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Carl Djerassi:

The Poetic Father of the Pill

Science is the poetry of the intellect
and poetry the science of the heart's affections.
Lawrence Durrell (novelist, 1912-1990)

Carl Djerassi, born in Vienna in 1923, is a chemist, novelist, poet, playwright, and art patron. He is best known for the first synthesis of a steroid contraceptive. After receiving the National Medal of Science in 1973 and the first Wolf Prize in Chemistry in 1978, he was inducted into the National Inventors Hall of Fame that same year. A graduate of Kenyon College and the University of Wisconsin, he received 18 honorary doctorate degrees from various academic institutions around the world. He is currently a professor at Stanford University (Rajeshwar and Schalkwijk, 24). His accomplishments in the scientific field have given his name a lasting position in applied chemistrybut his involvement with the humanities has consolidated his reputation as a truly exceptional individual and academic.

One aspect of his work that differentiates him from other chemists is his willingness to engage intimately with his writing. While most scientists may feel as though their personal lives are not related to their work, Djerassi shows an almost surprising openness. In his autobiography, *The Pill, Pygmy Chimps, and Degas' Horse*, he discusses his daughter's suicide without feelings of regret: "The death in 1978 of my daughter, Pamela, a promising artist in various media, taught me that the ultimate form of art patronage largely separates evaluation of an artist's product from

that of her or his creativity, thus reducing, if not totally eliminating, the effects of subjectivity and unfamiliarity" (Djerassi 283). His writing is frank, sincere, and clearly the result of years of thoughtful reflection. And in what seems like a completely hopeless situation of losing a loved one, he finds hope in his ability to play a role in the arts.

Djerassi then became an important part of the artistic community. According to George B. Kauffman's *Chemistry and History,* he joined forces with his wife and fellow Stanford University faculty member, Diane Middlebrook, and "founded an artists' colony at his SMIP (Syntex Made It Possible) Ranch in the Santa Cruz Mountains. It provides a secluded environment where composers, visual artists, choreographers, and poets can work undisturbed. Administered by the Djerassi Foundation, its Resident Artists Program has supported more than 600 artists. Djerassi is also an avid art collector" (391). Djerassi owns a large portion of Paul Klee paintings. He provides a rare example of a chemist contributing directly to the world of artists.

Djerassi also contributes to the arts by participating in the creation of literature. One interesting example is in the way he conducts his graduate course on ethics in the practice of medicine at Stanford University. Rather than having students read theory and then directly discuss their own experiences in an attempt to tie them into the coursework, he asks his students to write a story based on their experiences, to be anonymously shared with their colleagues. In his article in the June 1998 issue of Nature Magazine, he explains that

> An effective medium for illuminating such topics is the rarely used literary genre of 'science-in-fiction' (not to be confused with science fiction), in which all aspects of scientific behaviour and scientific facts are described accurately and plausibly. By

> disguising them in the cloak of fiction, science-in-fiction allows the illustration and discussion of ethical dilemmas that are frequently not raised for reasons of discretion, embarrassment, or fear of retribution (511).

Thus, Djerassi finds a way to encourage openness similar to his own among fellow scientists by using fiction as a means to enable free sharing of ideas. This also shows his active engagement with topics related to social issues that arise from work in chemistry.

Many articles by Djerassi also concern moral questions that he encounters in his work. In *An Immaculate Misconception,* one of his four plays, two characters debate the potential problems linked to assisted reproductive technologies (ART). They specifically puzzle over possible implications of intracytoplasmic sperm injection (ICSI):

> FELIX: The Laidlaw Brave New World. Before you know it, the Pill will only be found in a Museum of 20th Century ART rather than a drugstore. And single women will use ICSI to become the Amazons of the 21st century.
>
> MELANIE: Forget about the Amazons! Instead, think of women who haven't found the right partner … or had been stuck with a lousy guy … or women who just want a child before it's too late … in other words … women like me (53).

ICSI is a relatively new technological advancement, developed in 1992, and still presents an array of unknowns in terms of societal consequences, as it removes sexual intercourse from childbirth, and allows for modifications to an unborn child to be made “under the microscope”

that would not have been imaginable a century ago. These are alarmingly pressing issues, as they affect the lives of children of upcoming generations from before their births; Djerassi accepts these complications and rationally parses through them, and further, creates art using these uncertainties as a basic foundation.

His play in two parts, *Oxygen*, is no doubt his most famous creative piece. Co-written with Roald Hoffmann of Cornell University, this play concerns the struggle of the Nobel Foundation when selecting the recipient of a "retro-Nobel" for the discovery of oxygen. The action jumps back and forth between 1777 and 2001, the 21st century serving as a mirror reflection of ambiguities of the 18th. Thus the play explores the moral consequences that emerge from the competition to be the first to make a discovery. The world premiere took place in San Diego, California in 2001 and has since been performed around the United States and abroad--in Germany, England, New Zealand, Korea, Japan, Canada, Italy, Bulgaria, Scotland, Portugal, Brazil, and Costa Rica. Translated into 16 languages, the play met numerous positive reviews. A critic of The Irish Times raved, "*Oxygen* is an important stage in the move towards a more inclusive form of education and plays testimony to the power of theatre to open up the possibility of an interdisciplinary way of viewing the world."

As a writer, however, he does not limit himself to work that involves scientists. In some of his other work, he abandons the lab as a setting and takes on characters who have nothing to do with the science world. For instance, *Marx, Deceased* (1996) tells the story of a novelist who stages his own death to see the public’s reaction. To explain this leap in literary categories, Djerassi writes in the foreword:

> A recurring motif in my fiction is the compulsive drive of research scientists for peer approval and hence for name recognition. Most writers also display a need for approbation by their peers and such preoccupation with their own image is not very different from a scientist's hunger for peer validation. In each instance, that urge is both the nourishment and the poison of a creative mind. But writers also lust for recognition beyond the community of their peers-for acclaim by the general public (which is of no concern to scientists) and by professional book reviewers and critics (a breed that does not exist in the intellectual world of the scientist).

Thus, even when he departs from a storyline that clearly involves science, he is always conscious of his background as a chemist. By finding commonalities that link together the work of a writer with that of a scientist, he creates strong grounds for the argument that the sciences do not have to be considered as something separate from the humanities.

In addition to his four plays, Djerassi is the author of fifteen books: eight non-fiction, four science-in-fiction, and three fiction: *Marx, Deceased*; *The Clock Runs Backwards*; and *Futurist and Other Stories*. Unlike *Marx, Deceased*, the two latter books are not full-length novels; *The Clock Runs Backwards* is a chapbook of poems and *Futurist* is a collection of short stories. Although they are not as widely read as his novel, they are still significant literary works. His poetry is perhaps the most personal of his writing, as he explores themes such as love, sex, loneliness, and family. In his title piece, the tone is quiet and reflective as he concludes: “Ah yes, the years of collecting: / Paintings, sculpture and women. / Especially women” (91). Djerassi’s phrases are plain but his ideas are complex, as he deals with nostalgia, regret, and an almost inexplicable sadness that comes with the passing of time. He is unabashedly introspective in his short stories as well-- author and philosopher Iris Murdoch praised his prose as “brilliant elegant

stories, speaking with wit and word-play, exploring human nature, the nature of literature, and the nature of thought. Cleverness at its humane best."

As Djerassi continues to teach at Stanford University, he is raising more scientists to consider thinking of the arts and sciences the way he does. Similarly, through his writing and work with artists, he is bringing his understanding and passion for science to a broader audience. He is an important figure not only in the two academic areas, but in the gap in between, where he serves as a bridge.