

Initiative for the initiation of a Study Group on Animal Models for Rheumatic Diseases (SGAM) under the flag of Euler Standing Committee of Investigative Research (ESCIR).

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The SGAM aims to build an international network of excellence by fostering scientific collaborations and to exchange knowledge about animal models for rheumatic diseases within Europe. The Study Group will provide a platform to discuss the relevance of different existing animal models of disease to evaluate modes of action of therapeutic targets and to investigate molecular and cellular mechanisms involved in specific stages of the disease progression, the development of new animal models, and the upcoming field of studying genetics in animal models, but will not be limited to these areas.

The SGAM aims to provide a framework of European scientific and technological excellence in the field of animal models of rheumatic diseases, to advance understanding of the genetic basis of disease and to enhance translation and to stimulate innovation in the development and use of these animal models. Through SGAM it is expected to bring Europe a competitive advantage in the development of new bio- and genetic markers, and new therapeutic compounds.

To achieve this goal, SGAM is aiming to bring together expertises from all leading research institutes in animal research within Europe. Until now institutes from at least 5 EU member states and Swiss have confirmed to participate in this initiative. The SGAM will be open for all institutes and after announcement on the EULAR website it is anticipated that the membership will expand. The first meeting is scheduled during the EULAR 2009 in Copenhagen, in connection with the ESCIR and other Study Group meetings. The second annual meeting will be connected to the EWRR.

Specific aims of the study group (in development):

- ✓ To develop more accurate animal models for arthritis and other immune-mediated pathologies. Although current animal models have been proven useful for the validation of many therapeutic compounds and have unravelled the pathogenic back ground of arthritic diseases to certain extend, they do not provide information as to the specific cells, and inter-or intra-cellular signals that are involved in the development of the phenotype. New animal models with specific genetic backgrounds might be better to define the molecular and cellular mechanisms involved in disease induction and progression in vivo, and, therefore, provide more accurate models of disease. These advanced animal models will be extremely useful as accurate screening targets for the identification and validation of novel drugs. Some groups already initiated research in these areas, but to make really use of all this models it is very important to spread the knowledge to other institutes within the areas of experimental rheumatology research.

- ✓ Exchange knowledge on different technical platforms, including imaging, gene targeting, genetic- and proteomic tools to evaluate processes in disease development.
- ✓ In several laboratories unique congenic and subcongenic strains, and knock-out and transgenic animals, are developed and can be of relevance for other groups. SGAM wants to support exchange of knowledge and animals of interest between the different research groups.
- ✓ Educate young researchers and medical students in the field on the use and relevance of animal models of arthritis.
- ✓ Activate new collaborations within Europe. Because of existing discrepancies between ethical regulations on animal experimentation of different EU countries, all groups do not establish and/or are not allowed to run the same models in their facilities, collaborations can be extremely useful to elucidate answers to different research questions that could not be addressed without outside collaboration.
- ✓ To set standards for the evaluation of disease progression in established, widely used animal models (clinical score, grip strength etc.).
- ✓ To bring awareness on ethical issues link to the animal experimentations.