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This we celebrate February as Black History with a short biography of the pioneering cell biologist, E.E. Just.

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By Prof. David Burgess

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phosphate mine, and used proceeds from the sale of the family home to purchase several hundred acres nearby to found the town of Maryville SC. She founded a school to teach

Just and other children as there were no schools in the area for African Americans. Just then moved on to an African American high school 60 miles away where he excelled. Guided by a church newsletter, Just's mother enrolled him into the Kimball Union Academy in New Hampshire to finish high school. Just enrolled as the only Black student at Dartmouth College where he graduated in 1907 *magna cum laude*. He was not allowed to speak at graduation because of his race.

Following graduation from Dartmouth, Just first taught in the English Department at Howard University, then moved to the Zoology Department. Just began his research career at the Marine Biological Laboratory in Woods Hole shortly after his Dartmouth Biology professor referred him to F.R. Lillie, a University of Chicago embryologist. While working on his PhD thesis during summers at the MBL he continued teaching at Howard. His thesis, published in 1915, focused on fertilization of marine eggs and his first paper was entitled: *The Relation of the First Cleavage Plane to the Entrance Point of the Sperm*. He published 6 of his over 70 papers during his doctoral research period. From 1909 to 1930 Just spent most of his summers at the MBL as a research assistant to Lillie and course attendee, although his wife refused to join him after a few

summers as they were not allowed to join the MBL club where all summer social activities were held.

In spite of his publication record and impact on the field and ability to garner foundation grants, Just was not able to obtain a position at an American research university. Just began his period of research in Europe in 1928, where he was widely accepted. His research continued to be focused on early embryos, the cell surface, changes of cell adhesiveness during cleavage divisions, and cellular aspects of development. He traveled to Europe nine different times while still working at Howard. He worked at numerous European institutes, including in Paris, at the Stazione Zoologica Anton Dohrn in Naples, Italy, the Station Biologique in Roscoff, France and at the Kaiser-Wilhelm Institut für Biologie in Berlin, Germany. He spoke at conferences throughout Europe, garnering accolades not afforded to him by scientists in America at the time. He had a series of affairs, including one with the daughter of the famous biologist Theodore Boveri, and with his future second wife, Dr. Hedwig Schnetzler, a white German biologist. Because of the interracial nature of their relationship he was forced to move to France from Germany. In 1940 he fled Paris due to the outbreak of World War II. After being briefly detained by the Nazis he had a harrowing escape from Europe through Portugal. He returned to Washington, DC to teach at Howard for half of the salary he made in Europe. He died in October, 1941 of pancreatic cancer.

Just's research legacy, summarized in his 1939 book *The Biology of the Cell Surface*, left an impact on the field of cell biology with its focus on the cell cortex and cell surface and its arguments for the role of the cytoplasm.

His legacy carries on today in several ways. The MBL has established the EE Just Fellowship program for visiting scientists. The American Society for Cell Biology established the annual EE Just Lectureship and Award in 1994. Dartmouth College funded the EE Just Professor in a position at an American 0 0 1 246 450 c 10 5 10BL