

PROFILE

For 'Father' of Abortion Drug, Vindication at Last

Étienne-Émile Baulieu has campaigned tirelessly for approval of RU-486; now, the United States is about to join Europe and Asia in making the drug available

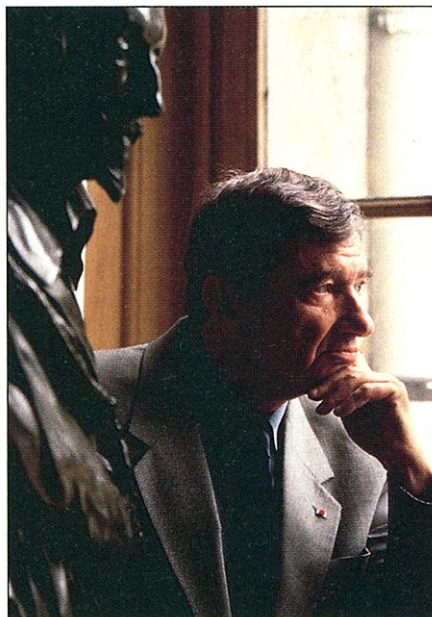
BICÊTRE, FRANCE—Étienne-Émile Baulieu's office at the Bicêtre Hospital outside Paris is cluttered with keepsakes from a career in sex-hormone research. On a shelf above a row of industrial-sized drums of synthetic steroids is a photo of Baulieu with Gregory Pincus, his mentor and the creator of the first oral contraceptive. And propped against a few books nearby is an unframed 1989 commendation from the San Francisco Board of Supervisors, which reads: "For his discovery of the contragestion pill, RU-486, and with the fond hope that it may very soon be available to women throughout the world and particularly in the United States and San Francisco." Those hopes have finally been realized. For Baulieu, the father of the "French abortion pill," last week's approval of RU-486 by the U.S. Food and Drug Administration (FDA) vindicates his long crusade to make the drug available to women worldwide. "Enfin!" he says: At last!

Since 1988, when RU-486 (mifepristone) first came on the market in France, it has been prescribed to hundreds of thousands of women in Europe and millions in Asia, particularly in China. It is now used in 22% of abortions in France, although overall abortion rates have declined in the last decade. Baulieu argues that the FDA's decision will bring benefits to American women, including "the right to privacy" in decisions about abortion. He also sees it as a boon to scientists. "This decision will open up research into other possible uses of RU-486 and similar drugs," Baulieu says, citing recent work showing that the drug might be useful in easing difficult births and effective against endometriosis and even some kinds of cancer.

Baulieu, still rugged and square-jawed at the age of 73, sprawls in his easy chair by a window overlooking the hospital's tree-lined grounds. Every few minutes his cell phone rings, bringing congratulations from well-wishers or details of an upcoming trip to the United States, where he looks forward to basking in the glow of victory. For more than a decade, Baulieu has campaigned—in books, articles, and interviews—for women to have the opportunity to use RU-486. Stanford University chemist Carl Djerassi, who synthesized the oral contraceptive, sees a similarity between Baulieu and Pincus: "[Baulieu] is

very charismatic and a fantastic champion and entrepreneur, in the best sense of the word." Baulieu always knew that the drug would become enmeshed in the politics of abortion, Djerassi says, and his unique contribution was his "bulldoggish perseverance."

The habit of crusading for what he thinks is just came early to Baulieu. As a teenager in Grenoble during World War II, he was active in the resistance against the Nazi occupation



"Bulldoggish perseverance." Étienne-Émile Baulieu, expert on sex hormones.

of France and eventually joined the French Communist Party, although he quit the party after the Soviet invasion of Hungary in 1956. After the war he went into medicine, but he soon veered toward basic research and in 1959 discovered a soluble form of the adrenal gland hormone DHEA. Pincus's work at Boston University on the oral estrogen contraceptive, Baulieu says, inspired him to pursue research on human reproduction. This work paid off in the late 1960s, when he isolated a key receptor for progesterone, a hormone that prepares the lining of the uterus for implantation of the developing embryo. The next step was to find a way to block it—RU-486 does just that.

Although Baulieu is often called the in-

ventor of RU-486, he is quick to credit his collaborators, especially the chemists at the French pharmaceutical company Roussel-Uclaf who synthesized the drug in the early 1980s. Baulieu developed the drug while working as a consultant to the company, but he says he hasn't received a single franc in royalties from the sale of RU-486, nor does he expect to. Asked if he regrets not having claimed a stake in the profits, he smiles wistfully and says, "I don't know what I would do if it were now." But he has received other forms of remuneration: RU-486 has made him one of France's most famous and respected scientists, and in 1989 he won the Albert Lasker Prize, often a forerunner to the Nobel Prize, for the discovery of RU-486.

Baulieu's praise for the scientists at Roussel-Uclaf does not extend to the company's higher echelons. He says he's still bitter because the company often knuckled under to protests by antiabortion groups. Indeed, the French government had to force Roussel-Uclaf to register RU-486 for use in France. And he criticizes Roussel-Uclaf's decision in 1988 not to try to market RU-486 in the United States. "That was such foolishness, and lack of courage, and even lack of commercial perspicacity," Baulieu says. In the end, Roussel-Uclaf gave away the rights to RU-486. Its former president, Edouard Sakiz, who encouraged Baulieu to develop the drug, now owns the patent in France, while the company donated the U.S. patent to the nonprofit Population Council in 1994. The next year a group of investors formed the New York-based Danco Group to market and distribute mifepristone and to find a manufacturer for the drug. "No major pharmaceutical company has wanted to touch RU-486," Baulieu says.

In recent years Baulieu has turned his attention back to DHEA. A series of studies in his own and other labs suggests that oral doses of DHEA—concentrations of which diminish sharply as we age—might counteract effects of aging, such as degradation of the bones and skin or loss of sexual function. These findings have led to DHEA's popularity in the United States as an over-the-counter health supplement. Concerned about this trend, Baulieu and several colleagues argued in a paper in the 11 April *Proceedings of the National Academy of Sciences* that only rigorous clinical trials can determine whether DHEA should be marketed as an antiaging drug.

Although Baulieu's direct involvement in RU-486 ended years ago, bitter opposition to the drug's use in the United States has made him a devil to antiabortion groups, while pro-choice advocates view him as something of an angel. "This drug," he says, "is both admired and despised at the same time."

—MICHAEL BALTER