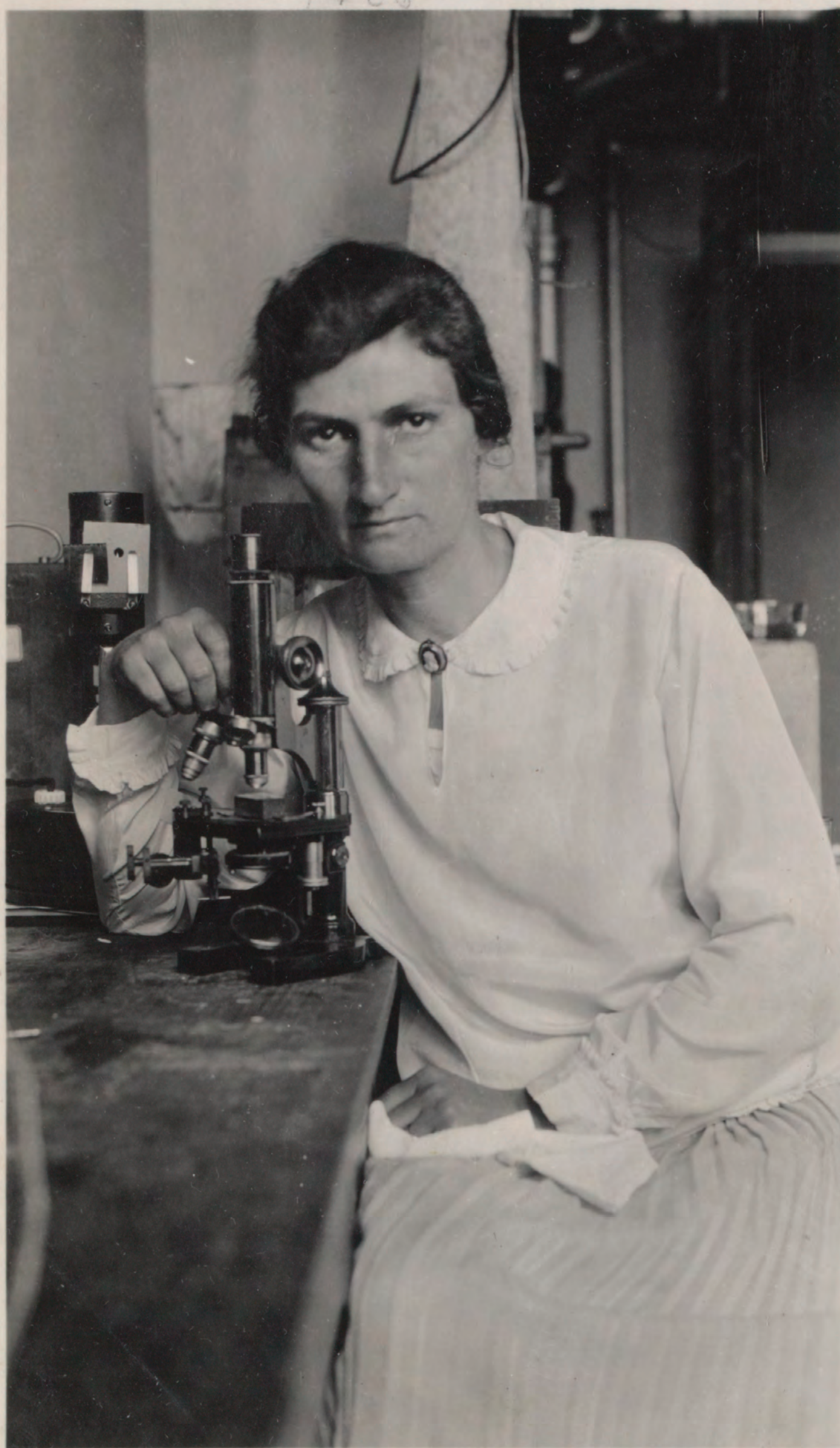


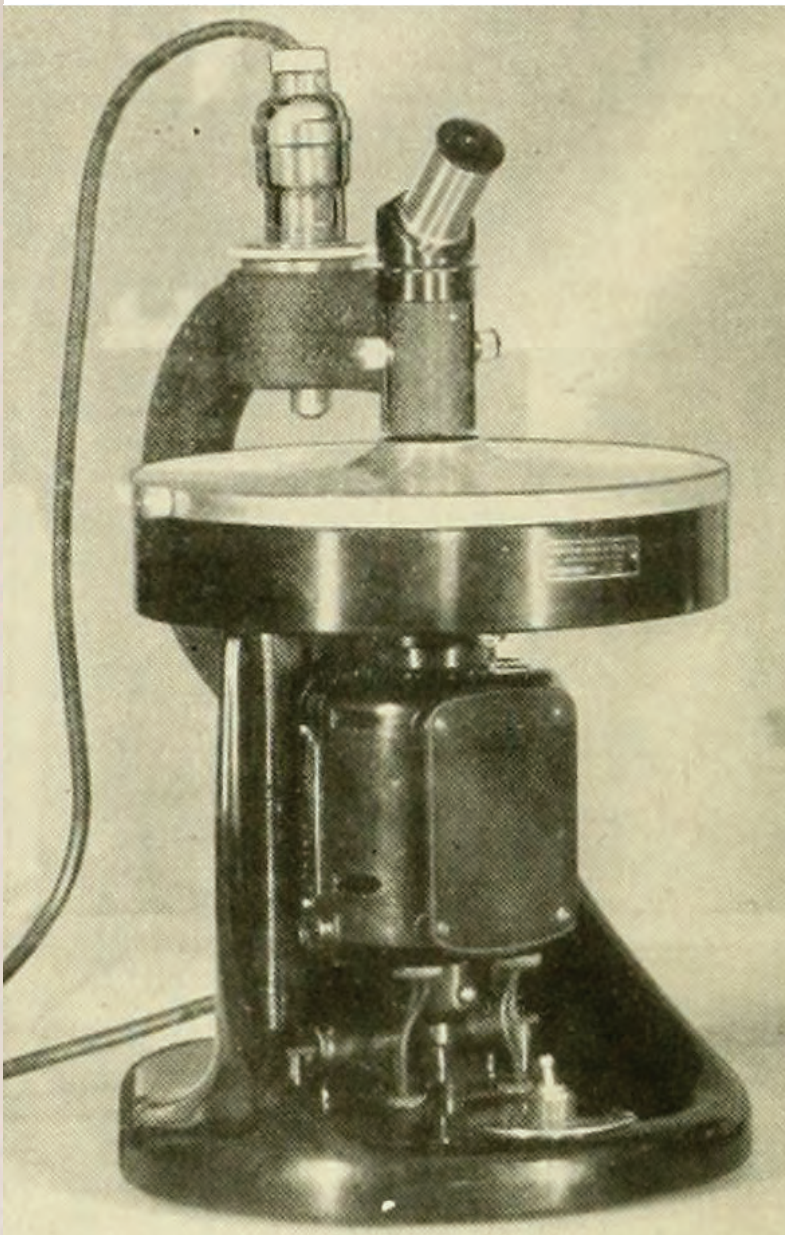
Ethel Browne Harvey

Ethel Browne came to the MBL in 1907 while a graduate student. She was completing her PhD at Columbia with Thomas Hunt Morgan and cytologist Edmund Beecher Wilson. In 1916 she married Edmund Harvey, another MBL scientist. For nearly sixty years, she spent almost every summer at the MBL studying germ cells, fertilization, and cleavage especially in sea urchins, using traditional microscopical equipment and methods.

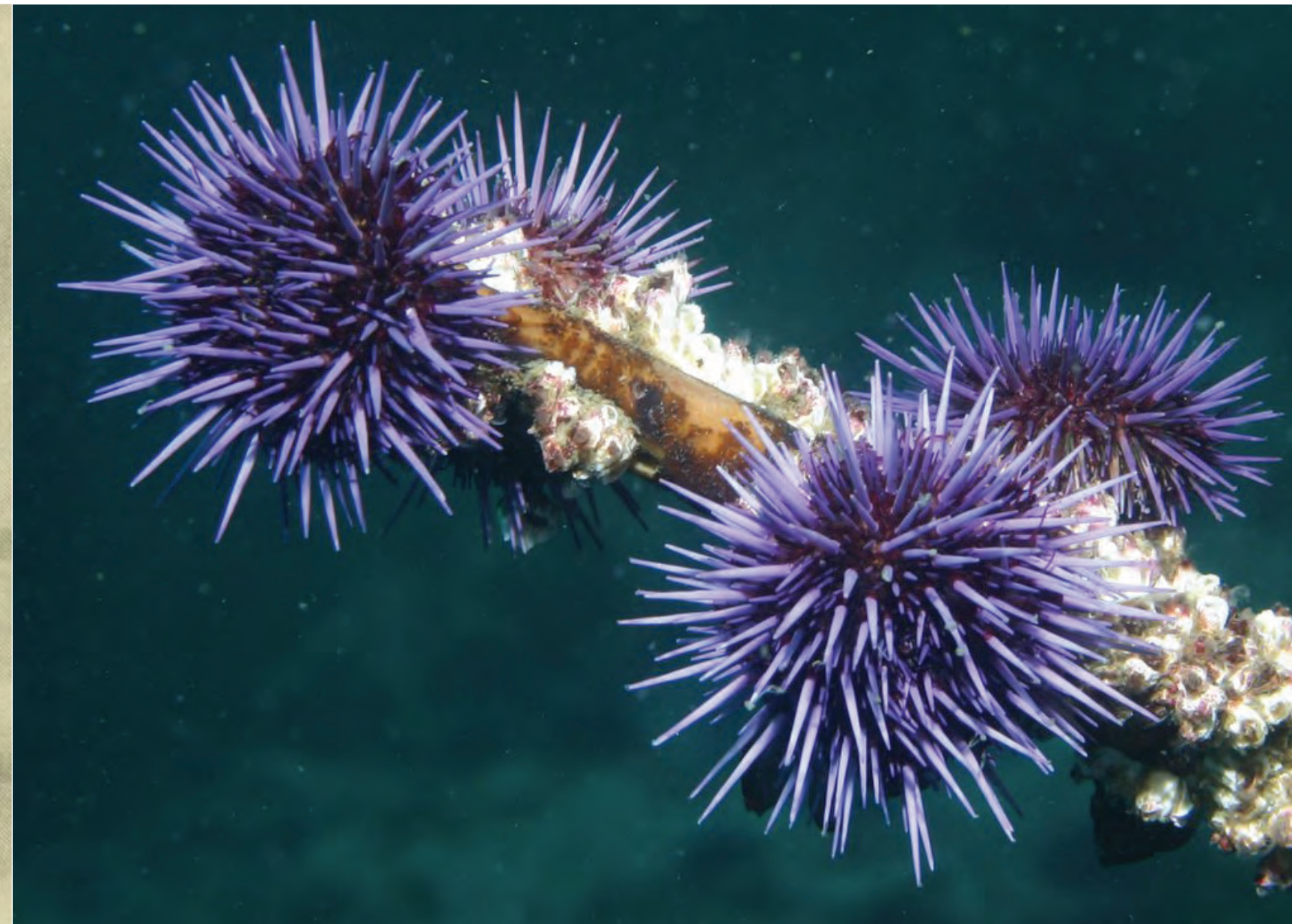
c. 1929



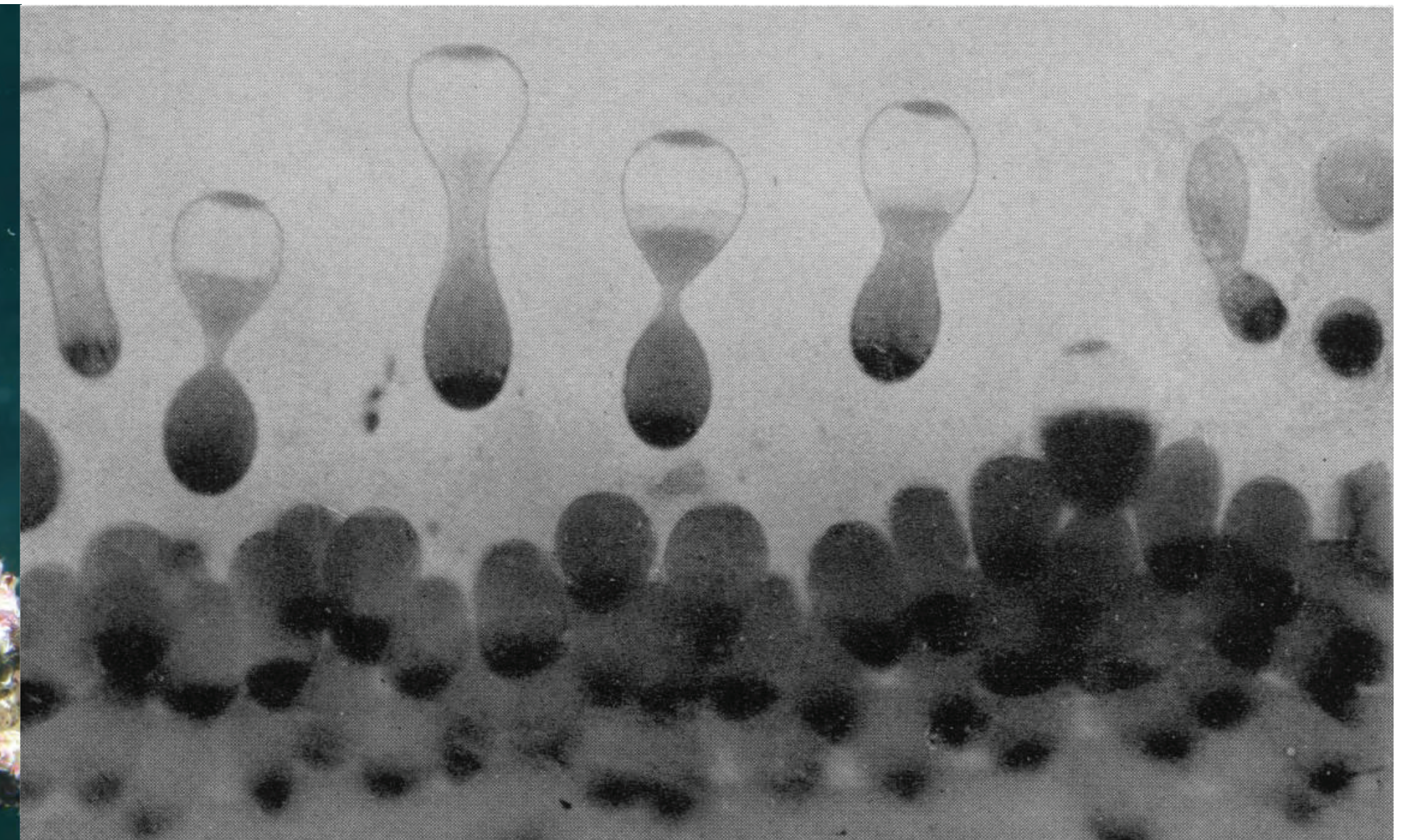
Optical centrifuge



Sea urchin



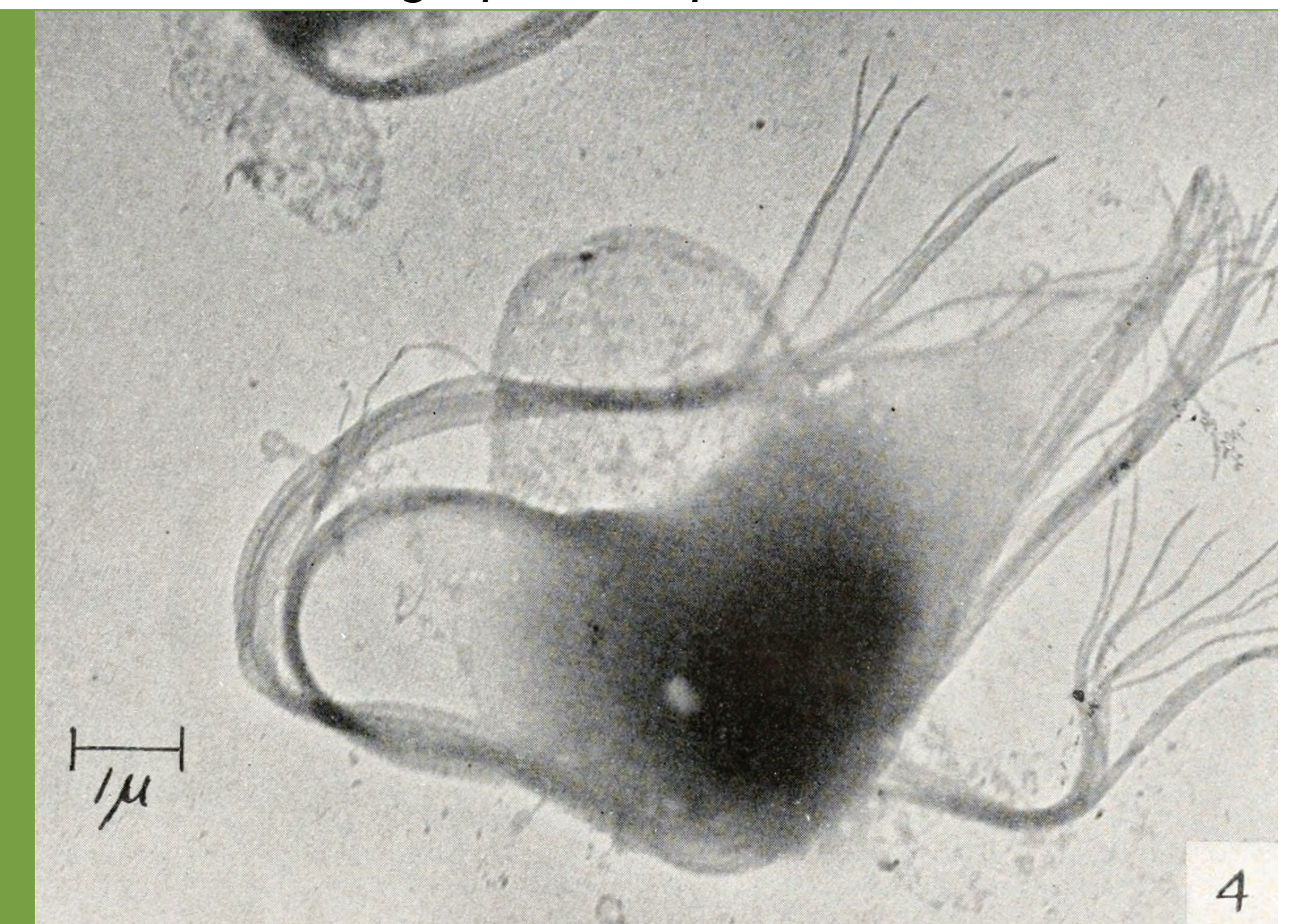
Separation of nuclei from the sea urchin egg in "optical centrifuge"; EB Harvey, 1936



In 1936 she tried out the new tool, the Harvey-Loomis "optical centrifuge" designed by her husband along with engineer Alfred Loomis. This allowed her to "spin" the nuclei out of sea urchin eggs. She then induced cleavage of the remaining yolk. The following year, many American press outlets sensationalized her "creation of life without parents."

In 1942, RCA Fellow Thomas F. Anderson brought a loaned RCA Type B electron microscope to the MBL, offering demonstrations. That summer, Harvey and Anderson carried out an electron microscopy study of the fertilization membrane in *Arbacia punctulata*, the Atlantic purple sea urchin. It was apparently another decade before electron microscopes returned to the MBL.

Electron micrograph of *A. punctulata* cell



Harvey & Anderson, 1943

Harvey was an accomplished scientist at a time when opportunities for women were limited. She valued the MBL as a place to explore her ideas with other biologists. In 1950, Harvey became the second woman elected to the MBL board of trustees.