Medicine by Giuliana Sammartino

Experiments on animals are needed

Researcher Claudio Galli refutes the animal rights kooks pushing for an anti-science law in Italy.

In Italy, as elsewhere, there is a boom in so-called medical-scientific journalism. Newsstands are drowning in magazines, papers, pocket books, and bulletins dedicated to the themes of men's bodies, women's bodies, health, and diseases, while even the tiniest television channels feature "medical" programs.

The legitimate interest of people in these subjects is often manipulated, commercialized, and turned into yet another fad. Paradoxically, with the whipped-up demand for facts on medical science, there has been a disproportionate growth of pseudo-scientific, para-scientific, and often anti-scientific information.

Almost all of the mass-media information on health and medicine sends a message which has nothing to do with science, but is the message of the freemasonic "greenie" movement which says, everything that comes from nature is "good" and everything that comes from man is "bad." Today in Italy, after the referendums against "bad" pesticides, a campaign is being launched against pharmacology.

The attacks are no longer merely, as in the past, on the big drug companies. What is on trial now, behind the usual smokescreens, is *real* medicine, the discipline which intervenes with diagnoses and therapies on the pathologies of the human body, and its already much-weakened backbone: research laboratories. The animal-rights fanatics—those within the new paganism of the ecologist movement who worry about defending the rights and feelings of animals—have stepped up their war against experimentation with drugs on animals.

It would not be so serious if a substantial gaggle of Italian parliamentarians of all parties, including the Christian Democracy and the ultra-right MSI, had not welcomed these concerns of the animal-rights nuts and sponsored four bills, each one dangerous and incompetent, to eliminate drug experiments on animals. Sometimes the legislators who embrace Green causes are more dangerous than the Greens themselves.

To get at the facts, we asked Prof. Claudio Galli, a researcher at the Institute of Pharmacological Sciences of the Faculty of Pharmacy at the University of Milan, the following question: "The thesis of those who oppose experimentation on laboratory animals, says that we cannot transfer to human beings the data obtained on the animal model because the latter would not be subject to the influence of the same natural, physical, and social environment as man. The data obtained in the laboratory, they claim, are therefore useless. Is this theory scientifically founded?"

Dr. Galli replied that "The entire history of progress in the field of biological and medical sciences is based on research conducted on experimental animals. From studies on simple organisms to those on more complex organisms, key information has been obtained regarding the following disciplines: biology (regarding the cellular organization of living organisms), physiology (which regards the chemical composition and the functional transformation of organisms with particular emphasis on interactions between the various organs and systems, pathology which studies the responsible mechanisms of functional and organic alterations—illnesses), therapy, which studies the possibility of intervention (pharmacological, nutritional, and surgical) in pathological situations, and finally, toxicology, which investigates the effects consequent to exposure to xenobiotics and drugs.

"The mass of data obtained in laboratory animals, which has often permitted advances in such disciplines, surpasses any possibility of exhaustive analysis and treatment even in a synthetic form.

"Moreover," Dr. Galli stressed, "we must always keep in mind two fundamental points: Our knowledge of the indicated disciplines is still in an initial phase insofar as their development on a scientific basis only goes back a few decades. There remains, therefore, an enormous number of problems to be faced and data to be gathered, before we can reach a solidly-based vision of the causal relations of biological processes. New endogenous molecules are constantly being discovered, new processes of regulation; and moreover, with the use of innovative techniques, such as, for example, those of molecular biology, many new processes are being discovered through studies in which animals are indispensable.

"We are nonetheless developing alternative techniques, albeit they are not substitutes, to the use of animals, such as the use of *in vitro* systems (such as culture cells). Such systems are, however, very limited. We are also seeking to optimize the conditions of use of animals, in such a way as to reduce the number required in experiments, and improving, also, the quality of the information," Dr. Galli added.