

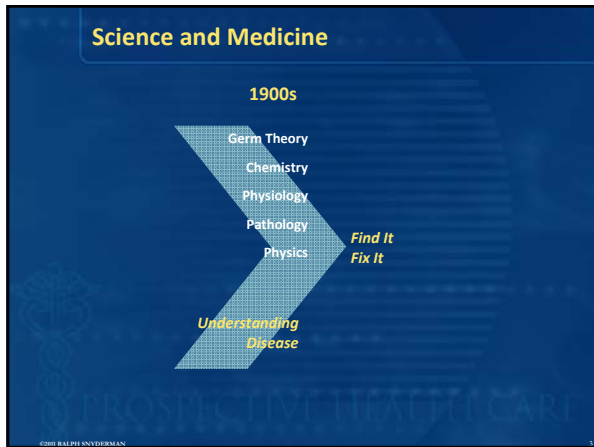
## Integrative Medicine: A Comprehensive Approach to Personalized Care

Ralph Snyderman, MD  
 Chancellor Emeritus  
 James B. Duke Professor of Medicine  
 Duke University

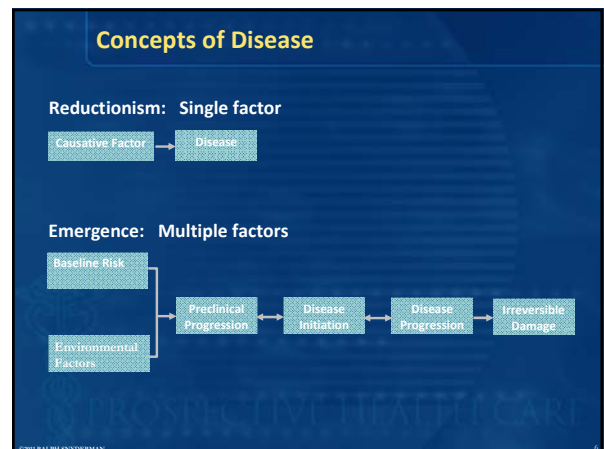
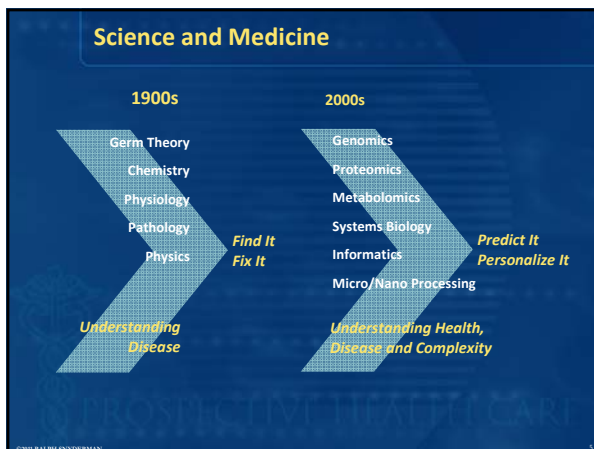
Scripps Green Hospital Grand Rounds  
 San Diego, CA  
 March 30, 2011

### Faculty Disclosure

Company	Nature of Affiliation	Unlabeled Product Usage
Ohio State University, Partners Health Care	Speaker	None
Liquidia	Board Member/ Consultant	
Targacept, Trevena, Proctor & Gamble	Board Member	



- ### What is our Health Care "System"
- Uncoordinated – no coherent approach or infrastructure
  - Disease-event oriented; find it – fix it
  - Reactive
  - Physician-directed with little patient engagement
  - Not personalized, standardized or safe
  - Expensive



## Concepts of Disease

**Reductionism: Single factor**

**Emergence: Multiple factors**

©2011 RALPH SNYDERMAN

## Personalized, Predictive, Prevention

©2011 RALPH SNYDERMAN

## The Facts

- Health is fundamental and a personal resource.
- Health and well-being is more than no disease.
- Health care be enhanced and diseases prevented/mitigated.
- Health risks and advantages are personalized and can be approached accordingly.
- Capabilities for improvement are expanding rapidly.

©2011 RALPH SNYDERMAN

## What is Personalized Medicine?

Tools	Applications
Health risk assessment	Health planning
Susceptibility markers	Disease minimization
Pathogenic pathway indicators	Diagnostic precision
Disease activity indicators	Therapy selection
Drug metabolism indicators	Pathogenesis tracking
Targeted therapies	Patient engagement
Companion diagnostics	
Adverse reaction predictors	

©2011 RALPH SNYDERMAN

## Personalized Health Planning

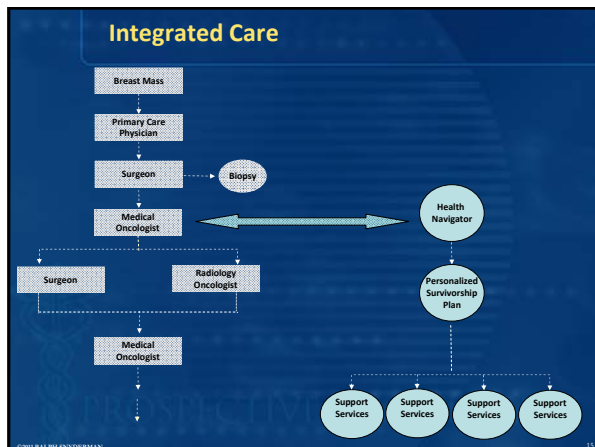
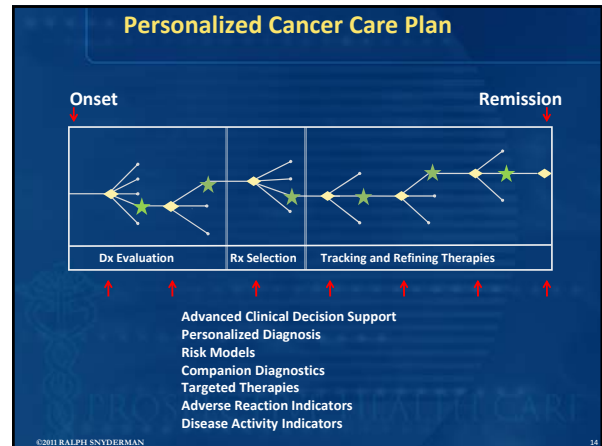
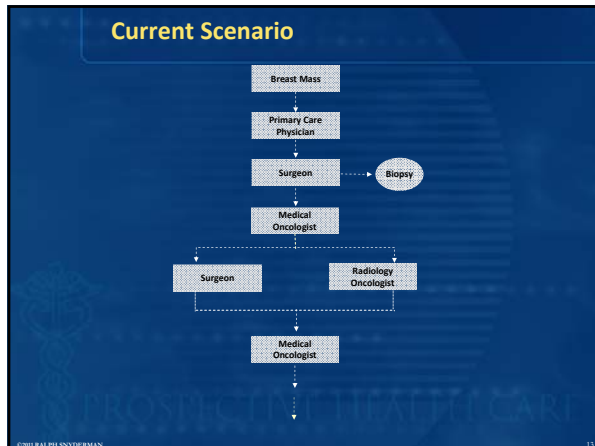
- Current health assessment and status
- Health risks assessment
- Therapeutic/wellness plan
- Health risk tracking
- Patient engagement

©2011 RALPH SNYDERMAN

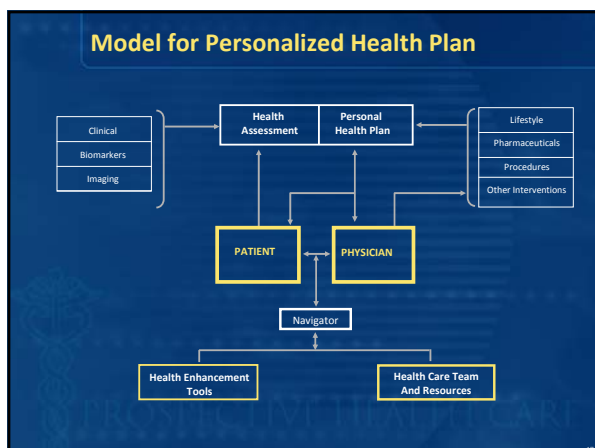
## Paradigm Shift to Personalization

Traditional Medical Evaluation and Record	Personalized Health Plan	Personalized Care Plan
Chief Complaint	Current Health Status	Mechanistically Defined Pathology
History of Illness	Clinical Risk Assessment	Level of Disease Activity
Past Medical History	Tracking Wellness and Pathogenesis	Best Therapeutic Intervention
Family History	Clinical Event Prediction	Tracking Factors
Social History	Wellness Plans	Therapeutic Timeline and Plan
Physical Exam	Patient Engagement	Patient Engagement
Diagnostic Tests		
Assessment and Plan		

©2011 RALPH SNYDERMAN



- ### Integrative Medicine
- The best of science-based medicine
  - Personalized health planning
  - Coordinated care
  - Awareness/engagement
  - Nutrition
  - Movement/exercise
  - Stress reduction
  - Complementary and alternative approaches
- ©2011 RALPH SNYDERMAN 16



Research article Related Commentary, page 591

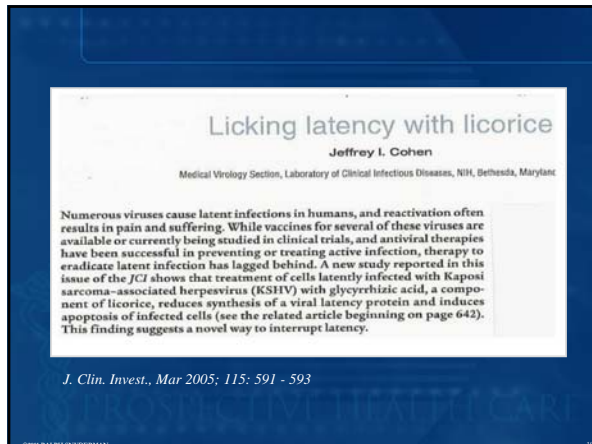
## Glycyrrhizic acid alters Kaposi sarcoma-associated herpesvirus latency, triggering p53-mediated apoptosis in transformed B lymphocytes

Francesca Curreli,<sup>1</sup> Alvin E. Friedman-Kien,<sup>1,2</sup> and Ornella Florio<sup>1,2</sup>

<sup>1</sup>Department of Microbiology and <sup>2</sup>Department of Dermatology, New York University School of Medicine, New York, New York, USA.

*J. Clin. Invest.*, Mar 2005; 115: 642 - 652.

©2011 RALPH SNYDERMAN 18



**Licking latency with licorice**  
Jeffrey I. Cohen  
Medical Virology Section, Laboratory of Clinical Infectious Diseases, NIH, Bethesda, Maryland

Numerous viruses cause latent infections in humans, and reactivation often results in pain and suffering. While vaccines for several of these viruses are available or currently being studied in clinical trials, and antiviral therapies have been successful in preventing or treating active infection, therapy to eradicate latent infection has lagged behind. A new study reported in this issue of the *JCI* shows that treatment of cells latently infected with Kaposi sarcoma-associated herpesvirus (KSHV) with glycyrrhizic acid, a component of licorice, reduces synthesis of a viral latency protein and induces apoptosis of infected cells (see the related article beginning on page 642). This finding suggests a novel way to interrupt latency.

*J. Clin. Invest.*, Mar 2005; 115: 591 - 593

©2011 RALPH SNYDERMAN



## PPACA and Health Care Reform

**Coordination of Care**

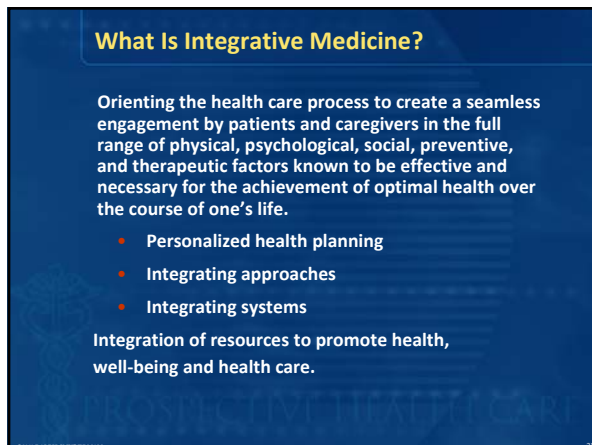
- Patient Centered Medical Home
- Accountable Care Organizations
- Disease Management Programs
- Health Care Innovation Zones

**Reimbursement for Performance**

- Pay for Performance
- Best Practice Pricing
- Bundled Payments

**Personalized Health Planning**

©2011 RALPH SNYDERMAN



## What Is Integrative Medicine?

Orienting the health care process to create a seamless engagement by patients and caregivers in the full range of physical, psychological, social, preventive, and therapeutic factors known to be effective and necessary for the achievement of optimal health over the course of one's life.

- Personalized health planning
- Integrating approaches
- Integrating systems

Integration of resources to promote health, well-being and health care.

©2011 RALPH SNYDERMAN