

PCAST Meeting January 8th, 2008



Navigenics

Navigenics, Inc.

| Vision:

To **improve health outcomes** across the population by educating, empowering and motivating people to take action to prevent the onset of disease or lessen its impact.

| Flagship Product Description:

Navigenics Health Compass is an innovative service which informs individuals of their **genetic predisposition** for a variety of **common diseases**, and provides guidance and information on how to delay, mitigate, or possibly **prevent** the onset of those diseases, to live a longer, healthier life.

Navigenics:

Bridging the gap between emerging genetics-based knowledge and the consumer

- | Heavy clinical focus
- | World class scientific curation
- | Editorial content and actions
- | Collaboration with medical community
- | Genetic Counseling services
- | Alignment with payors
- | Emphasis on privacy and security



5-Step Service Offering

1

Customer Acquisition



2

CLIA Laboratory



3

Proprietary Bioinformatics

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ATACCGCTGGCCCTT
TGGCATTACCTATGA
AGATTGCTTCAGCCA
GCGTCAGTTTCAACC
TGTACGCTAGTGTGT
TTCTACTCACGTGTC
TCAGCATTGATCGAT
ACCTGGCTATTGTTT
ACCCAATGAAGTCCC
```

4

Personalized Secure Web Portal



5

Ongoing Service



Why Now?: Marketplace and Technology Realities

Marketplace realities

Irreversible Trend

Explosion of Chronic Care, fueled by demographics and economics, crushing already over-stretched acute care medical system



Prevention Acceptance

For the first time, all healthcare stakeholders, including payors, patients, plans, and providers realize that engaging preventive health practices is critical



Genetic Awareness

- 70% of U.S. adults are familiar with genetic testing
- 80% believe genetic testing is a good thing,
- Half are interested in being tested.

Harris Poll, 6/2002



Shifting Economic Burden

- Healthcare costs soaring: >\$2 Trillion, growing at 14% per yr
- Payors looking to shed cost responsibility. Shifting responsibility to individual.

Technology realities

Complete Genome Scan

Technology now exists to conduct complete individual genome scans with Affymetrix high-density 6.0 chip



Bio-informatics

- Growing body of basic research linking specific genes to diseases
- Navigenics science team building proprietary bio-informatics algorithms



Web 2.0 Practices

Web based communication and security capabilities provide end consumers with unparalleled access to information and offers complete security and privacy



Actionable Knowledge

Medical science continually advancing the body of knowledge linking preventative health and life style practices

Key Trends

| **Emerging Genomic Data**

Completion of the Human Genome Project (2003)

New correlation discoveries every 2-4 weeks

Association studies

| **Consumer Interest**

Interest and need for more efficient and rapid translation of that knowledge from the bench to the consumer

| **Patient-Centric Healthcare Paradigm Shift**

The desire among individual consumers for pro-active management of their health over time, vs. reactively dealing with disease

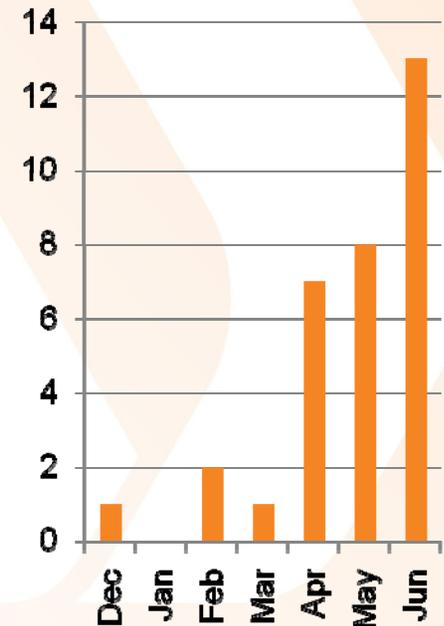
Publication of SNP- Disease Correlations

Francis Collins, director of the National Human Genome Research Institute, predicts “an avalanche” of new disease-gene findings in the next year . - Forbes 7/2/07

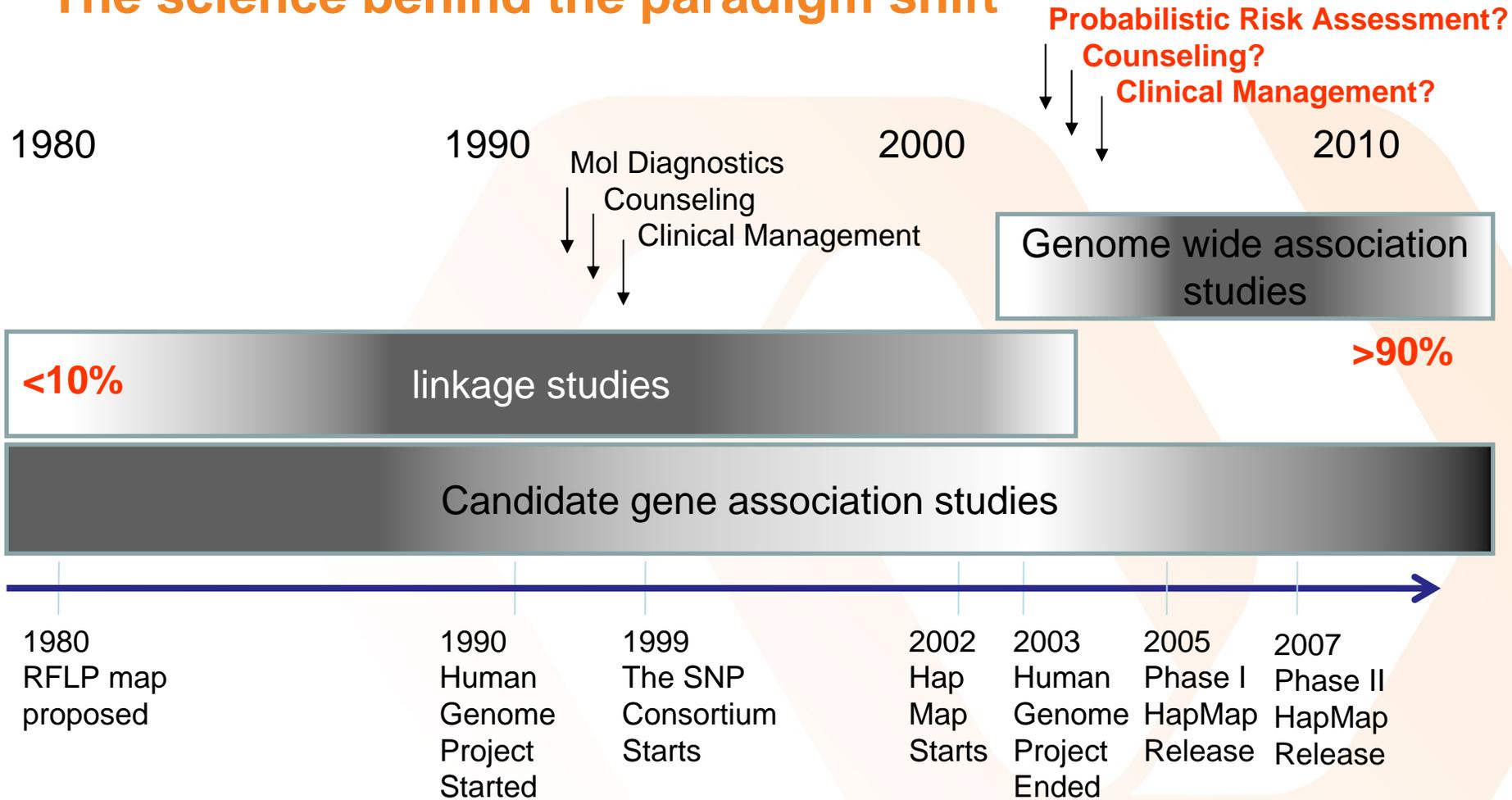
Medical Condition	Journal	Date	Research Organization	Report
Crohn's	Science	December 1, 2006	Yale	Y
Cerebral Infarction	Nature Genetics	February 1, 2007	Kyushu Univ	Y
Crohn's	Nature Genetics	February 1, 2007	University of Kiel	Y
Type 2 Diab	Nature	February 22, 2007	Pasteur Institute	Y
Breast Cancer	Nature Genetics	March 1, 2007	Cambridge	Y
Prostate cancer	Cancer Research	April 1, 2007	Harvard	Y
Prostate cancer	Cancer Research	April 1, 2007	Mayo Clinic	Y
Alzheimer's	J of Clinical Psychiatry	April 1, 2007	TGEN	Y
Crohn's	PLOS Genetics	April 1, 2007	University of Liege	Y
End-stage renal disease	Diabetes	April 1, 2007	TGEN	Y
Osteoarthritis (hip & knee)	Nature Genetics	April 1, 2007	RIKEN	Y
Macular Degeration	JAMA	April 25, 2007	Oregon Health Sciences U	Y
Crohn's	Nature Genetics	May 1, 2007	Johns Hopkins	Y
Prostate cancer	Nature Genetics	May 1, 2007	NCI	Y
Prostate cancer	Nature Genetics	May 1, 2007	Broad	Y
Prostate cancer	Nature Genetics	May 1, 2007	deCODE	Y
Body mass index	Science	May 11, 2007	WTCC	Y
Breast Cancer	Nature	May 27, 2007 *	Cambridge	Y
Breast Cancer	Nature Genetics	May 27, 2007 *	NCI	Y
Breast Cancer	Nature Genetics	May 27, 2007 *	deCODE	Y
Type 2 Diab	Science	June 1, 2007	Peninsula Medical School	Y
Type 2 Diab	Science	June 1, 2007	Univ Michigan	Y
Type 2 Diab	Nature Genetics	June 1, 2007	deCODE	Y
Crohn's	Nature Genetics	June 6, 2007 *	King's College	Y
Alzheimer's	Neuron	June 7, 2007	TGEN	Y
Bipolar Disorder	Nature	June 7, 2007	WTCC	Y
Crohn's	Nature	June 7, 2007	WTCC	Y
Type 1 Diab	Nature	June 7, 2007	WTCC	Y
Rheumatoid arthritis	Nature	June 7, 2007	WTCC	Y
Myocardial infarction	Science	June 8, 2007	U TX Southwestern Medical Ctr	Y
Myocardial infarction	Science	June 8, 2007	deCODE	Y
Episodic Memory	Human Molecular Genetics	June 15, 2007	TGEN	Y
Sudden Cardiac Death	Circulation	June 18, 2007 *	Erasmus Medical Center	Y

* ePub date

High-Quality Published SNP Correlation Studies



The science behind the paradigm shift



Key issues in defining successful new personalized genomics industry

- | Patient privacy
 - | Genetic Non-Discrimination Act
 - | State laws
- | Data security
- | Intellectual property
- | Alignment with payors
 - | Access/cost
- | Regulatory pathway uncertainty
- | Adequate contextualization/understanding

Risk Communication and Education

- Video/audiovisual educational tools
 - Genome 101
 - What is a genetic counselor
 - How the process works
 - About Navigenics
 - Behind the science
 - What to do with a strong family history
 - Working with your doctor (and regional centers of excellence)
 - Privacy and discrimination
- Future tools
 - Decision-making tool
 - Family history tool
 - Health risk assessment tool



GC Service Obligations

- | Genetic counseling by a certified GC included
- | Schedule GC session within 24 hours of request
- | Have GCs available during “off” hours (evenings)
- | Ensure continuity of care
- | Customer chooses topics most interested in discussing
- | Family health risk assessment
- | Provide guidance for seeking external, in-person services
- | Ongoing support with subscription
- | Emergency /crisis intervention support available



Setting Industry Standards for “Privacy Assured” Tests: Navigenics will lead the way

- Test Selection (balancing paternalism and protection)
- CLIA-Certified Labs on FDA-approved Platform
- Fully HIPAA Compliant
- Informed Consent
- Test Interpretation
- Professional Support Services
- Privacy & Confidentiality
- Hardware and Software Encryption Exceeding all Standards
- Quality Assurance & Operational Standards
- Transparent risk scoring
- Responsible Marketing
- Educational Outreach – consumers, providers
- Expert Advisory Boards
- Outcomes Research
- Full Integration into Established Medical System
- High-granularity Phenotypic, Exposure, Clinical Data for Prospective Research



SCIENCE & TECHNOLOGY



DECODING THE HUMAN BODY