

*February, 2011*



**ABS**  
AndroBioSys

*Targeted Cancer Drug Discovery*

**AndroBioSys, Inc**  
**Elm and Carlton Streets**  
**Buffalo, NY 14263**  
[www.androbiosys.com](http://www.androbiosys.com)

# *AndroBioSys* Background

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- Biotechnology company focused on innovative approaches to diagnose and treat prostate disease, other hormone-sensitive diseases
- Founders: Gary Smith PhD, and James Mohler MD, from Roswell Park Cancer Institute
- Technologies developed with over \$50M in past research funding in prostate cancer research (NIH, DoD, Pharma)
- Roswell Park Cancer Institute agreement concluded March, 2007

# The ABS Management Team

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Title	Name	Contribution
CEO	Michael Zwick, PhD, MBA	Start-up, scientific & biotech expertise & contacts, 17 years biotech industry, WNY native
CSO	Gary Smith, PhD	Research (angiogenesis, cancer stem cells), grant writing & review expertise
CMO	James Mohler, MD	Clinical & Research (androgen blockage), grant expertise, Pharma & Biotech contacts

# Prostate Disease

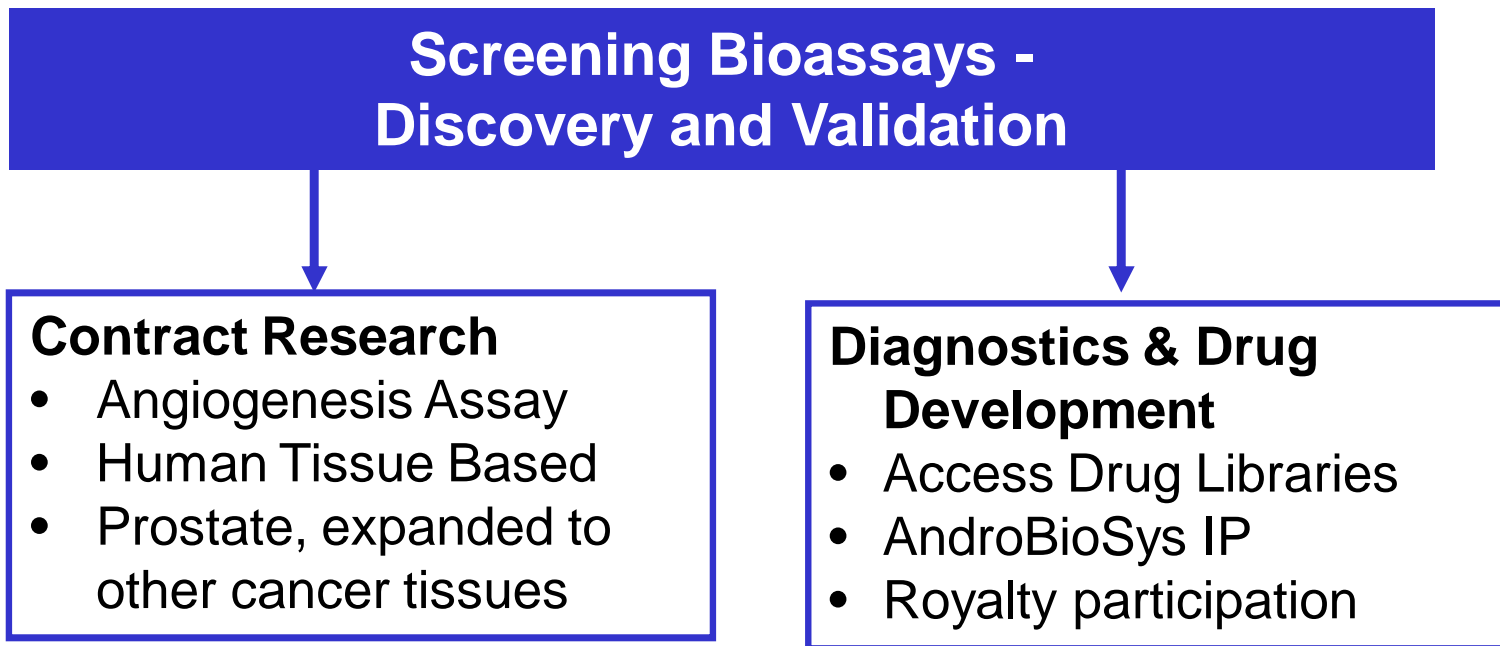
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- Benign Prostate Enlargement (BPE aka BPH): affects 50% of men age 50 or older
- Prostate Cancer (CaP) est. 217,730 newly diagnosed in 2010 (US); 32,050 deaths; 2 million living with CaP
- Rate of increase of prostate disease in the target population is anticipated to grow by 16% annually
- Pharmaceutical treatments exceeded \$5.5 billion, and surgical options cost over \$4 billion (Wood MacKenzie, 2007)
- Androgen deprivation therapy has been the standard of care for advanced prostate cancer for 60 years - **all men ultimately fail androgen deprivation therapy**

# AndroBioSys Business Model

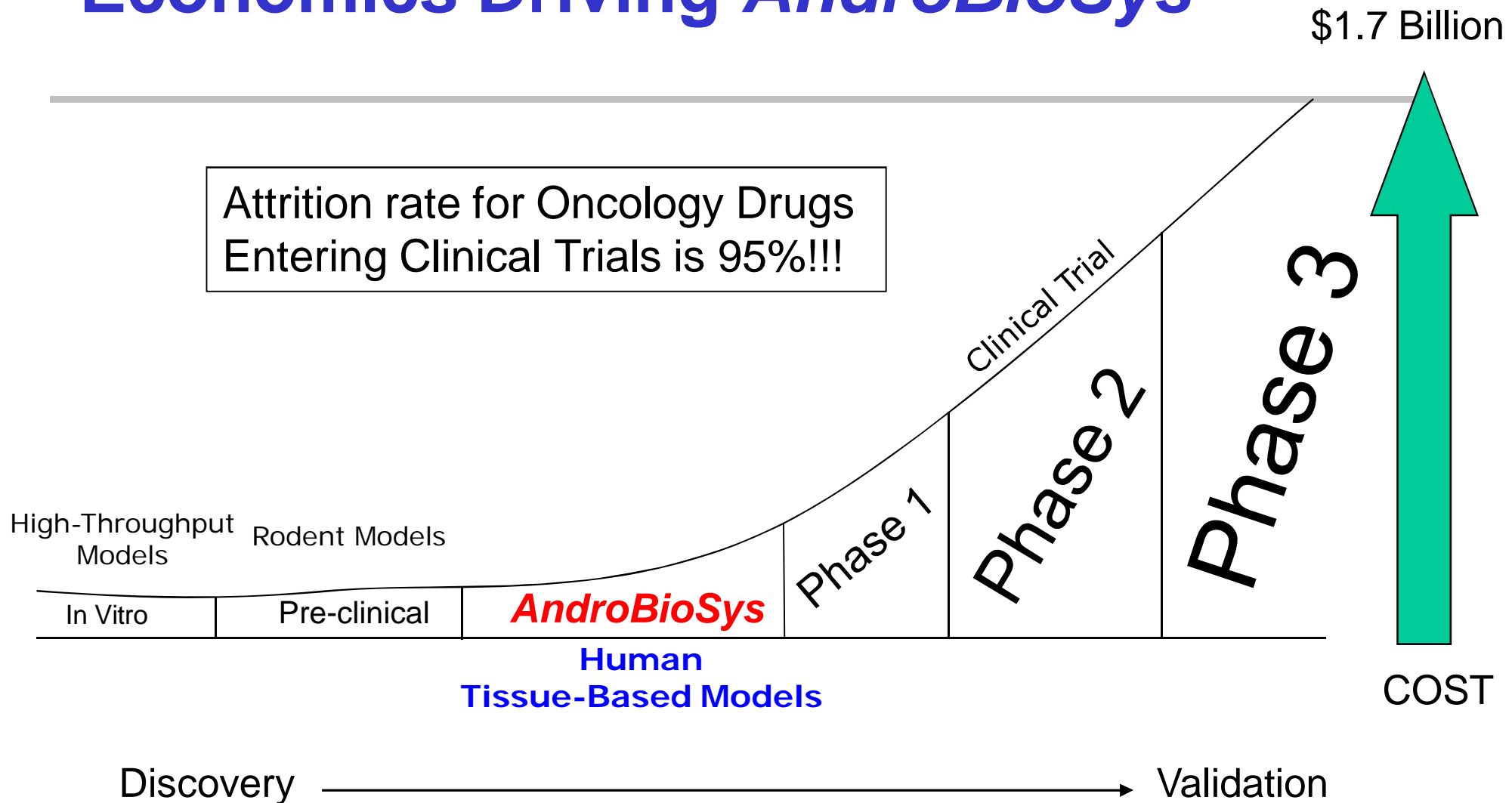
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**Goal: *better drug candidates***



*Additional revenue from related services and applications*

# Economics Driving *AndroBioSys*



# AndroBioSys - Status

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- Active operations began in July 2007
- Awarded 4 Phase I SBIR/STTR (2008-2009)
- Awarded 2 Phase II SBIR/STTR (2010-12)
- Over \$3.5MM in funding secured to date
  - \$685K from Angels, Oishei, ECIDA, Excell
  - \$300K Roswell
  - \$2.3MM Grant/Contract (non-dilutive)
  - \$244K Therapeutic Credit Grant



Buffalo Niagara  
Medical Campus

# AndroBioSys Programs

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- Contract Research Service Program
  - *AngioGraft™* Assay: Drug testing in human tissue model
- Diagnostic & Therapeutic Programs
  - Prostate Imaging and Treatment
  - Detection of Circulating Prostate Cancer Stem Cells

# Prostate Imaging Program

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- Prostate is very difficult to image, need for better imaging product
- Multiple independent tumors in each prostate
- ABS using nanoparticles to image, thermal ablate and treat prostate cancer
- Potential for targeted drug delivery for benign disease
- Two Phase I applications completed, Phase II contract started (10/01/10)
- Surgical and radiation therapy market for prostate cancer > \$4 billion in 2007

# Prostate Cancer Stem Cells

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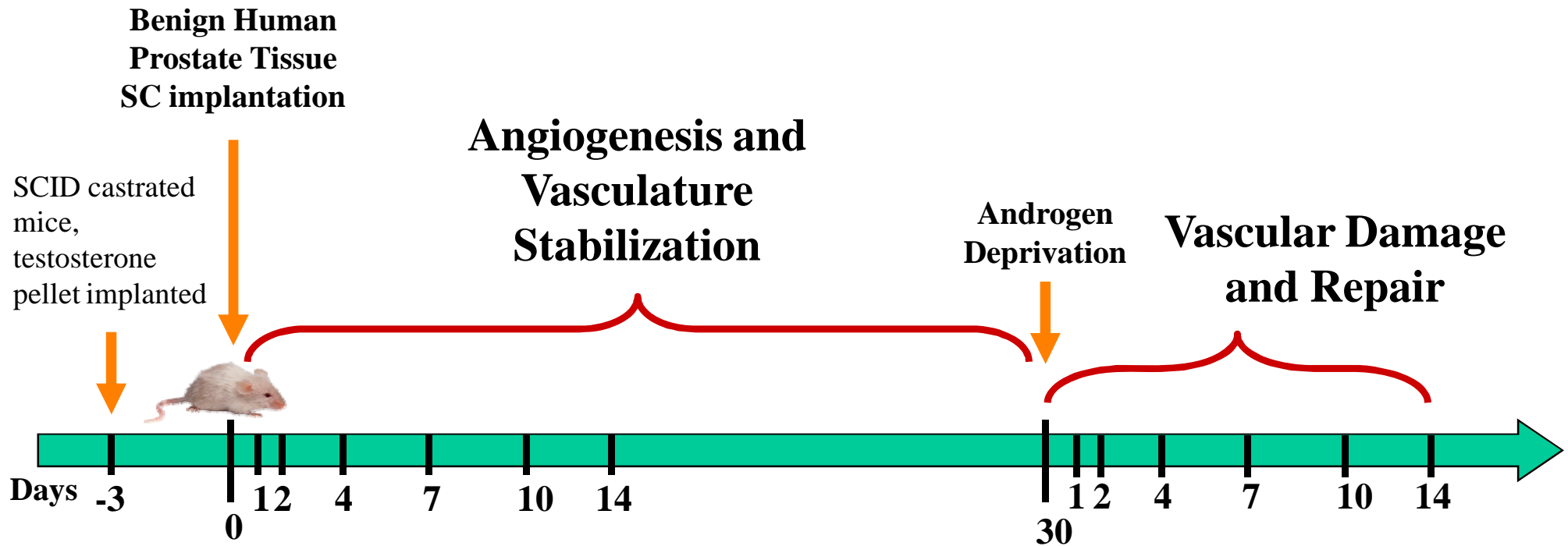
- Cancer stem cells resistant to chemo- and radiation-therapy; responsible for metastasis (migration) to other organs (e.g. bone); indicator for more severe form of prostate cancer
- ABS Program (Phase II contract: 9/01/10)
  - Diagnostic: blood based assay for differentiating prostate cancer patients (PSA test revenues exceed \$350M annually)
  - Therapeutic: treatment for prevention of prostate cancer progression, lethal form of prostate cancer

# Contract Research: *AngioGraft™* Assay

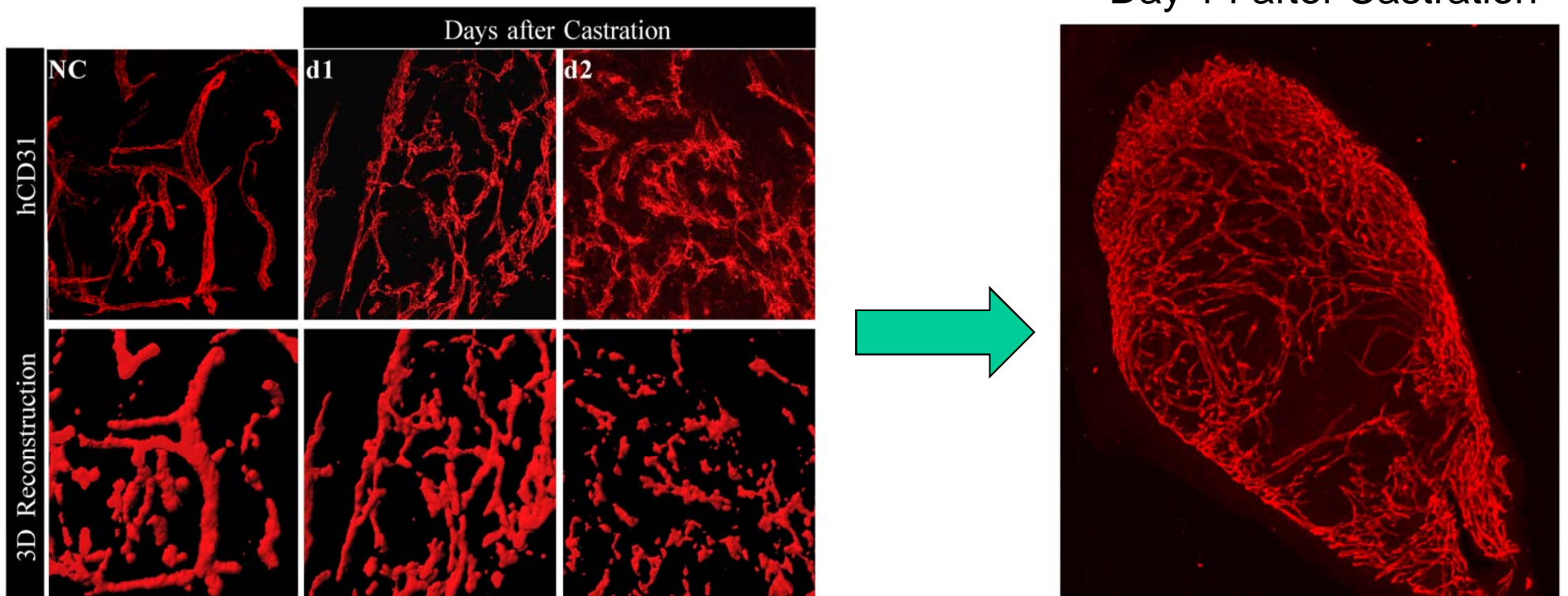
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- Model has been validated with 6 known drugs
- Two windows for testing
- Market report predicts revenues of >\$4.1 MM in 5 years for ABS in cancer drug testing alone
- Can be expanded to full panel of human cancer tissues

# Vasculature in human prostate tissue xenografts: Two periods of angiogenic activity



# Contract Research Model



Validation of a “ROBUST” endpoint for the *AngioGraft* Assay to evaluate induced damage to vasculature

# Highlights of Phase II Contracts

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- Funds to support only specific milestones: these are not grants!
- NCI Imaging Contract
  - Imaging product finalized by end of Year 2
  - Clinical protocol run in Year 2
  - Thermal ablation therapy endpoint in Year 2
- DoD Prostate Cancer Stem Cell Contract
  - Reagents developed in Year 1
  - Assay finalized by end of Year 2
  - Therapeutic targets identified in Year 2

# Funding Request

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- \$2MM
  - Accelerate Programs
    - Commercialize AngioGraft™ Assay
    - Expand model (breast, ovarian cancers)
  - Advance therapeutic programs
  - Intellectual Property
  - Facilities
  - Equipment
  - Marketing, Sales Support

# Summary- *AndroBioSys*

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- High unmet medical need; increasing, large markets
- Addresses high attrition rate/cost of drug development
- Pharmaceutical Industry trends
- Demographic, geographic trends
- Management expertise
- Models relevant to other cancers (breast, ovarian)
- Affiliation with Roswell Park Cancer Institute
- Diversified risk: contract research, diagnostics, drug development



*Targeted Cancer Drug Discovery*

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