

6th International Symposium on Fish Endocrinology is honored to recognize the Life-time Achievement of DR ALEXANDER P. SCOTT

Major Area of Scientific Contribution

Discovered that two hormones: ACTH (pars distalis) and α -MSH (pars intermedia) were the product of one protein

Set up an RIA for 17,20 β -dihydroxypregn-4-en-3-one (17,20 β -P), the maturation-inducing steroid in fish

Discovered 17,20 β -P-sulfate in fish (which was subsequently found to be a pheromone in goldfish)

Established presence of a potent milt priming pheromone in trout urine

Pioneered the field of measuring steroids in fish holding water

Developed a procedure for measuring cortisol in effluent water from fish tanks as a non-invasive marker of stress

Identified (with Dr Weiming Li) the male sex pheromone of the sea lamprey (Figure 1)

Developed and applied ELISAs for several fish vitellogenins, some of which have been successfully used to identify....

.... heavy oestrogenic contamination in UK estuaries (flounder)

.... oestrogenic contamination in the open sea (Atlantic cod)(Figure 2)

Pioneered (with Dr Ioanna Katsiadaki) a biomarker for environmental androgens using an immunoassay for spiggin (a glue protein made by the kidney of the stickleback).

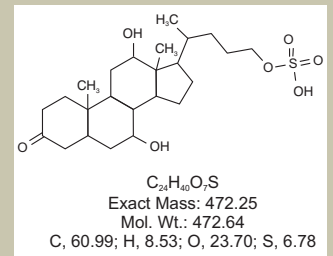


Figure 1

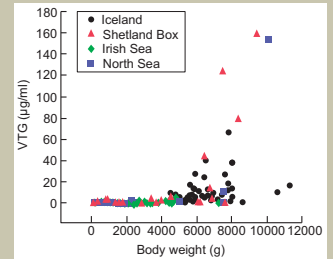


Figure 2

Examples of Recognition by Peers & Service to the Scientific Community

Holder of Individual Merit Promotion for research under a UK-wide scheme

DSc from St Andrews University

Awarded an Adjunct Professorship at the Fisheries and Wildlife Department of Michigan State University

Emeritus Fellow of the Centre for Environment, Fisheries and Aquaculture Science

Examples of Major Significant Publications

- Scott, A. P. and Canario, A. V. M. (1992). 17 α ,20 β Dihydroxy-4-pregnen-3-one 20-sulphate: a major new metabolite of the teleost oocyte maturation-inducing steroid. *General and Comparative Endocrinology* 85: 91-100.
- Katsiadaki, I., Scott, A. P., Hurst, M. R., Matthiessen, P. and Mayer, I. 2002. Detection of environmental androgens: a novel method based on enzyme-linked immunosorbent assay of spiggin, the stickleback (*Gasterosteus aculeatus*) glue protein. *Environmental Toxicology and Chemistry* 21, 1946-1954.
- Li, W., Scott, A. P., Siefkes, M. J., Yan, H., Liu, Q., Yun, S. & Gage, D. 2002. A novel bile acid functions as a sex pheromone in the sea lamprey. *Science* 296, 138-141.
- Scott, A. P., Katsiadaki, I., Witthames, P. R., Hylland, K., Davies, I. M., McIntosh, A. D. and Thain, J. 2006. Vitellogenin in the blood plasma of male cod (*Gadus morhua*): a sign of oestrogenic endocrine disruption in the open sea? *Marine Environmental Research* 61, 149-170.
- Scott, A. P. and Ellis, T. 2007. Measurement of fish steroids in water – a review. *General and Comparative Endocrinology* 153, 392-400.