

# **Impact of Decline in Global R&D Spending in Life Sciences on Analytical Instruments Industry**

**Somesh Sharma**

**October 12, 2011**

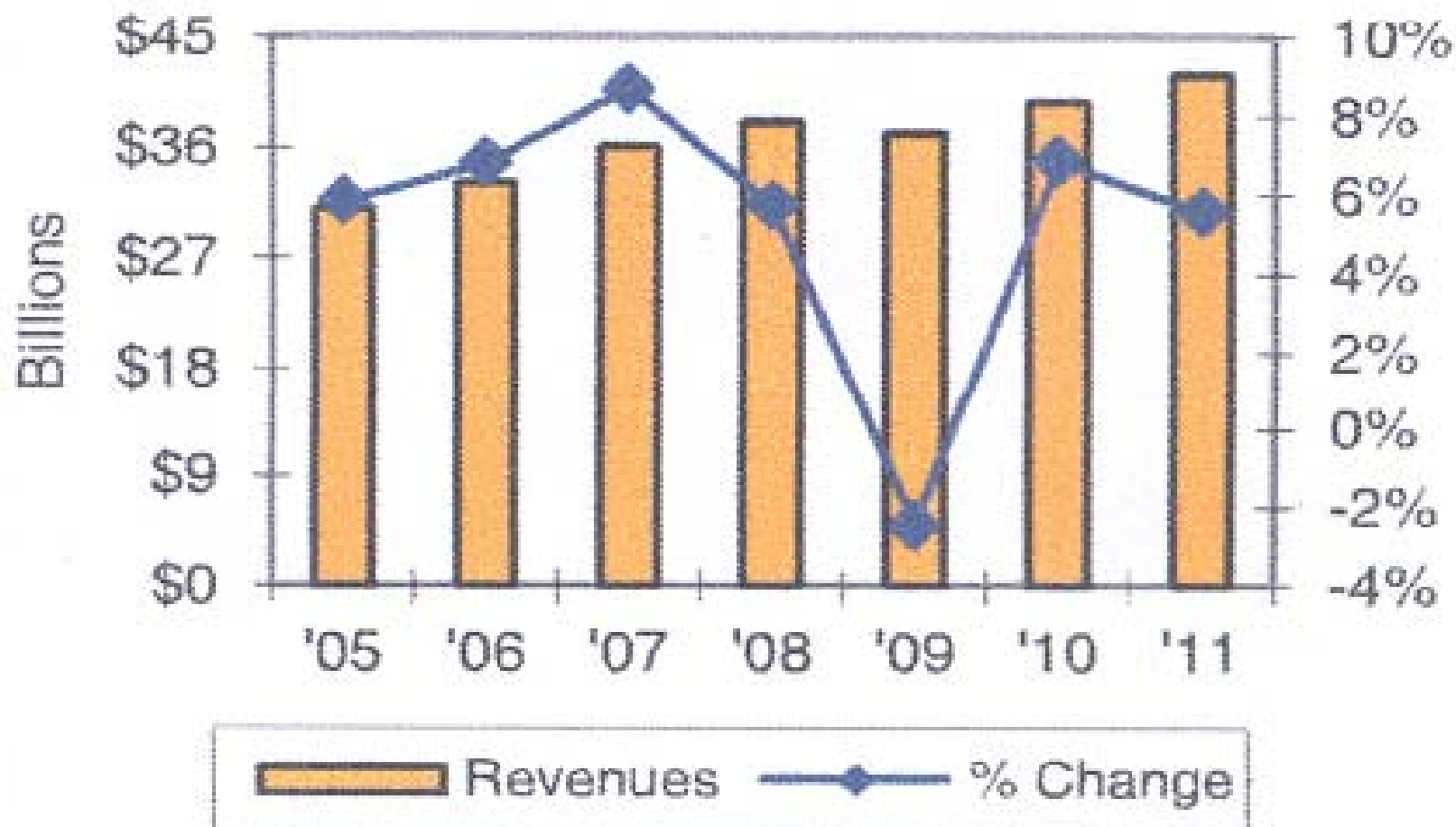
# History of Analytical Measurement

Devices used to measure the purity of gold date back to the fourth century B.C.

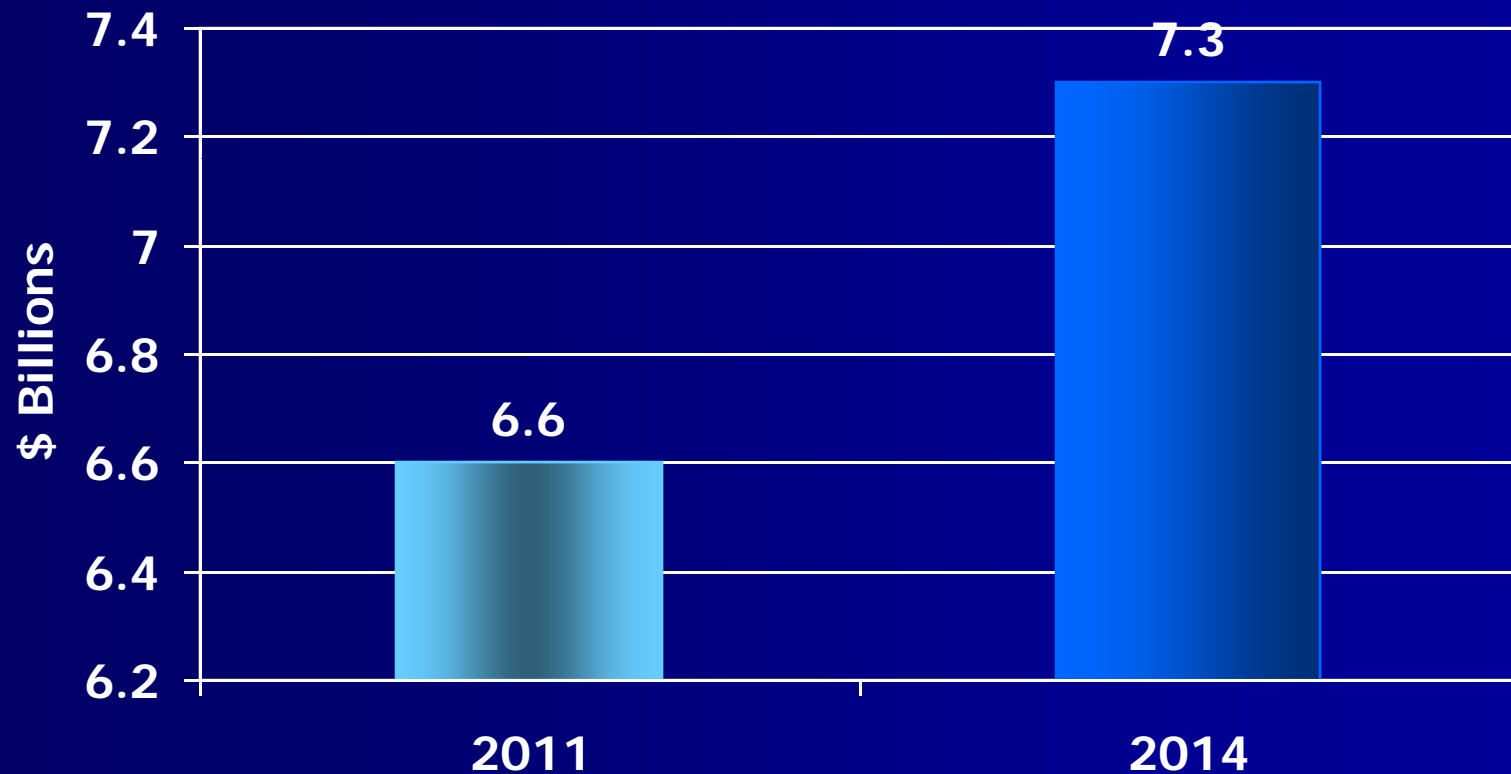
# History of Analytical Measurement – Contd.

- The term "analysis," in the chemical sense, was first posited in the 1660s. A series of breakthroughs in chemical measuring methods occurred during the 1800s that preceded the development of more advanced analytic instruments later in the nineteenth century

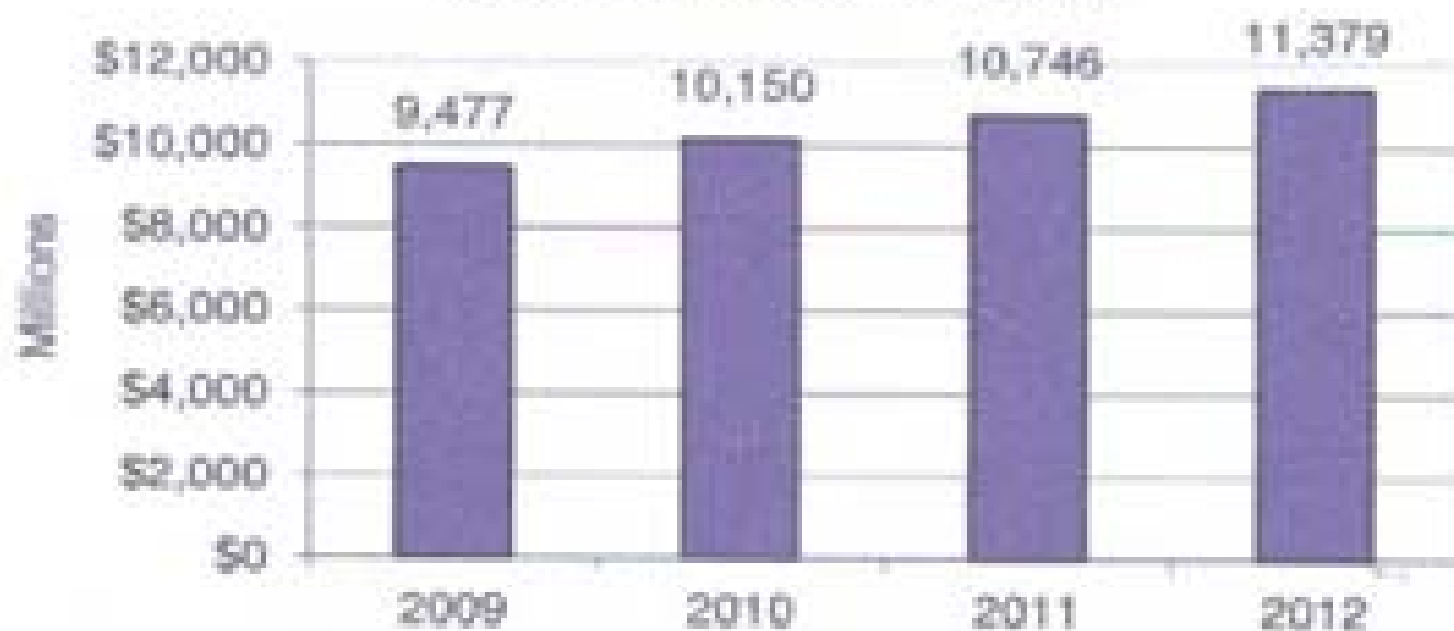
## Instrument Industry Revenues and Growth



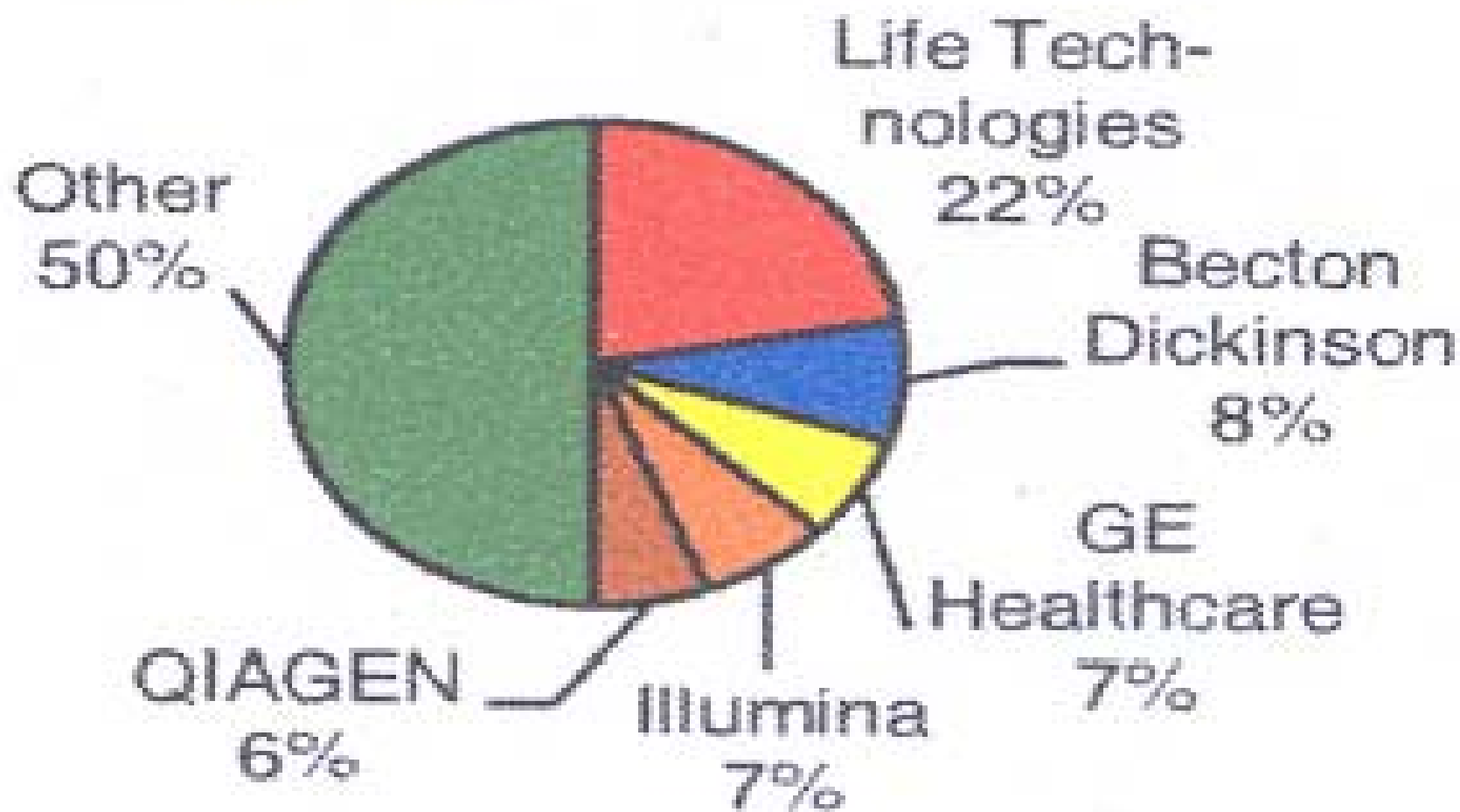
# US Analytical Instruments Market Forecast



## 2009–2012 Total Life Science Instrumentation Market

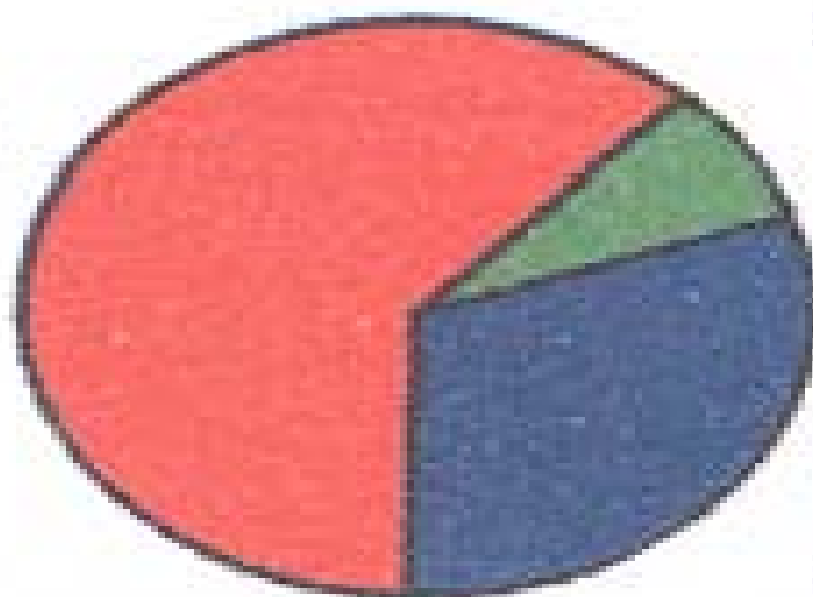


# 2010 Life Science Instrumentation Suppliers Market Shares



# 2010 Life Science Instrumentation Market by Product Type

After-  
market  
61%



Service  
8%

Initial  
Systems  
31%

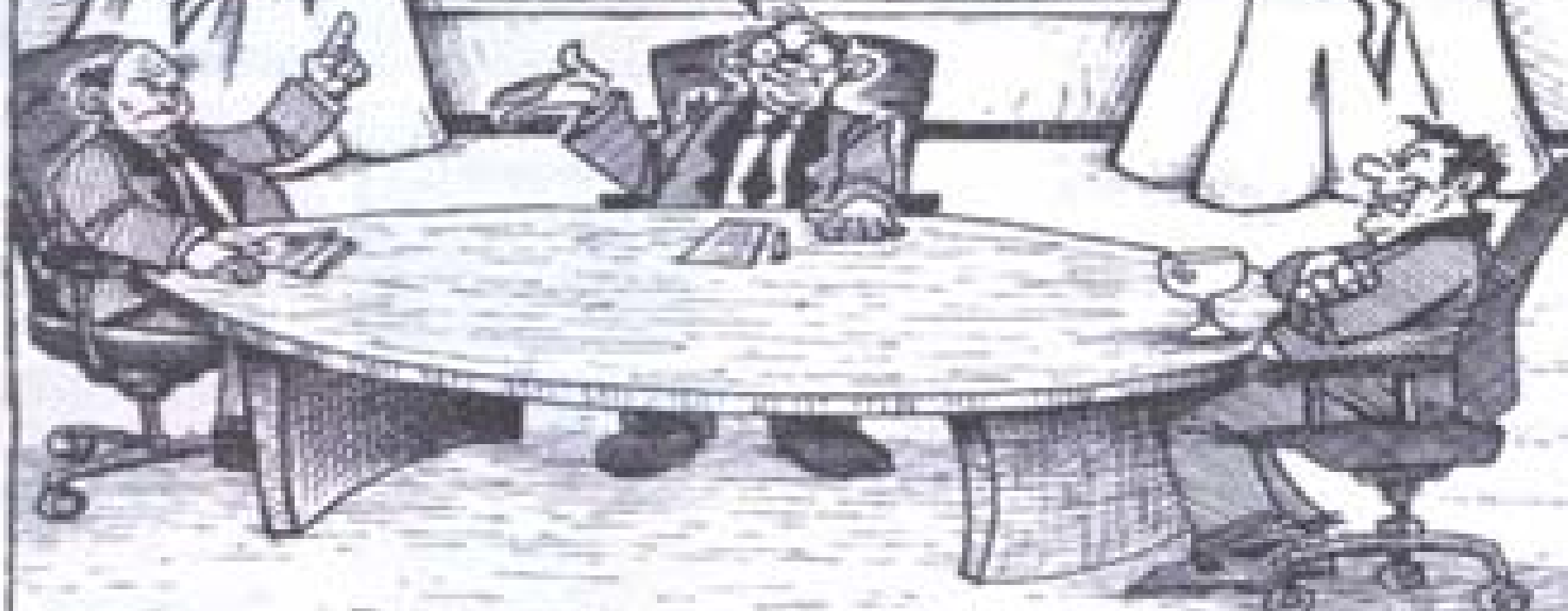
# COUNTERTHINK

## THE BIRTH OF BIG PHARMA

I HAVE AN IDEA, LET'S DRUG HALF THE POPULATION.

I HAVE A BETTER IDEA, LET'S GET EVERYONE TO PAY US FOR THOSE DRUGS.

I HAVE THE BEST IDEA, LET'S CALL IT MEDICINE.



CONCEPT-MIKE ADAMS ART-DAN BERGER

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# Challenges Facing Pharma

Doctors

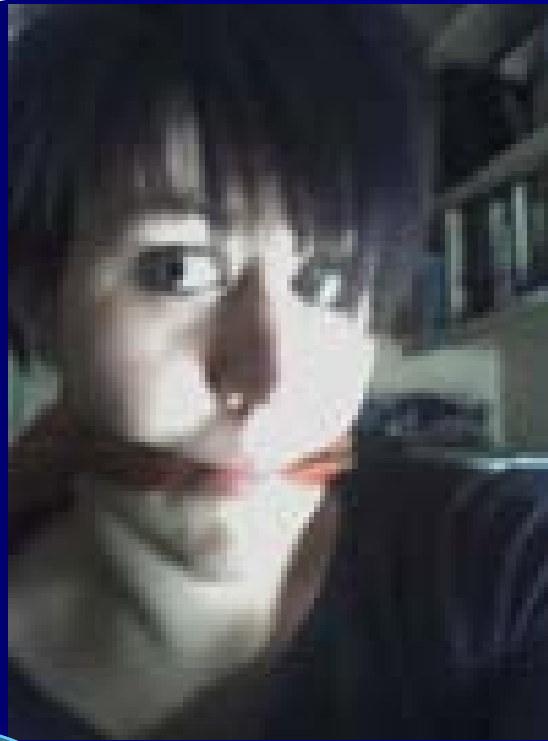
USFDA

Government

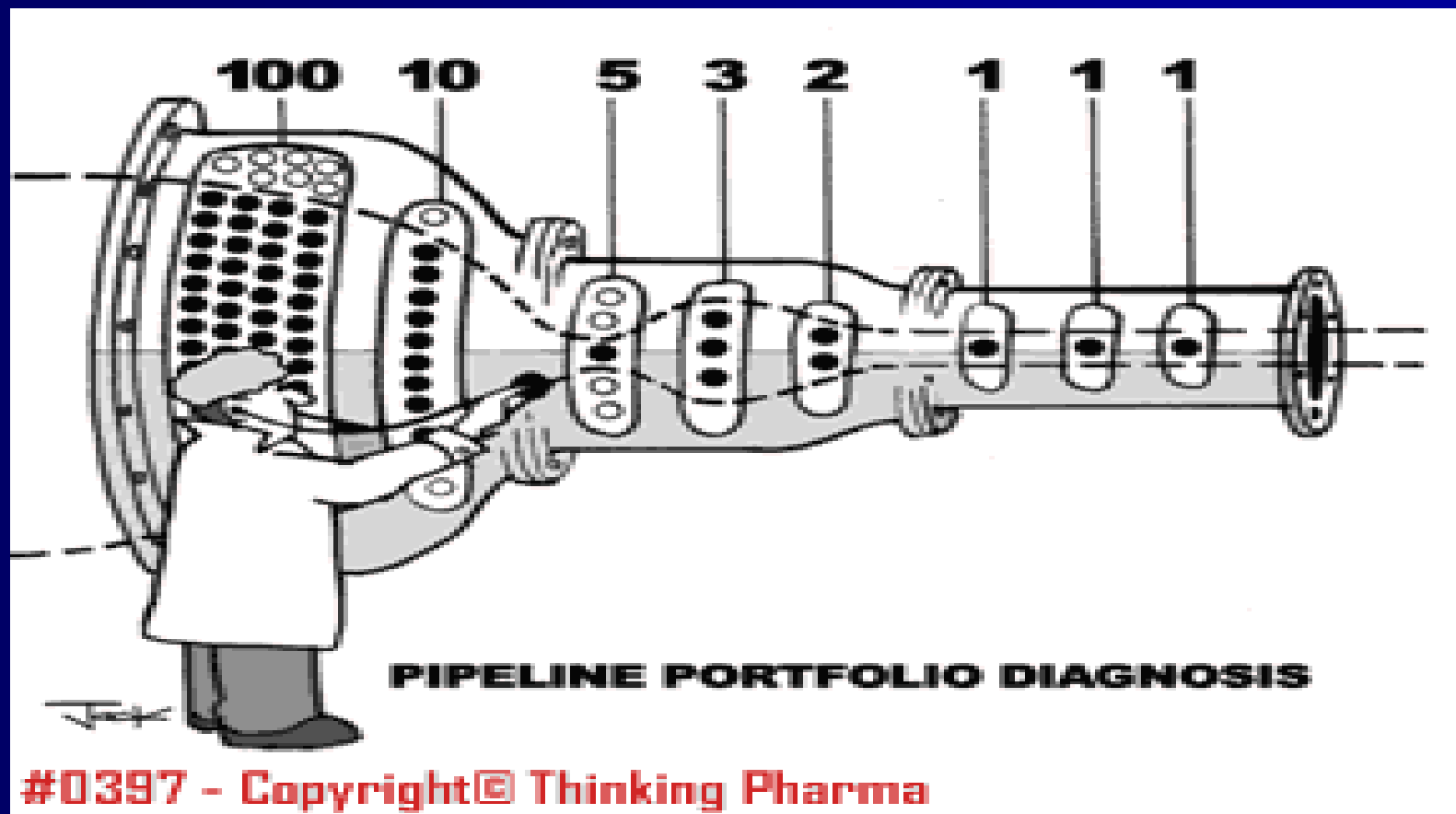
NICE

Lawyers

Citizens  
Lobby



# Pipeline woes



# **Drug R&D spending fell in 2010, and heading lower**

- **Overall expenditure on discovering and developing new medicines amounted to an estimated \$68 billion last year, down nearly 3 percent on the \$70 billion spent in both 2008 and 2009, according to Thomson Reuters data released recently**

# Analysis: Big Pharma strips down broken R&D engine

- Industry leaders speaking at the Reuters Health Summit in New York this week (May 11, 2011) agreed that industry-wide spending on R&D – after years of strong increases – is set to fall, although the pattern will vary from company to company.
- “When we get the final numbers for 2010 over 2009 globally, I think we are going to see it is in decline,” said AstraZeneca (AZN.L: [Quote](#), [Profile](#), [Research](#), [Stock Buzz](#)) Chief Executive David Brennan.

## Analysis: Big Pharma strips down broken R&D engine – Contd.

- Chris Viehbacher, his counterpart at Sanofi (SASY.PA: Quote, Profile, Research, Stock Buzz), sees the pace of cuts picking up this year and next, as the sector enters the heaviest period of generic erosion.
- “Five years ago people would say “the more I spend on R&D, the more shots in goal I will have, the more successful I will be,”” Viehbacher said.
- **“Now you have got some investors out there who believe that what we do in R&D is actually value destroying,”, he added.**

**WORLD**  
POLITICAL MAP



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(updated on 08 October 2011)

# Analytical Equipment at Piramal Life Sciences

- 500 MHZ NMR Coupled to LC MS
- HR Mass Spectrometer
- LC-MS – Many
- Maldi-Tof; Q- Tof
- UPLC
- HPLC's – Many
- FPLC
- Medium Throughput Screening
- HCS
- Microarray Printing
- Confocal Microscopy
- Flow Cytometer
- Fermentors
- Incubators
- ELISA Readers
- Equipment for Multiplex Assays
- Whole Animal Imaging

~ \$30 million



