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Immune-Deficient Animals
4th International Workshop on Immune-Deficient Animals in Experimental Research (formerly Nude Mice Workshop), Chexbres, October 31–November 3, 1982

Immune-Deficient Animals
Editor
B. Sordat, Epalinges s/Lausanne, Switzerland
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Preface
The 4th International Workshop on Immune-Deficient Animals in Experimental Research was held from October 31 to November 3, 1982, at the ‘Hotel du Signal’ in Chexbres near Lausanne, Switzerland. The workshop was the 4th of a series formerly named ‘Nude Mice Workshops’ and previously held in Scanticon, Denmark (1973), in Tokyo, Japan (1976), and in Bozeman, Mont., USA (1979). Organized under the auspices of the International Council for Laboratory Animal Science (ICLAS), these workshops were designed to bring together scientists using or seeking to use immune-deficient laboratory animals in various areas of biological and medical research. In preparing the 4th workshop, the name and original theme were extended in order to initiate a more general discussion of immune-deficient animal models, keeping in mind that in the past decade the nude mouse has remained the most widely used mouse mutant. Although the present attempt of widening the experimental approach may have met with limited success, overshadowing by the nude mouse did not prevent the 126 scientists, gathered for 3 days in the late autumn on ‘a balcony over the lake where water and mountains can meet’, to identify novel avenues or suggest specific ways of overcoming some of the old limitations. As emphasized by the discussions, an immunologically blank experimental animal may not exist but some of the answers may well lie in both the manipulations of the geneticists and the careful analysis of the physiology of the graft and host interactions. Since 1969, when Rygaard and Povlsen demonstrated that a human colonic adenocarcinoma could grow progressively in the nude mouse, the contribution of immune-deficient animals to cancer research has not ceased to increase, sometimes providing unique information on the biological behavior and responses to therapy of tumors, in particular those of human origin.

Immune-deficient animals will undoubtedly continue to exert a profound effect on our understanding of defined aspects in genetics, developmental biology, immunology and cancer research. In publishing the Proceedings of the 4th Workshop, the editor hopes that this updated contribution to the field will reach a broad attentive scientific community.

Bernard Sordat
Opening Remarks
I would like to make a few remarks as representative of ICLAS, the International Council for Laboratory Animal Science. Ten years ago, Drs. Povlsen, Jacobsen and Rygaard presented a paper entitled ‘The mouse mutant nude as a model for testing of anticancer agents’ at the 5th ICLAS Symposium held in Hanover in the autumn of 1972. This was the first report of an attempt to use nude mice in the screening of agents against human cancer. At the same time, it was a valuable report in that it revealed the importance of the nude mouse as an immune-deficient animal into which human tumors could be transplanted.

At the ICLAS Governing Board Meeting held after that Symposium, Prof. Mühlbock and I emphasized the potential use of the nude mouse and proposed that an international workshop, based on the original plans of Dr. Rygaard and held under the auspices of ICLAS, would serve as a forum for reports on nude mouse research.

As you know, one of ICLAS’ aims is to promote research on experimental animals. Therefore, promotion of research on experimental animals like the nude mouse, which promised to become an excellent animal model, was in keeping with ICLAS’ aims. The members of the ICLAS Governing Board unanimously adopted Prof. Mühlbock’s proposal and the 1st International Workshop on Nude Mice was held under the auspices of ICLAS in Scanticon, Aarhus, Denmark, in the autumn of 1973.
The aim of this 1st Workshop was to understand the current status of research on the nude mouse itself and on its use in the fields of immunology and oncology, and at the same time, to outline future prospects. In the 2nd and 3rd Workshops, which were held in Tokyo, Japan, in 1973 and Bozeman, Mont., USA, in 1976, respectively, the aim was to investigate the potentialities and limitations of the nude mouse. Today, we are starting the 4th Workshop, ‘Immune-Deficient Animals in Experimental Research’, organized by Dr. Sordat here in Chexbres, Switzerland. As these workshops increase in number, our knowledge becomes more complete, which indicates that studies on the nude mouse itself and research with the nude mouse as a tool in biomedical research are expanding remarkably and becoming more profound. There has been no other animal in the history of laboratory animal science that has been used for so many purposes by so many scientists and that has contributed so much to biomedical research. Therefore, the nude mouse can be called a revolutionary laboratory animal.

ICLAS is satisfied with the results of the last three workshops and is pleased that the use of the nude mouse in biomedical research has expanded so much, replacing less incisive studies. It is expected that this 4th Workshop will also produce excellent results.

I would like to take this opportunity to mention one point. Human beings are still threatened by many intractable diseases whose causes are unknown and there is no adequate treatment. It is necessary to develop more new animal models to study such diseases. It is hoped that the remarkable development of the nude mouse will serve as a major incentive for research on the development of new animal models. I hope that this workshop will prove to be a successful and fruitful meeting.

Tatsuji Nomura, MD
National Member, International Council for Laboratory Animal Science (ICLAS)
4th International Workshop on Immune-Deficient Animals in Experimental Research (formerly Nude Mice Workshop)
Chexbres, October 31-November 3, 1982
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