

## Experts See Possible RU486 Link to Infection Deaths

BY Randall K. O'Bannon, Ph.D.

If you happen to read news dispatches that covered the “Emerging Clostridial Disease Workshop” conference in Atlanta, you’d think that there was widespread disagreement and scientific uncertainty about the role that RU486 played in the infection deaths of at least five North American women. However, if you were at the conference and followed the presentations of some of the nation’s top scientific experts, you’d get a much different story.

Jointly sponsored by the Food and Drug Administration (FDA), the Centers for Disease Control (CDC), and the National Institute of Allergy and Infectious Diseases, the conference was convened to address the sudden outbreak of disease and death associated with two strains of Clostridial bacteria. They are *C. difficile*, a nasty infection turning up at nursing homes and hospitals all over the country, and *C. sordellii*, which is known to have killed at least four RU486 patients in California and one Canadian in the last five years.

The May 11 meeting featured several of the government’s and private sector’s top scientific experts. NRLC attended and observed.

Most of the researchers on the morning panel focused on the latest science regarding the *C. difficile* outbreak. However, three panelists, Dr. Jamie McGregor of Los Angeles Women’s and Children’s Hospital, Ralph Miech of Brown University, and researcher Esther Sternberg from the National Institutes of Health, looked directly at *C. sordellii*.

Their highly technical presentations dealt with a range of factors—environmental, genetic, hormonal, and biochemical—that may be involved in the infections. However, all spoke about the role RU486 may have played.

Drawing on published animal studies, molecular pharmacologist Miech described how RU486 interfered with glucocorticoids produced by the adrenal cortex. This results in excessive secretion of ACTH and cortisol,<sup>1</sup> and failure in the production and secretion of anti-inflammatory cytokines.<sup>2</sup> Each disrupts the host’s primary defense mechanism against bacteria such as *C. sordellii*.

This leads to the production of a lethal toxin in a woman’s uterus by *C. sordellii*, which compromises the uterus’s innate immune system. Once *C. sordellii* begins to grow uncontrollably in the uterus, the lethal toxin gets into a woman’s circulatory system and septic shock and multiple organ failure ensues.

While Sternberg framed her presentation largely in terms of questions about the interaction between the immune system and various hormones, she mentioned a 1989 study of hers that showed a 100% mortality rate among arthritic rats injected with RU486. The mortality rate among the control group was 13%. Elsewhere in her published research, Sternberg has written about RU486’s ability to “enhance the severity or lethality of the infection.”<sup>3</sup>

Dr. McGregor reviewed documentation of RU486’s anti-glucocorticoid properties and its effects on the immune system. He said, quite bluntly, that the primary prevention strategies against *C. sordellii* infections “more likely to be effective” included the elimination of (or at least the reduction of) the use of RU486 and a recommendation that women have surgical, rather than chemical, abortions.

Some news was generated in the afternoon sessions when Clifford McDonald, an epidemiologist from the CDC, revealed that there had been a new death associated with use of RU486 in one of the western states and the death of another chemical abortion patient in the Midwest. McDonald said the latter did not involve RU486, but misoprostol, the companion drug ordinarily used in combination with RU486 to stimulate uterine contractions to expel the dead baby. Both women died of infections, but from a different variant of the Clostridium family, *Clostridium perfringens*, rather than *sordellii*.

If RU486 does suppress the immune system, infections from other pathogens would be expected—and evidence bears this out. Adverse Event Reports filed with the FDA showed that four additional women suffered life-threatening infections that involved extended ICU hospitalizations. Those reports showed at least 43 other patients experienced severe pelvic infections.

Dennis Stevens, a researcher in infectious diseases from the Veterans Affairs Medical Center in Boise, Idaho, shared results of a search of medical indexes from 1925 to the present. He found reports of 41 patients in the medical literature who had contracted *C. sordellii*.

Among these were nine cases of women who contracted *C. sordellii* following childbirth and another two who contracted the bacteria following miscarriages. This has led some who did not want to believe there was an association between the recent deaths and RU486 to suggest there is something else at work.

But these 11 cases took place over the course of some 80 years against the backdrop of hundreds of millions of safe pregnancies. By contrast, the five known North American *C. sordellii* infection deaths occurred in just five years among a population of women that, at most, may be just over half a million.<sup>4</sup>

After the presentations, Sandra Kweder, the FDA's deputy director of the Office of New Drugs, tried to argue that "I don't think there's a consensus" among medical experts regarding the view that RU486 may have enabled the infections that killed abortion pill patients (Associated Press, 5/11/06), though this seemed inconsistent with the views expressed from the platform.

The FDA may still be confused about the cause of these deaths, but those looking at the data and listening to the experts recognize what seems to be a clear pattern, with RU486, in the middle of it all.

### Notes

1. ACTH, or adrenocorticotrophic hormone, helps regulate the production of cortisol, sometimes known as the "stress hormone." In addition to helping the body process complex nutrients, regulate the circulatory system, produce blood cells, maintain the skeletal system, and keep the muscles, kidneys, brain, and nervous systems functioning normally, cortisol also helps to regulate the responses of the immune system. According to [ahealthyme.com](http://ahealthyme.com), the web site of BlueCross/BlueShield of Massachusetts, cortisol is considered to be "one of the few hormones absolutely necessary for life" (accessed 5/26/06).
2. Cytokines are proteins released by the cells that affect actions and interactions of cells. Cytokines include molecules which trigger inflammation and respond to infections. Inflammation is the body's way of trying to concentrate the body's forces against injuries or infections.
3. The scientifically minded are welcome to read Sternberg's article "Role of the hypothalamic-pituitary-adrenal axis, glucocorticoids and glucocorticoid receptors in toxic sequelae of exposure to bacterial and viral products," found on pages 207-21 of the May 2004 issue of the *Journal of Epidemiology*.
4. The distributor has said that 575,000 women have used RU486 for abortion, but it bases its usage figures on sales of the pill to clinics, not actual usage figures from the field.