## John Charles Rock

Born on 24 March 1890 in Marlborough, Massachusetts, to Ann and Frank Rock, John Charles Rock was both a devout Catholic and one of the leading investigators involved in the development of the first oral contraceptive pill. In 1925 he married Anna Thorndike, with whom he later had five children. He spent over thirty years of his career as a clinical professor of obstetrics at Harvard Medical School, and in 1964 the Center for Population Studies of the Harvard School of Public Health established the John Rock Professorship. As a member of the Catholic Church, his faith played an intriguing role in his involvement with the development of the birth control pill, which challenged previous Catholic thought on contraception. Rock's unique position as a Catholic, a physician, and researcher of human reproduction sparked both interest and controversy within the Church as well as popular society more generally, with Life, Time, and Newsweek magazines all devoting feature articles to Rock.

In 1912, when he returned from a trip to South America after winning an essay contest, Rock applied to Harvard College. He graduated in 1915 after three years of undergraduate work and went on to receive a medical degree from Harvard Medical School in 1918 with the intention of pursuing a career in neurology, only to change his interest to reproduction soon after. Upon graduating from medical school, Rock held internships and residencies at the Boston Lying-In Hospital in obstetrics and at the Free Hospital for Women in gynecology. In 1922 Rock became an assistant in obstetrics at Harvard Medical School, and in 1923 he established the infertility clinic at the Massachusetts General Hospital. The following year, Rock started his own fertility clinic—the Fertility and Endocrine Clinic—at the Free Hospital for Women.

During his time at the Boston Lying-In Hospital, Rock encountered a number of women bearing unwanted children that they could neither afford financially nor handle physically. Rock observed numerous women who, after giving birth to multiple children, had prolapsed uteri, malfunctioning kidneys, and were prematurely aging. In an effort to gain the right to distribute contraceptive devices to his patients, Rock joined fifteen other physicians in signing the Doctor's Bill to Clarify the Law in 1931.

After a number of years working on human reproduction at the Free Hospital for Women, Rock conducted the first in vitro fertilization of a human ovum with Miriam Menkin in 1944. In 1949, just over a decade before the FDA approval of the first oral contraceptive, Rock coauthored a book entitled Voluntary Parenthood with David Loth that explained a number of contraceptive methods. In the early 1950s it was Rock's interest in infertility, not that of contraceptives, that led to his research on the effects of progesterone and estrogen on ovulation. Unbeknownst to him, however, Gregory Goodwin Pincus was working less than fifty miles away on developing a hormonal contraceptive based upon the same findings.

In 1951, after receiving money from Katharine McCormick directly because of the lack of enthusiasm about the research from the Planned Parenthood Federation of America, Pincus and his colleagues Min Chueh Chang and Anne Merrill began their study of the contraceptive effects of progesterone. Around this same time, Pope Pius XII announced that the rhythm method could be used as a natural form of contraception, whereas prior to this announcement, abstinence was the only accepted form of birth control among Catholics. Rock, who had already discovered the ovulationblocking effects of a regimen of progesterone and estrogen, joined the team in the mid-1950s. When Pincus chose Rock as his new potential research partner, Margaret Sanger first objected, claiming that a Catholic would not help to advance contraceptive research. She later changed her mind after watching him convince other Catholics of the benefits of birth control. During this time, Rock was focused mostly on progesterone-only studies. Although one of the main sources of the experimental progesterone was originally from plant hormones, specifically those of the wild Mexican yam, Pincus sought out chemical companies to find varieties of synthetic progesterone, and Rock eventually settled on Searle's SC-4642, with the trade name Enovid as the pill of choice. In 1954 Rock began a round of tests with these new compounds, called progestins, with the declared intention of improving their fertility rather than suppressing it. At the same time, however, the researchers sought to verify whether this compound did indeed halt ovulation. Their research had to be classified as fertility research rather than contraceptive research, since the latter violated Massachusetts state law. However, the establishment of the Rock Reproductive Study Center and Rock's retirement from Harvard in 1956 allowed for more research flexibility.

In 1958, after Enovid passed its first round of Food and Drug Administration approval, Pope Pius XII announced that women could use the pill if it was prescribed by a physician to treat reproductive disorders, but that its use as a contraceptive was morally unacceptable. That same year, Rock proclaimed at a medical meeting that the contraceptive pill should be just as acceptable for Catholics as a form of birth control as the rhythm method because it contained the same hormones found naturally in a woman's body. In 1963, in an effort to persuade the Catholic Church to accept the birth control pill, Rock wrote The Time Has Come: A Catholic Doctor's Proposals to End the Battle Over Birth Control. While Rock's involvement with the development of the birth control pill sparked controversy, his book was yet another bold attempt to persuade his opponents. Two decades later Rock died at the age of 94 on 4 December 1984 in Peterborough, New Hampshire, after decades of dedication to the advancement of knowledge on human reproduction and the development and promotion of contraceptives.

## Sources

- 1. Asbell, Bernard. The Pill. New York: Random House, 1995.
- 2. McLaughlin, Loretta. The Pill, John Rock, and the Church: A Biography of a Revolution. Boston: Little, Brown, and Company, 1982.
- 3. PBS. "The Pill. People and Events: Dr. John Rock (1890-1984)." American Experience. http://www.pbs.org/wgbh/amex/pill/peopleevents/p\_rock.html (Accessed September 28, 2007).
- 4. Rock, John. The Time Has Come: A Catholic Doctor's Proposals to End the Battle over Birth Control. London: Lowe and Brydone, 1963.
- 5. Ziporyn, Terra. "John Rock, Developer of Contraceptive Pill, Dies." Journal of the American Medical Association 253 (1985): 18.