REASONS WE'RE THE MASS SPEC LEADER:
www.agilent.com/chem/clearlybetter

The Measure of Confidence Agilent Technologies

New, More Competitive Portfolio

- Expanded **GC/MS** Portfolio
- **1290 Infinity LC**
 - Intelligent System Emulation Technology (ISET)
- **6100 Single Quad LC/MS**
 - NEW Enhanced Portfolio
- **6400 Triple Quad LC/MS**
 - NEW Upgradable Portfolio
- **NEW 6500 Q-TOF LC/MS**
- **MassHunter Software** – Faster Quan, Confident ID
- **NEW Bond Elut DMS Cards** (dried matrix spotting)



5975E SQ



5975C SQ



5975T LTM SQ

Agilent GC/MS & GC/MS/MS More Choices – Better Solutions



220 IT



240 IT



7000 TQ

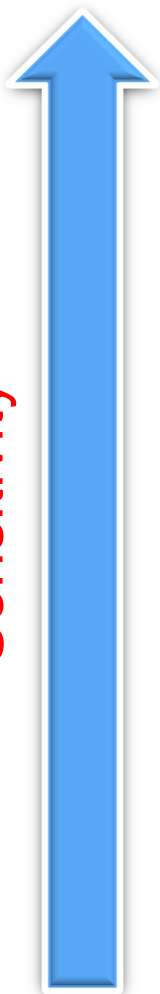


7200 Q-TOF 

Future Proof Triple Quadrupole Investment

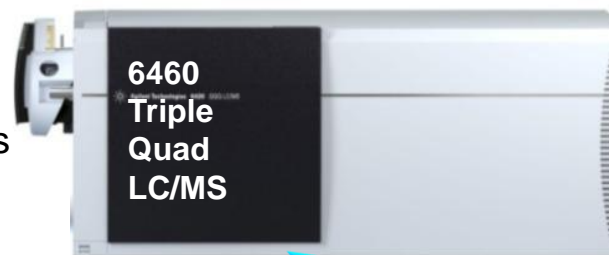
Performance Upgrade Path

Sensitivity



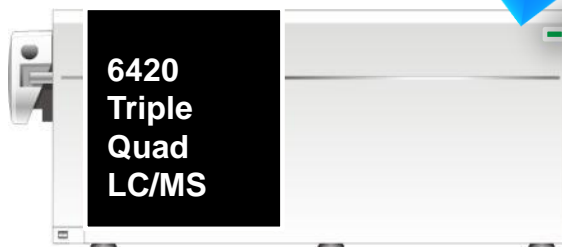
6460 Triple Quad

- Premium performance – suitable for most applications
- Agilent Jet Stream for a 5X sensitivity boost



6430 Triple Quad

- Added pumping for 2X sensitivity boost
- Mass Range to m/z 3,000
- Upgradable to 6460



NEW 6420 Triple Quad



- Entry level system
- Routine, reliable quantitation
- Excellent cost-of-ownership
- Faster electronics
- Faster MRM, dynamic MRM and new triggered MRM
- Upgradable to 6430 & 6460

Introducing the 6550 iFunnel Q-TOF

With Revolutionary iFunnel Technology, 10X Sensitivity

Raises performance standards for
Metabolomics, Food Testing, Forensics, Environmental, DMPK, Qual/Quan, Protein ID



Huge Gains in Sensitivity

- Dramatically improved quantitative capabilities
- New Qual/Quan Workflows
- Superior metabolite and protein detection
- Non-targeted compound screening

Extraordinary Performance, No Compromise

- >40,000 resolution
- 50 spectra /sec MS; 33 spectra/sec MS/MS
- 5 orders of linear dynamic range
- <1 ppm MS mass accuracy; <2 ppm MS/MS
- Unrivalled sensitivity

MassHunter – Innovations in SW !!!

Agilent MassHunter Workstation Software for Mass Spectrometry



The Most Innovative & Popular Mass Spectrometry Software

One Software for all Agilent MS Systems – LC/MS, GC/MS and ICP-MS

- Unprecedented productivity gains for quantitative and qualitative analyses
- Integrates with OpenLAB ECM (Enterprise Content Management), ELN (Electronic Lab Notebook) and WATSON LIMS for quantitation
- Seamless workflow integration between all MassHunter application software modules



The Fastest, Easiest Way to Transform MS Data into Answers

Extracts Compound Information – Not Just Chromatograms and Spectra

- High productivity quantitative and qualitative analyses on unit and accurate mass MS and MS/MS
- Unique automatic compound-centric data mining, organization, navigation, results storage and reporting
- Confident identification via accurate mass and retention time, MS/MS and EI-MS library search, molecular formula generation and MS/MS spectral correlation

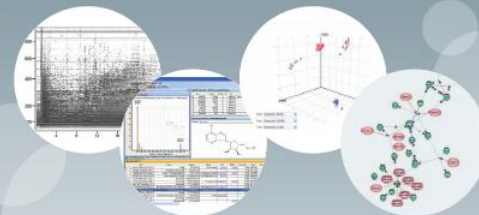


CLEARLY BETTER

Enables Fully Integrated Workflows

Differential Analysis – From Ions to Pathways

- Mass Profiler Professional (MPP) chemometric software for GC/MS, LC/MS and ICP-MS with optional pathways for proteomics and metabolomics
- PearlHunter workflow for biomarker discovery and verification
- MassHunter BioConfirm for protein characterization and Spectrum Mill for protein ID and PTM analysis
- Solutions for in vitro screening, metabolite identification, bioanalysis and compound confirmation



MassHunter is #1

Targeted Quant – Unknowns ID – Analyte Profiling





Win Together



**CLEARLY
BETTER**