



DETAILS OF SESSIONS AND PRESENTATIONS

Contents

Abst. No	Author Name	Title	Page No
Keynote Address			
1	Yonathan Zohar	FISH AND REPRODUCTIVE PHYSIOLOGY - A JOURNEY FROM BASIC AND TRANSLATIONAL SCIENCE TO A RECOGNIZED VERTEBRATE MODEL	1
Session I: Reproductive Neuroendocrinology			
<i>Chair: Prasada Rao, India and Ishwar Parhar, Malaysia</i>			
Platform Presentation			
2	<u>Olivier Kah</u>	40 YEARS OF RESEARCH ON THE "REPRODUCTIVE BRAIN" OF TELEOST FISHES	2
3	<u>Uchida K.</u> , Moriyama S., Sower S. A., Nozaki M.	EVOLUTIONARY ORIGIN OF A FUNCTIONAL GONADOTROPIN IN THE PITUITARY OF THE MOST PRIMITIVE VERTEBRATE, HAGFISH	4
4	<u>Okubo K</u>	SEX DIFFERENCES IN ESTROGEN AND ANDROGEN SIGNALING IN THE MEDAKA BRAIN	6
5	<u>Nagarajan G.</u> , Aruna A., Chang C.F.	A NOVEL PEAK OF FUNCTIONAL NEUROSTEROIDOGENESIS AND ESTROGEN SIGNALLING IN THE EARLY BRAIN DEVELOPMENT OF ORANGE-SPOTTED GROUPER <i>EPINEPHELUS COIOIDES</i>	7
6	<u>Hildahl J.</u> , Sandvik G. K., Lifjeld R., Nagahama Y., Haug T. M., Okubo K., Weltzien F. A.	DEVELOPMENTAL TRACING OF LH BETA GENE EXPRESSION USING A STABLE LINE OF TRANSGENIC MEDAKA REVEALS PUTATIVE DEVELOPMENTAL FUNCTION AND PITUITARY DISTRIBUTION	9
7	<u>Zmora N.</u> , Stubblefield J., Zulperi Z., Klenke U., Zohar Y.	KISSPEPTIN-PHOTOPERIOD/GONADAL STEROID RELATIONSHIPS IN THE BRAIN OF TWO PERCIFORMS, THE STRIPED AND HYBRID BASSES	10
8	<u>Levavi-Sivan B.</u> , Biran J., Ben-Dor S., Palevitch O.	NOVEL NEUROPEPTIDES INVOLVED IN THE CONTROL OF PUBERTY AND REPRODUCTION IN FISH	12
9	<u>Ishwar S. Parhar</u>	KISSPEPTINS REGULATE FISH REPRODUCTION	13
10	<u>Paul-Prasanth B.</u> , Nagahama Y.	SEXUAL BEHAVIOR IN TELEOSTS: ROLE OF GONADAL HORMONES	14
11	Ramallo M., Grober M., <u>Pandolfi M.</u>	EFFECTS OF ARGININE VASOTOCIN ON THE HYPOTHALAMIC-PITUITARY-GONADS AXIS: A BEHAVIOURAL APPROACH	15
Poster Presentation			
12	<u>Aruna A.</u> , NagarajanG., Chang C. F.	NEGATIVE IMPACT OF STRESS ON REPRODUCTION: ROLE OF BRAIN AND GILL DURING SALINITY RESPONSE IN TILAPIA	17
13	<u>Banerjee P.</u> , Chaube R. Joy K. P.	CLONING AND CHARACTERIZATION OF VASOTOCIN IN THE CATFISH <i>HETEROPNEUSTES FOSSILIS</i> : SEASONAL AND TISSUE EXPRESSION STUDIES	19

14	<u>Berkovich N.</u> , Corriero A., Santamaria N., Mylonas C. C., Bridges C. R., Vassallo-Aguis R., De La Gándara F., Belmonte A., Mislov K., Katavic I., Elizur A., Meiri-Ashkenazi I., Gordin H., Rosenfeld H.	THE NEUROENDOCRINE CONTROL OF PUBERTAL DEVELOPMENT IN ATLANTIC BLUEFIN TUNA (<i>THUNNUS THYNNUS</i>)	21
15	Escobar S., Servili A., Felip A., Zanuy S., Carrillo M., Kah O.	CHARACTERIZATION OF THE KISSPEPTIN SYSTEMS IN THE BRAIN OF THE EUROPEAN SEA BASS (<i>Dicentrarchus labrax</i>): RELATIONSHIPS WITH OESTROGEN RECEPTORS	23
16	<u>Chaube R.</u> , Singh R. K., Joy K. P.	EFFECTS OF ETIOCHOLANOLONE GLUCURONIDE, A PUTATIVE PHEROMONE ON BRAIN AND PLASMA VASOTOCIN LEVELS IN THE CATFISH <i>HETEROPNEUSTES FOSSILIS</i>	25
17	<u>Chen W. T.</u> , Ge W.	ONTOGENIC EXPRESSION PROFILES OF GONADOTROPINS (<i>fshb</i> , <i>lhb</i>) AND GROWTH HORMONE (<i>gh</i>) DURING SEXUAL DIFFERENTIATION AND PUBERTY ONSET IN FEMALE ZEBRAFISH	27
18	<u>Hiraki T.</u> , Okubo K.	SEX-DEPENDENT EXPRESSION OF ESTROGEN AND ANDROGEN RECEPTOR GENES IN THE MEDAKA BRAIN	29
19	<u>Honji R. M.</u> , Caneppele D., Pandolfi M., Lo Nostro F., Moreira R. G.	THE BRAIN-PITUITARY AXIS STRUCTURE IN CAPTIVITY REARED FEMALES OF <i>STEINDACHNERIDION PARAHYBAE</i> (SILURIFORMES)	30
20	<u>Kitahashi T.</u> , Parhar I. S.	EXPRESSION OF DEEP-BRAIN PHOTORECEPTOR, VERTEBRATE ANCIENT LONG OPSIN, IN THE JAPANESE MEDAKA	32
21	<u>Klenke U.</u> , Zmora N., Stubblefield J., Zohar Y.	EXPRESSION PATTERNS OF THE KISSPEPTIN SYSTEM AND GnRH1 CORRELATE IN THEIR RESPONSE TO GONADAL FEEDBACK IN FEMALE STRIPPED BASS	33
22	<u>Marcano D.</u> , Espinoza A., Cardillo E., Poleo G., Guerrero H. Y.	RELEASING- HORMONE AND MELATONIN RECEPTORS IN THE BRAIN OF A VENEZUELAN CATFISH, "SIERRA NEGRA" (<i>OXYDORAS SIFONTESI</i>)	35
23	<u>Mazzeo I.</u> , Peñaranda D. S., Gallego V., Nourizadeh-Lillabadi R., Tveiten H., Weltzien F. A., Asturiano J.F., Pérez L.	EFFECT OF THERMAL REGIME ON THE EXPRESSION OF SEX-RELATED GENES IN FEMALE EUROPEAN EEL	36
24	<u>Miranda, L.A.</u> , Chalde T., Elisio M.	EFFECTS OF DAILY HIGH WATER TEMPERATURE FLUCTUATIONS ON BRAIN-PITUITARY-GONAD AXIS OF PEJERREY (<i>ODONTESTHES BONARIENSIS</i>) DURING ITS REPRODUCTIVE SEASON	38
25	<u>Nocillado J. N.</u> , Mechaly A. S., Elizur A.	COMPARATIVE ANALYSIS OF YELLOWTAIL KINGFISH AND ZEBRAFISH <i>KISS</i> AND <i>KISS RECEPTOR</i> GENE PROMOTERS	40
26	Mechaly A. S., Viñas, J., Piferrer, F.	KISSPEPTIN SIGNALING AND REPRODUCTION IN FLATFISH	41
27	<u>Rawat A.</u> , Chaube R., Joy K.P	PARTIAL CLONING AND CHARACTERIZATION OF VASOTOCIN1A RECEPTOR GENE IN THE CATFISH <i>HETEROPNEUSTES FOSSILIS</i> : SEASONAL AND TISSUE EXPRESSION STUDY	43
28	<u>Saha A.</u> , Sambroni E., Boger J., Schulz R. W., Le Gac F., Lareyre J. J	THE CELL CONTEXT INFLUENCES RAINBOW TROUT GONADOTROPIN RECEPTORS' SELECTIVITY	45

29	<u>Saravanan N.</u> , Uma T., Pratheeba S. P., Sundari G., Inbaraj R.M.	STEROIDOGENIC GENE EXPRESSION IN THE BRAIN OF AN INDIAN MAJOR CARP, <i>LABEO ROHITA</i> (HAM.)	47
30	<u>Schartl M.</u> , Schories S., Schmidt C., Fischer P., Lampert K., Volf J. N., Hoffmann C., Lohse M	REGULATION OF ONSET OF SEXUAL MATURATION BY MELANOCORTIN RECEPTOR 4 POLYMORPHISMS IN <i>XIPHOPHORUS</i>	49
31	<u>Selvaraj S.</u> , Kitano H., Amano M., Nyuji M., Ohga H., Yamaguchi A., Yoneda M., Shimizu A., Matsuyama M.	KISSPEPTIN AND GnRH EXPRESSION PROFILES IN THE BRAIN AND PITUITARY OF FEMALE CHUB MACKEREL (<i>SCOMBER</i> <i>JAPONICUS</i>) DURING THE SPAWNING CYCLE	50
32	<u>Servili A.</u> , Page Y. L., Leprince J., Caraty A., Escobar S., Parhar I. S., Seong Y. J., Vaudry H., Kah O.	NEUROANATOMICAL CHARACTERIZATION OF TWO INDEPENDENT KISSPEPTIN SYSTEMS DERIVED FROM EVOLUTIONARY-ANCIENT KISS GENES IN THE BRAIN OF ZEBRAFISH	52
33	<u>Singh R. K.</u> , Chaube R., Joy K. P.	EFFECTS OF CATECHOLAMINES ON BRAIN AND PLASMA VASOTOCIN LEVELS IN THE CATFISH <i>HETEROPNEUSTES</i> <i>FOSSILIS</i>	54
34	<u>Strandabø R. A. U.</u> , Weltzien F-A., Haug T. M.	GnRH ELEVATES THE CYTOSOLIC Ca ²⁺ CONCENTRATION IN MEDAKA LH-PRODUCING GONADOTROPE CELLS	56
35	<u>Uchimura T.</u> , Hayashi Y., Tashiro S., Shiraishi E., Kitano T.	ANALYSIS OF GENES REGULATED BY HIGH TEMPERATURE IN MEDAKA	57
36	Molés G. Rocha A., Espigares F., Gómez A., Carrillo M., <u>Zanuy S.</u>	FSH PLASMA LEVELS DURING TESTICULAR RECRUDESCENCE OF PRECOCIOUS AND NON PRECOCIOUS MALE EUROPEAN SEA BASS USING A NEWLY DEVELOPED SPECIES SPECIFIC ENZYME- LINKED IMMUNOSORBENT ASSAY (ELISA)	58

Session II: Sex Determination and Gonad Differentiation

Chair: Yoshitaka Nagahama, Japan and Francesc Piferrer, Spain

Platform Presentation

37	Yano A., Nicol B., Valdivia K., Juanchich A., Desvignes, T., Caulier, M., Vazir Zadeh A., Guerin A., Jouanno E., Nguyen T., Mourot B., Rime, H., Bodinnier P., Cauty C., Quillet E., Guyomard R., Bobe J., Fostier A., <u>Guiguen Y.</u>	SEX IN SALMONIDS: FROM GONADAL DIFFERENTIATION TO GENETIC SEX DETERMINATION	60
38	Wu G. C., <u>Chang C. F.</u>	PROTANDROUS BLACK PORGY AS A MODEL ANIMAL TO INVESTIGATE GONADAL SEX DIFFERENTIATION AND SEX CHANGE	62
39	<u>Wang D. S.</u>	TRANSCRIPTOME ANALYSIS OF THE MOLECULAR MECHANISMS FOR TILAPIA SEX DETERMINATION, DIFFERENTIATION AND SEX REVERSAL	64

40	<u>Hattori R.S.</u> , Murai Y., Oura M., Masuda S., Majhi S. K., Sakamoto T., Fernandino J. I., Somoza G. M., Yokota M. Strüssmann C. A.	DUPLICATED, Y-LINKED COPY OF THE ANTI-MULLERIAN GENE DETERMINES TESTICULAR FORMATION IN PATAGONIAN PEJERREY <i>ODONTESTHES HATCHERI</i>	66
41	<u>Nozu R.</u> , Horiguchi R., Murata R., Kobayashi Y., Nakamura M.	THE FATE OF OVARIAN SOMATIC CELLS DURING SEX CHANGE IN THE PROTOGYNOUS WRASSE, <i>HALICHOERES TRIMACULATUS</i>	67
42	Díaz, N., Ribas, L., <u>Piferrer, F.</u>	GROWTH AND SEX DIFFERENTIATION RELATIONSHIP IN THE EUROPEAN SEA BASS (<i>DICENTRARCHUS LABRAX</i>)	69
43	Berbejillo J., Martínez- Bengochea A., Bedó G., <u>Vizziano-Cantonnet D.</u>	MOLECULAR CHARACTERIZATION OF TESTIS DIFFERENTIATION IN THE SIBERIAN STURGEON, <i>ACIPENSER</i> <i>BAERII</i>	71
Poster Presentation			
44	<u>Ayaka Yano.</u> , Elodie Jouanno., Christophe Klopp., Yann Guiguen	GENE EXPRESSION PROFILING DURING GONADAL DIFFERENTIATION IN RAINBOW TROUT (<i>ONCORHYNCHUS</i> <i>MYKISS</i>) USING A NEXT GENERATION SEQUENCING (NGS) APPROACH	73
45	<u>Barbara Nicol</u> , Ayaka Yano, Elodie Jouanno, Adèle Branthonne, Alexis Fostier, Yann Guiguen	FOLLISTATIN IS EXPRESSED ALONG WITH AROMATASE IN FEMALE GONADS DURING SEX DIFFERENTIATION IN THE RAINBOW TROUT	74
46	Caulier M., Guérin A., Cauty C., Hinfrey N., Brion F., <u>Guiguen Y.</u>	GONADAL EXPRESSION PATTERNS OF STEROIDOGENESIS- RELATED GENES DURING SEX DIFFERENTIATION IN ZEBRAFISH	75
47	Valdivia K, Jouanno E., Mourot B., Quillet E., Guyomard R., Volff J-N., Galiana-Arnoux D., Cauty C., Fostier A., <u>Guiguen Y.</u>	MASCULINIZATION IN RAINBOW TROUT CARRYING THE <i>MAL</i> MUTATION IS TEMPERATURE SENSITIVE	76
48	Fujimoto T, Ohmae T, Sato S, Horiguchi R, Nagahama Y., <u>Hirai T.</u>	MOLECULAR CLONING OF COMMON CARP GONADAL SOMA DERIVED FACTOR (GSDF)	77
49	<u>Huang B.F.</u> , Sun Y.L., Wang D.S.	TRANSCRIPTOME ANALYSIS OF ARTIFICIALLY INDUCED SEX REVERSAL IN THE NILE TILAPIA	78
50	<u>Juanchich A.</u> , Klopp C., Guiguen Y., Bobe J	MICRORNAs EXPRESSION DURING FISH OOGENESIS AND SEX DIFFERENTIATION	80
51	<u>Kawaguchi, Y.</u> , Mitsuhashi, T., Kitami, A., Nagaoka, A., Hayakawa, Y., Kobayashi, M	INVOLVEMENT OF OLFACTION IN SEXUAL BEHAVIOR IN GOLDFISH.	81
52	<u>Kitano T.</u> , Hayashi Y., Yamaguchi T., Shiraishi E.	HIGH TEMPERATURE CAUSES MASCULINIZATION OF GENETICALLY FEMALE MEDAKA BY ELEVATION OF CORTISOL LEVEL	82
53	<u>Liew W.C.</u> , Bartfai R., Lim Z., Sreenivasan R., Orban L	ZEBRAFISH IS GENETICALLY DETERMINED WITHOUT DIFFERENTIATED SEX CHROMOSOMES	84
54	<u>Mohapatra S.</u> , Liu Z.H., Zhou L.Y., Zhang Y.G., Wang D.S.	MOLECULAR CLONING OF WT1a AND WT1b AND THEIR POSSIBLE INVOLVEMENT IN FISH SEX DETERMINATION AND DIFFERENTIATION	85

55	<u>Kaiga, J., Strüssmann, C.A., Hattori, R.S., Oura, M., Yokota, M.</u>	SOME LIKE IT HOT: TEMPERATURE SELECTION DURING THE CRITICAL PERIOD OF THERMOLABILE SEX DETERMINATION IN PEJERREY (<i>ODONTESTHES BONARIENSIS</i>)	87
56	<u>Sun Y.L., Zeng S., Ye K., Yang C., Wang D.S.</u>	ISOLATION OF SEX-SPECIFIC MARKERS IN THE NILE TILAPIA, <i>OREOCHROMIS NILOTICUS</i> , BY AFLP	88
57	<u>Takeuchi A., Okubo K.</u>	SEXUALLY DIMORPHIC EXPRESSION OF AROMATASE IN THE MEDAKA BRAIN	89
58	<u>Uchikawa T., Kobira H., Hirai T., Kitano T.</u>	ANALYSIS OF REGULATIONAL MECHANISM OF FOLLICLE-STIMULATING HORMONE RECEPTOR (FSHR) EXPRESSION USING FSHR-GFP TRANSGENIC MEDAKA	90
59	<u>Blasco, M., Somoza, G.M., Vizziano-Cantonnet, D</u>	UNDIFFERENTIATED GONADS OF PEJERREY (<i>ODONTESTHES BONARIENSIS</i>) LARVAE EXPOSED TO MASCULINIZING TEMPERATURES PRODUCE 11-KETOTESTOSTERONE WHEN INCUBATED WITH A TRITIATED PRECURSOR	91

Session III: Reproductive cycles, Behaviour and Migration

Chair: Norberg Briggit, Norway and Alexander Scott, UK

Platform Presentation

60	<u>Tanaka, M., Nakamura, S., Saito, D., Kobayashi, K. Nishimura, T.</u>	OVARIAN STRUCTURES THAT SUPPORT REPRODUCTIVE CYCLES- GERMLINE STEM CELLS AND THEIR NICHE STRUCTURE IN OVARY	93
61	<u>Hiroshi Ueda</u>	NEUROPHYSIOLOGICAL MECHANISMS OF IMPRINTING AND HOMING MIGRATION IN SALMON	95
62	<u>Ignacio Carazo, Ignacio Martin, Peter Hubbard, Olvido Chereguini, Evaristo Mañanós, Adelino Canário, Neil Duncan</u>	REPRODUCTIVE BEHAVIOUR, THE ABSENCE OF REPRODUCTIVE BEHAVIOUR IN CULTURED (G1 GENERATION) AND CHEMICAL COMMUNICATION IN THE SENEGALESE SOLE (<i>SOLEA SENEGALENSIS</i>)	96
63	<u>Hubbard P.C., Huertas M., Almeida, O.G., Canário, A.V.M.</u>	MALE TILAPIA URINARY PHEROMONE INDUCES ENDOCRINE SEX RESPONSES IN CONSPECIFIC FEMALES	98
64	<u>Saraiva, J.L., Gonçalves, D., Oliveira, R.F</u>	INTER-POPULATION VARIATION IN THE REPRODUCTIVE BEHAVIOUR OF THE PEACOCK BLENNY	100
65	<u>Wylie M. J., Closs G. P., Lokman P. M.</u>	REPRODUCTIVE BIOLOGY OF GIANT KOKOPU, <i>GALAXIAS</i>	102
66	<u>Yanowski E., Mylonas, C.C., Corriero, A., Bridges C.R., Vassallo-Aguis, R., De La., Gándara, F., Belmonte, A., Meiri-Ashkenazi, I., Gordín, H., Rosenfeld, H</u>	MOLECULAR CHARACTERIZATION AND EXPRESSION PATTERNS OF ATLANTIC BLUEFIN TUNA (<i>TUNNUS THYNNUS</i>) LEPTIN DURING THE REPRODUCTIVE SEASON	104

Poster Presentation

67	<u>Aggarwal, N., Goswami, S.V., Sehgal, N.</u>	AROMATASE ACTIVITY OF BRAIN AND OVARY IN RELATION TO ANNUAL REPRODUCTIVE CYCLE OF THE INDIAN CATFISH, <i>HETEROPNEUSTES FOSSILIS</i>	106
68	<u>Valles R., Bayarri M. J., Mananos E., Duncan N</u>	PLASMA SEX STEROID PROFILES IN MEAGRE (<i>ARGYRO SOMUS REGIUS</i>)	108

69	<u>Gad Degani</u> , Dalia David, Gal Levy	THE EFFECT OF TEMPERATURE ON OOGENESIS AND BRAIN GENE EXPRESSION OF HORMONES INVOLVED IN REPRODUCTION AND GROWTH IN THE FEMALE BLUE GOURAMI (<i>TRICHOGASTER TRICHOPETRUS</i>)	109
70	<u>Hainfellner P.</u> , de Souza T.G., Nascimento T. S. R., Freitas G. A., Batlouni S. R	HETEROGENEOUS DISTRIBUTION OF OOCYTES IN THE OVARIES OF <i>PROCHILODUS LINEATUS</i>	111
71	<u>Hayakawa, Y.</u> , Kobayashi, M.	INFLUENCES OF GUARDING TERRITORY ON REPRODUCTIVE ACTIVITY IN THE MALE DWARF GOURAMI, <i>COLISA LALIA</i>	113
72	In Joon Hwang., Sang Jun Choi., Hyung Bae Kim., <u>Hea Ja Baek</u>	ANNUAL REPRODUCTIVE CYCLE, SPAWNING BEHAVIOR OF CHAMELEON GOBY, <i>TRIDENTIGER TRIGONOCEPHALUS</i> IN KOREA	114
73	<u>Kaberi Acharia</u> , Lal B., Singh T.P.	SEASON DEPENDENT EFFECT OF DIETARY LIPIDS IN REPRODUCTION IN THE INDIAN CATFISH <i>CLARIAS BATRACHUS</i>	116
74	Tubert C., <u>Lo Nostro F.</u> , Pandolfi M.	REPRODUCTIVE PHYSIOLOGY AND AGGRESSIVE BEHAVIOUR OF FEMALES OF THE SOCIAL CICHLID FISH <i>CICHLASOMA DIMERUS</i> (PERCIFORMES)	118
75	Bayarri M.J.,Guzmán, J.M.,Ramos J., Piquer V., <u>Mañanós E.</u>	ANNUAL VARIATIONS OF MATURATION INDUCING STEROID IN TWO CULTURED GENERATIONS OF SENEGALESE SOLE, <i>SOLEA SENEGALENSIS</i>	120
76	<u>Mishra S.</u> , Chaube R.	EFFECTS OF PERFUSION OF TESTICULAR FRACTIONS ON BRAIN CATECHOLAMINES IN THE FEMALE CATFISH <i>HETEROPNEUSTES FOSSILIS</i>	122
77	<u>Nyuji M.</u> , Ohga H. , Kitano H. , Selvaraj S. , Yoneda M. , Shimizu A. , Yamaguchi A., Matsuyama M.	EXPRESSION PROFILES OF GTHb SUBUNIT mRNAs DURING SEASONAL AND SPAWNING CYCLES IN FEMALE CHUB MACKEREL <i>SCOMBER JAPONICUS</i> AND <i>IN VITRO</i> STEROID POTENCY OF PURIFIED GTHS IN VITELLOGENIC OOCYTES	124
78	<u>Scott, Alexander P.</u> , Ellis., Tim	‘OUT-OF-SEASON’ PRODUCTION OF 17,20 β -DIHYDROXY-PREGN-4-EN-3-ONE CHALLENGES THE DOGMA THAT IT IS SOLELY A ‘MATURATION-INDUCING HORMONE’ IN FISH	126
79	<u>Singh H. K.</u> , Singh P.B.	CIRCANNUAL VARIATIONS IN PLASMA LEVELS OF UNCONJUGATED AND CONJUGATED TESTOSTERONE AND ESTRADIOL-17 β IN FEMALE <i>CIRRHINUS MRIGALA</i> (HAM.)	127
80	<u>Valsa S. Peter</u> , M C Subhash Peter	OSMOREGULATORY, METABOLIC AND ENDOCRINE RESPONSES OF AIR-BREATHING FISH (<i>ANABAS TESTUDINEUS</i> BLOCH) TO EXOGENOUS ESTRADIOL-17 β	129
81	Yong-Ju Park, Hyeong-Cheol Kang, Chi-Hoon Lee, Young-Bo Song, Hea-Ja Baek, Hyung-Bae Kim, <u>Young-Don Lee</u>	ENVIRONMENTAL CONTROL OF GONADAL DEVELOPMENT IN THE FEMALE BLACKTIP GROUPER <i>EPINEPHELUS FASCIATUS</i>	130
82	<u>Yong-Ju Park</u> , Gi-Su Song, Byeong-Hoon Kim, Seung-Hyeon Lee, Se-Jae Kim, Akihiro Takemura, Young-Don Lee	EFFECT OF PHOTOPERIOD ON GONADOTROPIN (FSH β AND LH β) REGULATION IN THE DAMSELFISH, <i>CHROMIS NOTATA</i>	131

Session IV: Gametogenesis-I (Spermatogenesis)

Chair: Matt Vijayan, Canada and Luiz Renato Franca, Brazil

Platform Presentation

83	<u>Luiz R. França</u> , Samyra M.S.N. Lacerda, Rafael H., Nóbrega, Guilherme J.M. Costa, Jan Bogerd, Rüdiger W. Schulz	SPERMATOGONIAL STEM CELL BIOLOGY AND NICHE IN FISH	132
84	Linhart, O, Alavi, S.M.H, Psenicka, M, Rodina, M, Kaspar, V, Li, P, <u>Hulak, M</u> , Boryshpolets, S, Dzyuba, B, Gela, D, Flajshans, M, Peknicova, J, Cosson, J, Ciereszko, A	SPERMATOOZA OF CHONDROSTEAN FISH SPECIES: STRUCTURE, MOTILITY AND FERTILIZING ABILITY	133
85	<u>Trombly S.M.</u> , Maugars G., Kling P., Björnsson B. T., Schmitz M.	DOES LEPTIN PLAY A ROLE IN EARLY SEXUAL MATURATION IN MALE ATLANTIC SALMON (<i>SALMO SALAR</i> L.)?	135
86	<u>Lal B.</u> , Dubey N.	INTRA-TESTICULAR NITRIC OXIDE REGULATES STEROIDOGENESIS IN FISH	136
87	<u>Routray, P.</u> , Verma, D. K., Sahu, A. D., Purohit, G.K., Sundaray, J.K.	SPERMATOGENESIS IN FISH UNDER THE INFLUENCE OF VARIOUS FACTORS WITH SPECIAL REFERENCE TO INDIAN MAJOR CARPS	137
88	<u>Kusakabe M.</u> , Takei Y., Luckenbach J.A.	RELAXIN-3 AND RELAXIN/INSULIN-LIKE FAMILY PEPTIDE RECEPTOR 3 IN RAINBOW TROUT: SITES OF GENE EXPRESSION AND CHANGES IN MESSENGER RNA LEVELS DURING SPERMATOGENESIS IN TESTIS	139
89	Sambroni E., Rolland A. Goupil., AS. Lareyre J.J., <u>Le Gac F.</u>	PATHWAYS USED BY ANDROGENS OR FSH TO REGULATE TESTIS MATURATION	141
90	Mazón M.J., Zanuy S., Carrillo M., <u>Gómez A.</u>	USE OF SOMATIC GENE TRANSFER FOR STUDYING GONADOTROPIN ACTIONS ON SPERMATOGENESIS IN EUROPEAN SEA BASS (<i>DICENTRARCHUS LABRAX</i>)	143

Poster Presentation

91	<u>Abduh, M.Y.</u> , Abol-Munafi, A.B., Ambak, M.A., Norazmi-Lokman, N.H.	THE EFFECTS OF STOCKING METHOD ON THE GONAD DEVELOPMENT OF ANDROGEN TREATED FALSE CLOWNFISH, <i>AMPHIPRION OCELLARIS</i>	145
92	Huertas, M., Hubbard, P.C., <u>Canário, A.V.M.</u>	STEROIDOGENESIS DYNAMICS DURING MATURATION IN THE MALE EUROPEAN EEL	147
93	<u>Hayashi M.</u> , Iwasaki Y., Nagasaka Y., Yoshizaki G.	ENRICHMENT OF SPERMATOGONIAL STEM CELL BY USING SIDE POPULATION IN RAINBOW TROUT	149
94	<u>Huertas, M.</u> , Pereira, D., Silva, S. Canário, A.V.M., Hubbard, P.C.	ANOSMIA IMPAIRS REPRODUCTION IN THE MOZAMBIQUE TILAPIA	151
95	Dubey N., <u>Lal B</u>	POSSIBLE MEDIATORS OF GROWTH HORMONE ACTION ON TESTICULAR TESTOSTERONE PRODUCTION IN THE ASIAN CATFISH, <i>CLARIAS BATRACHUS</i>	153

Session V: Gametogenesis-II (Folliculogenesis)

Chair: Hirohiko Kagawa, Japan and Adelino Canario, Portugal

Platform Presentation

96	<u>Cerdà J.</u> , Zapater C., Chauvigné F., Finn R.N	WATER HOMEOSTASIS IN THE TELEOST OOCYTE: NEW INSIGHTS INTO THE ROLE AND MOLECULAR REGULATION OF AQUAPORINS	155
97	<u>Ge W.</u>	PARACRINE AND AUTOCRINE COMMUNICATION NETWORK IN THE ZEBRAFISH OVARIAN FOLLICLE	156
98	<u>Hiramatsu N.</u> , Luo W., Mizuta H., Todo T., Reading B.J., Sullivan C.V., Hara A.	A NOVEL CLASS OF OVARIAN LIPOPROTEIN RECEPTOR IN CUTTHROAT TROUT: MOLECULAR CLONING AND EXPRESSION ANALYSIS	157
99	<u>Sehgal Neeta</u> , Rawat V. S., Rani K.V., Phartyal R.	DIFFERENTIAL EXPRESSION OF VITELLOGENIN GENES (VGA AND VGB) BY HEPATOCYTES OF THE INDIAN FRESHWATER MURREL, <i>CHANNA PUNCTATUS</i> , ON EXPOSURE TO ESTRADIOL	159
100	Pragya Paramita Khan , Suman Dasgupta, Samir Bhattacharya, <u>Sudipta Maitra</u>	DISTINCT LOCALIZATION OF CYCLIC AMP DEPENDENT PROTEIN KINASE CATALYTIC SUBUNIT (PKAC) DURING MEIOTIC MATURATION IN PERCH (<i>ANABAS TESTUDINEUS</i>) OOCYTE: PKA INHIBITORS MIMIC MIH ACTION-	161
101	<u>Lokman P. M.</u> , Divers S. L., Ozaki Y., Black M. A.	LIPID METABOLISM DURING EARLY OOGENESIS-WHAT CAN WE DEDUCE FROM TRANSCRIPTOME ANALYSIS AND WHAT HAVE ANDROGENS GOT TO DO WITH IT?	162
102	Shepperd E, Kerzman K., <u>Unniappan</u>	GHRELIN AND KISSPEPTIN: TWO NOVEL ENDOCRINE MODULATORS OF OOCYTE MATURATION IN FISH	164

Poster Presentation

103	<u>Acharjee A.</u> , Chaube R., Joy K. P., Cerdà J.	HORMONAL REGULATION OF <i>AQUAPORIN-1ab</i> IN <i>HETEROPNEUSTES FOSSILIS</i> OOCYTES <i>IN VITRO</i>	165
104	<u>Bogevik, A.S.</u> , Karlsen, Ø., Andersson, E., Thorsen, A., Hamre, K., Rosenlund, G., Norberg, B.	EFFECTS OF DIETARY LIPID LEVELS ON SEXUAL MATURATION AND FECUNDITY IN FEMALE ATLANTIC COD (<i>GADUS MORHUA</i>)	167
105	Singh V., <u>Chaube R.</u> , Chourasia T. K., Joy K. P.	EFFECTS OF α -METHYLPARATYROSINE, A CATECHOLAMINE INHIBITOR ON OVARIAN STEROID HORMONE LEVELS IN THE CATFISH <i>HETEROPNEUSTES FOSSILIS</i>	169
106	<u>Chourasia T. K.</u> , Joy K.P.	ROLE OF CATECHOLESTROGENS ON <i>IN VITRO</i> PROSTAGLANDIN SECRETION IN OVARIAN FOLLICLES OF THE CATFISH <i>HETEROPNEUSTES FOSSILIS</i>	171
107	<u>Crespo D.</u> , Planas J. V.	POSIBLE MEDIATORY ROLE OF TUMOR NECROSIS FACTOR ALPHA (TNF ALPHA) IN TROUT PREOVULATORY FOLLICLES: EFFECTS ON PREPARATORY EVENTS LEADING TO OVULATION	173
108	<u>Dumas S.</u> , Ramírez Luna S, Mañanos E., Pintos- Terán P., Vázquez Bouccard C., Tort, L., Rodríguez., Jaramillo C.	PATTERN OF OOCYTE GROWTH, PLASMATIC VITELLOGENIN, STEROID AND CORTISOL CONCENTRATIONS OF THE PACIFIC RED SNAPPER (<i>LUTJANUS PERU</i>)	174

109	<u>Forbes, E.L.</u> , Lokman, P.M	LIPID STOCK-PILING IN THE GROWING OOCYTE– ARE ANDROGENS DRIVING LIPID DELIVERY TO SUSTAIN THE FUTURE EMBRYO OF THE EEL, <i>ANGUILLA AUSTRALIS</i> ?	175
110	<u>Francis T.</u> , Rajagopal C.B.T., Jeyakumar N., Venkatasamy M., Archana Devi C.	ROLE OF KISSPEPTIN ON GONADAL MATURATION OF STRIPED MURREL, <i>CHANNA STRIATUS</i>	176
111	Anitha R., <u>Gokulakrishnan S.</u> , Magesh K.M., Saravanan N., Inbaraj R.M	EXPRESSION OF MIS RECEPTORS IN THE OOCYTE OF INDIAN MAJOR CARP, <i>CIRRHINUS MRIGALA</i>	178
112	<u>Kitano H.</u> , Takeshita M., Lee J.M., Kusakabe T., Yamaguchi A., Matsuyama M.	FUNCTION OF GONADOTROPINS IN ASYNCHRONOUS DEVELOPMENT OF OVARIAN FOLLICLES IN THE WRASSE <i>PSEUDOLABRUS SIEBOLDI</i>	180
113	<u>Kumari Vandana Rani</u> , Sehgal N.	ESTRADIOL INDUCED MECHANISMS REGULATING VITELLOGENIN (VG) AND CHORIOGENIN SYNTHESIS AND EXPRESSION OF VG IN THE CULTURED HEPATOCYTES OF INDIAN FRESHWATER MURREL <i>CHANNA PUNCTATUS</i>	182
114	<u>Li M.H.</u> , Wang H., Gu Y., Yang S.J., Sun Y.L., Zhou L.Y., Wang D.S.	EXPRESSION, TRANSCRIPTIONAL REGULATION AND POSSIBLE ROLES OF INSULIN-LIKE GROWTH FACTORS IN GONADAL STEROIDOGENESIS IN TILAPIA	184
115	<u>Liu K.C.</u> , Ge W.	DIFFERENTIAL REGULATION OF GONADOTROPIN RECEPTORS (<i>fshr</i> AND <i>lhgr</i>) BY ESTRADIOL IN THE ZEBRAFISH OVARY INVOLVES NUCLEAR RECEPTORS THAT ARE LIKELY LOCATED ON THE PLASMA MEMBRANE	186
116	Chen H., Zhang Y., Li S., Lin M., Shi Y., Sang Q., Liu M., Zhang H., Lu D., Meng Z. , <u>Liu X.</u> , Lin H.	MOLECULAR CLONING, CHARACTERIZATION AND EXPRESSION PROFILES OF THREE ESTROGEN RECEPTORS IN PROTOGYNOUS HERMAPHRODITIC ORANGE-SPOTTED GROUPER (<i>EPINEPHELUS COIoidES</i>)	187
117	<u>Luni S.</u> , Sehgal N.	A STUDY ON YOLK PROTEOLYSIS AND OOCYTE HYDRATION IN FRESHWATER FISH <i>CLARIAS GARIEPINUS</i>	188
118	<u>Mazón M.J.</u> , Gómez A., Zanuy S	FOLLICLE STIMULATING HORMONE ACTIVATES THE STEROIDOGENIC PROCESS VIA cAMP/PKA and MAP-KINASE PATHWAYS IN THE OVARY OF EUROPEAN SEA BASS (<i>DICENTRARCHUS LABRAX</i>)	190
119	<u>Mizuta H.</u> , Hiramatsu N., Todo T., Ito Y., Gen K., Kazeto Y., Sullivan C.V., Reading B.J. Hara A.	MOLECULAR CLONING AND LOCALIZATION OF TWO CLASSICAL OVARIAN LIPOPROTEIN RECEPTORS IN CUTTHROAT TROUT <i>ONCORHYNCHUS CLARKI</i>	192
120	<u>Nishimiya O.</u> , Kunihiro Y., HiramatsuN., InagawaH.,Todo T., Matsubara T., Reading B.J., Sullivan C.V., Hara A.	MOLECULAR CHARACTERIZATION AND EXPRESSION ANALYSIS OF ESTROGEN RECEPTOR AND VITELLOGENINS IN INSHORE HAGFISH (<i>EPTATRETUS BURGERI</i>)	194
121	<u>Om Prakash</u> , Goswami S V.,Sehgal N.	TEMPERATURE AND TEMPORAL MODULATED, DOSE DEPENDENT RESPONSE OF ESTRADIOL-17B ON THE INDUCTION OF VITELLOGENIN AND CHORIOGENIN IN <i>CHANNA PUNCTATUS</i>	196
122	<u>Planas J. V.</u> , Crespo D.	EVIDENCE FOR A POSSIBLE MEDIATORY ROLE OF TUMOR NECROSIS FACTOR α ON LUTEINIZING HORMONE-INDUCED OOCYTE MATURATION IN TROUT	198

123	García-López, Á., Sánchez-Amaya, M.I., Halm, S., Astola, A., <u>Prat,</u> <u>F.</u>	GROWTH DIFFERENTIATION FACTOR 9 AND BONE MORPHOGENETIC PROTEIN 15 mRNA AND PROTEIN: CELLULAR LOCALIZATION AND DEVELOPMENTAL EXPRESSION IN THE OVARY OF EUROPEAN SEA BASS	199
124	<u>Prem Kumar,</u> Arasu A.R.T., Kailasam M., Sundaray J.K., Subburaj R., Thiagarajan G., Elangeswaran S.	REPRODUCTIVE HORMONE PROFILE AND TISSUE ARCHITECTURE OF GONAD IN MATURED GREY MULLET (<i>MUGIL CEPHALUS</i>) CAUGHT FROM THE INSHORE WATERS OF KOVALAM, EAST COAST OF INDIA	202
125	<u>Ryu Y.-W.,</u> Tanaka R., Kasahara A., Saito K., Kanno K., Ito Y., Hiramatsu N., Todo T., Sullivan C. V., Hara A.	EXPRESSION OF GENES INVOLVED IN OOCYTE LIPIDATION IN CUTTHROAT TROUT, <i>ONCORHYNCHUS CLARKI</i>	203
126	<u>Shoae A.,</u> Setiawan A. N., Lokman P. M.	PREVITELLOGENIC OOCYTE GROWTH IN A TELEOST FISH, <i>ANGUILLA AUSTRALIS</i> : CROSSTALK BETWEEN INTRAOVARIAN FACTORS AND GROWTH AXIS	205
127	<u>Xiaojuan Cui,</u> Ji Chen, Wei Hu, Zuoyan Zhu	KNOCKDOWN OF ZEBRAFISH DMC1 CAUSES GAMATOGENESIS ABNORMAL	207
128	<u>Zhou L.Y.,</u> Wang D.S., Nagahama Y.	IDENENTIFICATION AND CHARACTERIZATION OF A NOVEL 20BETA-HSD IN THE NILE TILAPIA	208

Session VI: Folliculogenesis (continued.), Spawning, Fertilization and Early Embryogenesis

Chair: Penny Swanson, USA and Graham Young, USA

Platform Presentation

129	<u>Luckenbach J.A.,</u> Yamamoto Y., Guzman J.M., Swanson P.	UNDERSTANDING THE FUNCTION OF FOLLICLE-STIMULATING HORMONE PRIOR TO ONSET OF VITELLOGENESIS	210
130	Forsgren K.L, Swanson P., <u>Young G.</u>	REGULATION OF DEVELOPMENT OF LATE PRIMARY AND EARLY SECONDARY OVARIAN FOLLICLES OF COHO SALMON BY SEX STEROIDS	212
131	<u>Desvignes T.,</u> Fauvel C., Fostier A., Bobe J.	NME FAMILY AND DETERMINATION OF EGG QUALITY, NEW INSIGHTS FROM THE ZEBRAFISH <i>DANIO RERIO</i>	214
132	<u>Palacios M. E.,</u> Salgado, G. R. L., Racotta, D. I., Guerrero, T. D., Fonseca, M. J. Rodríguez, J. C., Treviño, C. L., Martínez, P. C. A., Campos, M. A	ARACHIDONIC ACID EFFECTS ON REPRODUCTIVE PERFORMANCE, FRY QUALITY AND PGE ₂ LEVEL IN SILVERSIDE <i>CHIROSTOMA ESTO</i>	216
133	<u>Hodne K,</u> Weltzien FA, Okubo K	A NOVEL FUNCTION OF KISS	218
134	<u>Labbe C.,</u> Depince A., Chenais N., Marandel L., LeBail P-Y.	GOLDFISH EMBRYO DEVELOPMENT AFTER SOMATIC CELL NUCLEAR TRANSFER IN NON-ENUCLEATED OOCYTES: FIRST MITOSIS PROFILE, PLOIDY STATUS, AND GENETIC CONFORMITY	219

Poster Presentation

135	Gallego V., Mazzeo I., <u>Carneiro P.C.F.</u> , Vílchez M.C., Baeza R., Peñaranda D.S., Pérez L., Asturiano J.F.	STUDY OF THERMAL REGIME EFFECT ON EUROPEAN EEL (<i>ANGUILLA ANGUILLA</i>) MALE REPRODUCTIVE PERFORMANCE DURING INDUCED SEXUAL MATURATION	221
136	<u>Ishihara M.</u> , Abe T, Kazeto Y, Ijiri S., Adachi S	EFFECTS OF GONADOTROPIC HORMONE ON THE ACQUISITION OF OVULATORY COMPETENCE IN JAPANESE EEL <i>ANGUILLA</i> <i>JAPONICA</i> AND BESTER STURGEON (<i>HUSO HUSO</i> × <i>ACIPENSER</i> <i>RUTHENUS</i>)	223
137	<u>Jagtap H. S.</u>	A COMPARATIVE STUDY ON INDUCTION OF SPAWNING IN GOLDFISH (<i>CARASSIUS AURATUS</i>) BY PROSTAGLANDINS AND OTHER INDUCING AGENTS	225
138	<u>Kleppe, L.</u> , Karlsen, Ø., Edwardsen, R.B., Drivenes, Ø., Natário, S., Norberg, B.,	THE LINK BETWEEN BROODSTOCK STRESS AND OFFSPRING DEVELOPMENTAL POTENTIAL IN ATLANTIC COD <i>GADUS</i> <i>MORHUAL</i>	227
139	<u>Marimuthu K.</u> , Haniffa M. A.	INDUCED SPAWNING OF NATIVE THREATENED SPOTTED SNAKEHEAD FISH <i>CHANNA PUNCTATUS</i> WITH OVAPRIM	228
140	<u>Mylonas, C.C.</u> , Mitrizakis, N., Sigelaki, I., Papadaki, M.	SPAWNING KINETICS OF INDIVIDUAL FEMALE MEAGRE (<i>ARGYRO SOMUS REGIUS</i>) AFTER TREATMENT WITH GnRH α IMPLANTS	230
141	<u>Ocalewicz, K.</u> , Dobosz, S., Kuzminski, H.	ANDROGENIC DEVELOPMENT OF BROOK TROUT (<i>SALVELINUS</i> <i>FONTINALIS</i> MITCHILL), ARTIC CHAR (<i>SALVELINUS ALPINUS</i> L.) AND THEIR HYBRIDS	232
142	Castets M-D., <u>Schaerlinger</u> <u>B.</u> , Silvestre F., Gardeur J- N., Corbier C., Kestemont P., Fontaine P.	MOLECULAR MECHANISMS AFFECTED IN <i>PERCA FLUVIATILIS</i> OOCYTES IN RELATION TO THEIR REPRODUCTIVE PERFORMANCES REVEALED BY A PROTEOMIC APPROACH	234

Session VII: Reproductive Toxicology and Endocrine Disruptors

Chair: Charles Tyler, UK and Neeta Sehgal, India

Platform Presentation

143	<u>Tyler, Charles R.</u> , Hamilton, Patrick, Paull, Greg, Coe, Toby, Soffka, Marta, Filby, Amy, Lange, Anke.	ENDOCRINE DISRUPTION IN FISH IN ENGLISH RIVERS: ADDRESSING THE POPULATION LEVEL EFFECTS QUESTION	236
144	<u>Vijayan M. M.</u> , Birceanu O.	BISPHENOL A DEPOSITION IN EGGS LEADS TO DEVELOPMENTAL AND GROWTH DEFECTS IN RAINBOW TROUT	237
145	<u>Filby Amy I.</u> , Paul Gregory C., Searle Faye, Bartlett Emily J., Hickmore Tamsin F.A., Tyler Charles R.	THE ZEBRAFISH AS A MODEL FOR INVESTIGATING PHYSIOLOGICAL BASIS OF DOMINANCE AND ITS DISRUPTION BY ENVIRONMENTAL CHEMICALS-	238
146	<u>In Joon Hwang</u> , Young Don Lee, Hyung Bae Kim, Hea Ja Baek	EFFECTS OF BENZO[A]PYRENE ON THE EXPRESSION OF CYTOCHROME P4501A1, ESTROGEN RECEPTOR β , MEMBRANE PROGESTIN RECEPTOR α , AND SEX STEROID LEVELS IN CHAMELEON GOBY, <i>TRIDENTIGER TRIGONOCEPHALUS</i>	239

Poster Presentation

147	<u>Bickley L.K.</u> , Brown A.R., Le Page G., Hosken D.J., Hamilton P., Paull, G.C., Owen S.F., Tyler C.R.	INTERACTIVE EFFECTS OF INBREEDING AND EXPOSURE TO AN ENDOCRINE DISRUPTING CHEMICAL ON LIFE HISTORY TRAITS IN FISH	241
148	Bera A., <u>Dasgupta S.</u> , Banerjee Sawant P., Chadha N.K., Pal A.K	CYCLIC LONG TERM HYPOXIA IMPAIRS ENDOCRINE AND REPRODUCTIVE FUNCTIONS IN GOLDFISH, <i>CARASSIUS AURATUS</i>	243
149	<u>Gautam G. J.</u> , Chaube R., Joy K. P.	4-NONYLPHENOL IMPAIRS OVARIAN RECRUDESCENCE AND INDUCES ATRESIA IN THE CATFISH <i>HETEROPNEUSTES FOSSILIS</i>	245
150	<u>Hatef A.</u> , Zare A., Alavi S.M.H., Habibi H., Linhart O.	MODULATION OF GENE EXPRESSION IN GONAD AND LIVER OF MALE GOLDFISH EXPOSED TO BISPHENOL A	247
151	<u>Jayakody A.S.</u> , Kelly R., Munkittrick	AGRICULTURAL IMPACT ON REPRODUCTIVE PERFORMANCE OF CEYLON STONE SUCKER (<i>GARRA CEYLONENSIS</i> BLEEKER, 1863)	249
152	<u>Lange A.</u> , Katsu Y., Miyagawa S., Ogino Y., Urushitani H., Kobayashi T., Hirai T., Shears Janice A., Nagae M., Ohnishi Y., Oka T., Tatarazako N., Iguchi T., Tyler Charles R.	COMPARATIVE RESPONSIVENESS OF TEST AND SENTINEL FISH SPECIES TO NATURAL AND SYNTHETIC OESTROGENS	251
153	<u>Magadalenal N. N.</u> , Prabhu R., Inbaraj R. M.	IN VITRO EFFECTS OF ENDOCRINE DISRUPTING CHEMICALS ON THE GONADAL STEROIDOGENESIS IN AN INDIAN MAJOR CARP, <i>LABEO ROHITA</i> (HAM.)	252
154	<u>Mishra A.</u> , Kumar A., Rawat A.	EFFECT OF CADMIUM SULPHATE ON PROTEIN AND CARBOHYDRATE LEVEL IN BRAIN AND OVARY OF FRESHWATER FISH <i>HETEROPNEUSTES FOSSILIS</i> (BLOCH)	253
155	<u>Nigam S.K.</u> , Singh P. B.	TISSUE BIOACCUMULATION OF INSECTICIDES AND PLASMA CORTISOL IN THE CATFISHES DURING NON-BREEDING SEASON FROM NORTH INDIA	255
156	<u>Okhyun Lee.</u> , Ayo Takesono, Masuzumi Tada, Charles R. Tyler, Tetsuhiro Kudoh	DEVELOPMENT OF AN ERE-GFP TRANSGENIC ZEBRAFISH FOR ASSESSING HEALTH EFFECTS OF ENVIRONMENTAL OESTROGENS	257
157	<u>Patrick B. Hamilton</u> , Catherine A. Harris, Tobias S. Coe, Dave Hodgson, Tamsin J. Runnalls, Susan Jobling, John P. Sumpter, Charles R. Tyler	SPERM DENSITY AND SPERM VIABILITY IN WILD MALE FISH ARE INFLUENCED BY DIFFERENT FACTORS	258
158	<u>Pipil S.</u> , Rawat V.S., Sehgal N.	EVALUATION OF LIVER HISTOLOGY AND ERYTHROCYTIC MICRONUCLEI AS INDICES OF BISPHENOL A EXPOSURE IN <i>CHANNA PUNCTATUS</i>	260
159	<u>Rajakumar, A.</u> , Chakrabarty, S., Singh, R., Senthilkumar, B	ENDOSULFAN TARGETS GONADAL DIFFERENTIATION IN THE ASIAN CATFISH, <i>CLARIAS BATRACHUS</i>	261

160	<u>Santosh Winkins</u> , Farzad Pakdel, Benjamin Piccini, Nathalie Hinfray, François Brion, Olivier Kah, Yann Le Page	EFFECT OF CHLORDECONE (KEPONE) ON THE BRAIN AROMATASE GENE – A NOVEL <i>IN VIVO</i> AND <i>IN VITRO</i> APPROACH	263
161	<u>Singh V.</u> , Srivastava S. S., Singh P.B.	EFFECT OF CYPERMETHRIN ON CONJUGATION OF SEX STEROID HORMONES DURING TWO DIFFERENT REPRODUCTIVE PHASES (REPRODUCTIVELY ACTIVE PRESPAWNING AND REPRODUCTIVELY INACTIVE POST-SPAWNING) OF THE ANNUAL REPRODUCTIVE CYCLE OF <i>HETEROPNEUSTES FOSSILIS</i> (BLOCH)	264
162	<u>Vengayil D.T.</u> , Singh, P.B.	LABORATORY STUDIES ON THE EFFECT OF A PYRETHROID INSECTICIDE ON HISTOPATHOLOGICAL CHANGES IN TESTIS OF THE CATFISH, <i>HETEROPNEUSTES FOSSILIS</i> (BLOCH) DURING BREEDING SEASON	266
163	Carnikian A., Miguez D., <u>Vizziano-Cantonnet D.</u>	HISTOMORPHOLOGICAL EVALUATION OF <i>PIMEPHALES PROMELAS</i> MALE GONADS AFTER EXPOSURE TO PULP MILL AND DOMESTIC DISCHARGES INTO THE URUGUAY RIVER (FRAY BENTOS-URUGUAY)	268
164	<u>Yamamoto Y.</u> , Luckenbach J.A., Goetz F.W., Young G., Swanson P	NUTRITIONAL STRESS DURING EARLY SECONDARY OOCYTE GROWTH INDUCES FOLLICULAR ATRESIA AND CHANGES IN OVARIAN GENE EXPRESSION IN COHO SALMON	270

Session VIII: Fish Biotechnology and Aquaculture (Reproductive Manipulations)

Chair: Goro Yoshizaki, Japan and Hanna Rosenfeld, Israel

Platform Presentation

165	<u>Rosenfeld H.</u> , Zlatnikov V., Meiri-Ashkenazi, I.	FISH GONADOTROPIN AGONISTS: APPLICATIONS IN ASSISTED REPRODUCTIVE TECHNOLOGIES	272
166	<u>Elizur A.</u> , Nocillado J.N., Biran J., Sivan B., Zohar Y.	ADVANCEMENT OF THE ONSET OF PUBERTY IN <i>SERIOLA LALANDI</i> BY CHRONIC TREATMENT WITH KISS PEPTIDES	274
167	<u>Jena J.K.</u>	FRESHWATER AQUACULTURE IN INDIA: TRENDS AND PROSPECTS	276
168	<u>Yoshizaki G.</u> , Yazawa R., Iwata G., Takeuchi Y., Morita T., Mitsuboshi T.	GERM CELL TRANSPLANTATION IN MARINE FISH	277
169	<u>Kagawa H.</u> , Sakurai Y., Kazeto Y., Gen K., Imaizumi, H., Masuda Y.	MECHANISM OF OOCYTE MATURATION AND OVULATION, AND ITS APPLICATION TO SEED PRODUCTION IN THE JAPANESE EEL	279
170	<u>Li P.</u> , Hula M., Dzyuba B., Rodin M., Li Z.H., Boryshpolets S., Gela D., Linhart O.	THE PROTEOMIC AND ANTIOXIDANT RESPONSES OF COMMON CARP (<i>CYPRINUS CARPIO</i> , L.) SPERM CAUSED BY CRYOPRESERVATION TECHNIQUES	281
171	<u>Chakraborty T.</u> , Zhou L.Y., Iguchi T., Nagahama Y.	TRANSGENERATIONAL KNOCKDOWN OF <i>DMY</i> IN MEDAKA, <i>ORYZIAS LATIPES</i>	283

172	<u>Lacerda S.M.S.N.</u> , Costa G.M.J., Campos-Jr P.H.A., Rezende-Neto J.V., Hofmann M-C., França L.R	INVESTIGATION OF POTENTIAL MOLECULAR MARKERS AND APPROACHES TO CHARACTERIZE AND ISOLATE SPERMATOGONIAL STEM CELLS IN THE NILE TILAPIA (<i>OREOCHROMIS NILOTICUS</i>)	285
-----	---	--	-----

Poster Presentation

173	<u>Abol-Munafi A B.</u> , Sarmiza S., Norazmi-Lokman N H., Abduh M Y.	SEXUAL DIMORPHISM ON THE MORPHOMETRIC CHARACTERISTICS OF PINK SKUNK CLOWNFISH, <i>AMPHIPRION PERIDERAION</i>	287
174	<u>Arasu A.R.T.</u> , Kailasam M., Sundaray J.K., Subburaju R., Thiagarajan G.	CONTROLLED BREEDING AND SEED PRODUCTION OF SALT WATER FISHES – STATUS, PROSPECTS AND PROBLEMS IN INDIA	289
175	<u>Boryshpolets S.</u> , Dzyuba B., Rodina M., Linhart O.	SPERM MOTILITY MULTIPLE ACTIVATIONS: PHYSIOLOGICAL BACKGROUND AND PRACTICAL USE IN AQUACULTURE	290
176	<u>Fawole, F. J.</u>	CLIMATE CHANGE AND FISHERIES IN AFRICA: ISSUES AND CHALLENGES	292
177	<u>Hliwa P.</u> , Krejszef S., Król J., Kozłowski K., Gomulka P.	OUT-OF-SEASON SPAWNING OF THREATENED WEATHERFISH <i>MISGURNUS FOSSILIS</i> (L.1758) USING COMMERCIAL PREPARATIONS CONTAINING GnRH ANALOGUES	294
178	<u>Ijiri S.</u> , Tsukamoto K., Chow S., Kurogi H., Gen K., Tanaka H., Adachi S.	CONSTRUCTION OF EST DATABASE FROM OVARIES OF WILD MATURING EELS	295
179	<u>Jeuthe H.</u> , Nilsson J., Brännäs E.	POOR REPRODUCTIVE SUCCESS IN A SWEDISH ARCTIC CHARR BROODSTOCK - BIOLOGICAL OR ENVIRONMENTAL EFFECT?	297
180	<u>Mandiki S.N.M.</u> , Henrotte E., Milla S., Douxfils J., Wang N., Rougeot C., Vandecan M., Méléard C., Kestemont P.	HOW PHYSIOLOGICAL STATUS AND IMMUNE DEFENSE ARE AFFECTED BY PHOTO-THERMAL REGIMES AND DOMESTICATION PROCESS IN CAPTIVE EURASIAN PERCH?	298
181	<u>Meiri-Ashkenazi I.</u> , Solomonovich R., Rosenfeld H.	LONG TERM EFFECTS OF MASCULINIZING TREATMENTS ON THE REPRODUCTIVE CHARACTERISTICS OF GREY MULLET (<i>MUGIL CEPHALUS</i>)	300
182	<u>Norambuena F.</u> , Morais S., Callol A., Mackenzie S., Bell J.G., Estévez A., Tocher D.R., Duncan N.	DIETARY LEVELS AND METABOLIC PATHWAYS OF ARACHIDONIC ACID POSSIBLY ASSOCIATED WITH REPRODUCTIVE DYSFUNCTIONS IN SENEGALESE SOLE (<i>SOLEA SENEGALENSIS</i>)	302
183	<u>Norazmi-Lokman, N. H.</u> , Abol-Munafi, A. B., Asma, N. A.	MORPHOMETRIC CHARACTERISTICS ANALYSIS BETWEEN THE MALE AND FEMALE OF PROTANDROUS FALSE CLOWNFISH, <i>AMPHIPRION OCELLARI</i>	304
184	<u>Psenicka M.</u> , Saito, T., Fujimoto T., Arai K., Yamaha E.	ISOLATION OF STURGEON PRIMORDIAL GONOCYTES AND SPERMATOGONIA AS MATERIAL FOR BIOTECHNOLOGY	306
185	<u>Sahu A. D.</u> , Bhol C., Routray P., Sundaray J. K.	CRYOPRESERVATION OF MALE GONAD OF CARPS, <i>LABEO CALBASU</i> AND <i>LABEO ROHITA</i> FOR LONG TERM STORAGE AND ITS UTILIZATION IN AQUACULTURE	308
186	<u>Sherly D.</u> , Sambhu C., Jayaprakas V.	GROWTH RESPONSE OF FRINGED LIPPED CARP, <i>LABEO FIMBRIATUS</i> (DAY) TO A SOYA PRODUCT, NUTRIPRO AQUA	310

187	<u>Takeuchi Y.</u> , Sato K., Yazawa R., Yoshikawa H., Iwata G., Kabeya N., Shimizu S., Yoshizaki G.	LHRHa-INDUCED SPAWNING OF THE EASTERN LITTLE TUNA <i>EUTHYNNUS AFFINIS</i> IN A 70-M ³ LAND-BASED TANK	312
188	<u>Teletchea F.</u> , Fontaine P.	AFTER SIX YEARS OF STOREFISH: ASSESSMENT AND PERSPECTIVES	313
189	<u>Tripathy S.</u> , Sahu A. D., Dash C., Routray P	OPTIMIZATION OF GROWTH CONDITIONS FOR <i>IN VITRO</i> CULTURE OF FISH EMBRYONIC STEM CELLS	315

Valedictory Address

190	Zvi Yaron	RECENT PROGRESS IN THE STUDY OF FISH REPRODUCTIVE PHYSIOLOGY - <i>CONCLUDING REMARKS</i>	317
-----	-----------	---	-----