
Ohio BRTT GI Cancer Consortium:
A Vision for Preventative Medicine

Colon cancer statistics

- ~150,000 cases in U.S. in 2005; 6,700 cases in Ohio
- 56,290 deaths due to CRC in U.S. in 2005
- 770,000 years of life lost due to CRC in 2001
- 76% - 90% of CRC could be prevented with periodic colonoscopy
- <50% of Americans over age 50 have had a recent CRC screening test (OH ranked 25th)
- Compliance improves dramatically with knowledge of genetic risk

Ohio BRTT GI Cancer Consortium:

Mission and possibilities

Improved health !

Preventative is better than reactive medicine ….

A great investment !

We can already return investment …..

An economic engine !

We can do more ……..

GICC: A new paradigm based on prevention

Conventional paradigm: improved treatments – *reactive*
incremental benefits

Transforming paradigm: improved diagnostics - *proactive*
quantum benefits

Accomplishments:

genetic tests
- already a 5-fold return on investment
- a 10-year commitment can return $2B

leveraged funding
- >$20M awarded, high tech long-term jobs
- several $million pending

commercialization (*in 2 years*)

startups: 3 now + 1 soon = 4 by renewal
jobs: 32 academia + 5 business = 37
patents: 2 awarded + 11 pending

Juan Enriquez (Harvard) – watch the patents!

Savings with early diagnosis (annual)

	Per case
Saved treatment costs*	**$28,000**
Saved wages	**$30,000**
Value of life ($100,000 / 10 years)	**$10,000**
Savings to community saved disability payments and paid taxes	**$30,000**
TOTAL	**$98,000**

Potential savings for Ohio = $2 billion per year

** Difference in costs between early versus late diagnosis.*

Biopolis, revolutionizing the Singapore economy

A new biomedical science city devoted to biomedical research and economic development.

Private sector presence:
GlaxoSK, Novartis, others already on campus

<u>Fast track</u>:
March 2001 - discussions initiated
Dec 2001 - ground breaking
Oct 2003 - official opening

Fast track possible with Vision, Will, Commitment, Leadership

Why is the GI Cancer Consortium important?

- **Internationally recognized individuals and institutions in Ohio**

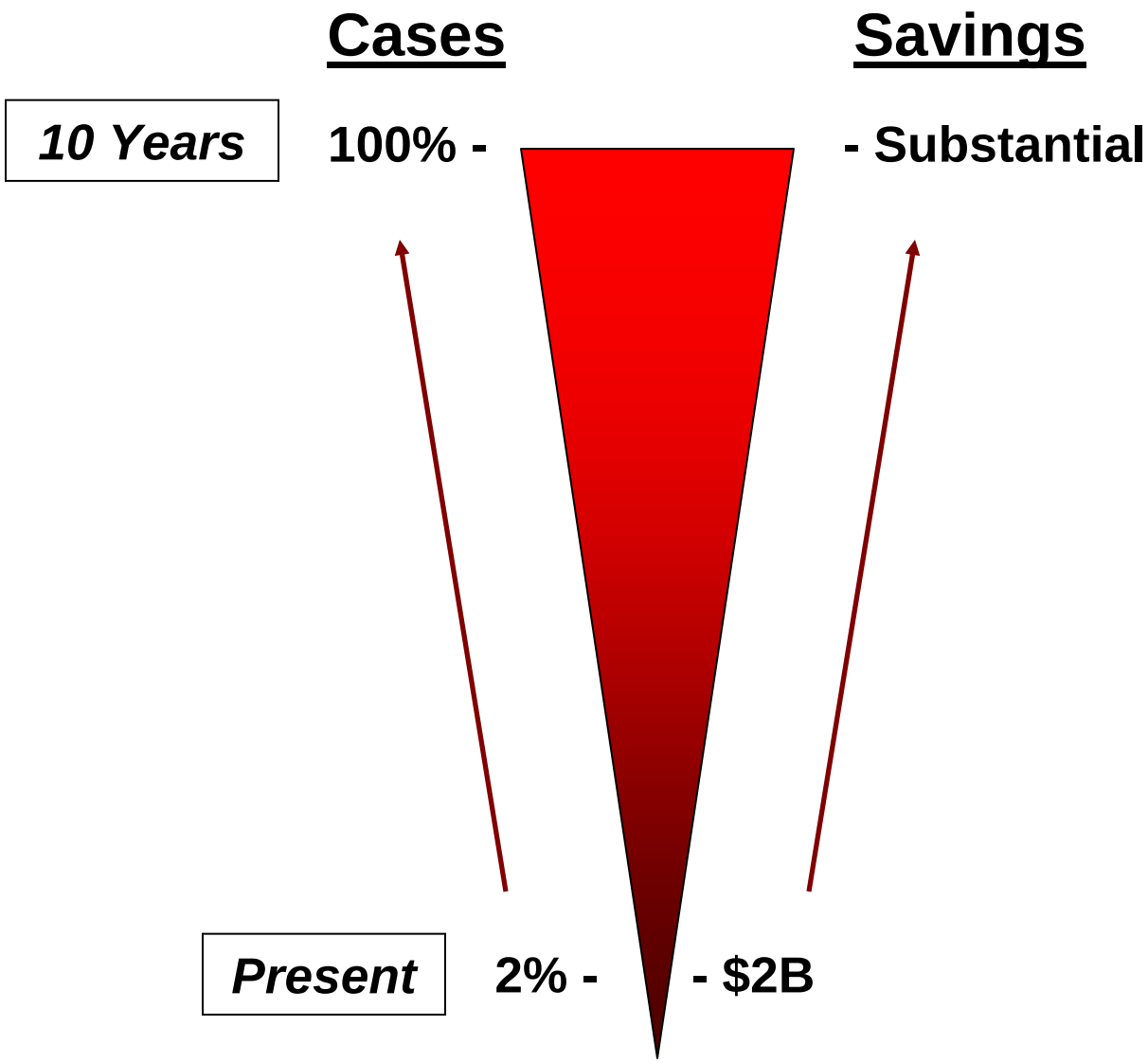
- **An established pipeline of discoveries**
  '*Molecular colonoscopy*' test (Sandy Markowitz**)**
  Genetic test for Lynch Syndrome (Albert de la Chapelle**)**

- **Early detection can save $2B in avoided health care costs in Ohio**

- **Pioneers in preventative medicine;**
  Ohio could lead by 2015
  - preventative medicine
  - health care policy

- **Biorepository of patient genetic, clinical and family information**
  - revolutionizes health care
  - drives economic development

Current and future savings



Juan Enriquez, Harvard

'As the Future Catches You' (2000)

'The economic driver of this century is GENETICS'

Enablers
Genetics
Bioinformatics
Nanotechnology

'Understanding the genetic code is the most powerful technology'

West Quad, …. Cleveland, …… Ohio

What is our gamble?

GI Cancer Consortium:

Early detection, treatment and prevention

Many disciplines:

genetics and genomics
bioimaging
commercialization (start-ups, licensing and tech transfer)

Many institutions:

Case Western Reserve University
University Hospitals of Cleveland
Cleveland Clinic
Ohio State University
University of Cincinnati
many imaging and genetic engineering companies

GI Cancer Consortium: *intangible benefits*

Recruitment and retention of research stars and entrepreneurs, who are in turn magnets for other stars and new funding

Accelerating the learning curve for other genetic diseases

Pioneering the field of preventative medicine