

## MS, ELLIS AQUARIUM

(UK)

<b>Research topics:</b>	<p>Virulence, transmission and immunological studies in fish.</p> <p>Expertise in viral agents of salmonids (Infectious Salmon Anemia virus (ISAV), Salmon Pancreatic Disease virus (SPDV), Infectious Pancreatic Necrosis virus (IPNV)), Viral Hemorrhagic Septicemia virus (VHSV), bacterial agents (<i>Aeromonas salmonicida</i>, <i>Yersinia ruckerii</i>, <i>Renibacterium salmoninarum</i>), parasitic agents (<i>Lepeophtheirus salmonis</i>, <i>Paramoeba perurans</i>).</p> <p>Collet B, Urquhart K, Noguera P, Larsen K, Lester K, Smail D, Bruno D. 2013. A method to measure an indicator of viraemia in Atlantic salmon using a reporter cell line. <i>J Virol Meth</i> 191:113-117.</p> <p>Collet B, Urquhart K, Monte M, Collins C, Perez SG, Secombes C, Hall M. 2015. Individual monitoring of immune response in Atlantic salmon <i>Salmo salar</i> following experimental infection with Infectious Salmon Anemia Virus (ISAV). <i>Plos One</i> 10(9): e0137767</p> <p>McBeath AJA, Snow M, Secombes CJ, Ellis AE, Collet B. 2007. Expression kinetics of interferon and interferon-induced genes in Atlantic salmon following infection with IPNV and ISAV. <i>Fish Shellfish Immunol</i> 22(3):230-241.</p> <p>Ellis AE, Cavaco A, Petrie A, Lockhart K, Snow M, Collet B. 2010. A sequential histopathological, immunocytochemical and quantitative RT-PCR analysis of Atlantic salmon post-smolts following infection with IPNV. <i>J Fish Dis</i> 33(10):803-818.</p> <p>Campbell S, McBeath A, Secombes C, Snow M, Collet B. 2011. Interferon response following infection with genetically similar isolates of viral hemorrhagic septicemia virus (VHSV) exhibiting</p>
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	<p>contrasting virulence in rainbow trout. Fish Shellfish Immunol 30(1): 287-294.</p> <p>Monte M, Urquhart K, Secombes CJ, Collet B. 2016. Individual monitoring of the immune response in rainbow trout <i>Oncorhynchus mykiss</i> following infection with <i>Yersinia ruckerii</i>. Fish Shellfish Immunol. 55:469-478.</p> <p>Pert CC, Allcock Z, Schrittwieser M, McCarthy U, Collins C. 2015. Report: SARFSP001 - Assessment of the viability of the different life stages of <i>Lepeophtheirus salmonis</i> following exposure to hydrogen peroxide.</p> <p>Benedicenti O, Collins C, Wang T, McCarthy U, Secombes CJ. 2015. Which Th pathway is involved during late stage amoebic gill disease? Fish Shellfish Immunol. 46(2):417-425</p>
<p><b>Activities and services currently offered by the infrastructure/installation:</b></p>	<p>Infection with pathogens requiring BSL2/3 containment in a range of host fish species. Evaluation of treatments or vaccine efficacy in fish. Measure immune response and evaluate virulence.</p>
<p><b>Description of the access to be provided under VetBioNet TNA call:</b></p>	<p>The infrastructure is designed to handle any viral, bacterial or parasitic pathogens in any fresh- or sea-water fish host species. Marine Scotland scientific staff will discuss with the successful applicant the objectives, timeline and logistic of the experiment. This will be done initially by email, phone and skype. Once this is agreed, the design will be established by Marine Scotland statistical team and validated by the Name vet, aquarium manager and the project license holder. The work schedule will be decided and staff from the applicant laboratory will travel to participate in the start of the experiment. Depending on the design, several visits from the applicant can be organized. Sampling will be carried out by Marine Scotland staff with possibility of the applicant participating.</p> <p>The data will be analysed by the applicant unless decided otherwise with marine Scotland staff.</p>

<b>Animal species/pathogens that can be worked on in this infrastructure/installation:</b>	Teleost fish Viral agents: ISAV, VHSV, SPDV, EHNV, IPNV Bacterial agents: <i>Yersinia</i> , <i>Aeromonas</i> Parasitic agents: sea lice, AGD
<b>Travel and subsistence costs:</b>	Travel such as flight, airport transfer, transfer between hotel and Marine Laboratory, accommodation (Hotel or Bed and Breakfast in Aberdeen), subsistence (lunch, dinner) will be taken in charge by Marine Scotland's VetBioNet TNA budget.
<b>Infrastructure/installation ethical rules:</b>	All work carried out must comply with the project license. This will be discussed with the applicant prior to formal application to make sure that the work can legally be carried out.