AMERICAN NEUROLOGICAL ASSOCIATION® 150 YEARS
THE HOME FOR ACADEMIC NEUROLOGY

Celebrating 150 Years of Academic Neurology

1940s

1940

BIOMEDICAL MILESTONES

- Schumacher, Ray, & Wolff describe neural pathways in histamine-induced headache.

Schumacher, G. A., Ray, B. S., and Wolff, H. G. Experimental Studies on Headache: Histamine Headache and Its Pain Pathway. [*Arch. Neurol. & Psychiat., 44:* 701, 1940.]

The purpose of the investigation was to obtain further information concerning the contribution to pain made by the cranial arteries in headache and concerning the nerve pathways which conduct these impulses. In the first series of experiments the effect on the intensity and location of histamine headache of anesthetizing, compressing, injecting, and ligating scalp arteries, ligating dural arteries, and compressing cerebral arteries was investigated. Cerebral arteries were found to be chiefly responsible for the quality and intensity of histamine headache. In the second series, the distribution of histamine headache in 20 subjects with unilateral section of various cranial nerves, chiefly the trigeminal (partial and complete) was studied. The fifth cranial nerve on each side was found to be the principal afferent pathway for headache in the pontotemporal region due to dilatation of supratentorial cerebral arteries, and the upper cervical nerves the most important afferent pathway for headache resulting from dilatation of posterior fossa arteries. (Authors' abstract.)

- Penfield and Humphreys begin mapping human cortex through path of epileptic lesions.

HISTORICAL CONTEXT

Turing's first bombe machine installed at Bletchley Park. Creates electronic network decrypting the German Enigma, ushering in new age of computer science.

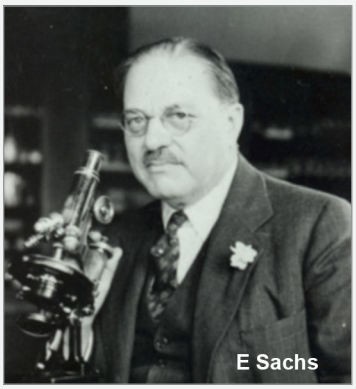
1941

HISTORICAL CONTEXT

US enters WWII after Pearl Harbor, Dec 6 1941.

1943

BIOMEDICAL MILESTONES



ANA President in 1943, E. Sachs founded Neurosurgery at Washington University; noted educator-leader of neurosurgery in US; authored influential treatise on the thalamus and its connections to cortex.

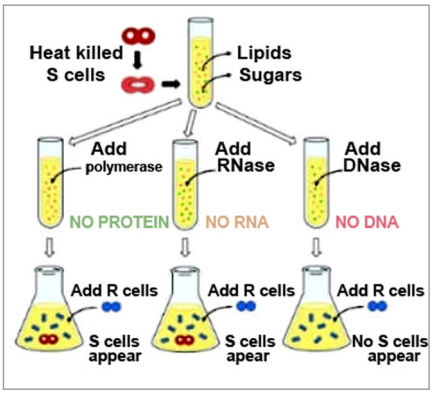
HISTORICAL CONTEXT

ENIAC (electronic numerical integrator and computer) built for US Army (1943-45) at U Penn.

1944

BIOMEDICAL MILESTONES

Avery, MacLeod, & McCarty prove DNA transmits hereditary information.

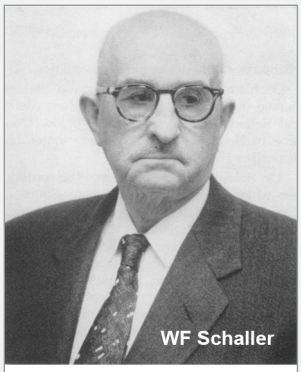


HISTORICAL CONTEXT

GI Bill enacted-supports veterans' tuition.

1945

BIOMEDICAL MILESTONES



DOI: 10.1001/arch-neur.1971.00490020105014

ANA President in 1945-46, W. F. Schaller, was a founding member of the Amer. Board of Psychiatry and Neurology (ABPN). He is recognized for his breadth of contributions in population health, psychiatry, public health, and neurology.

HISTORICAL CONTEXT

Atomic bomb tested at Los Alamos, used.

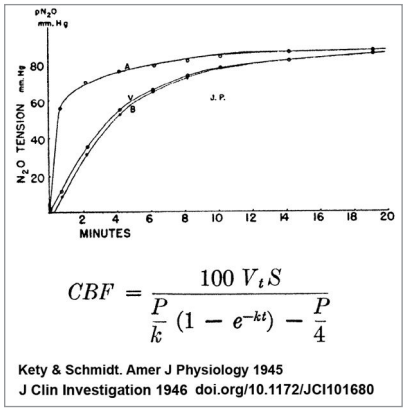
WWII ends.

United Nations formed of 51 countries.

1946

BIOMEDICAL MILESTONES

Kety and Schmidt use nitrous oxide (N2O) to measure cerebral blood flow.



Kety & Schmidt. Amer J Physiology 1945
J Clin Investigation 1946 doi.org/10.1172/JCI101680

HISTORICAL CONTEXT

ENIAC refurbished at U Penn to create IT industry.

1947

BIOMEDICAL MILESTONES

Rasmussen and Penfield report map of human sensory and motor cortex generated by direct stimulation during surgery.

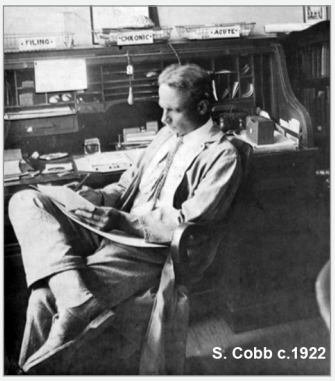
HISTORICAL CONTEXT

The Marshall Plan begins 1947-1971.

Cold War era begins 1947-1991.

1949

BIOMEDICAL MILESTONES



ANA President in 1949, S. Cobb is widely considered the founder of biological psychiatry in the US. Established the Department of Psychiatry at Mass General Hospital; published an annual review of neuropsychiatry in the *Archive of Internal Medicine* 1935-59.