

## Curriculum vitae et studiorum

Prof Luca Bargelloni

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### \*Academic degrees

1991: MSc in Biology("magna cum laude") at the University of Padova

1996: PhD in Evolutionary Biology at the University of Padova

### \*Working experience

1991: visiting scientist at the "Cancer Reference Centre" (Aviano)

1992: National Research Council CNR post-graduate fellowship on "Biotechnologies applied to aquaculture"

1993-1996: PhD student at the University of Padova

1993: Visiting student at the Department of Ecology and Evolution, State University of New York, Stony Brook

1996-1998: Post-doctoral fellow (UE project Sparidae AIR3) at the laboratory of Dr. Patarnello (University of Padova)

1998-2001: Post-doctoral research associate at the Department of Biology, University of Padova

2000: Travel grant from the Accademia Nazionale dei Lincei, working as "visiting scientist" at the Institute of Cancer Research in London

2002: Assistant professor at the Department of Public Health, Comparative Pathology and Veterinary Hygiene

2004: Tenured Associate professor at the Department of Public Health, Comparative Pathology and Veterinary Hygiene

### \*Research interests and expertise

- Molecular genetics applied to animal pathology, biotechnologies in aquaculture and animal husbandry, functional and comparative genomics
- Experience in molecular biology, sequence analysis, functional genomics, and bioinformatics

\***Reviewer** for the following journals: BMC Genomics, BMC Genetics, Comparative Biochemistry and Physiology, Evolution, Genetics Selection and Evolution, Journal of Applied Ichthyology, Journal of Evolutionary Biology, Journal of Molecular Evolution, Journal of Sea Research, Molecular Biology and Evolution, Molecular Phylogenetics and Evolution, Polar Biology, and research agencies: National Science Foundation, European Commission DG Research, U.S.-Israel Binational Agricultural Research and Development Fund (BARD).

### \*Research group profile

Laboratory of Animal Genomics, Faculty of Veterinary Medicine, University of Padova (Group leader: Prof. Luca Bargelloni)

The laboratory of Animal Genomics at the School of Veterinary Medicine, University of Padova has a permanent staff of 4 scientists and 2 technicians, plus several PhD students. Lab members have a large experience in animal genetics and genomics, with special focus on marine organisms, as demonstrated by participation in several national and EU funded

research projects on aquatic animals (STUDIES, BRIDGEMAP, MARINE GENOMICS, EUROPE (MGE), AQUAFIRST, SEACASE). The laboratory is fully equipped with the most recent instruments for genetics (four recent PCR thermal cyclers, one ABI 16-capillaries DNA sequencer, other equipment for molecular biology) and for functional genomics (microarray analysis: UV-Vis spectrophotometer NanoDrop® ND-1000, Agilent 2100 Bioanalyzer, Agilent G2565BA DNA microarray scanner, and expression data validation: Applied Biosystems 7000 SDS, Roche LightCycler® 480).

Within the framework of MGE, a dedicated oligo microarray platform has been developed for two fish species, the gilthead sea bream (Ferraresso et al. 2008 BMC Genomics, 9:540) and the European sea bass (L. Bargelloni, unpublished data). In collaboration with the Bioinformatics group at the University of Padova, informatic tools supporting microarray development and analysis have been established (see <http://enne.cribi.unipd.it:5555/biomart/martview>). The development of similar integrated platforms for microarray analysis in other marine fish and shellfish species (Manila and carpetshell clam, Antarctic fish) is currently ongoing, using a novel approach for EST sequencing based on next-generation sequencing (Roche 454). All the different steps (sequence assembly and annotation, data base development, array design and validation) are being carried out at the University of Padova.

#### \*Publications (2008–2003)

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- NEGRISOLO E, BARGELLONI L, PATARNELLO T, OZOUF-COSTAZ C, PISANO E, DI PRISCO G, VERDE C. (2008). Comparative and evolutionary genomics of globin genes in fish. METHODS IN ENZYMOLOGY. Vol. 436, pp. 511–38.
- CANÁRIO AV, BARGELLONI L, VOLCKAERT F, HOUSTON RD, MASSAULT C, GUIGUEN Y. (2008). Genomics toolbox for farmed fish. REVIEWS IN FISHERIES SCIENCE. vol. 16, pp. 3–15.
- SARROPOULOU E, FRANCH R, LOURO B, POWER DM, BARGELLONI L, MAGOULAS A, SENGER F, TSALAVOUTA M, PATARNELLO T, GALIBERT F, KOTOULAS G, GEISLER R. (2007). A gene-based radiation hybrid map of the gilthead sea bream *Sparus aurata* refines and exploits conserved synteny with *Tetraodon nigroviridis*. BMC GENOMICS. vol. 8: 44
- FRANCH R, CARDAZZO B, ANTONELLO J, CASTAGNARO M, PATARNELLO T, BARGELLONI L. (2006). Full-length sequence and expression analysis of Toll-like receptor 9 in the gilthead seabream (*Sparus aurata* L.). GENE. vol. 378, pp. 42–51
- FRANCH R, LOURO B, TSALAVOUTA M, CHATZIPLIS D, TSIGENOPOULOS CS, SARROPOULOU E, ANTONELLO J, MAGOULAS A, MYLONAS CC, BABBUCCI M, PATARNELLO T, POWER DM, KOTOULAS G, BARGELLONI L. (2006). A genetic linkage map of the hermaphrodite teleost fish *Sparus aurata* L. GENETICS. vol. 174, pp. 851–861
- GIORDANO D, GRASSI L, PARISI E, BARGELLONI L., DI PRISCO G, VERDE C. (2006). Embryonic beta-globin in the non-Antarctic notothenioid fish *Cottoperca gobio* (Bovichtidae). POLAR BIOLOGY. vol. 30, pp. 75–82
- PETTERINO C, ROSSETTI E, BERTONCELLO D, MARTINI M, ZAPPULLI V, BARGELLONI L., CASTAGNARO M. (2006). Immunohistochemical detection of P-glycoprotein (Clone C494) in canine mammary gland tumours. JOURNAL OF VETERINARY MEDICINE SERIES A. vol. 53, pp. 174–178
- SENGER F, PRIAT C, HITTE C, SARROPOULOU E, FRANCH R, GEISLER R, BARGELLONI L., POWER D, GALIBERT F. (2006). The first radiation hybrid map of a perch-like fish: The gilthead seabream (*Sparus aurata* L.). GENOMICS. vol. 87, pp. 793–800
- TOFFOLATTI L, GASTALDO LR, PATARNELLO T, ROMUALDI C, MERLANTI R, MONTESISSA C, POPPI L, CASTAGNARO M, BARGELLONI L. (2006). Expression analysis of androgen-responsive genes in the prostate of veal calves treated with anabolic hormones. DOMESTIC ANIMAL ENDOCRINOLOGY. vol. 30, pp. 38–55
- ZANE L, MARCATO S, BARGELLONI L., BORTOLOTTI E, PAPETTI C, SIMONATO M, VAROTTO V, PATARNELLO T. (2006). Demographic history and population structure of the Antarctic silverfish *Pleuragramma antarcticum*. MOLECULAR ECOLOGY. vol. 15, pp. 4499–4511
- BARGELLONI L., ALARCON JA, ALVAREZ MC, PENZO E, MAGOULAS A, PALMA J, PATARNELLO T. (2005). The Atlantic-Mediterranean transition: Discordant genetic patterns in two seabream species, *Diplodus puntazzo* (Cetti) and *Diplodus sargus* (L.). MOLECULAR PHYLOGENETICS AND EVOLUTION. vol. 36, pp. 523–535

- CARDAZZO B, ZAPPULLI V, FRASSINETI F, PATARNELLO T, CASTAGNARO M, BARGELLONI L. (2005). Full-length sequence and expression analysis of estrogen receptor alpha mRNA in feline mammary tumors. JOURNAL OF STEROID BIOCHEMISTRY AND MOLECULAR BIOLOGY. vol. 96, pp. 109-118
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- ZAPPULLI V, MAZZARIOL S, CAVICCHIOLI L, PETTERINO C, BARGELLONI L., CASTAGNARO M. (2005). Fatal necrotizing fasciitis and myositis in a captive common bottlenose dolphin (*Tursiops truncatus*) associated with *Streptococcus agalactiae*. JOURNAL OF VETERINARY DIAGNOSTIC INVESTIGATION. vol. 17, pp. 617-622
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- BARGELLONI L., ALARCON JA, ALVAREZ MC, PENZO E, MAGOULAS A, REIS C, PATARNELLO T. (2003). Discord in the family Sparidae (Teleostei): divergent phylogeographical patterns across the Atlantic-Mediterranean divide. JOURNAL OF EVOLUTIONARY BIOLOGY. vol. 16, pp. 1149-1158
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- CARDAZZO B, BARGELLONI L., TOFFOLATTI L, RIMESSI P, FERLINI A, PATARNELLO T. (2003). Tempo and mode of evolution of a primate-specific retrotransposon belonging to the LINE 1 family. JOURNAL OF MOLECULAR EVOLUTION. vol. 57, pp. S268-S276
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