

GE Healthcare

Technology Trends in Healthcare

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GM Cross Business



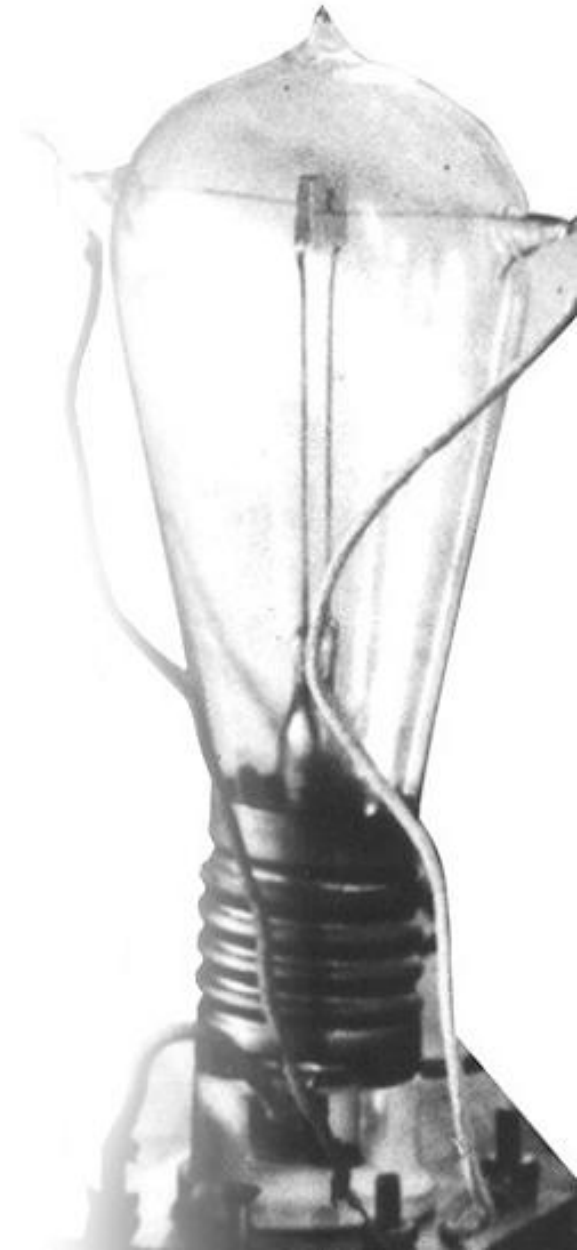
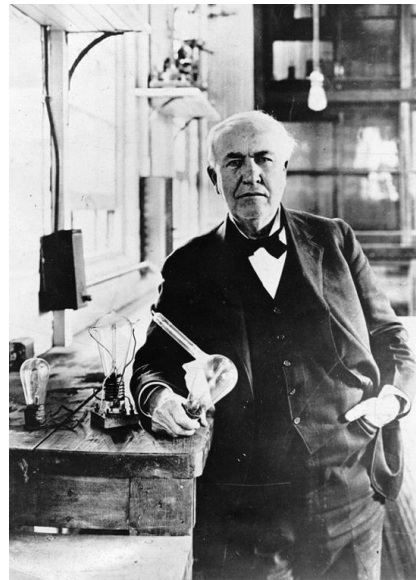
GE

Founded by Thomas Edison in 1878 - 12
CEOs

The only company listed in the Dow Jones
today that was in the original 1896 index

325,000+ employees world-wide

\$169 billion



GE – A History of Innovation

- 1879 Carbon Filament Light Bulb
- 1892 First Night Football
- 1913 Medical X-Ray
- 1927 Home Television Reception
- 1942 First US Jet Engine
- 1953 LEXAN™ Polycarbonate
- 1955 Man-Made Diamonds
- 1969 Moon boot - GE Silicon rubber
- 1972 Computed Tomography
- 1983 Magnetic Resonance Imaging
- 1995 GE90® Composite Fan Blade
- 1999 Digital X-Ray
- 2004 Molecular Imaging
- 2009 Healthymagination



imagination at work

Meeting needs across a wide spectrum of Healthcare

Radiology

Cardiology

Surgery

Women's Healthcare

Information Technologies

Urology

Oncology

Labor & Delivery

ICU

Gastrointestinal

Orthopedics

Pharmaceutical Mfg

Research

Bio-Medical Engineering

Staff Services/Administration



Broad solutions for healthcare

Broad-based Diagnostics



Diagnostic imaging & Surgery



Medical Diagnostics



Clinical Systems

Information Technology



Integrated admin. & clinical



Electronic medical records

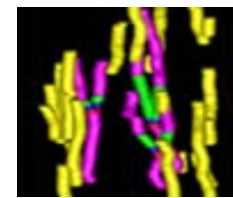


Picture Archiving System (PACS)

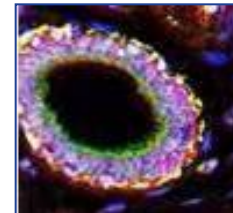
Life Sciences



Discovery tools



Protein & cell sciences



Clinical tissue biomarkers

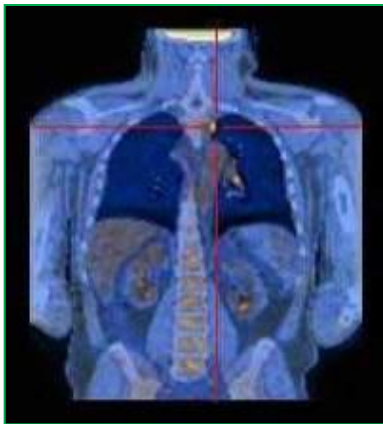
Diagnostic Imaging



MRI



CT



Molecular Imaging



X-ray

Multiple applications
More detail
Greater speed



Medical Diagnostics

Providing leading-edge contrast agents and nuclear medicine products for diagnostic imaging across all modalities.



Clinical Systems

Advancing every phase of patient care, from routine testing to life-critical care.

Ultrasound

Monitoring solutions

Anesthesia delivery

Bone densitometry

Diagnostic cardiology

Interventional

Maternal infant care

Performance technologies

Associated services



Surgery

Mobile fluoroscopic imaging systems to help guide minimally invasive surgical procedures.

Vascular

Orthopedics

Spine



Healthcare IT

Providing comprehensive clinical & financial information technology solutions that enable better decisions and outcomes for both businesses and patients.

Improve revenue cycle

Drive quality outcomes

Accelerate image management
and workflow



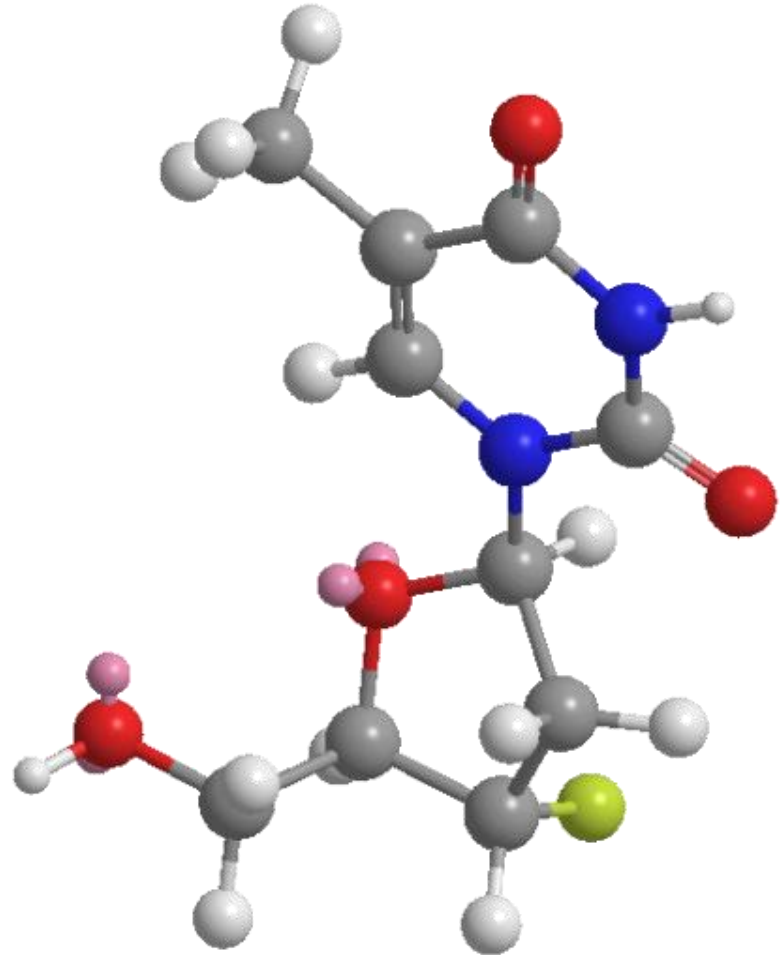
Life Sciences

Providing leading-edge technologies used in the development and manufacture of pharmaceuticals and biopharmaceuticals.

Biologically-derived drugs

Separation technologies

Gene sequencing







Throughout the history of the world, 50% of people who have reached 65 years old, are alive today

Population: 65+

13%

United States

17%

Europe

19%

Japan

8%

China

The Economist

DECEMBER 13TH-19TH 2003

www.economist.com

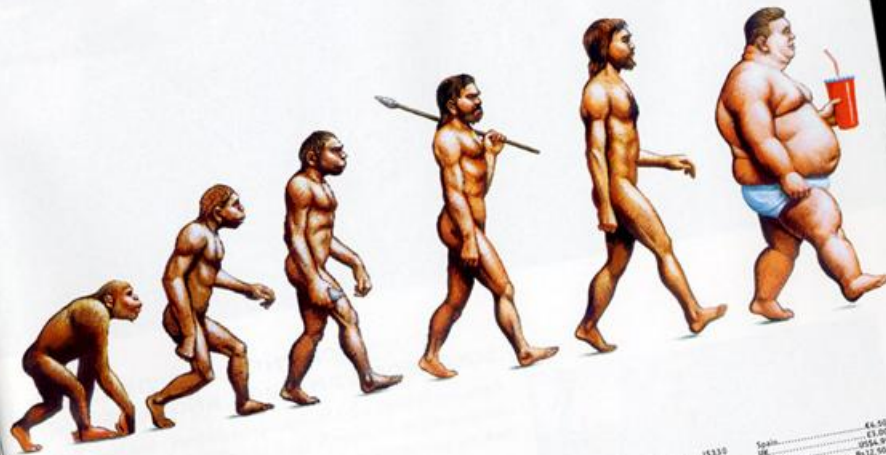
Gore anoints Dean
PAGES 12 AND 33

America's Taiwan test
PAGES 12 AND 29

The future of flight
PAGES 79-81

A SURVEY OF FOOD
AFTER PAGE 52

The shape of things to come



Argentina.....\$4.50
Australia.....A\$6.00
Brazil.....R\$16.50
Canada.....C\$6.95
France.....€4.50

Germany.....€4.50
India.....Rs 165
Japan.....¥450
Mexico.....Mex\$45
New Zealand.....NZ\$6.95
Norway.....Nkr 61.000

South Africa.....R130
Spain.....€4.50
Sweden.....Skr 45
Switzerland.....Sfr 45
Taiwan.....NT\$45
UK.....£4.50
USA.....US\$4.95
Vietnam.....V\$1,500

Healthcare trends

Toward Patients

- Increased patient responsibility and power

Toward Prediction

- From post-symptomatic diagnosis to pre-symptomatic screening
- Genomic revolution and molecular imaging

Clinical Convergence

- Diagnostic tests (in-vivo and in-vitro)
- Diagnosis linked to therapy
- Convergence of pharma and diagnostic industries

Productivity Driven

- Payers demand rigorous cost/benefit analysis and health technology assessments

Information Driven

- Integrated, accessible, personalized and actionable patient information



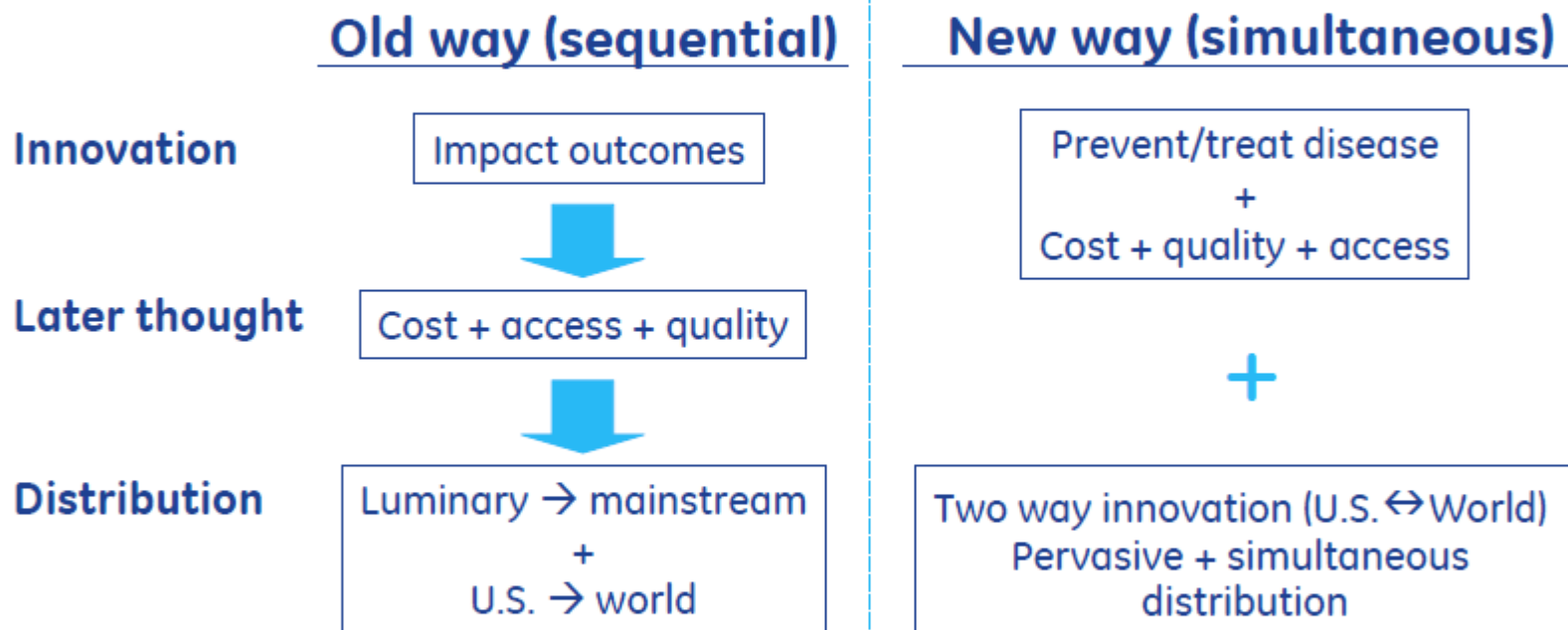
Healthcare has reached a tipping point

- ✓ Healthcare industry in the U.S. has traditionally led innovation and exported globally
- ✓ Enormous pressure on government to reduce costs – current model is unsustainable given “demographic” shifts
- ✓ Administrators looking to improve quality, lower cost, and reduce variation in care ... patients want quality and coverage
- ✓ Many new healthcare models emerging on a global basis

New solutions are required



Healthcare innovation will be transformed



GE will embrace this approach

ecomagination

2005 goals

2009 status

Double R&D to \$1.5B on "green products"

\$1.5B on R&D
75 "eco" products

Work with customer to increase revenue from \$5B in 2005 to \$20B in sales by 2010

\$18B of revenue in 2009
17% growth rate
Global engagement

Reduce GE carbon footprint by 1%

Reduction of 8%
Save \$100MM/year

Be transparent & involved

Founding member of USCAP



What we learned

Through innovation ... everyone can win:

- + Customers
- + Employees
- + Investors
- + Public

healthymagination... by 2015

Leverage GE's technical breadth, global position and financial strength to support healthcare with cost, access and quality targets

For customers: Invest \$6B to launch 100+ innovations that lower cost, increase access and improve quality by 15%. Focus on efficient technologies, health IT, more access and consumer-driven health

For employees: Drive better employee health through "Healthy Worksite" program to increase wellness and competitiveness; target annual cost increases to less than rate of inflation (CPI)

For investors: Achieve long-term healthcare organic growth of 2-3x GDP; Grow healthcare "value gap" from \$500M today to significantly higher levels in the future

For public: Be transparent ... partner with others ... engage thought and policy leaders

Assessment process

\$6B investment: \$3B Healthcare product/service, \$2B financing, \$1B GE in these areas



Cost savings

- 1) Greater efficiency
 - Asset optimization
 - Maximize throughput
 - Reduce diagnosis & treatment variance
- 2) Therapy decision-support
- 3) Managing chronic diseases

15% ↓



Access improvement

- 1) Maternal & infant care
- 2) Water & sanitation
- 3) Screening for life-threatening conditions
- 4) Technology to extend reach (remote access and portability)

15% ↑



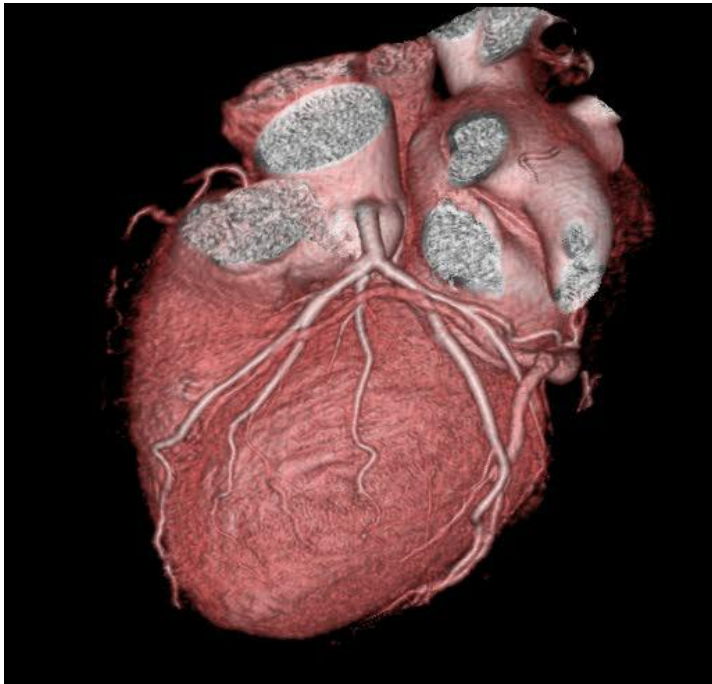
Quality improvement

- 1) Reducing medical errors
- 2) Improving diagnostic capability
- 3) Remote medicine/monitoring
- 4) Early disease detection

15% ↑

3rd party validation by Oxford Analytica

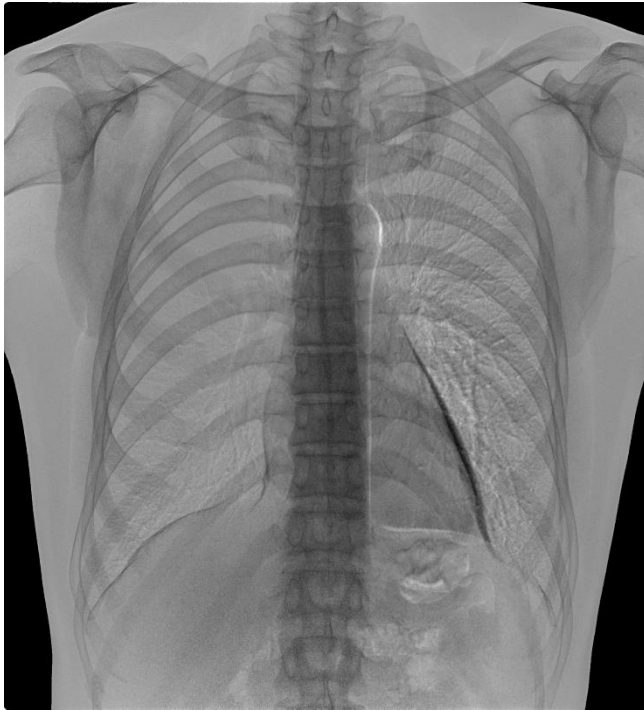
CT



- Easy to use
- Scan the entire body in 10 seconds
- Easy to Access patient for Trauma
- 3D Imaging vs. Traditional X-ray
- High Resolution Imaging
- Faster and less expensive than MR

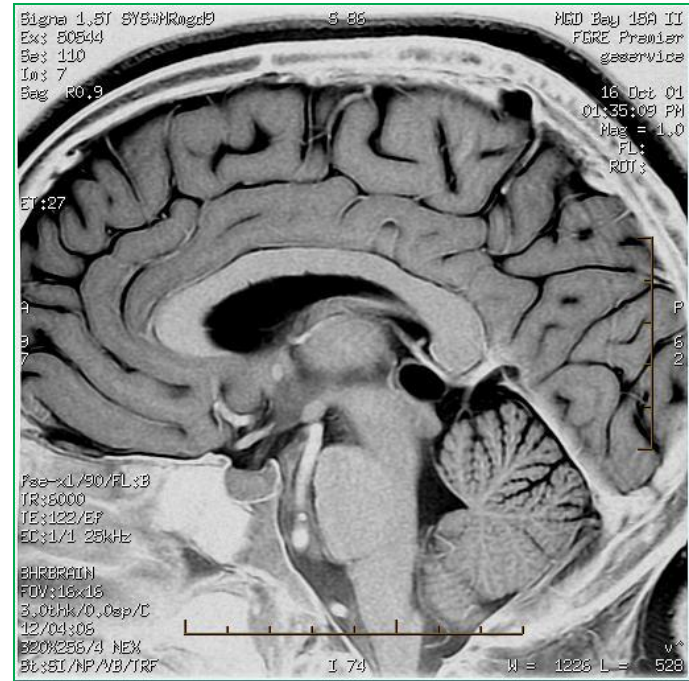


X-Ray



- Reduced dose to patient and staff
- Ease of patient access & real-time images
- Visualization of detail never before seen

MR



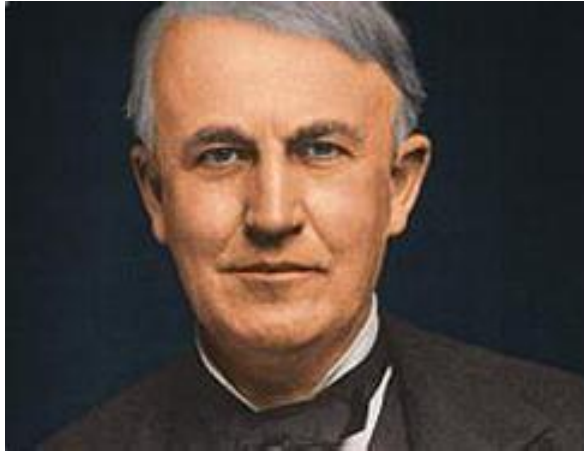
- No Radiation
- Soft Tissue Visualization
- Image Organ Structure & Function
- Spectroscopy, fMRI

Increasing Healthspan...

It's not just living longer but about making your added years as enjoyable and productive as possible.

By enabling earlier prediction, diagnosis, treatment and monitoring, we aim to help you stay healthier longer.





"I never perfected an invention that I did not think about in terms of the service it might give to others."

THOMAS ALVA EDISON, GE FOUNDER

Thank You

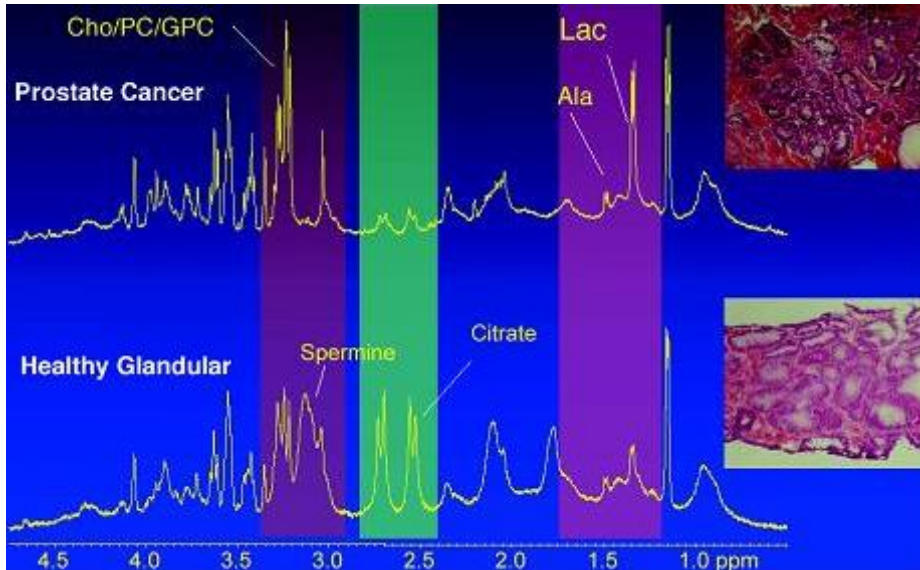
Jonathan.Murray@ge.com

Metabolic MR with Hyperpolarized ^{13}C

Vision

Measure biochemical “*fingerprint*” of tissue for earlier diagnosis, improved staging and influence treatment decisions starting w/ prostate cancer.

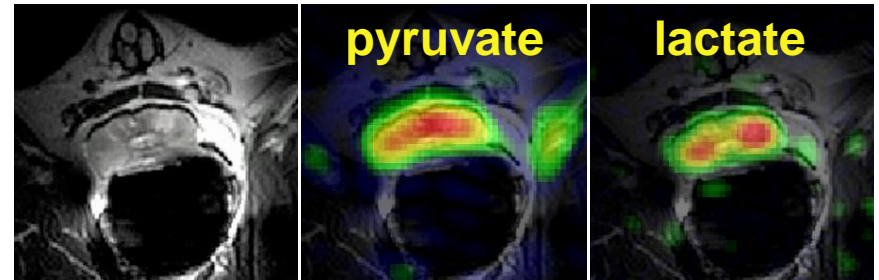
Whole new diagnostic platform: Metabolic MR



Cancerous tissue has a marked elevated metabolism of Pyruvate into Lactate compared to



10 000 to 100 000 x increase in sensitivity



Canine Prostate - Metabolic MR images
Kurhanewicz, Vigneron & Nelson at UCSF