

## Poster Layout

ROW 1		ROW 2		ROW 3		ROW 4	
Front	Back	Front	Back	Front	Back	Front	Back
001-P	030-P	031-P	060-P	061-P	090-P	091-P	119-P
002-P	029-P	032-P	059-P	062-P	089-P	092-P	118-P
003-P	028-P	033-P	058-P	063-P	088-P	093-P	117-P
004-P	027-P		057-P	064-P	087-P	094-P	116-P
005-P	026-P	035-P	056-P	065-P	086-P	095-P	115-P
006-P	024-P	036-P	055-P	066-P	085-P	096-P	114-P
007-P	023-P	037-P		067-P	084-P	097-P	113-P
008-P	022-P	038-P	054-P	068-P	083-P	098-P	112-P
009-P	021-P	039-P	053-P	069-P	082-P	099-P	111-P
010-P	020-P	041-P	052-P	070-P	081-P	100-P	110-P
011-P	019-P	042-P	051-P	071-P	080-P	101-P	109-P
012-P	018-P	043-P	050-P	072-P	079-P	102-P	108-P
013-P	017-P	044-P	049-P	073-P	078-P	103-P	107-P
014-P	016-P	045-P	048-P	074-P	077-P	104-P	106-P
	015-P	046-P	047-P	075-P	076-P	239-P	105-P

### Monday

001-P to 009-P	Vaccines
010-P to 014-P	Sea Lice
015-P to 019-P	Nutrition and Health
020-P to 024-P	Diseases of Public Concern
026-P to 028-P	Cleaner Fish Diseases
029-P to 054-P	Parasitological Diseases
055-P to 081-P	Viruses and Viral Diseases

### Tuesday

082-P to 104-P, 239-P	Bacterial Diseases
105-P to 116-P	Bivalve and Crustacean Diseases
117-P to 127-P	Host-Parasite Interaction
128-P to 161-P	Fish and Shellfish Immunity
162-P to 164-P	Aquatic Animal Welfare
165-P to 172-P	Immunostimulants
173-P to 178-P	Gill Diseases

### Wednesday

179-P to 192-P, 214-P	Diagnostics
193-P to 205-P	Prophylaxis and Treatments
206-P to 210-P	Diseases of Wild and Ornamental Fish

### Thursday

211-P to 215-P	Emerging Pathogens
216-P	Viral Myopathies
217-P to 223-P	Salmonid Viral Diseases
224-P to 233-P	Aquatic Animal Epidemiology
234-P to 238-P	Diseases of Uncertain Aetiology

## Poster Layout

ROW 5		ROW 6		ROW 7		ROW 8	
Front	Back	Front	Back	Front	Back	Front	Back
120-P	149-P	150-P	178-P	179-P	207-P	208-P	238-P
121-P	148-P	151-P	177-P	180-P	206-P	209-P	237-P
122-P	147-P	152-P	176-P	181-P	205-P	210-P	236-P
123-P	146-P	153-P	175-P	182-P	204-P	211-P	235-P
124-P	145-P	154-P	174-P	183-P	203-P	212-P	234-P
125-P	144-P	155-P	173-P	184-P	202-P	213-P	233-P
126-P	143-P	156-P	172-P	185-P	201-P	215-P	232-P
127-P	142-P	157-P	171-P	186-P	200-P	216-P	231-P
128-P	141-P	158-P	170-P	187-P	199-P	217-P	230-P
129-P	140-P	160-P	169-P	188-P	198-P	218-P	229-P
130-P	139-P	161-P	168-P	189-P	197-P	219-P	228-P
131-P	138-P	162-P	167-P	190-P	196-P	220-P	227-P
132-P	137-P	163-P	166-P	191-P	195-P	221-P	226-P
133-P	136-P	164-P	165-P	192-P	194-P	222-P	225-P
134-P	135-P			214-P	193-P	223-P	224-P

## Poster Presentations

Monday 4 September 15:15 - 15:45, Hall 1D

Vaccines			
Program No.	Title	Presenting Author	Affiliation
001-P	Inactivated nervous necrosis virus (NNV) vaccine elicits antiviral activity and protection in the teleost European sea bass ( <i>Dicentrarchus labrax</i> )	Alberto Cuesta	University of Murcia
002-P	Development and use of a saltwater Salmonid alphavirus subtype 3 challenge model for demonstration of field-relevant clinical endpoints	Lisa Phillips	Elanco
003-P	Vaccination against Pancreas disease – A comparative study with a monovalent and multivalent vaccine against two subtypes of SAV	Gro Vee	MSD Animal Health
004-P	The efficacy and safety of inactivated viral hemorrhagic septicemia virus immersion vaccine for olive flounder, <i>Paralichthys olivaceus</i>	Seong Don Hwang	National Institute of Fisheries Science
005-P	Identification of vaccine candidates against saprolegniosis in salmonids	Konstantinos Apostolakis	University of Aberdeen
006-P	Identification of potential vaccine antigens for <i>Flavobacterium psychrophilum</i> by immuno-proteomic analysis using bacteria grown <i>in vivo</i>	Rowena Hoare	University of Stirling
007-P	First experiences with application of autogenous vaccine in intensively farmed rainbow trout	Ivana Papezikova	University of Veterinary and Pharmaceutical Sciences Brno
008-P	Efficacy testing of a polyvalent autogenous vaccine against atypical furunculosis and vibriosis in Scottish ballan wrasse ( <i>Labrus bergylta</i> )	Jose Gustavo Ramirez-Paredes	University of Stirling
009-P	The future use of synthetic carbohydrate in aquatic vaccine development	Nawroz Kareem	Keele University
Sea Lice			
010-P	Vaccination of Atlantic salmon with an adult sea louse, <i>Lepeophtheirus salmonis</i> , serine protease enriched fraction	Sean Monaghan	University of Stirling
011-P	An improved method for the visualization of salmon louse <i>Lepeophtheirus salmonis</i> copepodids from plankton samples by fluorescence stereomicroscopy	Mark Fordyce	Marine Scotland Science
012-P	Survival and habitat use of sea trout post-smolts artificially infested with salmon lice: A pilot study	Rosa Maria Serra-Llinares	Institute of Marine Research, Bergen
013-P	Anadromous whitefish ( <i>Coregonus lavaretus</i> L.) as host for salmon lice ( <i>Lepeophtheirus salmonis</i> Krøyer)	Rune Nilssen	Institute of Marine Research, Bergen
014-P	Sea trout temporal variation review from catch data and inquiry	Tom McDermott	Marine Institute, Galway
Nutrition & Health			
015-P	Modulatory effects of dietary arachidonic acid (ARA; 20:4n-6) on immune function and fatty acid composition in Rabbitfish ( <i>Siganus rivulatus</i> )	Sagar Nayak	Ben-Gurion University of the Negev
016-P	Modulation of fatty acid composition of salmon macrophage membranes and impact on ability to control salmonid alphavirus virus replication	Øystein Evensen	Norwegian University of Life Sciences
017-P	Impact of starvation-refeeding regime in polyculture ponds of <i>Oreochromis niloticus</i> and <i>Mugil cephalus</i>	Eman Moustafa	Kafr El-sheikh University
018-P	Effect of starvation and refeeding on the hepatopancreas morphology in whiteleg shrimp ( <i>Penaeus vannamei</i> ) using light and electron microscopy	Fabio Cervellione	Skretting ARC
019-P	Use of insect larvae meal ( <i>Hermetia illucens</i> ) in sturgeon feeds: Preliminary data about histological effects on liver and intestine	Katia Varello	Istituto Zooprofilattico Sperimentale del Piemonte

## Poster Presentations

Monday 4 September 15:15 - 15:45, Hall 1D

Diseases of Public Concern			
Program No.	Title	Presenting Author	Affiliation
020-P	A survey on zoonotic helminths in farmed fish to evaluate the safety of Italian aquaculture products	Marialetizia Fioravanti	Alma Mater Studiorum Università di Bologna
021-P	The nematodes with zoonotic potential in muscle tissue of cod from the southern Baltic Sea: Polish, Danish and Swedish EEZ	Katarzyna Nadolna-Ałtyn	National Marine Fisheries Research Institute
022-P	Development of new genome-derived simple sequence repeats (SSRs) for <i>Anisakis simplex</i> s.s. and <i>Anisakis pegreffii</i>	Jerko Hrabar	Institute of Oceanography and Fisheries
023-P	EUROCIGUA: Risk characterization of ciguatera food poisoning in Europe	Daniel Padilla Castillo	University of Las Palmas de Gran Canaria
024-P	Research of the non-tuberculous mycobacteria in aquarium fish	Vlasta Jencic	Veterinary Faculty Ljubljana
Cleaner Fish Diseases			
026-P	Genetic study of <i>Tenacibaculum</i> sp. associated with tenacibaculosis in lumpsucker ( <i>Cyclopterus lumpus</i> )	Anne Berit Olsen	Norwegian Veterinary Institute
027-P	Bacterial disease in lumpfish - Macroscopic and histopathological findings	Cecilie Walde	Norwegian Veterinary Institute
028-P	Characterization of immunoglobulins in lumpfish and gene expression analyses of IgM and IgD during ontogenesis and within tissues	Harald S Lunde	University of Bergen
Parasitological Diseases			
029-P	<i>Amyloodinium ocellatum</i> : Milestones, doubts and future goals	Michela Massimo	University of Udine
030-P	A comparison of different swabbing methods for optimised diagnosis of amoebic gill disease (AGD) in the Atlantic salmon ( <i>Salmo salar</i> )	Carolina Fernandez	University of Stirling
031-P	<i>Philasterides dicentrarchi</i> and <i>Miamiensis avidus</i> : Two different ciliate species that cause scuticociliatosis	Jesús Lamas	University of Santiago de Compostela
032-P	Development of PCR tests for the detection and quantification of <i>Philasterides dicentrarchi</i> in infected fish and in seawater samples	Jesús Lamas	University of Santiago de Compostela
033-P	The effect of dietary immunostimulants on the susceptibility of common carp ( <i>Cyprinus carpio</i> ) to the white spot parasite, <i>Ichthyophthirius multifiliis</i>	Edit Eszterbauer	Hungarian Academy of Sciences
035-P	Synthetic and natural compounds targeting <i>Ichthyophthirius multifiliis</i> motility: <i>In vitro</i> effects	Boglárka Sellyei	Hungarian Academy of Sciences
036-P	Filtering and characterization of <i>Enteromyxum</i> spp. (Myxozoa) transcriptomes from RNAseq data	Amparo Picard	IATS-CSIC
037-P	Different susceptibilities to proliferative kidney disease in intensive salmonid farming	Eva Jelinkova	University of Veterinary and Pharmaceutical Sciences Brno
038-P	Therapy of PKD by higher concentrations of NaCl: Its efficiency and effect on the fish organism	Miroslava Palikova	University of Veterinary and Pharmaceutical Sciences Brno
039-P	Susceptibility-related differences in the quantity of developmental stages of <i>Myxobolus</i> spp. (Myxozoa) in fish blood	Edit Eszterbauer	Hungarian Academy of Sciences
041-P	Investigations into the host specificity of the metacercariae of <i>Apophallus</i> (Platyhelminthes: Trematoda: Digenea) species in Hungarian freshwater fishes	Gábor Cech	Hungarian Academy of Sciences

## Poster Presentations

Monday 4 September 15:15 - 15:45, Hall 1D

Parasitological Diseases			
Program No.	Title	Presenting Author	Affiliation
042-P	Patho-serum-biochemical parameters and Caryophyllidea infection	Pinky Kaur	Barkatullah University
043-P	Pathological and parasitological investigations in an adult bottlenose dolphin ( <i>Tursiops truncatus</i> )	Serap Birincioğlu	Adnan Menderes University
044-P	<i>Saduria entomon</i> (Linnaeus, 1758) as a potential source of infection with nematode parasites <i>Hysterothylacium aduncum</i> of Baltic cod ( <i>Gadus morhua</i> )	Joanna Pawlak	National Marine Fisheries Research Institute
045-P	<i>Gammarus</i> sp. as a potential source of infection of Baltic cod ( <i>Gadus morhua</i> ) with intestinal helminths	Joanna Pawlak	National Marine Fisheries Research Institute
046-P	<i>Ceratothoa oestroides</i> : The beauty within the beast	Anamarija Vrbatović	Institute of Oceanography and Fisheries
047-P	Prevalence of cymothoid isopod ( <i>Ceratothoa oestroides</i> (Risso, 1816)) in fish farming of the Eastern Adriatic sea (Croatia)	Slavica Čolak	Cromaris d.d., Zadar
048-P	Discovery of genome-wide SNPs by ddRAD sequencing for two ectoparasites, <i>Sparicotyle chrysophrii</i> and <i>Ceratothoa oestroides</i> , that impact Mediterranean finfish culture	Željka Trumbić	Institute of Oceanography and Fisheries
049-P	<i>Anguillicola crassus</i> in the European eel from Polish waters 2014 - 2016	Katarzyna Nadolna-Ałtyn	National Marine Fisheries Research Institute
050-P	Food composition and parasite fauna of <i>Merlangius merlangus</i> from Polish EEZ, the southern Baltic Sea	Katarzyna Nadolna-Ałtyn	National Marine Fisheries Research Institute
051-P	New putative transmitter of parasite <i>Contraecum osculatum</i> (Nematoda: Anisakidae): Great sandeel ( <i>Hyperoplus lanceolatus</i> ) in the southern Baltic Sea	Katarzyna Nadolna-Ałtyn	National Marine Fisheries Research Institute
052-P	The presence of <i>Contraecum osculatum</i> in sprat ( <i>Sprattus sprattus</i> ) in Polish waters of the southern Baltic Sea	Katarzyna Nadolna-Ałtyn	National Marine Fisheries Research Institute
053-P	Food composition and parasite fauna of the European plaice ( <i>Pleuronectes platessa</i> ) from Polish EEZ, southern Baltic Sea	Katarzyna Nadolna-Ałtyn	National Marine Fisheries Research Institute
054-P	Food composition and parasite fauna of garfish <i>Belone belone</i> from Polish EEZ, the southern Baltic Sea	Katarzyna Nadolna-Ałtyn	National Marine Fisheries Research Institute
Viruses and Viral Diseases			
055-P	European seabass DLB-1 cell line is susceptible to Nodavirus infection. An RNA-seq analysis	Alberto Cuesta	University Of Murcia
056-P	Genetic changes in VHSV-IVb across time in the Great Lakes and pathogenicity modifications	Bartolomeo Gorgoglione	University of Toledo
057-P	Effect of VHSV M-mutants on viral replication and host antiviral signaling	Bartolomeo Gorgoglione	University of Toledo
058-P	Evaluation of concentration methods for viral haemorrhagic septicaemia virus (VHSV) and epizootic haematopoietic necrosis virus (EHNV) in water	Claire Joiner	Cefas
059-P	Variation in prevalence of infectious hematopoietic necrosis virus in Sockeye salmon in British Columbia, 1984 – 2016	Kyle Garver	Fisheries & Oceans Canada
060-P	Introduction of infectious hematopoietic necrosis virus (IHNV) from land-based freshwater-culture system to marine-culture system by contaminated salmonid fish in Korea	Kyoung-Hui Kong	Chonnam National University
061-P	Antibodies to IPNV, VHSV and IHNV in rainbow trout in northern Turkey	Harun Albayrak	Ondokuz Mayıs University
062-P	Local Turkish isolate (HAH-4) of infectious pancreatic necrosis virus is moderately pathogenic for rainbow trout ( <i>Oncorhynchus mykiss</i> )	Harun Albayrak	Ondokuz Mayıs University

## Poster Presentations

Monday 4 September 15:15 - 15:45, Hall 1D

Viruses and Viral Diseases			
Program No.	Title	Presenting Author	Affiliation
063-P	Isolation and expression of recombinant viral protein (VP2) from Turkish isolate of infectious pancreatic necrosis virus (IPNV) in <i>Escherichia coli</i>	Harun Albayrak	Ondokuz Mayıs University
064-P	Protective and immunogenic effects of <i>Escherichia coli</i> -expressed infectious pancreatic necrosis virus (IPNV) VP2 protein in rainbow trout	Harun Albayrak	Ondokuz Mayıs University
065-P	Detection of rainbow trout antibodies to infectious pancreatic necrosis virus by a recombinant protein-based enzyme-linked immunosorbent assay	Harun Albayrak	Ondokuz Mayıs University
066-P	Infectious salmon anaemia virus uptake and early infection in Atlantic salmon	Maria Aamelfot	Norwegian Veterinary Institute
067-P	Infectious salmon anaemia virus interaction with Atlantic salmon RBCs	Tonje Sønstevald	Norwegian Veterinary Institute
068-P	Outbreak of Acipenser Iridovirus-European (AcIV-E) in Russian sturgeon ( <i>Acipenser gueldenstaedtii</i> ) reared in Italy	Paolo Pastorino	Istituto Zooprofilattico Sperimentale del Piemonte
069-P	Detection of a new cyprinid herpesvirus in common carp	Mikolaj Adamek	University of Veterinary Medicine, Hannover
070-P	A case study on CyHV-2 infection in German goldfish culture	Mikolaj Adamek	University of Veterinary Medicine, Hannover
071-P	Detection of Cyprinid Herpesvirus-1 DNA in cutaneous squamous cell carcinoma of koi carp ( <i>Cyprinus carpio</i> )	Sara Ciulli	University of Bologna
072-P	Is it possible to <i>in vitro</i> cultivate CEV and CyHV-3 in gill primary and permanent cultures?	Mikolaj Adamek	University of Veterinary Medicine, Hannover
073-P	Comparison of cell lines for replication of Cyprinid herpesvirus 3 (CyHV-3) for diagnostic purposes and vaccine development	Lisa Jordan	Friedrich-Alexander University Erlangen-Nuremberg
074-P	Isolation and analysis of cholesterol and cholesterol oxidation products (COPs) from fish cells	Anna Maria Becker	Friedrich-Alexander University Erlangen-Nuremberg
075-P	Natural occurring genomic variations of Koi herpesvirus (KHV)	Sandro Klafack	Friedrich-Loeffler-Institut
076-P	Epizootiology of Koi herpes virus disease in Croatia	Snjezana Zrncic	Croatian Veterinary Institute
077-P	Immunopathogenesis of herpesviruses: Influence of anguillid herpesvirus-1 (AngHV-1) on cellular defence mechanisms in European eel ( <i>Anguilla anguilla</i> )	Andrzej Siwicki	The Stanisław Sakowicz Inland Fisheries Institute
078-P	First insights into transmission dynamics of the ostreid herpesvirus 1 (OsHV-1) between Pacific oysters, <i>Crassostrea gigas</i> , using experimental infection data	Benjamin Morga	Ifremer, RBE-SG2M-LGPM
079-P	Differences in virulence between carp edema virus genogroups – Results from infections in differently susceptible common carp strains	Mikolaj Adamek	University of Veterinary Medicine, Hannover
080-P	Common carp paramyxo-like virus as an additional pathogen found during outbreaks of koi sleepy disease	Mikolaj Adamek	University of Veterinary Medicine, Hannover
081-P	Isolation of a new rhabdovirus from goldfish ( <i>Carassius auratus</i> ) in France	Lénaïg Louboutin	Bretagne Loire University

## Poster Presentations

Tuesday 5 September 15:15-15:45, Hall 1D

Bacterial Diseases			
Program No.	Title	Presenting Author	Affiliation
082-P	Subtyping of <i>Aeromonas salmonicida</i> using matrix-assisted laser desorption/ionization time of flight (MALDI-TOF)	Olga Haenen	Wageningen Bioveterinary Research of Wageningen UR
083-P	Response and characterisation of ornithine decarboxylase paralogues in rainbow trout ( <i>Oncorhynchus mykiss</i> ) following <i>Aeromonas salmonicida</i> infection	Thomas C Clark	University of Aberdeen
084-P	Molecular characterization of <i>Aeromonas hydrophila</i> isolated from commercial fish	Amira Omar	Kafr El-sheikh University
085-P	Case report of edematous disease of hybrids of common carp ( <i>Cyprinus carpio</i> ) and gibel carp ( <i>Carassius gibelio</i> )	Stanislav Navrátil	University of Veterinary and Pharmaceutical Sciences Brno
086-P	Prevalence of bacterial diseases in trout farms of Piedmont (Italy): Two years of monitoring	Paolo Pastorino	Istituto Zooprofilattico Sperimentale del Piemonte
087-P	First isolation, identification and characterization of <i>Burkholderia pseudomallei</i> from diseased walking catfish ( <i>Clarias fuscus</i> ) cultured in Taiwan	Yi-Ping Lu	Animal Health Research Institute
088-P	Insight into the virulence-related genes of <i>Edwardsiella tarda</i> isolated from cultured freshwater fish in Egypt	Eman Moustafa	Kafr El-sheikh University
089-P	Intermediate metabolism of <i>Oncorhynchus mykiss</i> against infection with <i>Flavobacterium psychrophilum</i>	Alejandra Donoso-Gómez	Universidad Austral de Chile
090-P	Flavobacterial diseases in Icelandic aquaculture	Sigríður Hjartardóttir	University of Iceland
091-P	Can <i>Anodonta anatina</i> mussels filter <i>Flavobacterium columnare</i> ?	Sari Aaltonen	University of Jyväskylä
092-P	Immunosuppression of SHK-1 infected with <i>Francisella noatunensis</i> in the presence of tryptophan	Carolina Vargas-Lagos	Universidad Austral de Chile
093-P	Investigation of mycobacteriosis in mullets from extensive aquaculture in Sardinia (Italy) by different diagnostic approaches	Paolo Pastorino	Istituto Zooprofilattico Sperimentale del Piemonte
094-P	Comparative pathogenesis of piscirickettsiosis in Atlantic salmon ( <i>Salmo salar</i> L.) post-smolt experimentally challenged with LF-89-like and EM-90-like <i>Piscirickettsia salmonis</i> isolates	Marco Rozas	Pathovet Laboratory
095-P	<i>Piscirickettsia salmonis</i> LF-89 type strain outer membrane vesicles mediate transport of plasmid-encoded toxins and induces ROS in fish cells	Cristian Oliver	Universidad Austral de Chile
096-P	Comparative genomic analysis of two <i>Renibacterium salmoninarum</i> Chilean isolates with the type strain DSM 20767T	Jorn Bethke	Universidad Andrés Bello
097-P	Core and pan-proteome determination of Brazilian fish-pathogenic <i>Streptococcus agalactiae</i> strains using a LC-MS label-free shotgun approach	Henrique Figueiredo	Federal University of Minas Gerais
098-P	Preliminary results of a Nile tilapia ( <i>Oreochromis niloticus</i> ) challenge with <i>Streptococcus agalactiae</i> via gavage	Maria Esperança Castellón Viaplana	Aquabiotech Group
099-P	Genetic study of <i>Tenacibaculum maritimum</i> associated with disease in farmed marine fish in Norway	Anne Berit Olsen	Norwegian Veterinary Institute
100-P	Tenacibaculosis in sea lice cleaner fish ( <i>Cyclopterus lumpus</i> ) in Norway caused by <i>Tenacibaculum maritimum</i> , as well as other <i>Tenacibaculum</i> spp.	Øyvind Jakobsen Brevik	Cermaq Group

## Poster Presentations

Tuesday 5 September 15:15-15:45, Hall 1D

Bacterial Diseases			
Program No.	Title	Presenting Author	Affiliation
101-P	Advances in identifying <i>Vibrio harveyi</i> by MALDI TOF MS technology	Robin Carpentier	Cabinet Vet'eau
102-P	Shotgun proteomic profiling of <i>Yersinia ruckeri</i> biotype 1 and biotype 2 strains	Gokhlesh Kumar	University of Veterinary Medicine, Vienna
103-P	Kinetic of cell invasion of <i>Yersinia ruckeri</i> in nonphagocytic fish cell line	Daniel Padilla	University of Las Palmas de Gran Canaria
104-P	First detection of <i>Yersinia ruckeri</i> in carp ( <i>Cyprinus carpio</i> ), reared in ponds in Southern Russia	Anna Kazarnikova	Southern Scientific Center of Ras
239-P	Stumbling across the same phage: Comparative genomics of broadly distributed bacteriophages reveal an omnipresent temperate phage for <i>Vibrio anguillarum</i>	Pantelis Katharios	Hellenic Center for Marine Research
Bivalve and Crustacean Diseases			
105-P	Disease burden in the bivalve supply chain	Michaela Fox	Queens University, Belfast
106-P	Histological and microbiological investigations in farmed mussels ( <i>Mytilus galloprovincialis</i> ) of La Spezia Gulf, Italy to evaluate the health status	Francesco Quaglio	University of Padova
107-P	VIVALDI: Understanding and mitigating farmed <i>Crassostrea gigas</i> diseases	Amanda Bréchon	Marine Institute, Oranmore
108-P	VIVALDI: A year of research for preventing and mitigating farmed bivalve diseases	Isabelle Arzul	Ifremer, SG2M-LGPMM
109-P	Detection and <i>in vivo</i> propagation of OsHV-1 isolated from <i>Crassostrea gigas</i> of the North Adriatic Sea (Italy)	Miriam Abbadi	Istituto Zooprofilattico Sperimentale delle Venezie
110-P	A simple centrifugation method for improving the detection of <i>Ostreid herpesvirus-1</i> (OsHV-1) in natural seawater samples	Olivia Evans	The University of Sydney
111-P	Survey of the Rickettsiales-like colonies associated with a mortality event in <i>Tapes virgineus</i> in Galicia (NW Spain)	Carmen López Gómez	Centro de Investigaciones Mariñas
112-P	Monitoring programme of <i>Marteilia refringens</i> infecting mussels ( <i>Mytilus galloprovincialis</i> ) in Galicia (NW Spain)	Susana Darriba	Technological Institute for the Monitoring of the Marine Environment of Galicia
113-P	<i>Bonamia ostreae</i> in the Limfjord in Denmark - Where is the parasite hiding?	Lone Madsen	Technical University of Denmark
114-P	Infection with a haplosporidan-like protist detected in the main production area of <i>Cerastoderma edule</i> in Galicia (NW Spain)	Susana Darriba	Technological Institute for the Monitoring of the Marine Environment of Galicia
115-P	Sequencing and comparison of viral genomes of white spot syndrome virus strains from Sinaloa and Nayarit, Mexico	Delia Parrilla-Taylor	Centro de Investigaciones Biológicas del Noroeste
116-P	A mortality event of brown crab ( <i>Cancer pagurus</i> ) in northern Scotland	Silvia Soares	Marine Scotland-Science
Host-Parasite Interaction			
117-P	Apoptosis inhibition of Atlantic salmon ( <i>Salmo salar</i> ) peritoneal macrophages by the extracellular products of <i>Piscirickettsia salmonis</i>	Pedro Alejandro Smith	Universidad de Chile
118-P	European seabass ( <i>D. labrax</i> ) gill response to <i>Amyloodinium ocellatum</i> infection: An immunohistochemical study	Donatella Volpatti	University of Udine

## Poster Presentations

Tuesday 5 September 15:15-15:45, Hall 1D

Host-Parasite Interaction			
Program No.	Title	Presenting Author	Affiliation
119-P	The coagulation system and fish defence against <i>Philasterides dicentrarchi</i>	Jesús Lamas	University of Santiago de Compostela
120-P	Diversity and development of malacosporeans (Myxozoa) infecting freshwater fish in Europe and Brazil	Juliana Naldoni	Federal University of São Paulo
121-P	Proliferative cell nuclear antigen (PCNA) expression in the intestine of <i>Scophthalmus maximus</i> experimentally infected with <i>Enteromyxum scophthalmi</i> (Myxozoa)	Paolo Ronza	Universidade de Santiago de Compostela
122-P	An immunological investigation of resistance in rainbow trout to <i>Tetracapsuloides bryosalmonae</i>	Christyn Bailey	Institute Fur Tierpathologie, Bern
123-P	Are older brown trout able to better cope with <i>Tetracapsuloides bryosalmonae</i> and are surviving fish resistant to re-infection?	Heike Schmidt-Posthaus	Centre for Fish and Wildlife Health, Bern
124-P	The heat is on: The effect of temperature on the immune response of rainbow trout to <i>Tetracapsuloides bryosalmonae</i>	Christyn Bailey	Centre for Fish and Wildlife Health, Bern
125-P	Parasites in the food web: Concomitant predation on snail hosts and their trematodes by fish can modulate infection risk	Ana Born-Torrijos	Biology Centre of the Czech Academy of Sciences
126-P	Doomed by a parasite: Could cestode larvae increase predation of the blackmouth catshark <i>Galeus melastomus</i> by larger sharks?	Francesc Padrós	Universitat Autònoma de Barcelona
127-P	Morphopathological changes in gills associated with late stages of glochidiosis in Atlantic salmon ( <i>Salmo salar</i> L.)	Roberto Bermúdez	Universidade de Santiago de Compostela
Fish and Shellfish Immunity			
128-P	Identification, characterization and expression profile of macrophage-expressed 1 gene from the big-belly seahorse ( <i>Hippocampus abdominalis</i> )	Seongdo Lee	Jeju National University
129-P	Molluscan MyD88 isoforms from disk abalone ( <i>Haliotis discus discus</i> ) involved in early embryonic development, innate immune and inflammatory responses	Jehee Lee	Jeju National University
130-P	Arctic char intestinal mucin glycosylation is more diverse than that of Atlantic salmon and changes with inflammation	Sara Lindén	University of Gothenburg
131-P	Cloning of beta-defensin antimicrobial peptides from <i>S. salar</i> (Atlantic salmon)	Veronica Lucky Gomes	Galway-Mayo Institute of Technology
132-P	Wound healing in salmon after tagging with Carlin tags	Gundega Vikmane	Latvia University of Agriculture
133-P	Cloning and characterization of IL-4/13 receptors from <i>Salmo salar</i>	Alvaro Sequeira	Universidad de Santiago de Chile
134-P	Comparative study of antimicrobial activity of IL-8 derived peptides from rainbow trout and Atlantic salmon	Paula Santana	Pontificia Universidad Católica de Valparaíso
135-P	Optimization of the lymphocyte transformation test in salmonid fish	Hana Minarova	University of Veterinary and Pharmaceutical Sciences Brno
136-P	The role of chromatin extracellular traps in phagocytes of Atlantic salmon ( <i>Salmo salar</i> ) against pathogens	Neila Alvarez de Haro	University of Stirling
137-P	The development of autogenous vaccines against Amoebic gill disease in the Atlantic salmon	Sophie Fridman	University of Stirling
138-P	Gene expression comparison of Atlantic salmon ( <i>Salmo salar</i> ) post-smolt challenged with different <i>Piscirickettsia salmonis</i> isolates reveals differences in immune response	Marco Rozas	Pathovet Laboratory

## Poster Presentations

Tuesday 5 September 15:15-15:45, Hall 1D

Fish and Shellfish Immunity			
Program No.	Title	Presenting Author	Affiliation
139-P	The influence of Arbocel on nonspecific cell-mediated and humoral immunity of rainbow trout and anti-infection immunity	Andrzej Siwicki	The Stanisław Sakowicz Inland Fisheries Institute
140-P	<i>In vitro</i> investigation into the suppression of the interferon pathway by viral haemorrhagic septicaemia virus (VHSV)	Irene Cano Cejas	Cefas
141-P	Mapping trout CD4 T cell subsets	Kevin Maisey	Universidad de Santiago de Chile
142-P	Characterisation of monoclonal antibodies for the detection of interferon- $\gamma$ expression <i>in vivo</i> and <i>in vitro</i> in rainbow trout	Yeh-Fang Hu	University of Aberdeen
143-P	Modulatory effect of stress hormones on the cytokine response of trout and seabream head kidney after exposure to <i>Vibrio anguillarum</i>	Ali Reza Khansari	Universitat Autònoma de Barcelona
144-P	Implications of granzyme B in the immune response of gilthead seabream against nodavirus (NNV)	Alberto Cuesta	University of Murcia
145-P	Efficacy of ICTHIOVAC®VR/PD against <i>Vibrio anguillarum</i> serovars O1, O2 $\alpha$ , O2 $\beta$ and <i>Photobacterium damsela</i> subsp. <i>piscicida</i> in European seabass juveniles	Agnès Callol	Hipra Scientific
146-P	Cell-mediated cytotoxicity of European seabass leucocytes is impaired by nodavirus. An RNA-seq study	Alberto Cuesta	University of Murcia
147-P	Female vaccination against nodavirus increases the production of NK-lysin in their progeny	Elena Chaves-Pozo	Instituto Español de Oceanografía
148-P	Nodavirus infection alters immunity in European seabass at gene and protein levels	Elena Chaves-Pozo	Instituto Español de Oceanografía
149-P	Intestinal modulation of immune system in the sub-Antarctic notothenioid <i>Eleginops maclovinus</i> exposure to <i>Piscirickettsia salmonis</i>	Daniela Díaz-Ibarrola	Universidad Austral de Chile
150-P	Immunological and stress response of the sub-Antarctic notothenioid fish <i>Eleginops maclovinus</i> infected with two strains of <i>Piscirickettsia salmonis</i>	Danixa Martínez	Universidad Austral de Chile
151-P	Development and evaluation of lymphocyte CD4-1 and CD4-2 makers in olive flounder ( <i>Paralichthys olivaceus</i> )	Tae Sung Jung	Gyeongsang National University
152-P	Temperature-dependent expression kinetics of immune related genes in liver of viral haemorrhagic septicaemia (VHSV)-infected olive flounder ( <i>Paralichthys olivaceus</i> )	Sajal Kole	Chonnam National University
153-P	Adjuvant effect of <i>Streptococcus parauberis</i> , squalene and aluminium hydroxide for <i>Miamiensis avidus</i> vaccine	Sung-Ju Jung	Chonnam National University
154-P	Pathogenesis of lymphocystis disease virus (LCDV) and associated immune response in Senegalese sole ( <i>Solea senegalensis</i> )	Carlos Carballo	IFAPA, El Puerto de Santa María
155-P	An inflammatory cytokine that modulates innate immune responses: Insights in to molecular, structural and functional aspects from rockfish ( <i>Sebastes schlegelii</i> )	Jehee Lee	Jeju National University
156-P	Association between suppressor of cytokine signaling-3 and JAK/ STAT genes during pathogenic infections of rockfish ( <i>Sebastes schlegelii</i> )	Jehee Lee	Jeju National University
157-P	Analysis of a complement system regulator, C1 inhibitor, from <i>Sebastes schlegelii</i> at molecular, transcriptional and functional levels	Jehee Lee	Jeju National University
158-P	The immune role of lily-type lectin against the marine pathogens in black rockfish <i>Sebastes schlegelii</i>	Jehee Lee	Jeju National University
160-P	Involvement of type I IFN responses in the resistance of carp strains to the CyHV-3, SVCV, and CEV infections	Mikolaj Adamek	University of Veterinary Medicine, Hannover
161-P	Lymphocyte apoptosis in septicemic sandbar sharks ( <i>Carcharhinus plumbeus</i> , Nardo 1827)	Gian Enrico Magi	University of Camerino

## Poster Presentations

Tuesday 5 September 15:15-15:45, Hall 1D

Aquatic Animal Welfare			
Program No.	Title	Presenting Author	Affiliation
162-P	Recommendations for stunning and slaughtering of rainbow trout and carp in Germany	Mikolaj Adamek	University of Veterinary Medicine, Hannover
163-P	Introducing a welfare standard for the killing of farmed tropical prawns supplied to Tesco	Marianne Green	Integra Food Secure
164-P	Underwater cameras can refine monitoring of laboratory fish held in opaque tanks	Georgina Rimmer; Claire Joiner	Cefas
Immunostimulants			
165-P	New probiotics in aquaculture	Ana Gutiérrez Falcón	University of Las Palmas de Gran Canaria
166-P	Effect of Canary native plant extracts on bacterial growth for relevant pathogens in aquaculture	Daniel Padilla Castillo	University of Las Palmas de Gran Canaria
167-P	Preliminary study on <i>in vitro</i> effects of selected plant compounds on seabass ( <i>D. labrax</i> ) head kidney leukocytes	Michela Massimo	University of Udine
168-P	Resveratrol resistance lifting. Immunological and histological parameters point of view in the model organism	Andrzej Siwicki	University of Warmia and Mazury in Olsztyn
169-P	<i>In vitro</i> inhibitory activity against <i>Saprolegnia parasitica</i> by three probiotics against rainbow trout lactococcosis and European seabass vibriosis	Concepción González Palacios	University of León
170-P	Influence of EM-probiotic on the morphology of the spleen in Zander ( <i>Sander lucioperca</i> )	Karolina Naumowicz	University of Warmia and Mazury
171-P	Protection of the intestinal mucosa of carp from infections by <i>Aeromonas hydrophila</i> - by feeding of $\beta$ -glucans	Mikolaj Adamek	University of Veterinary Medicine, Hannover
172-P	Influence of 1.3-1.6 $\beta$ -glucan on innate immunity and protection against <i>Pseudomonas fluorescens</i> in European catfish ( <i>Silurus glanis</i> )	Andrzej Siwicki	The Stanisław Sakowicz Inland Fisheries Institute
Gill Diseases			
173-P	Distribution of parasites on the gills of skipjack from Madeira, Eastern Atlantic	Aurélia Saraiva	University of Porto
174-P	First occurrence of nodular gill disease in farmed brown trout ( <i>Salmo trutta</i> L.)	Francesco Quaglio	University of Padova
175-P	Amoebic gill diseases (AGD) outbreak in marine fish cultured in Korea	Wi-Sik Kim	Chonnam National University
176-P	The influence of an immunostimulant diet on immune gene expression during AGD infection in <i>Salmo salar</i>	Anna Harte	University of Aberdeen
177-P	Viability of <i>Neoparamoeba perurans</i> when exposed to heat or hydrogen peroxide treatment as monitored by real time flow cytometry	Mark Fordyce	Marine Scotland Science
178-P	Histopathological changes and water quality parameters in RAS: An experiment on the effects of different fixed film bioreactor setups	Anna Maria Eriksson-Kallio	Finnish Food Safety Authority Evira

Wednesday 6 September 15:15-15:45, Hall 1D

Diagnostics			
Program No.	Title	Presenting Author	Affiliation
179-P	Aquatic animal disease proficiency testing added to the U.S. National Animal Health Laboratory Network	Janet Warg	National Veterinary Services Laboratories
180-P	Development and assessment of a non-invasive health screening technique for the common octopus ( <i>Octopus vulgaris</i> ) held under laboratory conditions	Sarah Anne Long	University College Cork

## Poster Presentations

Wednesday 6 September 15:15-15:45, Hall 1D

Diagnostics			
Program No.	Title	Presenting Author	Affiliation
181-P	Health Assessment Index in health control of farmed fish - Case report	Karolina Naumowicz	University of Warmia and Mazury
182-P	Influence of different fixatives on staining quality and morphology of fish gills	Karolina Naumowicz	University of Warmia and Mazury
183-P	How useful are current PCR methods for the detection of genetic variants of <i>carp edema virus</i> ?	Mikolaj Adamek	University of Veterinary Medicine, Hannover
184-P	Validation of a field qPCR test for the detection of salmonid alphavirus (SAV)	Eann Munro	Marine Scotland Science
185-P	Development of a real time RT-PCR specific to <i>Oncorhynchus 1 novirhabdovirus</i> integrating MS2 bacteriophage as universal exogenous external control	Lénaïg Louboutin	Bretagne Loire University
186-P	Development of duplex-PCR for detection of red seabream iridovirus and flounder iridovirus	Seong Don Hwang	National Institute of Fisheries Science
187-P	Viral encephalopathy and retinopathy – Results from the first interlaboratory proficiency test	Francesco Pascoli	Istituto Zooprofilattico Sperimentale delle Venezie
188-P	Surveillance of BKD: Optimization of procedures for detection of <i>Renibacterium salmoninarum</i>	Tine Moesgaard Iburg	National Veterinary Institute, DTU
189-P	Development of new molecular diagnostic methods for edwardsiellosis, streptococcosis and vibriosis in olive flounder ( <i>Paralichthys olivaceus</i> )	Myoung Sug Kim	National Institute of Fisheries Science
190-P	Rapid and sensitive detection of <i>Mycobacterium marnium</i> complex by use of loop-mediated isothermal amplification method	Ming-An Tsai	National Museum of Marine Biology and Aquarium
191-P	An ISH technique for the early detection of <i>Enterospora nucleophila</i> , an intranuclear microsporidian causing emaciative disease in gilthead sea bream	Nahla Hossam Eldin	IATS-CSIC
192-P	Validation of diagnostic methods for the detection of <i>Enterospora nucleophila</i> (Microsporidia) in the intestine of gilthead sea bream	Nahla Hossam Eldin	IATS-CSIC
214-P	Rainbow trout red mark syndrome lesion development visualized	Jacob Günther Schmidt	DTU National Veterinary Institute
Prophylaxis and Treatments			
193-P	Efficacy of anthelmintic properties of albendazole supramolecular complexes in carp ( <i>Cyprinus carpio</i> )	Anna Kazarnikova	Southern Scientific Center of Ras
194-P	Application of a compound mixture containing caprylic acid against <i>Sparicotyle chrysophrii</i> in gilthead sea bream	George Rigos	Hellenic Centre For Marine Research
195-P	Treatment possibilities of skin ulcer caused by <i>Aeromonas</i> spp. in practice	Edit Eszterbauer	Hungarian Academy of Sciences
196-P	Salt treatment for recovery of the mud loach, <i>Misgurnus mizolepis</i> from transport stress	Jinha Yu	National Fishery Products Quality Management Service, Busan
197-P	New antibacterial agent against fish pathogens	Andrzej Siwicki	The Stanisław Sakowicz Inland Fisheries Institute
198-P	Preliminary tests on <i>in vitro</i> activity of different pure and commercial compounds against <i>Saprolegnia</i> spp.	Marialetizia Fioravanti	Alma Mater Studiorum Università di Bologna
199-P	Efficacy evaluation of natural extract from <i>Rhus verniciflua</i> against <i>Miamiensis avidus</i> (Ciliophora: Scuticociliatida) in olive flounder ( <i>Paralichthys olivaceus</i> )	Shin Su-Mi	Chonnam National University
200-P	Inhibitory effects of pentacyclic triterpenoids from medicinal plants on the replication of Viral Hemorrhagic Septicemia virus	So Young Kang	Chonnam National University

## Poster Presentations

Wednesday 6 September 15:15-15:45, Hall 1D

Prophylaxis and Treatments			
Program No.	Title	Presenting Author	Affiliation
201-P	Investigation of protease use against fish viruses in aquaculture	Anna Maria Becker	Friedrich-Alexander University Erlangen-Nuremberg
202-P	Efficacy of optimized extract from <i>Rhus verniciflua</i> Stokes against edwardsiellosis in olive flounder <i>Paralichthys olivaceus</i> and contents of active compounds	Jae-Woong Lim	Chonnam National University
203-P	Enzyme reaction for combat against Koi herpesvirus	Yeonhwa Jin	Friedrich-Loeffler-Institut
204-P	The efficacy and pharmacokinetics of ceftiofur sodium against streptococcosis in cultured olive flounder <i>Paralichthys olivaceus</i>	Jung Soo Seo	National Institute of Fisheries Science, Busan
205-P	Timor C, a commercial plant-based alternative for the treatment of infections caused by monogenean parasites	Dina Zilberg	Ben Gurion University
Diseases of Wild and Ornamental Fish			
206-P	First isolation of <i>Flavobacterium psychrophilum</i> associated with reports of moribund wild European eel ( <i>Anguilla anguilla</i> ) from two rivers in Scotland	Silvia Soares	Marine Scotland-Science
207-P	A web based surveillance system for wild salmonids in Sweden and Finland	Charlotte Axén	National Veterinary Institute, Uppsala
208-P	Systemic infection by <i>Vibrio harveyi</i> in humphead wrasse <i>Cheilinus undulatus</i> (Rüppell, 1835) at a public aquarium	Marialetizia Fioravanti	Alma Mater Studiorum Università di Bologna
209-P	Monitoring and surveillance of salmonid pathogens in wild and feral fish populations in southern Chile	Juan Carlos Quintanilla	Instituto de Fomento Pesquero
210-P	Melano-macrophage centres across seasons, depths and species in the Mediterranean Sea: A complex relationship	Francesc Padrós	Universitat Autònoma de Barcelona

Thursday 7 September 15:15-15:45, Hall 1D

Emerging Pathogens			
Program No.	Title	Presenting Author	Affiliation
211-P	Emergence of a new serovar of <i>Vibrio harveyi</i> pathogenic for European seabass ( <i>Dicentrarchus labrax</i> )	Belén Fouz	University of Valencia
212-P	First identification and characterization of <i>Tenacibaculum dicentrarchi</i> isolated from Chilean red conger eel ( <i>Genypterus chilensis</i> , Guichenot 1881)	Ruben Avendaño-Herrera	Universidad Andrés Bello
213-P	Confirmation of <i>Weissella ceti</i> as cause of septicemic disease in rainbow trout farms in Mexico	Ruben Avendaño-Herrera	Universidad Andrés Bello
215-P	Research on <i>Tetracapsuloides bryosalmonae</i> , the causative agent of proliferative kidney disease (PKD): An emerging pathogen in wild salmonids in Iceland	Fjóla Rut Svavarsdóttir	University of Iceland
Viral Myopathies			
216-P	Investigating the prevalence of piscine myocarditis virus (PMCV) in farmed Atlantic salmon in Ireland	Teresa Morrissey	Marine Institute
Salmonid Viral Diseases			
217-P	Epidemiology of infectious hematopoietic necrosis virus (IHNV) in the Netherlands since 2008	Olga Haenen	Wageningen Bioveterinary Research of Wageningen UR

## Poster Presentations

Wednesday 6 September 15:15-15:45, Hall 1D

Salmonid Viral Diseases			
Program No.	Title	Presenting Author	Affiliation
218-P	Molecular evolution and phylogeography of <i>Oncorhynchus 1 novirhabdovirus</i> with a focus on the French situation over the last 30 years	Lénaïg Louboutin	Bretagne Loire University
219-P	Analysis of the full G gene sequences of the viral haemorrhagic septicaemia virus isolates from the Czech Republic	Lubomír Pojezdal	University of Veterinary and Pharmaceutical Sciences Brno
220-P	Infectious salmon anaemia virus (ISAV) infection in Norwegian farmed rainbow trout, <i>Oncorhynchus mykiss</i> (Walbaum)	Marta Alarcon	Norwegian Veterinary Institute
221-P	Co-infection with three different aquatic viruses in fresh water Atlantic salmon reared in Chile	Ricardo Enriquez	Universidad Austral de Chile
222-P	Triploid salmon – Susceptibility to infectious diseases	Hilde Sindre	Norwegian Veterinary Institute
223-P	Individual monitoring of immune response in Atlantic salmon <i>Salmo salar</i> following experimental infection with piscine myocarditis virus (PMCV)	Milena Monte	University of Aberdeen
Aquatic Animal Epidemiology			
224-P	Safeguarding Atlantic salmon: A non-invasive approach to assess viral disease dynamics, surveillance methods and effect of control measures	Marit Kjellin	Norwegian Veterinary Institute
225-P	Fishery biosecurity: Not-so-lucky dip	Hannah Tidbury	Centre for Environment, Fisheries and Aquaculture Science
226-P	Genetic diversity of infectious pancreatic necrosis virus (IPNV) isolated since 2004 from salmonids in Switzerland	Nicolas Diserens	Centre for Fish and Wildlife Health, Bern
227-P	Enhancing the surveillance of antimicrobial resistance in fish farming in France	Sandrine Baron	Anses Mycoplasma-Bacteriology Unit
228-P	Diseases of farmed eel diagnosed in Poland	Andrzej Siwicki	The Stanisław Sakowicz Inland Fisheries Institute
229-P	Infectious hematopoietic necrosis virus (IHNV) in juvenile Fraser River Sockeye salmon ( <i>Oncorhynchus nerka</i> ) rearing in the Strait of Georgia (SOG)	Stewart Johnson	Fisheries & Oceans Canada
230-P	Determination of Piscine Reovirus (PRV) incidence by RT-qPCR, according to histopathologic diagnose for farmed Atlantic salmon in fresh water, Chile	Ricardo Enriquez	Universidad Austral de Chile
231-P	Environmental and demographic factors associated with the detection of Piscine Orthoreovirus (PRV) in Atlantic salmon in fresh water, Chile	Ricardo Enriquez	Universidad Austral de Chile
232-P	Epidemiological and pathogenetic issues of nodular gill disease, an emerging pathology in Italian farmed rainbow trout ( <i>Oncorhynchus mykiss</i> )	Francesco Quaglio	University of Padova
233-P	Preliminary results from an epidemiological survey reveal widespread abundance of carp edema virus in Germany	Mikolaj Adamek	University of Veterinary Medicine, Hannover
Diseases of Uncertain Aetiology			
234-P	Superficial epidermal necrosis in wild Baltic salmon ( <i>Salmo salar</i> ) broodfish	Perttu Koski	Finnish Food Safety Authority Evira
235-P	Disease and mortality in returning salmon in Sweden and Finland	Charlotte Axén	National Veterinary Institute, Uppsala
236-P	Experimental transmission of segmented filamentous bacteria (SFB) in rainbow trout ( <i>Oncorhynchus mykiss</i> , Walbaum)	Mai Ho	Marine Scotland
237-P	Histopathological survey on farmed meagre ( <i>Argyrosomus regius</i> ) affected by Systemic Granulomatous Syndrome (SGS)	Marialetizia Fioravanti	Alma Mater Studiorum Università di Bologna
238-P	Characterization of the skin cell infiltrates associated to red mark syndrome (RMS): An immunohistochemical study	Paolo Ronza	Universidade de Santiago de Compostela