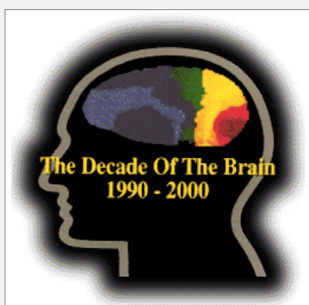


## 1990s

1990

### BIOMEDICAL MILESTONES

- Human Genome Project begins.
- NIH and Congress declare 1990s the “Decade of the Brain”.



- ANA President in 1990, J.B. Martin is a leader in modern academic neurology. Recruiting J. Gusella, the Martin lab used RFLP mapping to identify the Huntington’s Disease locus, a landmark in forward genetics. As Neurology Chief at MGH and then Dean of Harvard Med School, Dean and then Chancellor of UCSF he indelibly impacted technical and talent growth toward 21st century neurology.
- M. Mesulam proposes cognition requires large-scale neuro-networks with distributed processing for attention, language, memory.



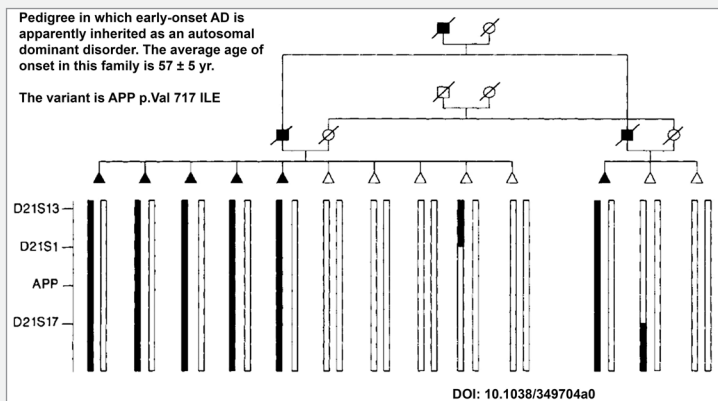
### HISTORICAL CONTEXT

Hubble telescope  
launched.

1991

## BIOMEDICAL MILESTONES

- Functional MRI (fMRI) used to localize regional brain activity in humans.
- First identification by Goate and Hardy of pathogenic mutation in amyloid precursor protein, APP ("London mutation") associated with Alzheimer's Disease.



## HISTORICAL CONTEXT

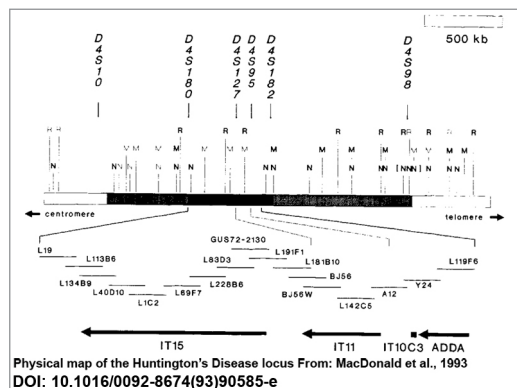
Collapse of the Soviet Union.

'Gulf War' response to 1990 Iraq invasion of Kuwait ends with Operation Desert Storm.

1993

## BIOMEDICAL MILESTONES

Huntington's Disease gene (HTT) identified.




## HISTORICAL CONTEXT


North American Free Trade Agreement (NAFTA) signed into law.

1994

## BIOMEDICAL MILESTONES



**THE THYMUS IN MYASTHENIA GRAVIS**  
**Evidence for Altered Cell Populations**  
 NABIH I. ABDOU, M.D., PH.D., ROBERT P. LISAK, M.D., BURTON ZWEIMAN, M.D.,  
 ISES ABRAHAMSOHN, M.D., AND AUDREY S. PENN, M.D.  
 (NEnglJMed 291:1271-1275, 1974)



Antiacetylcholine Receptor Antibody in  
 Neonatal Myasthenia Gravis  
James O. Donahue, MD, Audrey S. Penn, MD, Robert P. Lisak, MD, Oded Abramsky, MD,  
 Talma Brenner, PhD, Donald L. Schubert, MD (Am J Dis Child 1981;135:222-226)

**Drug-induced Autoimmune  
 Myasthenia Gravis<sup>a</sup>**  
 AUDREY S. PENN,<sup>b,c,d</sup> BARBARA W. LOW,<sup>c</sup> ISRAELI A. JAFFE,<sup>f</sup>  
 LIANG LUO,<sup>g</sup> AND JEFFREY J. JACQUES<sup>g</sup>  
 Annals NY Acad Sci, 1998

First woman President of the ANA (1994), A. Penn illuminated biochemistry of muscle diseases, particularly the role of muscle proteins and the acetylcholine receptor in myasthenia gravis. She also served as Deputy Director of NINDS.

1995

## BIOMEDICAL MILESTONES

- H. influenzae genome completed.
- NIH trial shows better outcomes with rTPA given within three hours of stroke onset.

The New England  
**Journal of Medicine**  
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**TISSUE PLASMINOGEN ACTIVATOR FOR ACUTE ISCHEMIC STROKE**  
 THE NATIONAL INSTITUTE OF NEUROLOGICAL DISORDERS AND STROKE tPA STROKE STUDY GROUP\*

- Efficacy of triple anti-retroviral therapy for HIV/AIDS first reported.

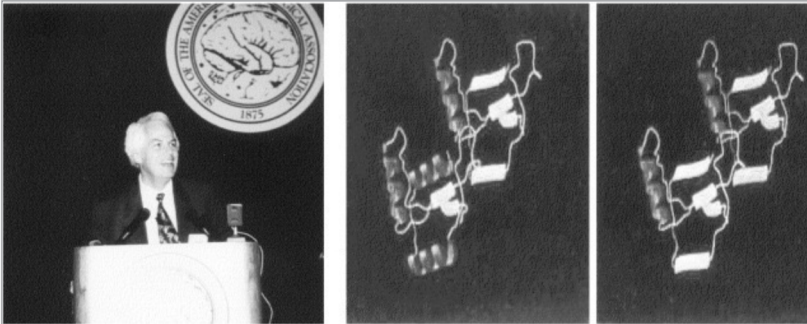
## HISTORICAL CONTEXT

Oslo-II accords between Palestine and Israel signed.

1997

## BIOMEDICAL MILESTONES

S. Pruisner awarded Nobel for discovery of prions as infectious neurological agents.



S. Pruisner discusses his discovery and characterization of prions in neurodegenerative disease, ANA meeting 1998 DOI: 10.1002/ana.1346

## HISTORICAL CONTEXT

Death of Princess Diana.

1998

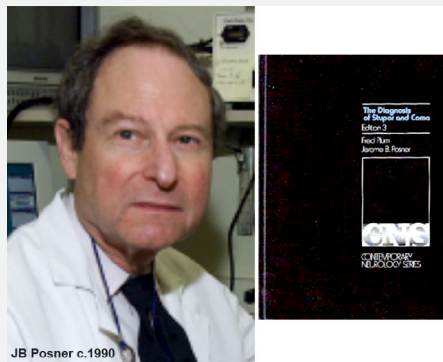
## BIOMEDICAL MILESTONES

NIH budget doubling begins in Clinton administration.

1999

## BIOMEDICAL MILESTONES

ANA President in 1998 & '99, J.B. Posner with F. Plum continued *Diagnosis of Stupor and Coma* through multiple editions as authoritative reference on diagnosis, pathophysiology, and treatment for disorders of consciousness.



JB Posner c.1990

## HISTORICAL CONTEXT

European Union adopts single "Euro" currency, conversion completed 2002.

