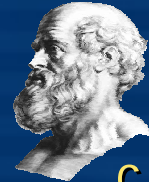


# Integrative Medicine: A Foundation for Prospective Health Care

Distinguished Lectures in the Science of  
Complementary and Alternative Medicine  
National Institutes of Health  
April 22, 2005

PROSPECTIVE HEALTH CARE

c. 3,500 BCE



c. 500 BCE



1480



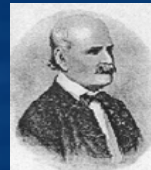
1628



1674



1846



1847



1885



1895



1906

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# Factors Impacting Medicine: 1890s

## Anatomy

Physiology

Histology

Pathology

## Chemistry

Biochemistry

Metabolism

Pharmacology

Pharmaceutics

## Germ Theory

Infectious Diseases

Microbiology

Immunology

Allergy

## Physics

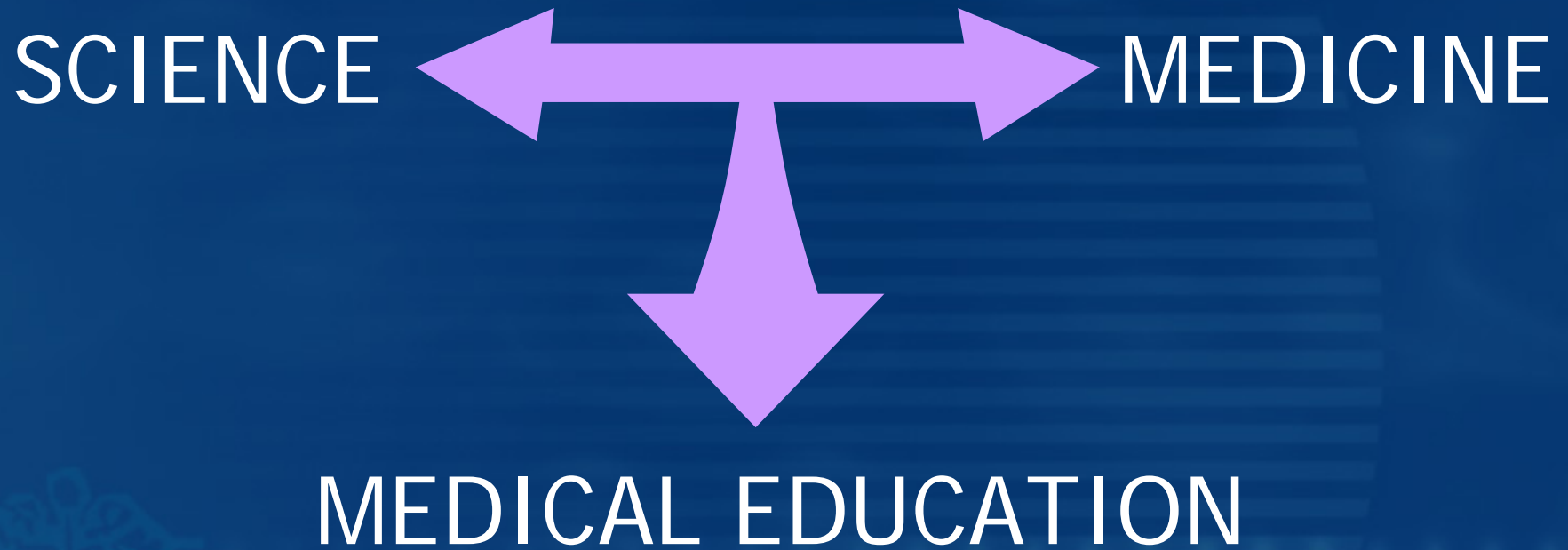
Roentgenology

Radioisotopes

Radiotherapy

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# Flexner Report: 1910



Structure of academic health center

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# Contemporary Practice of Medicine

- Disease oriented
- Specialty-based
- Find it, fix it
- Reactive
- Sporadic intervention
- Physician-directed

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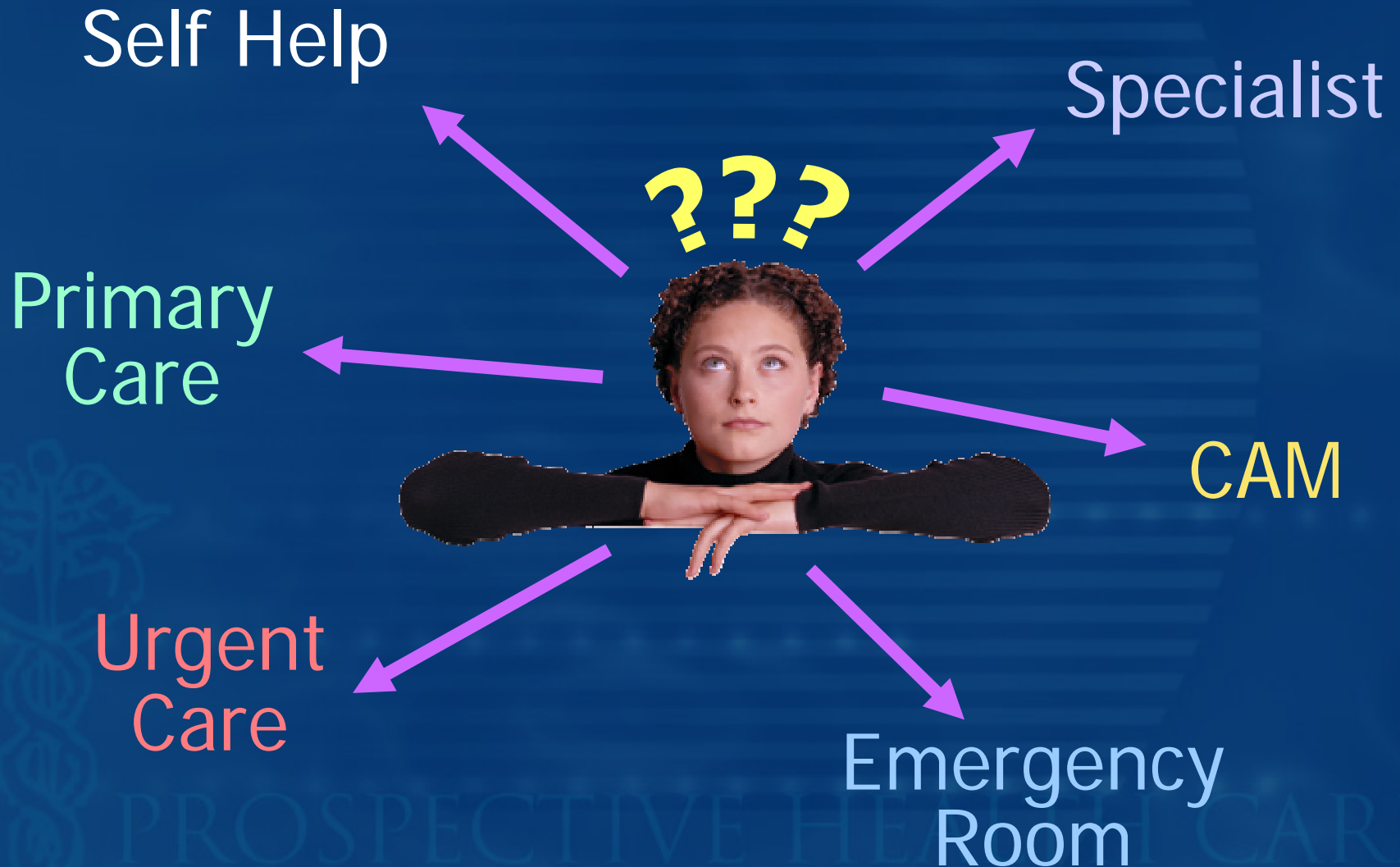
# Health Care Today: Reactive

Total US Health Care Spending 2002: \$1.5 Trillion

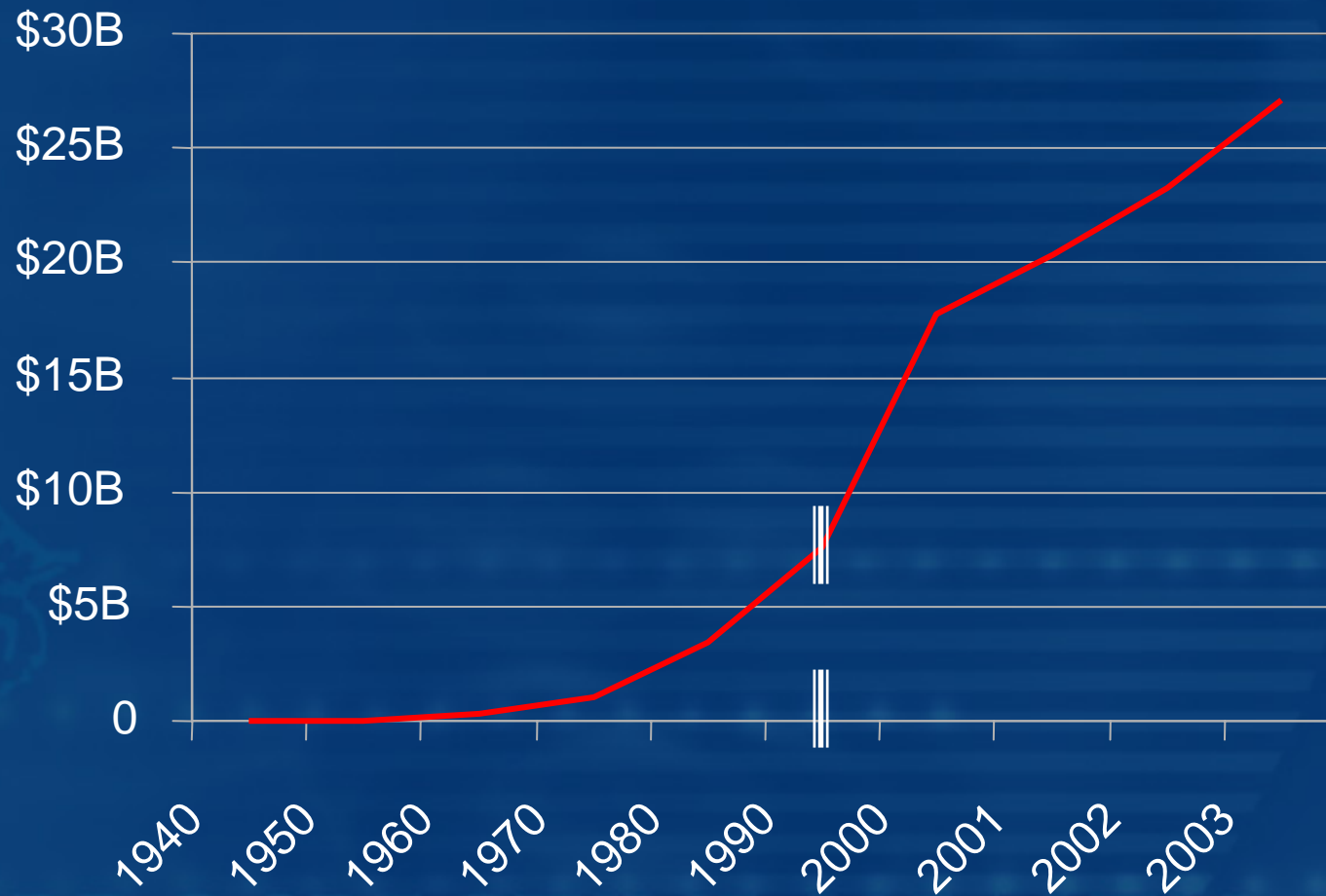


Source: American Heart Association, American Cancer Society, American Lung Association, National Institute of Diabetes and Digestive & Kidney Disease.

# Fractionated Health Care



# NIH Appropriations





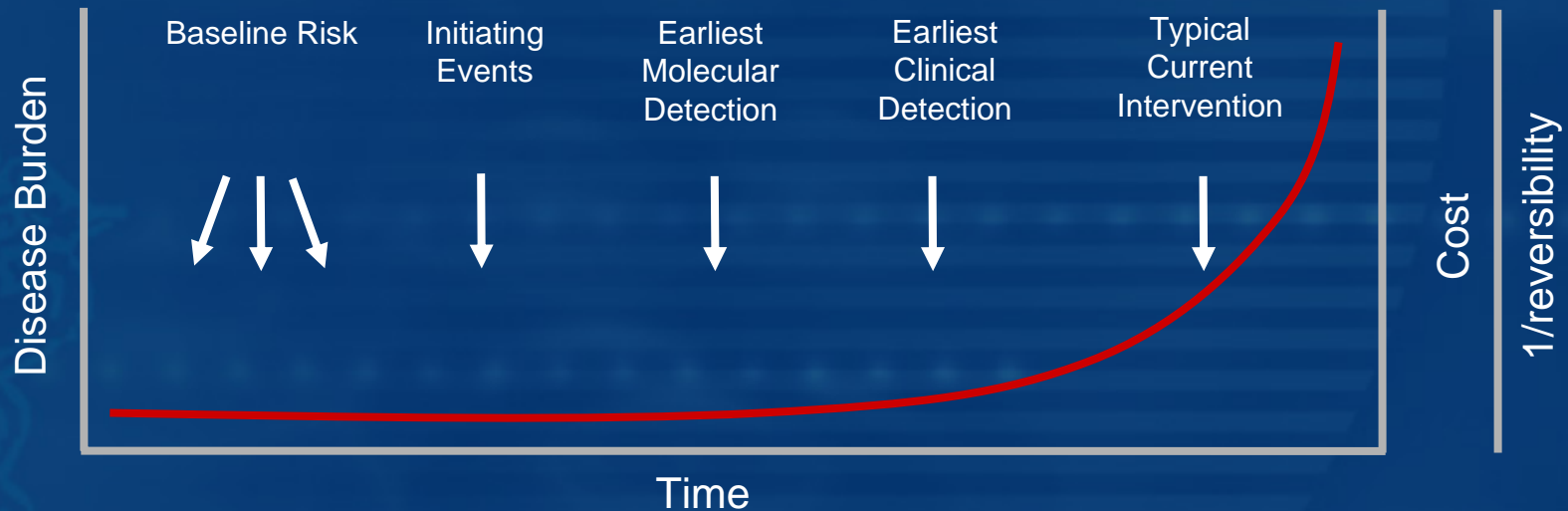
# Genomics and Health

- Therapeutic proteins
- Therapeutic targets
- Pharmacogenetics
- Gene therapy
- *Susceptibility profiles*

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# The Inflection and Opportunities for Intervention

Health Care Cost vs. Disease Progression



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# Paradigm Shift

## Traditional Medical Evaluation and Record

- Chief Complaint
- History of Illness
- Past Medical History
- Family History
- Social History
- Physical Exam
- Diagnostic Tests
- Assessment and Plan

## Prospective Evaluation and Record

- Health Profile Summary
- Current (immediate) Health Status
- Health Risk Analysis
  - Genetic
  - Environmental
  - Lifestyle
- 1 year health plan
- 5 year health plan



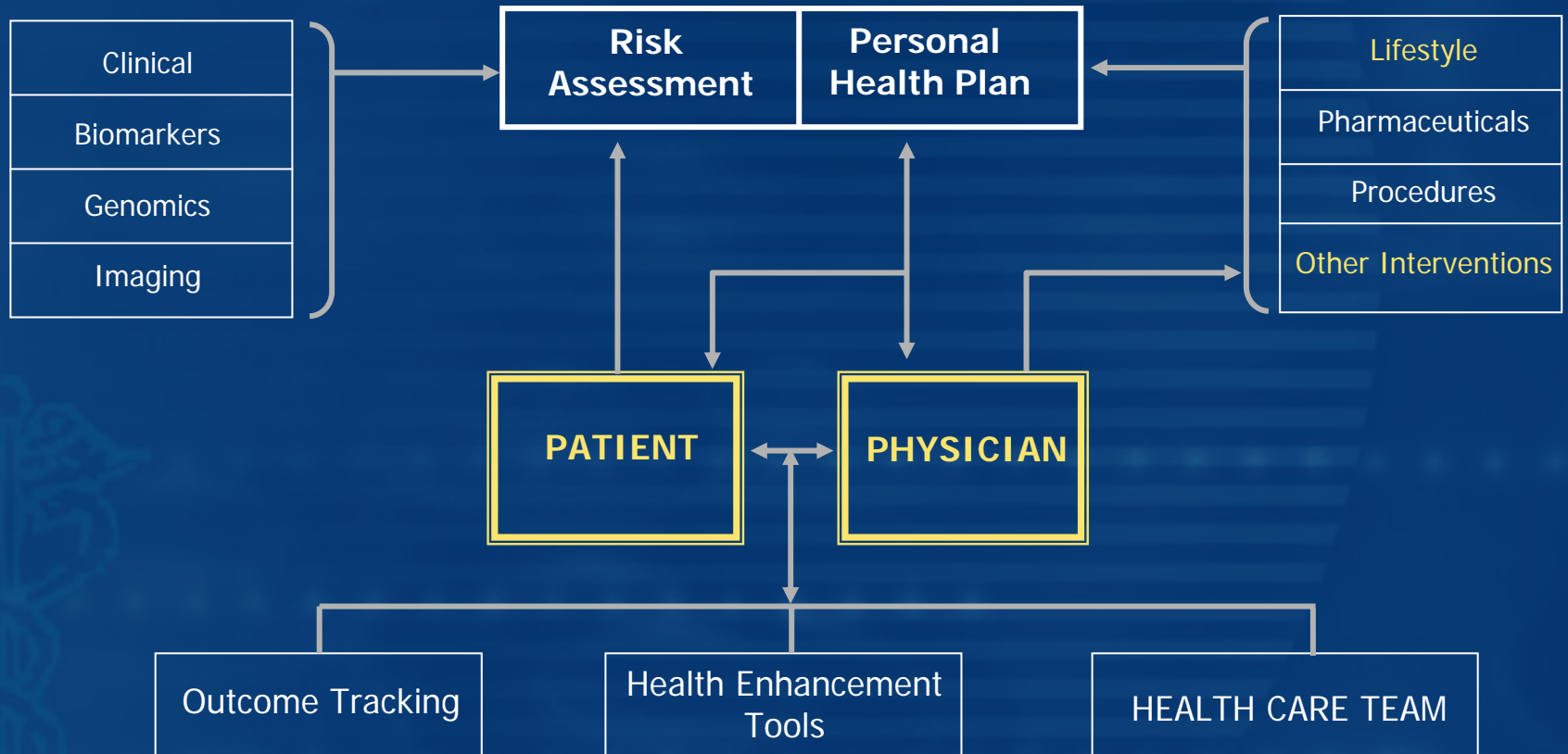
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# Needs for Prospective Health Care

- Health risk assessment tools
- Therapeutic evaluation tools
- Aligned health care providers
- Aligned reimbursement systems
- *Motivated and Engaged Individuals*

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# Model for Personalized Health Plan



# Role of the Individual (Patient)

- Promote wellness: Body and mind
  - Nutrition
  - Exercise
  - Stress reduction
  - Mindfulness
- Specific prevention strategies
- Therapeutic partnership with provider

PROSPECTIVE HEALTH CARE

# Role of the Provider

- Diagnostician
- Mentor
- Partner
- Suggester/Provider of therapeutic options

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# Mission of Integrative Medicine

Integrative medicine is an approach to the delivery of health care that draws on the best of the scientific approach to medicine but refocuses on:

- The responsibility of the physician to involve the patient in their health
- The importance of compassion and caring
- The willingness to entertain non-conventional modalities with informed skepticism and scientific evaluation
- The recognition of the importance of the mind-body relationship in well being
- Prospective health planning





# 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 Flore<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.

# 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.

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# Integrative Medicine: Pillars of Prospective Health Planning

- Awareness
- Mind-body medicine
- Movement/exercise
- Nutrition
- Spirituality
- Complementary and alternative approaches

PROSPECTIVE HEALTH CARE

# Mission of Integrative Medicine

Above all, integrative medicine encompasses the caring bond between the patient and the caregiver and the responsibility of the latter to enable the patient to benefit from the full array of modalities which can be shown to improve health.

PROSPECTIVE HEALTH CARE