



Q&A: Co-Inventor of 'The Pill' Talks Art, Science and Chemistry

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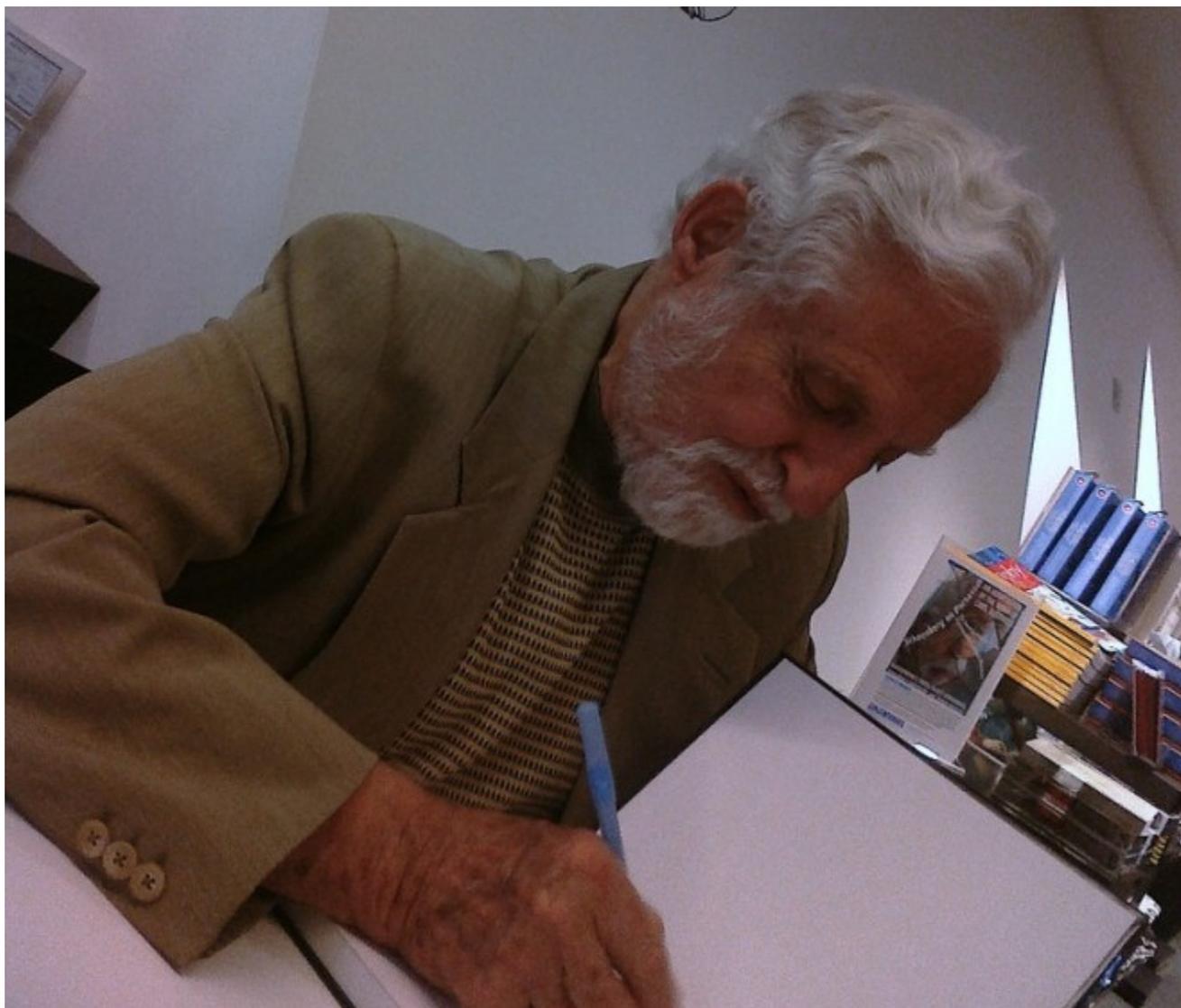


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By [Olivia Solon](#), [Wired UK](#)

"To be really frank, I want to push this play and not talk about The Pill." The play in question is *Insufficiency*, which has its stage debut on 20 September at Riverside Studios. Like it or not, you are more likely to have heard of the play's author Carl Djerassi for his contribution to the development of oral contraceptives and the resulting social revolution than for his work as a novelist, poet and playwright.

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In 1951, aged 27, Djerassi achieved the first chemical synthesis of a contraceptive steroid, norethindrone, that wasn't broken down by the digestive system and could therefore be taken orally.

Now 89, Djerassi is a novelist and playwright, a career he has been pursuing for more than 25 years. It's understandable that he is a little tired of being referred to as the "inventor" or "father" of The Pill. "That was 60 years ago and I've done a lot more since then," he told [Wired UK](#). "A lot more" refers to three more decades of research, with significant contributions to the application of physical measurements (such as optical dispersion and mass spectrometry) to organic chemistry. It also refers to five novels, a collection of short stories and numerous poems. Since 1997, Djerassi has focused on play-writing, honing a genre that he refers to as "science-in-fiction".

Insufficiency centres around a Polish chemist and bubbleologist Jerzy Krzyz, a new arrival at an American university chemistry department keen to secure tenure. Rivalry gets out of hand when he gives two colleagues trying to block his appointment some experimental champagne which turns out to be deadly. The whodunit examines the tribal behaviour of academics, xenophobia and fashion in science.

Wired UK caught up with Djerassi about the production, his struggle for acceptance among the literati, his reluctance to be considered the “father” of the contraceptive pill and the tensions between science and the arts.

Wired UK: Have you always had a creative outlet?

Carl Djerassi: I was an active scientist for half a century and moved to literature about 25 years ago. As a scientist I never did anything in the area of creative writing or never had any urge. However, I am an intellectual polygamist and have already been interested in music and theatre and art. I am not a cultural Neanderthal. But when it comes to writing I only started when I was 63 and a few years later decided to make this a new intellectual life.

Wired UK: You have developed a genre that you describe as science-in-fiction. Can you elaborate on what that is?

Djerassi: Science in fiction portrays the lives of real scientists. It's specifically differentiated from science fiction, which is a much more popular genre. When I first embarked on this career change, I had a didactic motive. If you can do it cleverly then that's what I do. I call myself an intellectual smuggler, where smuggling is a commendable activity not an illegal one. I am trying to do something about the enormous gulf between the scientific community and non-scientific one. I have to seduce readers or theatre-goers on my literary merits and not scientific ones. When they've sat through the whole thing they'll learn something whether they like it or not.

Wired UK: Why do you think there is such a gap between humanities and science?

Djerassi: The public or the media can do nothing for our reputation as a scientist. It's completely controlled, raised, demolished by our most important colleagues. If I'm an important organic chemist, it's only because 27 other organic chemists think so. The New York Times or the Times mean nothing and we get no brownie points for this.

Wired UK: What spurred you to trade academia for literature?

Djerassi: It's a bad motive, but it was revenge. I lived with [esteemed English professor] Diane Middlebrook for five years. It was my most important relationship emotionally. Then one day she told me she was in love with someone else. I had a typical male response — testosterone, cortisol steroids and adrenaline — and asked her how she could not love me any more? I'd never met the man. I don't even know his name, but he was a literati. And I said “I'll show her”. Suddenly there was an explosion of poems — 60 or so poems [recently released under the title *A Diary of Pique*]. Then I decided to write a novel about her, titled *Middles*. In that year I wrote a 300-page manuscript which I sent her. She was flabbergasted. An English professor who spent five years living with a chemist did not expect a novel. We got married a year later in 1985 and she made me promise that I didn't publish it. Two months later I was diagnosed with bowel cancer and I became very self-centred and depressed, thinking about death aged 63. That's when I decided to lead another intellectual life.

Wired UK: What keeps you writing plays?

Djerassi: It's an effective treatment for loneliness. I am an old widower. I am interested in younger people, not my contemporaries. I have a young brain and appearance. But an 89-year-old man isn't going to find many people who are thirty or forty years younger. With playwriting you have continuous conversations in your mind and that is extremely stimulating.

Wired UK: Many members of the scientific community are dismissive about the arts. As an organic chemist who has transitioned to the other side, how have you dealt with this?

Djerassi: I sit completely between two chairs. Important research scientists don't read books. They don't have that curiosity because they are completely and totally occupied in a very sophisticated way with their science. You have to read the scientific literature. If you don't keep up that's it. It's not that they are intellectual bores inherently, but they become that through being total workaholics. It's exciting but culturally limited. The vast majority of people think you are dabbling. “You can write a novel on the side,” they say. Some are jealous, some admire, but vast majority think I'm wasting my time.

On the other side, it's the other way round. The arts have an almost pathological fear of science and technology. You see very few plays that deal with science of technology in an interesting way. They worry that science and technology are taking on the world and now they are going to come and take over the theatre as well. They will not accept me as a real member of that tribe.

Wired UK: There are lots of doctors (eg Chekhov) who have become playwrights, but not very many chemists. Why is this?

Djerassi: Because they deal with human beings; chemists deal with molecules. We don't speak the same language; we communicate in pictography of chemical structures.

Wired UK: Where did the idea for *Insufficiency* come from?

Djerassi: I decided that if I want to bring science to the public, talking about science is not what to do. Science journalists do that much better. Much more interesting is the behaviour and culture of scientists — it's a very tribal culture. Rather than describing science, describing a tribal behaviour requires an insider. Insiders don't write about it because they are not really aware of their own behaviour. People accused me of washing dirty lab coat in public and that's exactly what I'm doing and it should be done.

Wired UK: What is *Insufficiency* about?

Djerassi: I'm talking about a couple of issues. The first is fashion in science. Some topics are fashionable and others aren't and so are deemed not important. The second is the brutal tenure track and the xenophobia that exists in Europe and the US. My main character is a young Polish immigrant scientist working in an American university. I can comment on the tribal culture because I don't say “you stupid jerks”, I say “we stupid jerks”. I did exactly the same thing and I am now honest enough to address it whereas most people don't address it.

Wired UK: The lead character Jerzy Krzyz is mocked for being a bubbleologist...

Djerassi: It's a reasonable term. It's not used very frequently, but it's the science of bubbles. If you hear it you don't take seriously but it's very complicated and involves quantum form and physics. I have no question that anyone who sees the play will never drink a glass of champagne without thinking about it. Why do the bubbles when you boil water start at the side? These are questions that people don't pay attention to.

Wired UK: How do you feel about being referred to as the “inventor” of the pill?

Djerassi: I don't like the word inventor or the father of the pill, because there has to be a mother. Any chemist is the mother of a medicinal invention, the biologist is the father and the clinician is the midwife. You can't produce a baby just being the father or the mother. The inventor of the pill is a meaningless term. I was responsible for the first synthesis of an oral contraceptive. [The biologist was Gregory Pincus and the clinician was John Rock]. I am the co-inventor.

If you look at the many reviews of my plays or books, there isn't one that doesn't mention something like “Carl Djerassi, involved in the pill, has now started to write” [sorry, Carl]. I wish when I decided to change professions I had done it under a nom de plum.

Wired UK: But surely you can appreciate why people are interested in it?

Djerassi: It is in terms of societal consequences by far the most important things that I've done, but scientifically I'm much better known as a chemist for elements that have nothing to do with the pill. I've published over 1,000 papers and only a very small proportion of them have anything to do with oral contraceptives. Even as a chemist I am sensitive to this point.

Wired UK: As a chemist what are you most proud of?

Djerassi: As an organic chemist I think I played an important role in bringing physical methods to the structural elucidation of organic compound such as optical dispersion, circular dichroism and mass spectrometry. These methodologies have changed the conduct of structural elucidation in organic chemistry.

Wired UK: How does criticism within science compare to literary criticism?

Djerassi: In science you have no professional critics. The evaluation process is peer review. They are doing the same thing you are doing and it's anonymous. If you have misbehaviour, it is generally based on competition. You are in a position to say nasty things that you wouldn't dare say to their face. It is addressed to their editor and often don't know who has written it.

In literature most people who write reviews are professional critics and I don't mean this pejoratively. There are very few playwrights who review plays. Some professional critics have very sharp tongues, but many do it to prove that nastiness is the equivalent to cleverness and it is not. The trouble is that I'm very vulnerable to this. I have maximum another ten years. It's not like a 29-year-old Irish playwright. I'm not going to live until I'm 120.

Insufficiency runs from 20 September to 20 October at Riverside Studios in London. For more information visit riversidestudios.co.uk

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