



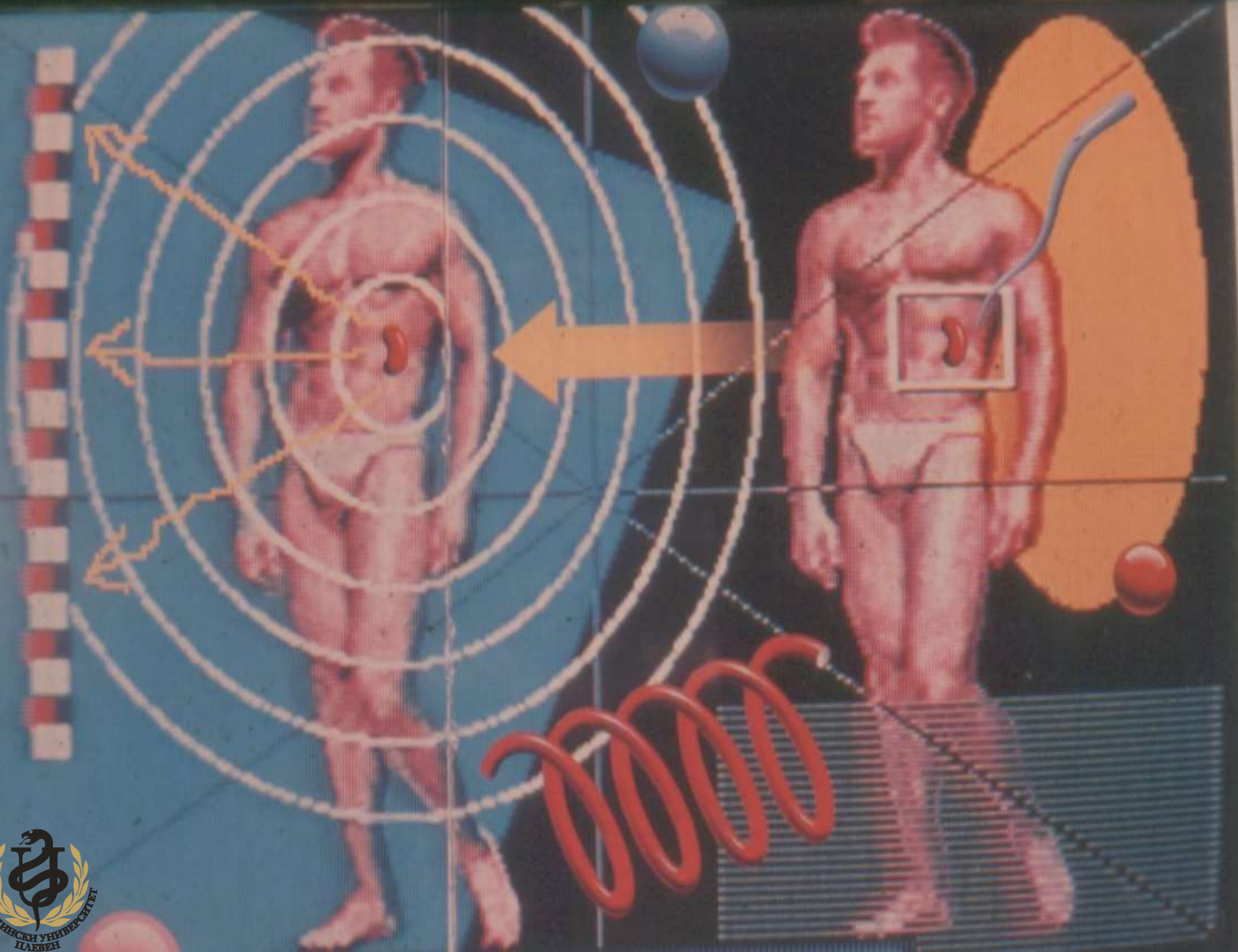
МЕДИЦИНСКИ УНИВЕРСИТЕТ – ПЛЕВЕН
МЕДИЦИНСКИ КОЛЕЖ – ПЛЕВЕН

Специалност „Рентгенов лаборант“ II – курс
ЦЕНТЪР ЗА ДИСТАНЦИОННО ОБУЧЕНИЕ
ЦЕНТЪР ПО НУКЛЕАРНА МЕДИЦИНА

Лекция № 1.1

**Исторически данни и основни
понятия в нуклеарната
медицина.
Основни принципи.**

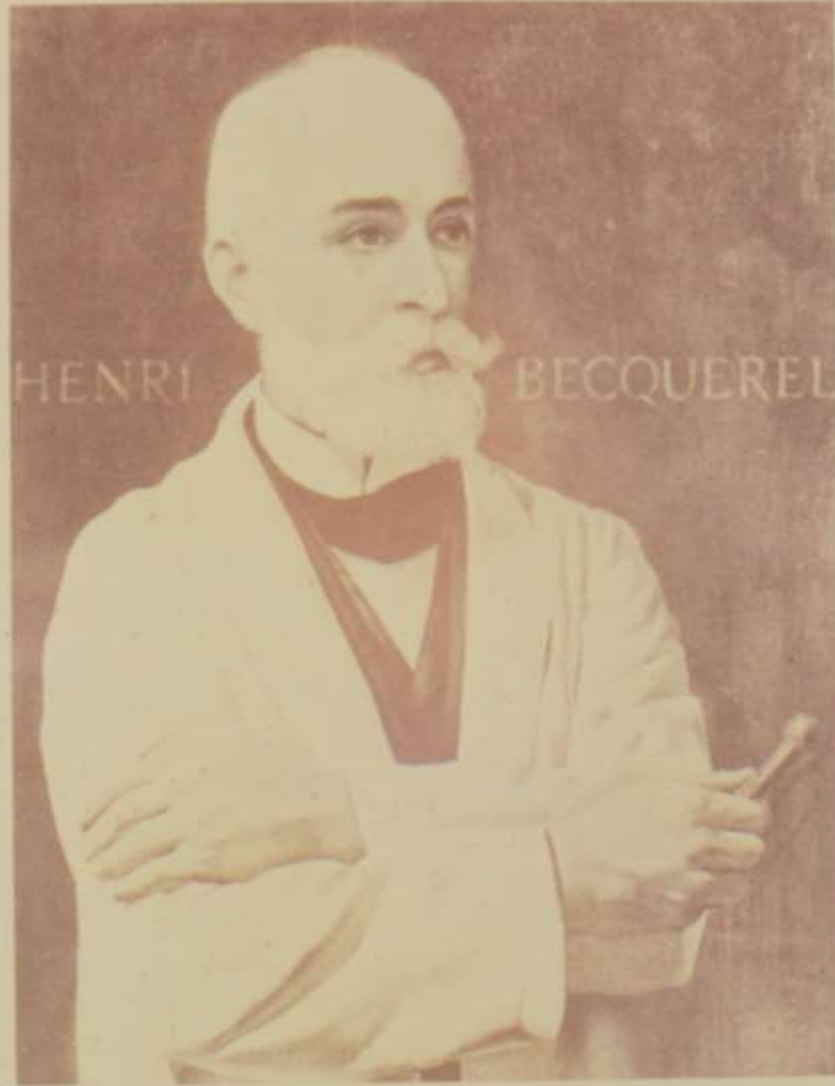
Доц. д-р М. Дончев, дм





Вильгельм Конрад Рентген



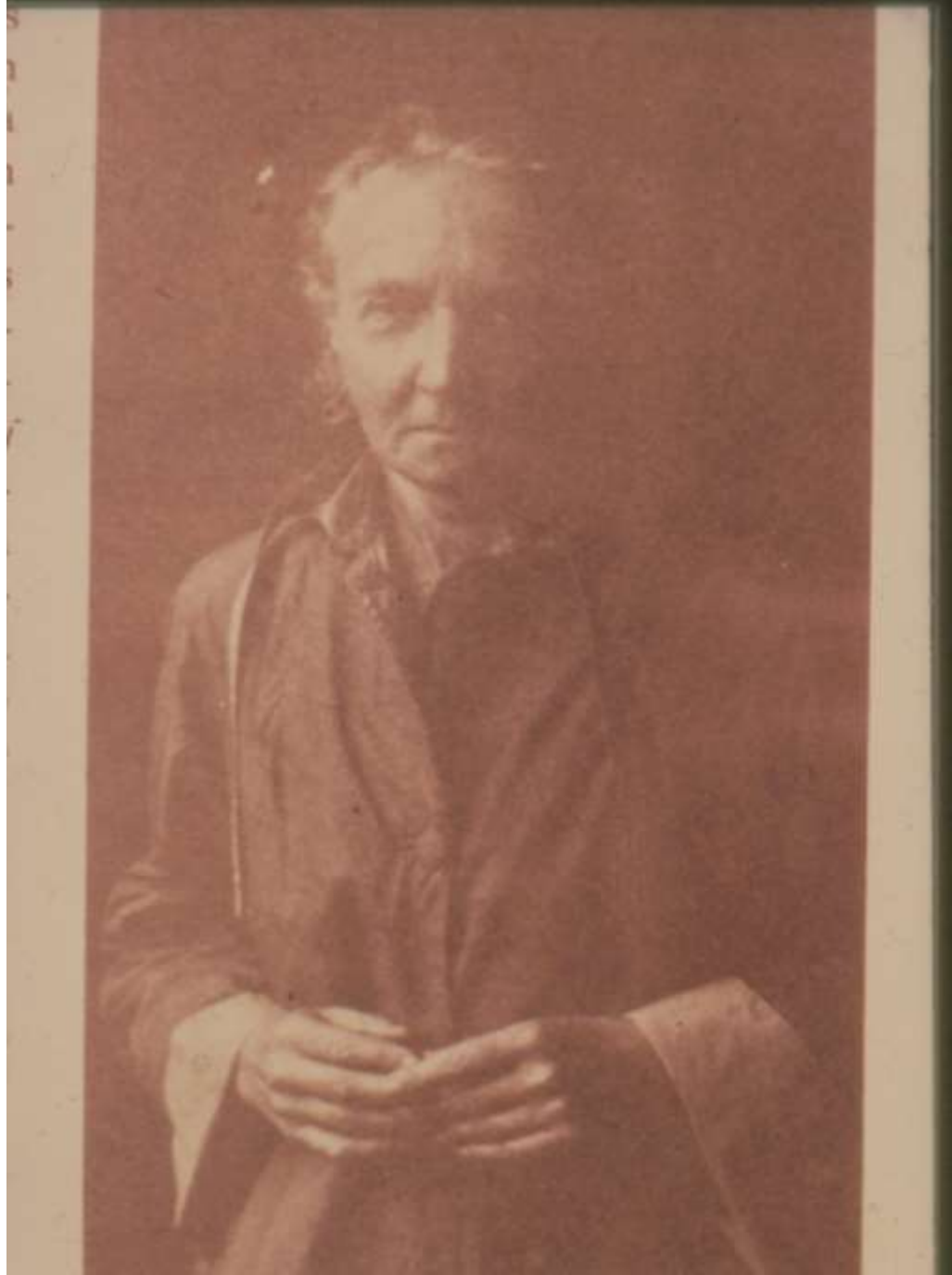


Exploring some ramifications of Roentgen's discovery of x-rays, Becquerel serendipitously learned that uranium salts give off some types of penetrating radiation and suggested to Marie Curie

that she
photo
leukem



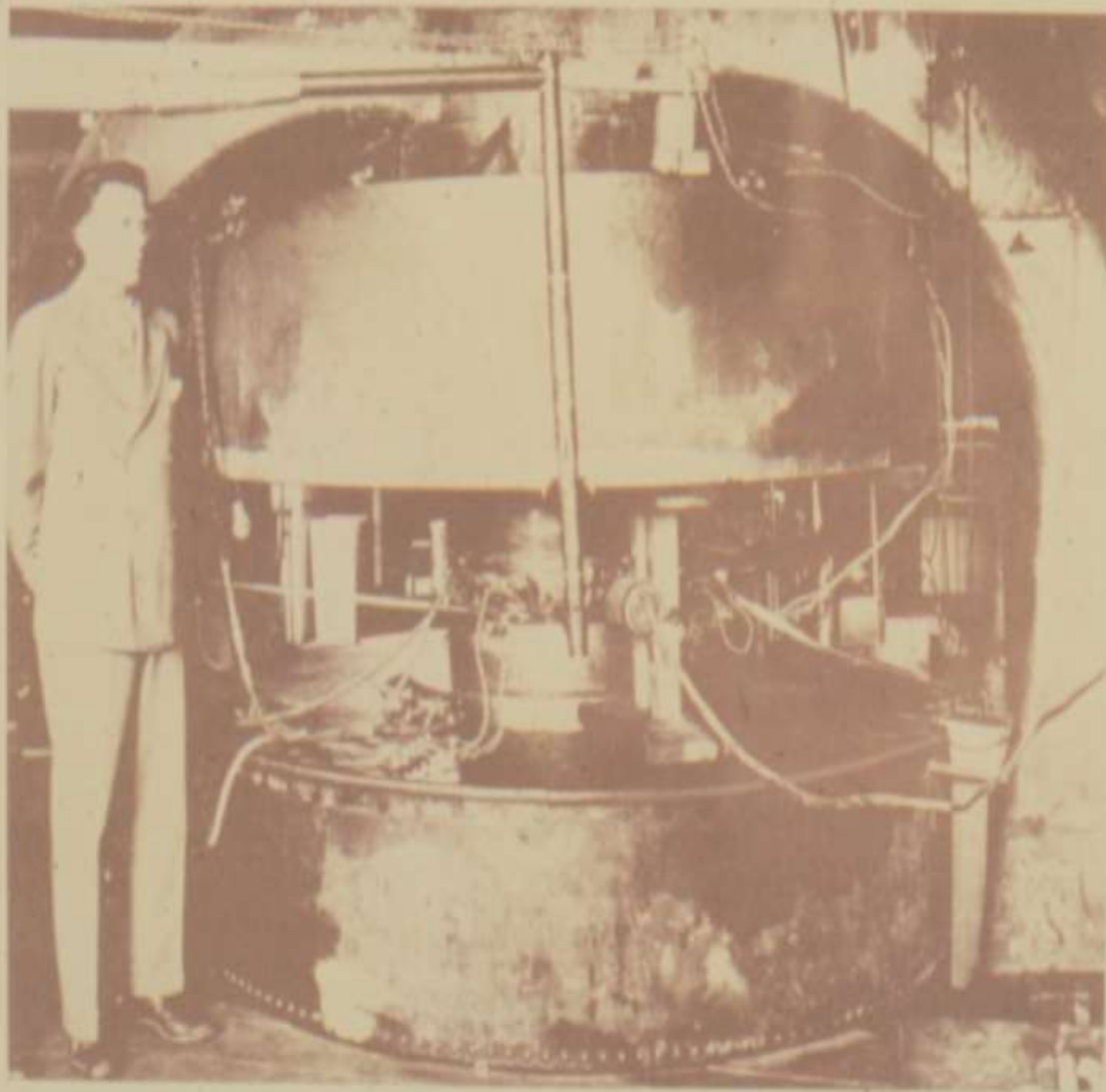






*"radioactivity." Above on this page- the great Hungarian chemist Hevesy
(beginning before World War I, earned him a Nobel Prize in 1943. He was
conceive of using radioelements in physiologic tracers.*





The concept of using radioactive isotopes as physiologic tracers was not fully exploited until the invention of the cyclotron in 1931. Inventor Ernest C. Lawrence is seen here with his second

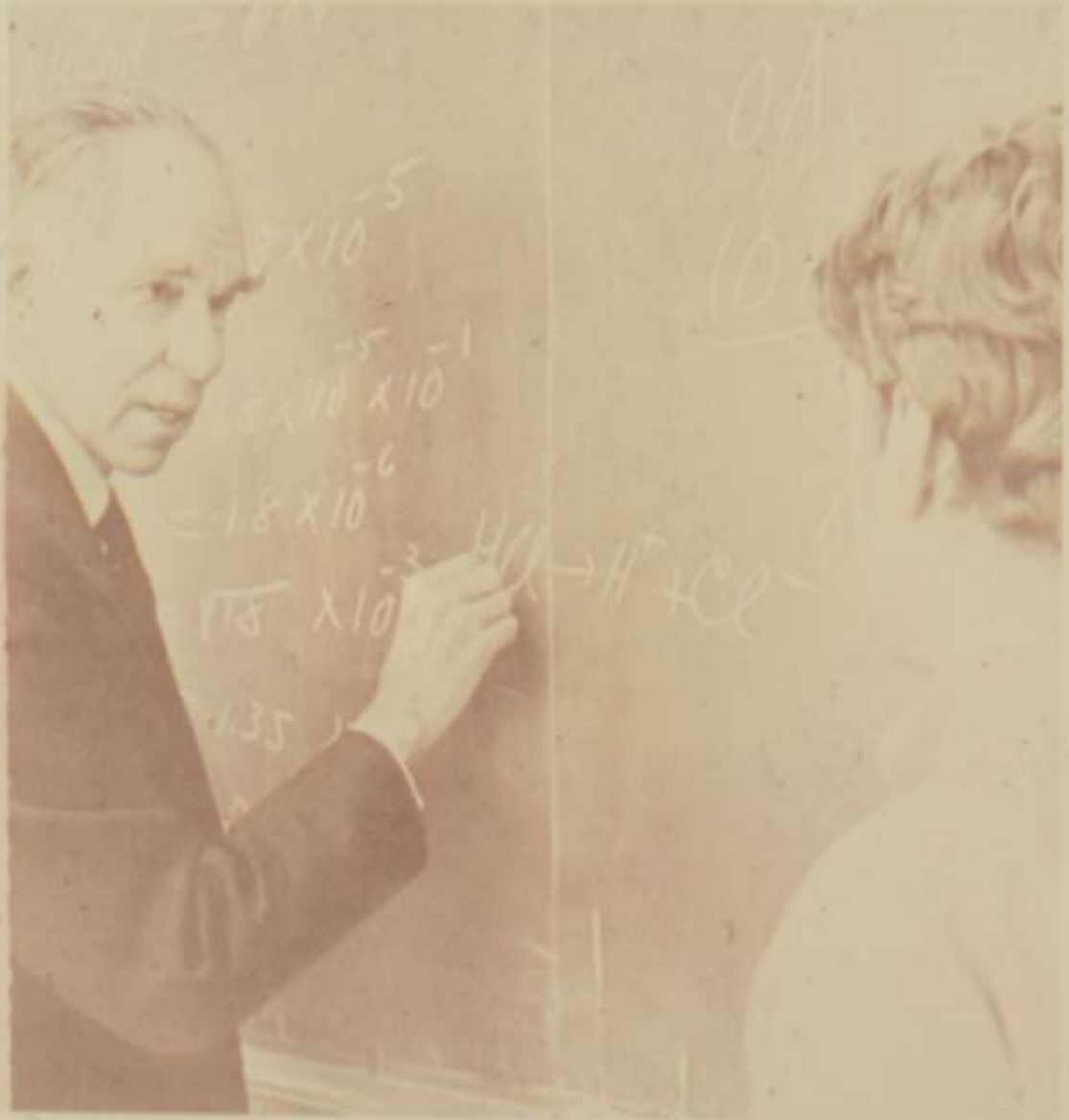
cyclotron in 1933. Joining him in the production of isotopes of many elements for research were his physician brother John (center) and Joseph Hamilton (right). John Lawrence also was





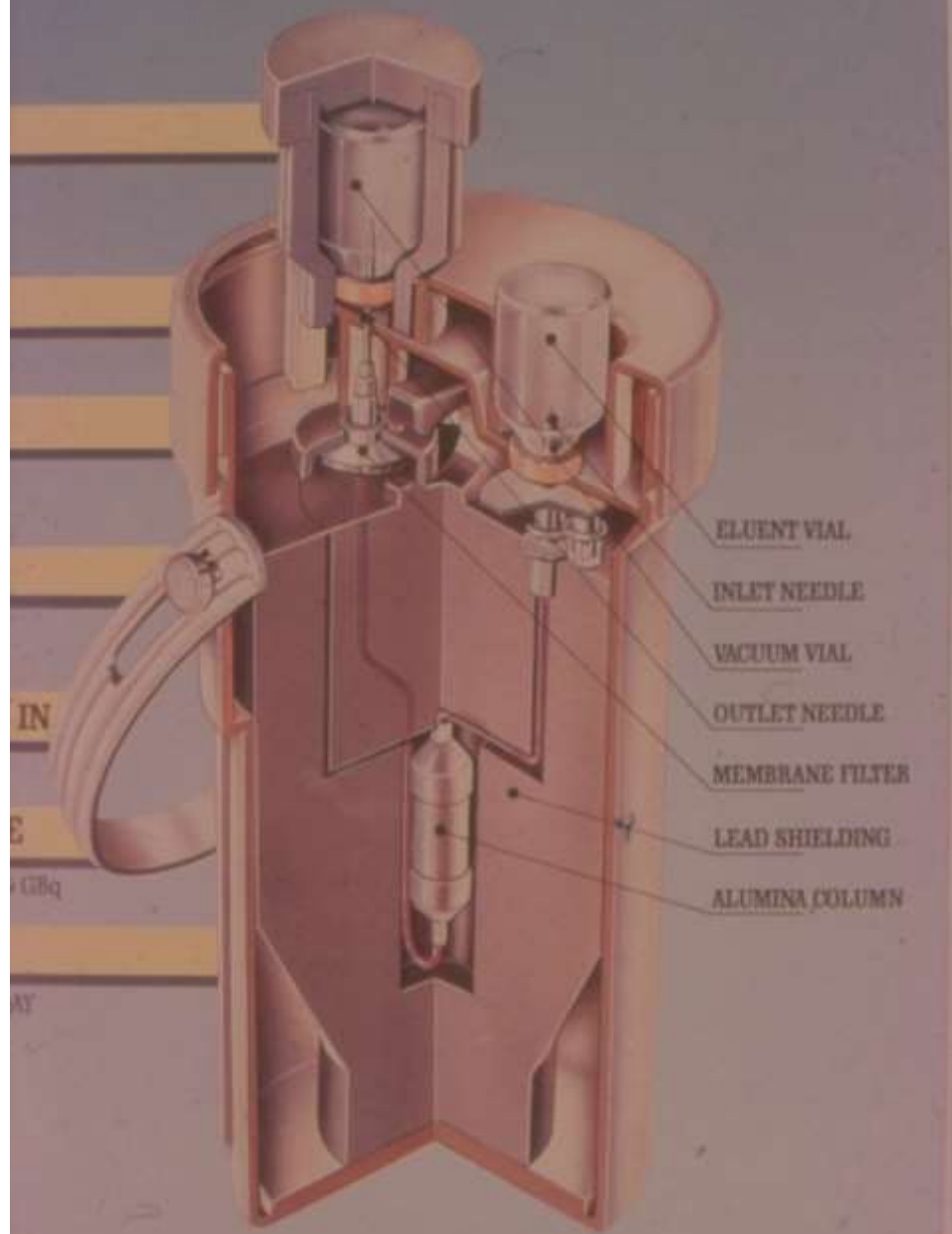
Enrico Fermi, who later presided over the development of the nuclear reactor in the U.S., and his associates in Italy produced the first radioactive isotope of iodine





Colleagues once again at the University of California in Berkeley are Glenn T. Seaborg (left, shown with freshman student about a year ago) and Emilio Segrè. In 1938 they were codiscoverers

of ^{99m}Tc , today's workhorse isotope for imaging. Seaborg, of course, was U.S. Atomic Energy Commission chairman many years, was codiscoverer of ^{134}I and ^{60}Co , also in





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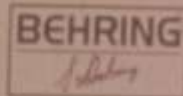
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Нуклеарната медицина се развива в тясна връзка с атомната физика, електрониката, радиохимията, имунологията и клиничните науки, така че, от една страна, тя ползва постиженията на научно – техническия прогрес, а от друга, намира терен за приложение при решаване на практически задачи. По тези причини нуклеарната медицина се оформя като научно – приложна наука, чиито теоритични и експериментални разработки се внедряват непосредствено в практиката.