

NIH FY2015 Budget Hearing

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Director, National Institutes of Health

Senate Subcommittee on Labor – HHS – Education Appropriations

April 2, 2014



NIH's Impact on U.S. Health and Medicine

NIH Accomplishments



U.S. Life Expectancy

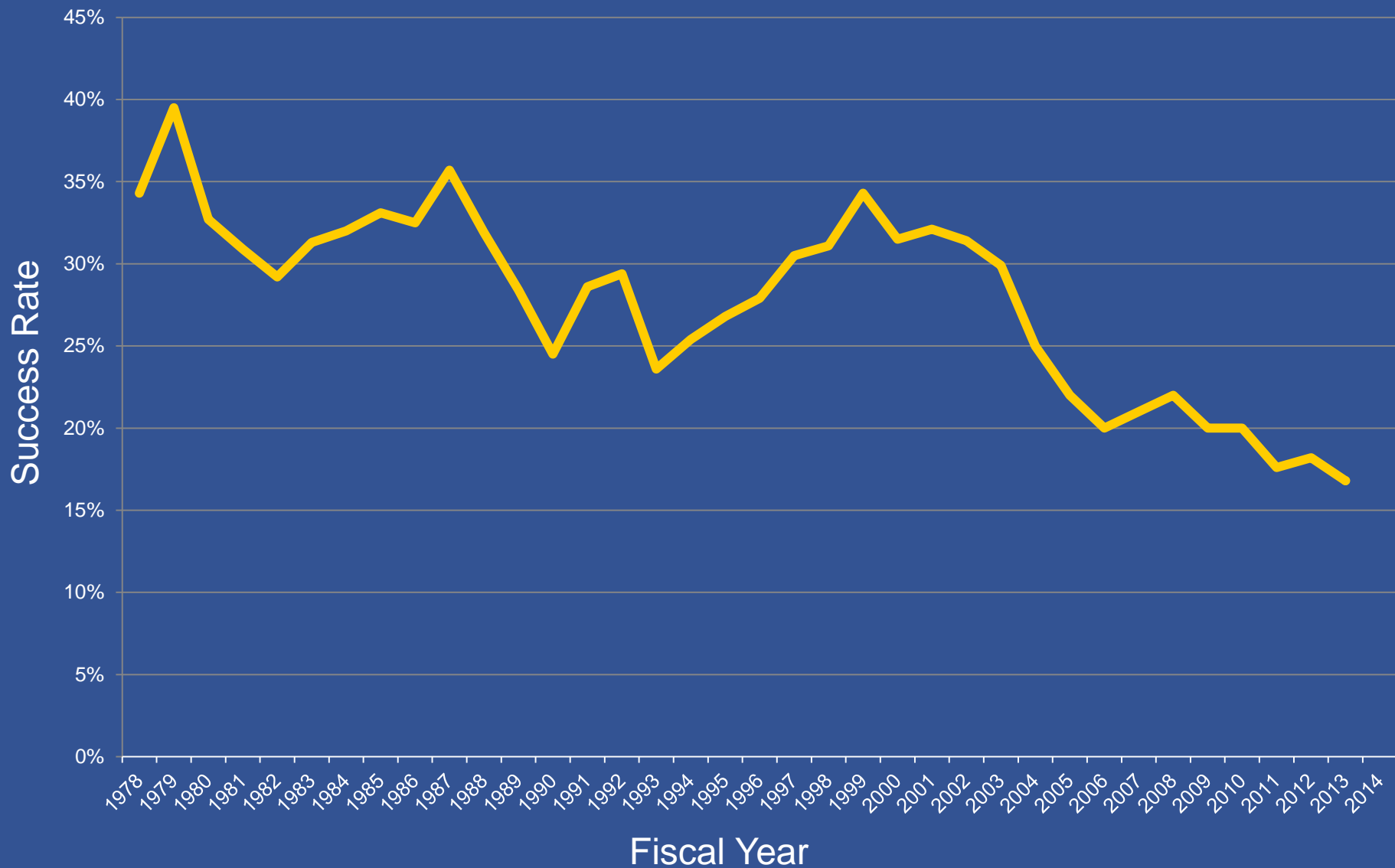
Cardiovascular disease death rates have fallen > 70% in the last 60 years

Cancer death rates now falling ~1% per year; each 1% drop saves ~\$500 billion

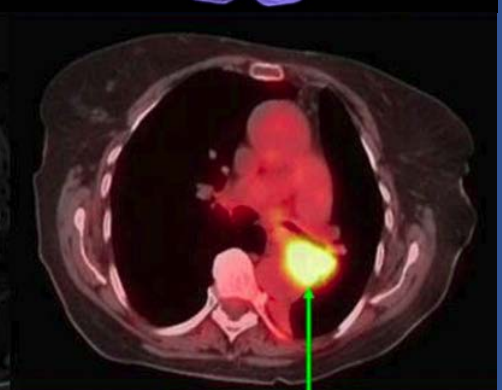
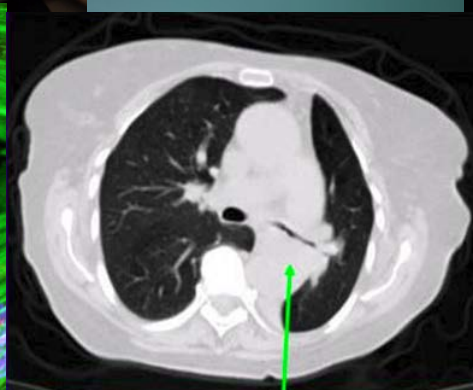
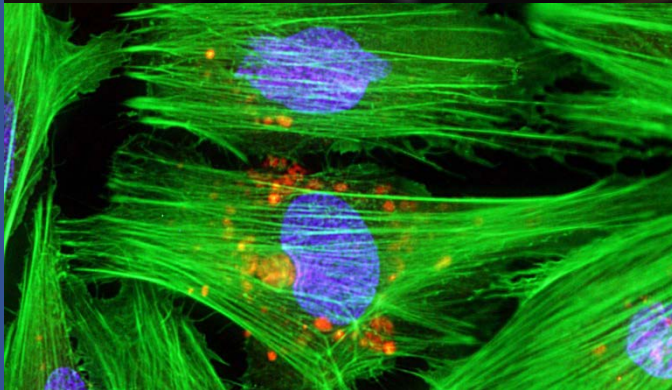
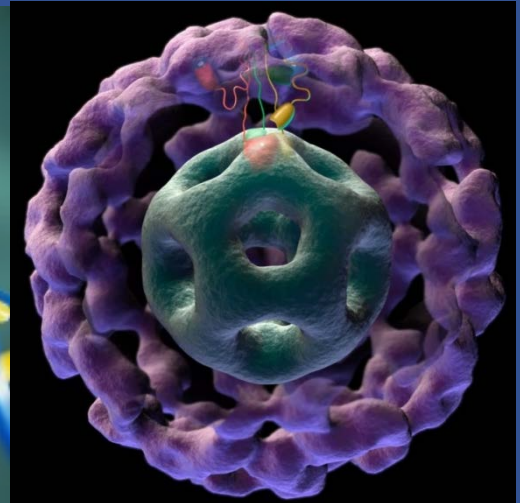
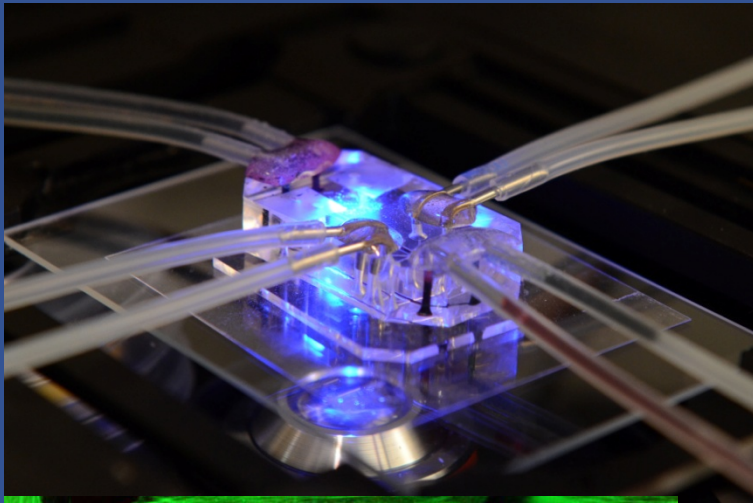
HIV therapies enable people in their 20s to live to age 70+

Grant Success Rates

FY 1978 – 2014



Scientific Opportunities



Late Stage Drug Development Failures: *Years of Work and Millions of Dollars Lost*

Phase II



Phase III



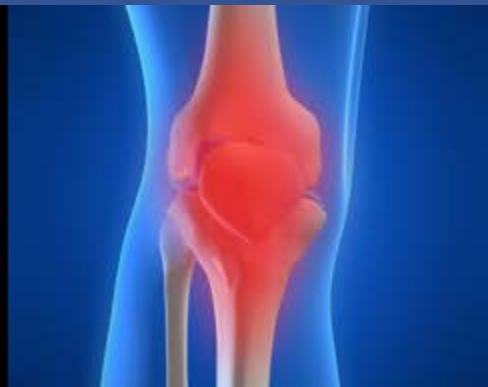
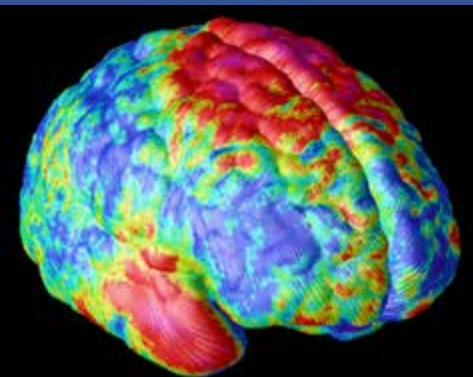
Source: Pammoli et al., "The productivity crisis in pharmaceutical R&D"
Nature Reviews Drug Discovery June 2011

Accelerating Medicines Partnership (AMP)

Will invest >\$230M over five years on pilot projects:

- Alzheimer's disease
- Type 2 diabetes
- Autoimmune disorders (systemic lupus erythematosus and rheumatoid arthritis)

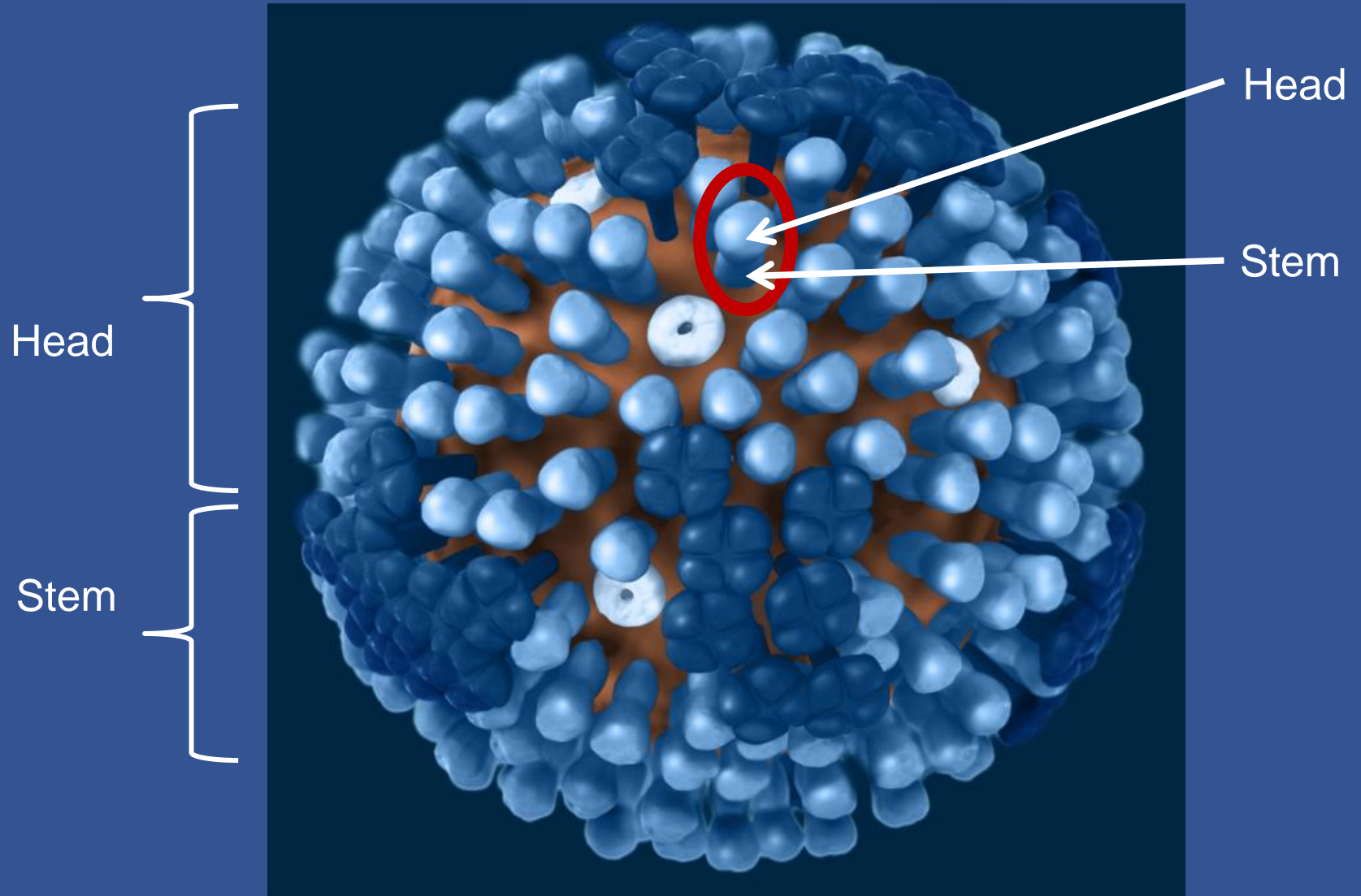
Costs are shared equally between NIH and the private sector



Accelerating Medicines Partnership (AMP)

Government	Industry	Non-Profit Organizations
NIH	AbbVie	Alzheimer's Association
FDA	Biogen Idec	American Diabetes Association
	Bristol-Myers Squibb	Arthritis Foundation
	GlaxoSmithKline	Foundation for the NIH
	Johnson & Johnson	Geoffrey Beene Foundation
	Lilly	Juvenile Diabetes Research Foundation
	Merck	Lupus Foundation of America
	Pfizer	Lupus Research Institute / Alliance for Lupus Research
	Sanofi	PhRMA
	Takeda	Rheumatology Research Foundation
		USAgainstAlzheimer's

Universal Flu Vaccine

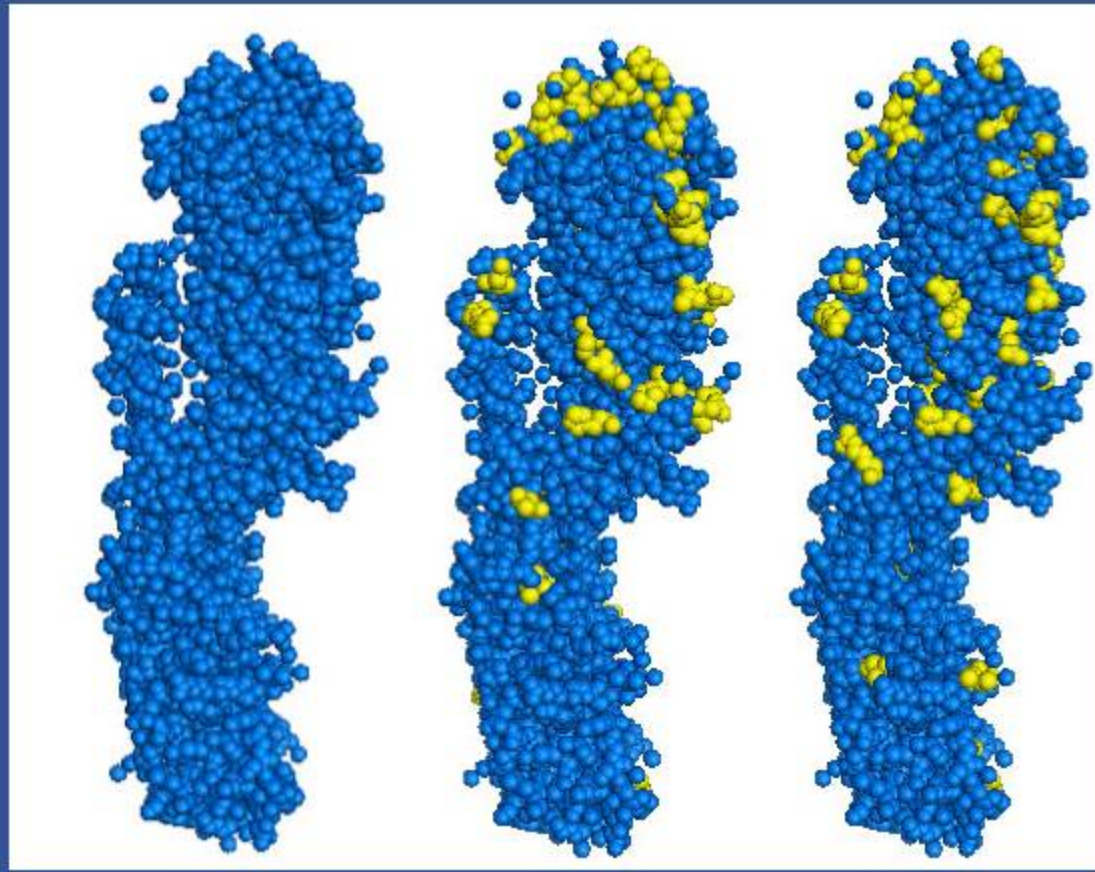


Universal Flu Vaccine

Virus surface protein from three flu strains

Head

Stem

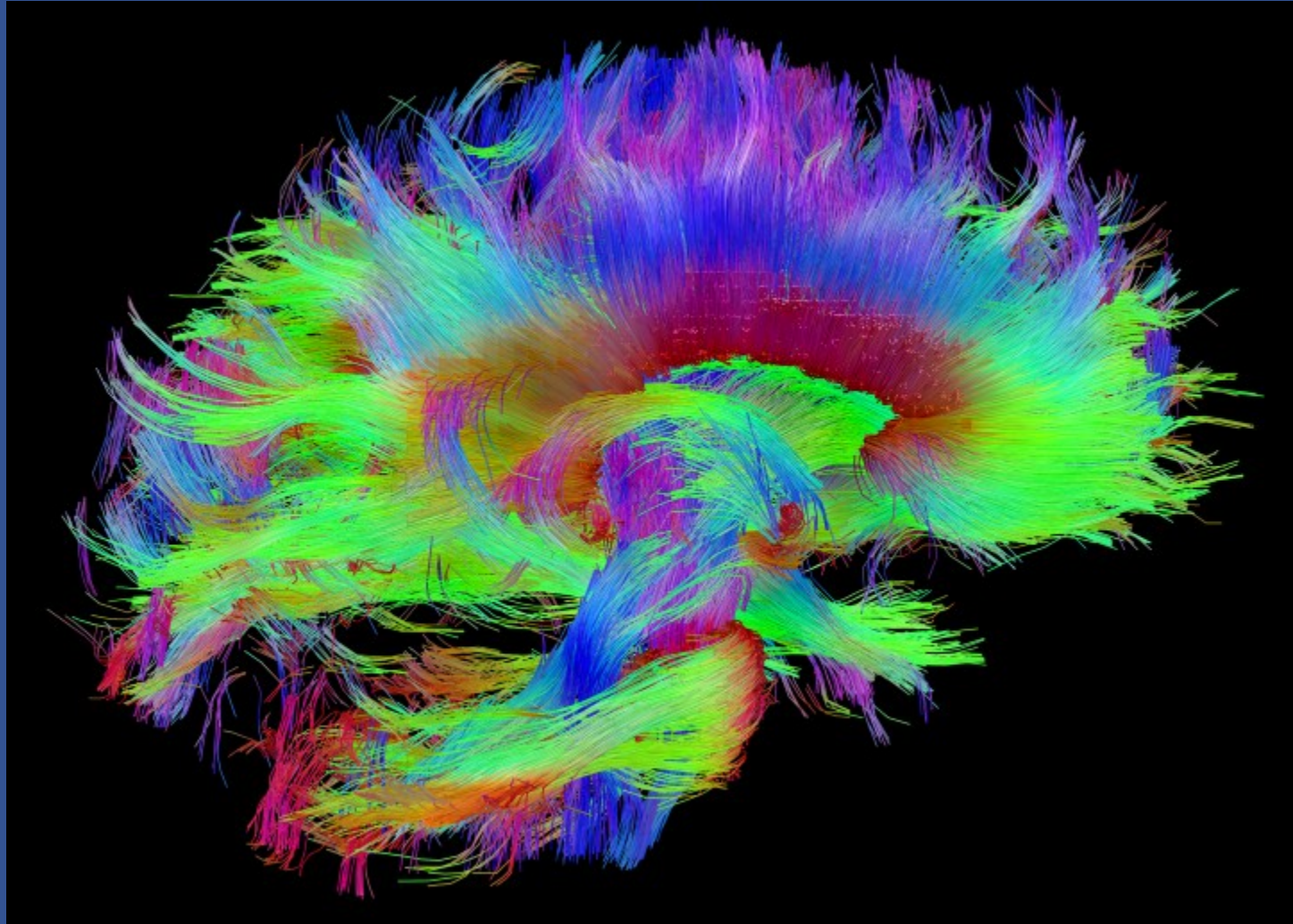


1918

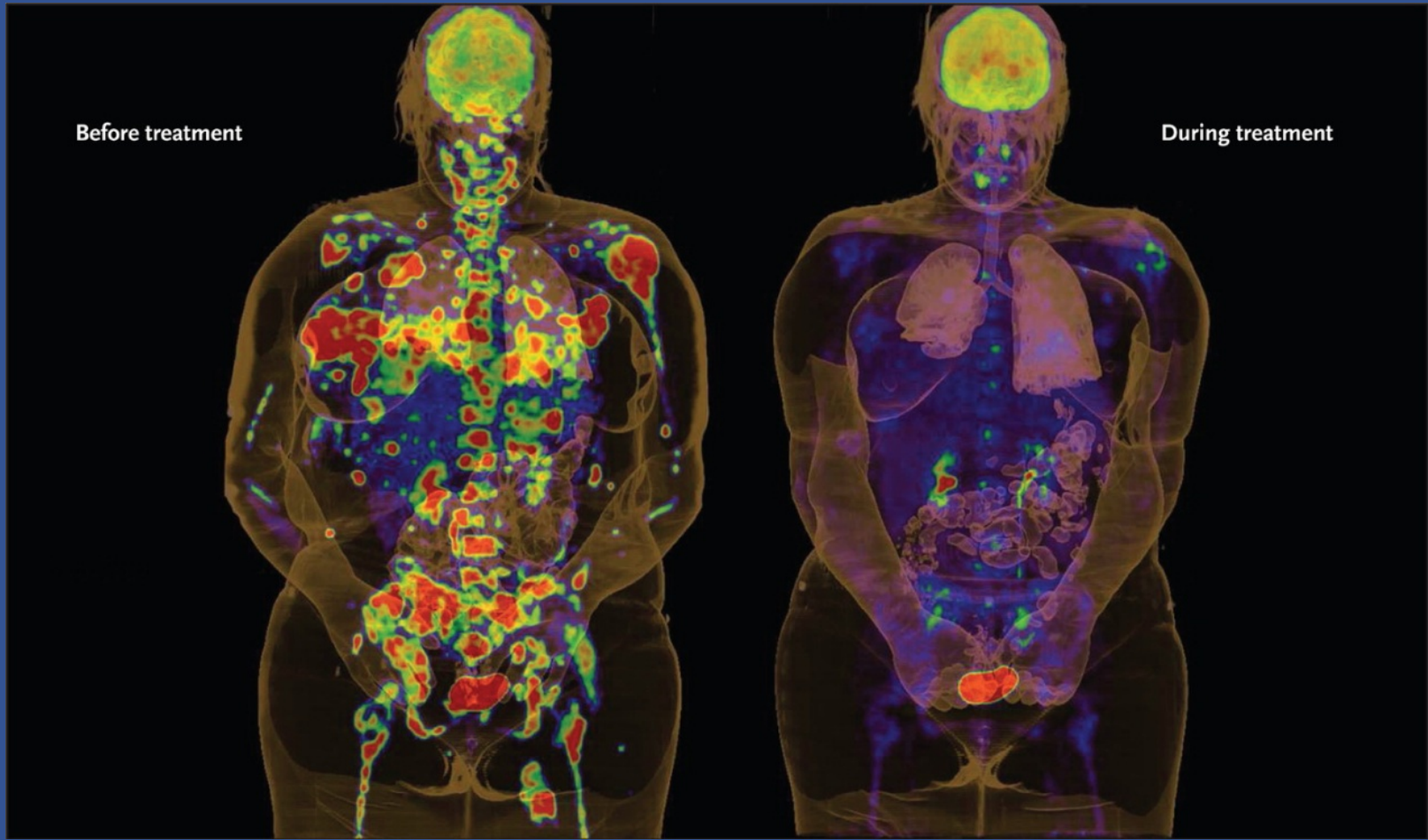
1934

2009

BRAIN Initiative



Opportunities in Cancer Therapeutics: *Targeted therapy of metastatic melanoma*



Images courtesy of Grant McArthur, Jason Callahan, and Rod Hicks of the Peter MacCallum Cancer Centre.

Science

20 December 2013 | \$10

Breakthrough of the Year

Cancer Immunotherapy

T cells on the attack



AAAS

Cancer Immunotherapy



Emily: April 2012



Emily: Today!





NIH...

Turning Discovery Into Health

