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Preface

The sixty year anniversary of the Institute for Experimental Pathology, University of Iceland at Keldur

In the autumn of 2008 the Institute for Experimental Pathology, University of Iceland at Keldur celebrated its sixty year anniversary. The Rockefeller Foundation in the USA was the original financial supporter of the institute, together with a grant from the Icelandic national budget. From the beginning the Institute has been an important university adjunct focusing on academic veterinary and biomedical research. The major scientific activities have concerned animal diseases, focusing on applied veterinary research and diagnostic services.

The Institute has filled a unique position due to the expertise of the staff and the special status of animal diseases in Iceland. Due to the geographical isolation the country is home to well-defined animal breeds that have different sensitivities to several infectious diseases than do other related breeds. In Iceland, fortunately, our animals harbour few infectious agents, and we plan to keep it that way through legal restrictions and control of all relevant imports. Still, there have been some accidents linked to imports which have resulted in serious problems. The down-side has been the difficulty in raising domestic animals but at the same time the problems have also created an excellent research opportunity for scientists. Due to the relatively small size of the country, the well-defined health system, control of production and detailed documentation, the Institute has been able to take advantage of the unique research possibilities provided.

From the start research projects covered diseases of farm animals, specifically because *maedi*, *visna* and *paratuberculosis* had been imported in 1933 in the Karakul sheep, which created extensive problems for Icelandic farming. Research on virology has been performed from the beginning and this resulted in the first description of a lentivirus, the MVV, a pioneering work by Dr. Björn Sigurdsson, the first director of the Institute, and his collaborators. His scientific career was brief, cut short by an early death at age forty-six. Nevertheless, his contribution to biomedicine, especially the pathogenesis of viral infections, was significant. He introduced the concept of slow viral infections, now referred to as the legacy of Dr. Björn Sigurdsson. Today the work at the Institute is still focused on MVV and other viruses, as well as on prions, bacteria and parasites. These infectious agents are studied in several disciplines, including prionology, virology, bacteriology, parasitology, immunology, pathology, and molecular biology. Many research programmes are carried out with the collaboration of other specialists both in Iceland and abroad, working at leading institutions and universities. The results are published in international peer-reviewed journals and are also applied at the national level to agriculture and fish farming. At the Institute the research developments are also turned to advantage, mainly for the diagnosis of disease.

In the first few decades the major research carried out at the Institute focused on diseases in

sheep, and these emphases remain ongoing projects. Research was then broadened to include projects with other mammals, birds and fish, both farmed and wild. For the last three decades there have been remarkable developments at the Institute in research on fish diseases and fish immunology and there are ongoing experiments of both national and international interest. It was therefore decided to organize the International Conference on Fish Diseases and Fish Immunology in Reykjavik, Iceland, which took place on 6 – 9 September 2008. The conference was arranged in celebration of the 60th anniversary of the host institute. Many of the Institute's projects in the field were presented at the conference as talks and posters. Understanding of infectious fish diseases and the causative agents, like viruses, bacteria and parasites, has been growing rapidly lately among the international scientific community. At the same time there has been a parallel increase in knowledge of host-pathogen interactions, including fish immunology and genome analysis of the pathogens and of several fish species. Healthy fish in a clean environment are fundamental for successful fisheries and fish farming industries.

The conference drew excellent international attendance by eminent scientists and researchers. The participants came from all six continents, Africa, Asia, Australia, Europe and North and South America, and from 26 countries. Altogether there were 143 participants. Young scientists were sponsored by FEMS to attend the conference and give their presentations. The dynamic spirit of Iceland provided a milieu conducive to stimulating scientific exchange amongst scientists from all over the world. At the meeting, stronger research ties were fostered between the scientists of different regions. This event provided an excellent platform for discussions on the recent developments in the field. Dr. Laura L Brown introduced the conference with a plenary lecture on molecular interaction between fish pathogens and host aquatic animals. The eight keynote lectures were given by Ø Bergh, SM Bergmann, DG Elliott, L Gram, AK Imsland, RA Khan, B Magnadottir and DL Milton. In addition, there were 41 oral presentations and 44 posters selected from the submitted abstracts. Authors of three presentations at the conference have a publication in this issue of IAS, two papers on parasitology by A Kristmundsson and SH Richter and RA Khan, respectively, and one on virology by TK Herath et al. Further information on the conference and the book of abstracts can be accessed on the Institute's homepage: www.keldur.hi.is.

I want to congratulate and thank all of those who are presently working or have been working at the Institute in the past. These are the people who have made lasting contributions over the previous 60 years, resulting in the development of the Institute into a modern international laboratory in biomedicine and veterinary science, based on a strong tradition of research excellence. Finally, I wish the Institute for Experimental Pathology, University of Iceland at Keldur, continued success in the coming years.

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