

Sea Lice R&D Workshop

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Sea Lice - Scotland

- Sea lice represent the greatest single threat to the health and welfare of farmed salmon and the sustainability of salmon production .
- Estimated to cost Scottish salmon farmers c.£30m p.a.
- Can exacerbate other fish health issues.
- Issues around sea lice attract criticism from wild fish interests, environmentalists, animal welfare organisations.....
- Indications of reduced effectiveness of licensed medicines.
- Concerns over ability to manage and control with the limited range of tools available in Scotland.
- Concerns about impact of European, UK and Scottish environmental protection legislation on prospects for the development and approval of new medicines.

Sea Lice - Scotland

- Industry approach to sea lice control via *National Strategy for the Control of Sea Lice on Scottish Salmon Farms (NTS)* and the *Code of Good Practice for Scottish Finfish Aquaculture (CoGP)* <http://www.scottishsalmon.co.uk/dlDocs/CoGp.pdf>
- Regulatory approach to sea lice control in Scotland underpins CoGP.
- Legislation currently covers 'Parasites' and 'Record Keeping'.
- Additional regulatory approach proposed – to be linked to Authorisation to operate an Aquaculture Production Business as provided for in Directive 2006/88/EC and The Aquatic Animal Health (Scotland) Regulations. Definition of management areas, single year class production, synchrony, etc (RHR/RR will expand)

Sea Lice - Scotland

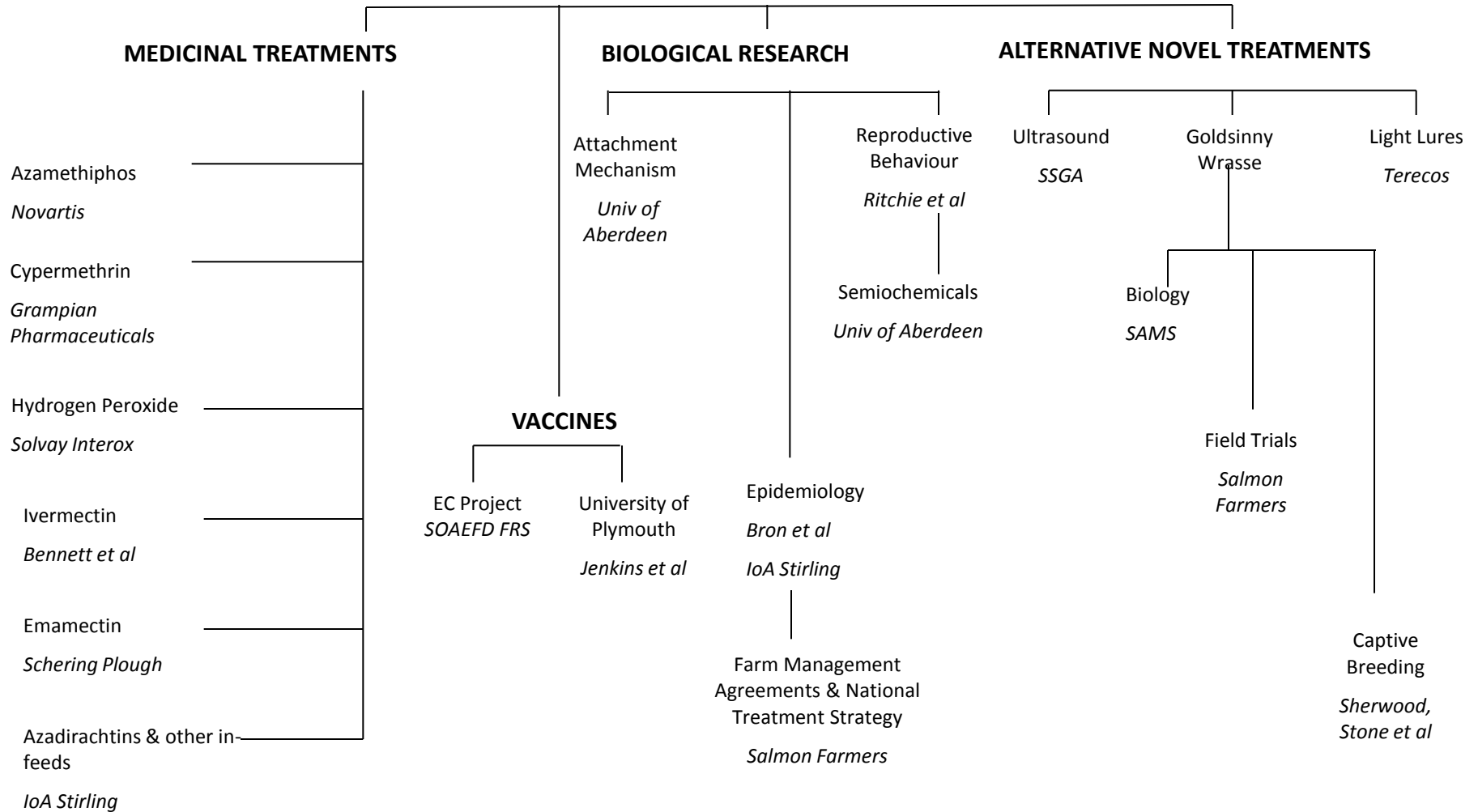
- Environmental legislation (CAR) limits amount of medicine use possible at individual sites – based around compliance with prescribed Environmental Quality Standards (EQS).
- Argument that legislation positions environmental protection above animal welfare when it comes to the availability of medicines on the farms.

The sea lice problem is not new and it is not going to go away. There is a need for continued investment to identify and develop effective tools into the foreseeable future.

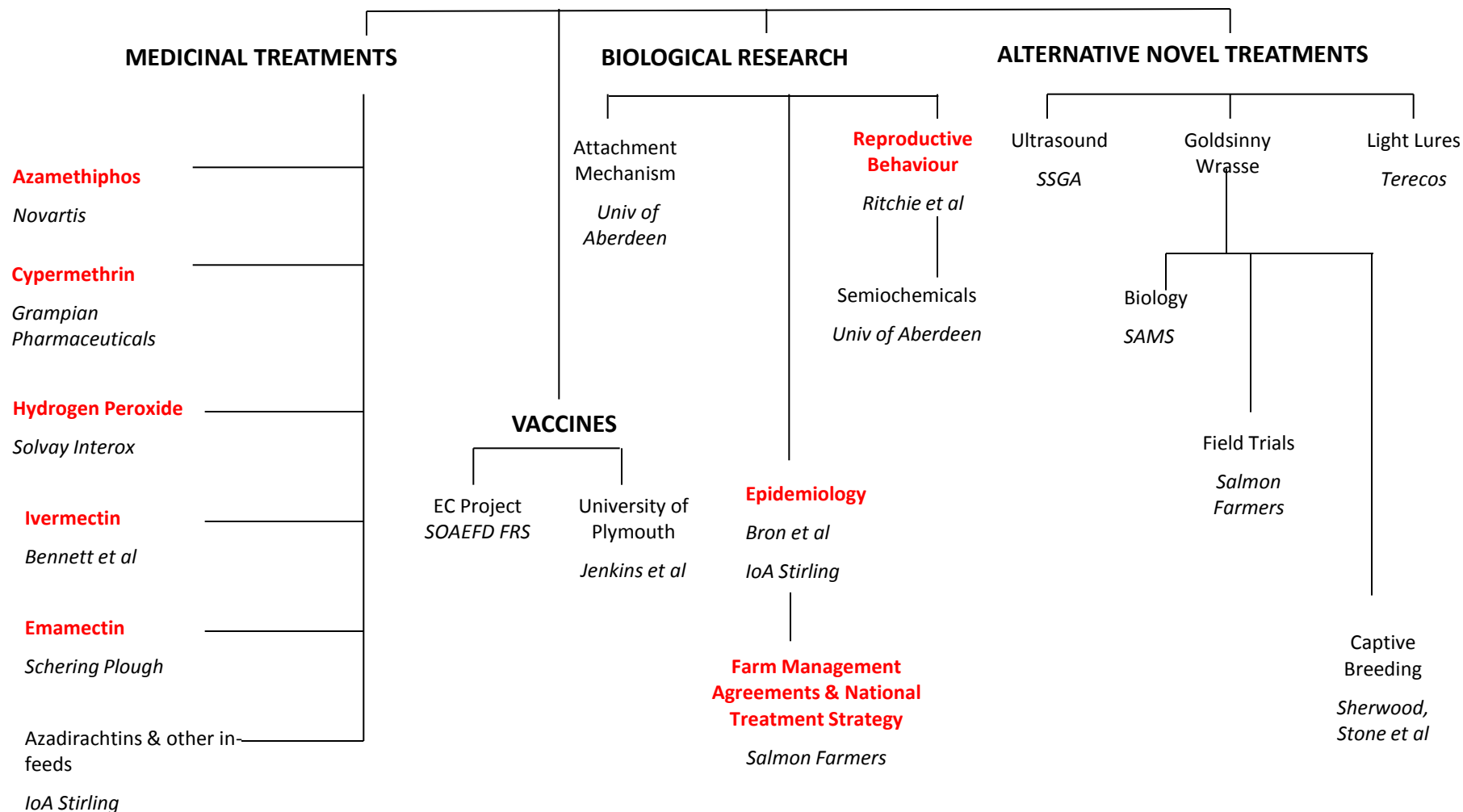
'89-'98 Scottish Industry Sea Lice Strategy

- Supported by a range of partners - industry, academics, pharmaceutical companies and technology companies.
- Results subsequently used in the development of the 'National Treatment Strategy for the Control of Sea Lice on Scottish Salmon Farms'.
- Four elements -
 1. Medicines for the treatment of lice on fish
 2. Vaccines to improve immunity to sea lice
 3. Biological research aimed at disrupting the life cycle of sea lice
 4. Novel treatments - Light lures, Ultrasound, Goldsinny wrasse

'89-'98 Scottish Industry Sea Lice Strategy



'89-'98 Scottish Industry Sea Lice Strategy



Current Scottish Industry Priorities

- Resistance monitoring – review of best practice (SSPO/IoA). Support for the current review of the CoGP and the NTS.
- Preserving efficacy – identification of best practice in rotation of treatments (SSPO/pharmaceutical companies).
- Zoning - pilot project to assess hydrographic connections between Farm Management Areas. Assistance for farming companies involved in the development of Farm Management Agreements.
- Identifying, screening and developing new products – support for pharmaceutical companies
- Industry sea lice database – collection, analysis and presentation of sea lice data. Information to be shared by companies within and between Farm Management Areas. Publication of sea lice data by region on SSPO website.

Current Scottish Industry Priorities

- Wrasse as a biological control – supporting for trials involving member companies and researchers on captive breeding and the use of wrasse (Corkwing, Cuckoo, Ballan).
- Refinement of procedures for bath treatments in wellboats and pens
- Modelling discharges from wellboats – FEPA compliance
- Potential for improved retention of in-feeds in fish
- Review of current position on EQSs for SLT actives.
- Revisit conclusions of PAMP