

*Curriculum vitae*

**Elsa Alexandra Martins e Silva Cabrita**

*January 2021*

## 1-PERSONAL DATA:

**Name and Surname:** Elsa Alexandra Martins e Silva Cabrita

**BI:** 10273966

**Local and Date of Birth:** Barreiro, 28<sup>th</sup> of July 1974

**Nationality:** Portuguese

**Home Address:** Rua Coronel Antonio Santos Fonseca lote 6, 4dto, Faro, Portugal.

**Institutional Address:** Campus de Gambelas, 8005-139 Faro, Portugal

**Phone number:** +351931406388

**E-mail:** ecabrita@ualg.pt

## 2 – ACADEMIC BACKGROUD:

**1997-2002-** Doctor in Biology, University of León, Spain.

**1997-1999-** “Suficiência investigadora”, Faculty of Veterinary, University of León, León, Spain.

**1997/1999-** PhD course “Producciones Animales Alternativas”, Department of Animal Production II, Faculty of Veterinary, University of León.

**1992-1997-** High graduation in Marine Biology and Fisheries (Aquaculture area), University of Algarve, Portugal.

## 3 – RESEARCH BACKGROUD:

**2013-Present position:** Professor at the Faculty of Sciences and Technology, University of Algarve, Faro, Portugal; Researcher at CCMAR, Faro, Portugal.

**2008-2013-** Researcher (Ramon y Cajal), Institute of Marine Sciences of Andalusia- ICMAN, Spanish National Research Council-CSIC, Cadiz, Spain.

**2005-2008-** Post-Doc FCT fellow (SFRH/BPD/12629/2003) Faculty for Marine Science and Environment, University of Algarve and Faculty of Biology, University of León.

**2003-present-** Research member of CCMAR- Center for Marine Science; from 2018 member of CCMAR director board.

**2002/2005-** Post-Doc FCT fellow (SFRH/BPD/6461/2001), Faculty of Marine Sciences and Environment, University of Algarve.

**1997/2001-** PhD student JNICT fellow (presently FCT) (PRAXXIS XXI/BD/13924/97), University of León.

**1996/1997 –** AQUATT fellow (undergraduate training), Institute of Aquaculture, University of León, Spain.

## 4 – RESEARCH AREA AND INTERESTS

### **Broodstock management and selection**

- Application and development of new strategies for the reproduction of new and problematic species: hormonal treatments and development of surrogate production based on a biotechnology approach (PGCs and spermatogonia implantation).
- Development of techniques based on gamete assay to select fish broodstock in terms of male reproductive performance
- Development of sperm cryobanks for commercial and endangered species.
- Study of factors influencing fish broodstock reproductive performance (stress responsiveness, nutritional factors, and reproductive behavioral aspects) and their relation with gamete quality.

### **Gamete physiology and quality:**

- Characterization of the quality of gametes. Development of sperm quality parameters for different species in order to assess male contribution to reproduction.
- Study of spermatozoa metabolism during motility activation process using computer assay sperm analysis (CASA).

### **Cryobiology:**

- Development of protocols for cryopreservation of gametes, primordial germ cells (PGCs) spermatogonia and embryos from fish.
- Development of methods to assay and identify damage produced by cryopreservation in fish gametes and embryos.
- Development of methods to increase permeability to cryoprotectants during freezing/thawing.

## 5- PARTICIPATION IN RESEARCH PROJECTS:

**2021-2024-** Principal investigator at CCMAR: SPERMANTIOX- New approaches on the antioxidant diet-effect in fish sperm traits: the role of sperm microRNAs on transgenerational transmission (PTDC/CVT-CVT/4109/2020). FCT IC&DT Projects 2020, 249.769,98€.

**2020-2025-** Member of team at CCMAR: AQUAEXEL 3.0- Research infrastructures in aquaculture. Network. EU project (Nov 2020).

**2020-2022-** Member of team at CCMAR: Improvement of sperm quality indicators in spotted wolffish (*Anarhichas minor*), EEA Grant (Bilateral Action Funds). CCMAR and Nord University (Norway). Total funding: €10,768.

**2019-2020-** Member of team at CCMAR: CONDISOLE: Asociación de la comunicación química y el estatus social en el lenguado senegalés según las condiciones de cultivo para la producción de reproductores. Campus de Excelencia Internacional del Mar (CeiMar). Total funding: €4,000.

**2018-2022-** Principal investigator at CCMAR: NANOREPROTOX - Unraveling the ecological impacts of nanoparticles toxicity in the reproduction of marine organisms, University of Aveiro (Claudia Mieiro, PI), Center for Marine Sciences (Elsa Cabrita) and University of Lisbon, FCT, Portugal.

**2017-2021-** Principal investigator at UALG: EBB-European Marine Biological Resource Centre Biobank (EAPA\_501/2016). Programa Interreg Atlantic area (UALG (Portugal), CIIMAR (Portugal), UPV/EHU (Spain), UVIGO (Spain), FF (Spain), NUIG (Ireland), UPMC (France), SAMS (UK), IMR (Norway), MBA (UK), UGent (Belgium).

**2017-2021** - Principal investigator: SERINOVA- Bases para a implementação de uma nova espécie na aquacultura em Portugal (ref. 16-02-01-FMP-0064). Programa MAR2020, Direção Geral das Pescas e Agricultura.

**2017-2021** - Principal investigator: REPROF1-Condicionamiento de individuos F1 de linguado Senegalês com perspetivas à reprodução em cativeiro (ref. 16-02-01-FMP-0059). Programa MAR2020, Direção Geral das Pescas e Agricultura.

**2017-2021** -Principal investigator: VENUS 0139\_VENUS\_5\_E-Estudio integral de los bancos naturales de moluscos bivalvos en el Golfo de Cádiz para su gestión sostenible y la conservación de sus hábitats asociados. Programa Interreg POCTEP, Portugal-España.

**2017-2021** - Member of team: ALGASOLE- Desenvolvimento e implementação de alimentos suplementados em macroalgas ricas em vitamina K no cultivo de linguado (*Solea senegalensis*). Programa MAR2020, Direção Geral das Pescas e Agricultura.

**2017-2021** -Member of team: ALGARED- RED transfronteriza para el desarrollo de productos innovadores con microalgas. Programa Interreg POCTEP, Portugal- España.

**2017-2020-** Member of team: LARVAPLUS- an integrative research network for promoting fish larviculture in Ibero-America, CYTED program, funded by the Agencia Española de Cooperación Internacional para el Desarrollo (Spanish Government). Consortium: 15 research institutions and 10 private companies (Spain, Portugal, Peru, Argentina, Chile, Mexico, Colombia, Costa Rica, Argentina and Brasil).

**2017-2020**-member of team: ASSEMBLE plus JRA2: Association of European Marine Biological Laboratories Expanded (H2020-INFRAIA-2016-2017).

**2017-** Scientific advisor: Red de investigación para el estudio de la pérdida de calidad de gametos en salmonidos producidos en la Región de la Araucanía y la formulación

de las estrategias para su estudio y mitigación que den sustentabilidad a la industria. Collaboration with the Catholic Univ. of Temuco, Chile.

**2015-2020-** Member of team at CCMAR: AQUAEXEL2020- Research infrastructures in aquaculture. Network. EU project.

**2014-2016-** Investigador convidado-Programa Ciência sem fronteira, Portugal-Brasil. Protocolos de criopreservação de sêmen de espécies nativas migradoras comerciais correlacionado com a identificação de proteínas do plasma seminal.

**2014-2015-** Principal investigator: CRIOBIV ref. 31-03-05-FEP-0059- Estabelecimento de bases para a criação de um crio-banco de sémen e larvas de ostra portuguesa para fins comerciais. Programa PROMAR, Direção Geral das Pescas.

**2014-2015-** Principal investigator: REPLING ref.- Soluções inovadoras para melhorar a reprodução e qualidade de gametas e larvas do linguado. Contrato assinado com a empresa SEA8, Programa PROMAR, Direção Geral das Pescas.

**2014-2015-** Member of team: KLING ref. 31-03-05-FEP-0073 - Estudo piloto para melhoramento do *status* nutricional em vitamina K: optimização da reprodução e demonstração da melhoria na qualidade larvar de linguado, Programa PROMAR, Direção Geral das Pescas.

**2012-2016-** Workgroup 2 leader: AQUAGAMETE (FA1205)- Assessing and improving the quality of aquatic animal gametes to enhance aquatic resources. The need to harmonize and standardize evolving methodologies, and improve transfer from academia to industry- COST ACTION, EU, several institutions.

**2012-2013-** Principal investigator: CRYOXI: Influencia de suplementos antioxidantes en la calidad de semen de peces: efectos en la criopreservación seminal y en la progenie-AGL2011-28810ACU, Ministerio de Ciencia e Innovación, Spain.

**2011-2013-** Member of team: Alteraciones en el material genético de espermatozoides: estudio de las consecuencias sobre la progenie en peces (LE365A11-2), Junta de Castilla y Leon, Uni. León-ICMAN.CSIC

**2010-2012-** Member of team: Aplicación de análisis genéticos en la creación de bancos de germoplasma en teleósteos, Fundación Ramón Areces, Uni. León-ICMAN.CSIC.

**2008/2011-** Principal investigator: Development of tools to analyse sperm quality in fish: implications for cryobanking-CRYOSPERM PTDC/MAR/64533/2006, Portuguese Ministry of Science, Technology and Education, FCT, Portugal.

**2009/2011-** Principal investigator: The use of fish primordial germ cells (PGCs) for the assembly of genetic resource banks and for the reproduction management in Aquaculture –PGCFISH AGL2008-02172/ACU, Ministerio de Ciencia e Innovación, Spain.

**2009/2012-** Member of team: “Implementation of natural spawning for marine fish species in culture- improving quality of off-spring and animal welfare- PROSPAWN”, 7<sup>th</sup> Framework Programme.

**2007/2009-** Member of team in bilateral cooperation: “Commercial-scale cryopreservation of sperm from several freshwater fish species”, University of León, Spain- University of Godollo, Hungary.

**2007/2008-** Member of team: “Bem estar” dos reprodutores de peixes marinhos em cativeiro-FISHWEL, 22.04.06.IFP.0015, DGPA-Mare program, Universidade do Algarve, Portugal.

**2006/2008-** Member of team: “Desarrollo y transferencia de tecnología para la creación de un banco de esperma de reproductores selectos de dorada”. Petri programme- MEC. Universidade de León- ICMAN, Spain.

**2006/2007-** Principal investigator in bilateral cooperation: “Análise da qualidade seminal e aplicação da técnica de criopreservação em sémen do linguado Senegales (*Solea senegalensis*)”, CRUP, FCMA-University of Algarve- Fac. Veterinary-University of León.

**2004/2005-** Member of team in bilateral cooperation: “Marine fish sperm cryopreservation”, GRICES/CSIC, University of Algarve-ICMAN.CSIC.

**2004/2006**-Member of team: “Optimização da reprodução em linguado (*Solea senegalensis*): Influencia dos parâmetros de cultivo na obtenção de posturas de linguado mantidos em cativeiro- REPROSOL”. DGPA-Mare program, University of Algarve, Portugal.

**2003/2005**-Member of team: “Development of new methods for fish embryos cryopreservation”, INIA/MCYT- ACU02-002-C2-2, University of León- ICMAN- CSIC, Cádiz- Stolt Sea Farm- CUPIMAR, S.A, Spain.

**2002/2005-** Member of team: “Long-term preservation of teleost embryos: development of vitrification techniques”, JCL LE 04-02, University of León- IEO Santander- Stolt Sea Farm, Spain.

**1999/2001**-Member of team: “Application and development of techniques for the conservation of gametes and embryos”, FEDER support (1FD97-0521-C02), University of León- IEO Santander- Stolt Sea Farm- Las Zayas fishfarm, Spain.

**1998/1999**-Member of team: “Sperm membrane regionalization in rainbow trout spermatozoa”, Picasso program, HF1998-0163, University of León- INRA. Rennes- France.

## 6-LIST OF PUBLICATIONS:

### Thesis (2)

- 2002-** PhD thesis: Identificación de los daños producidos por la congelación seminal en la membrana plasmática de espermatozoides de trucha arco iris (*Oncorhynchus mykiss*) y optimización de los protocolos de criopreservación”, University of León, Spain (Sobresaliente Cum laude).
- 1997-** Undergraduated thesis (Licenciatura): Criopreservación de semen de trucha arco-iris, University of Algarve, Portugal (19 valores).

### Books (1)

- 2009-** **Cabrita E**, Robles V, Herráez MP. Methods in Reproductive Aquaculture: Marine and Freshwater Species. Biology Series, CRCPress (Taylor and Francis group), 547 pp.

### Book chapters (14)

- 2021-** **Cabrita E**, Horvath A, Marinović Z, Asturiano J. Technologies and strategies for *ex situ* conservation of aquatic organisms: the role of cryopreservation in long-term management. In: I Monzón and J Fernandes (Eds), Cellular and molecular approaches in fish biology, Elsevier (*in press*).
- 2020-** Paredes E, Heres P, Anjos C, **Cabrita E**. Cryopreservation of marine invertebrates: from sperm to complex larval stages In: WF Wolkers and H Oldenhof (Eds), Cryopreservation and Freeze-Drying Protocols, Springer, 413-425pp, ISBN 978-1-4939-2193-5.
- 2019-** **Cabrita E**, Riesco, MF, Mañanós E. Sperm physiology and artificial fertilization. In: JA. Muñoz-Cueto, EL Mañanós and FJ Sánchez-Vázquez (Eds). The biology of sole. CRCPress (Taylor and Francis group), Boca Raton, Florida, USA, 448p, ISBN-13: 9781498727839.
- 2017-** Migaud H, Bell G, **Cabrita E**, McAndrew B, Davie A, Bobe J, Herráez MP, Carrillo M. Broodstock management and gamete quality in temperate fish. In: Conceição, LEC and Tadler, A (Eds). Success Factors for Fish Larval Production, Wiley and Sons, ISBN: 978-1-119-07216-4, 2-54p.
- 2017-** Koumoundouros G, Gisbert E, Fernandez I, **Cabrita E**, Galindo-Villegas G, Conceição LEC. Quality Descriptors and Predictors in Farmed Marine Fish Larvae and Juveniles In: Conceição, LEC and Tadler, A (Eds). Success Factors for Fish Larval Production, Wiley and Sons, ISBN: 978-1-119-07216-4, 443-472p.
- 2016-** Garcia R, Streit Jr DP, **Cabrita E**, Godoy LC. Semen Cryopreservation in Brazilian freshwater fish: advances and main challenges. IN: Cryobiology, Jimenez M. and Hulya A. Koç (Eds), InTech, ISBN 978-953-51-4883-8.
- 2012-** Herráez MP, **Cabrita E**, Robles V. Fish gamete & embryo cryopreservation: state of the art in: Aquaculture Biotechnology, Garth L. Fletcher and Matthew L. Rise (Eds). Wiley-Blackwell, ISBN-13: 978-08138-1028-7, 305-317.
- 2011-** **Cabrita E**, Robles V, Sarasquete C, Herráez MP. Sperm quality evaluation for broodstock improvement in: Tiersch, T., Mazik, P.M. (Eds), Cryopreservation of Aquatic Species, 2<sup>nd</sup> edition, World Aquaculture Society, Baton Rouge, Louisiana, USA. ISBN: 978-1-888807-20-2, 146-161.

- 2009- Robles V, **Cabrita E**, Vickram K, Herráez MP. Prospects and development in fish sperm and embryo cryopreservation *in: Aquaculture Research Progress*, Nakamura, T.K (Ed.), NovaPublisher, London, UK. ISBN: 978-1-60456-247-7, 199-210.
- 2009- **Cabrita E**, Robles V, Sarasquete C, Herráez MP. Sperm cryopreservation from the marine teleost, *Sparus aurata*, *in: Methods in Reproductive Aquaculture: Marine and Freshwater Species*, Cabrita, E., Robles V., Herraez, M.P. (Eds.) Biology Series, CRCPress (Taylor and Francis group), Boca Raton, Florida, USA, 447-452.
- 2009- **Cabrita E**, Robles V, Herráez MP. Sperm quality assessment, *in: Methods in Reproductive Aquaculture: Marine and Freshwater Species*, Cabrita, E., Robles V., Herraez, M.P. (Eds.) Biology Series, CRCPress (Taylor and Francis group), Boca Raton, Florida, USA, 93-148.
- 2009- Robles V, **Cabrita E**, Herráez MP, Ecker J. Fish egg cryopreservation: what we know until now? *in: Methods in Reproductive Aquaculture: Marine and Freshwater Species*, Cabrita, E., Robles V., Herraez, M.P. (Eds.) Biology Series, CRCPress (Taylor and Francis group), Boca Raton, Florida, USA, 265-294.
- 2009- Robles V, **Cabrita E**, Herráez MP. Sperm cryopreservation of sex-reversed rainbow trout (*Oncorhynchus mykiss*) *in: Methods in Reproductive Aquaculture: Marine and Freshwater Species*, Cabrita, E., Robles V., Herraez, M.P. (Eds.) Biology Series, CRCPress (Taylor and Francis group), Boca Raton, Florida, USA, 391-396.
- 2009- Herráez MP, Robles V, **Cabrita E**. Rainbow trout (*Oncorhynchus mykiss*) sperm cryopreservation *in: Methods in Reproductive Aquaculture: Marine and Freshwater Species*, Cabrita, E., Robles V., Herráez, M.P. (Eds.) Biology Series, CRCPress (Taylor and Francis group), Boca Raton, Florida, USA, 385-390.

### **Review Articles (11)**

- 2021- Felix F, Oliveira CCV, **Cabrita E**. Antioxidants in Fish Sperm and the Potential Role of Melatonin. *Antioxidants* 10, 36. <https://doi.org/10.3390/antiox10010036>
- 2020- Sandoval-Vargas L, Jiménez MS, González JR, Villalobos EF, **Cabrita E**, Valdebenito-Isler I. Oxidative stress and use of antioxidants in fish semen cryopreservation. *Reviews in Aquaculture* 13, 365–387. doi: 10.1111/raq.12479.
- 2019- Beirão J, Boulais M, O’Brien JK, Peixoto S, Robeck TR, **Cabrita E**. Sperm handling in aquatic animals for artificial reproduction. *Theriogenology* 133, 161-178.
- 2017- Asturiano JF, **Cabrita E**, Horváth Á. Progress, challenges and perspectives on fish gamete cryopreservation: A mini-review. *General and Comparative Endocrinology* 245, 69-76. doi.org/10.1016/j.ygcn.2016.06.019.
- 2017- Martínez-Páramo S, Horváth A, Labbé C, Zhang T, Robles V, Herráez P, Suquet M, Adams S, Viveiros A, Tiersch T, **Cabrita E**. Cryobanking of aquatic species. *Aquaculture* 472, 156-177. Doi:10.1016/j.aquaculture.2016.05.042
- 2017- Robles V, Riesco MF, Psenicka M, Saito T, Valcarce DG, **Cabrita E**, Herráez MP. Biology of teleost primordial germ cells (PGCs) and spermatogonia: biotechnological applications, *Aquaculture* 472, 4-20. doi: 10.1016/j.aquaculture.2016.03.004
- 2016- Morais S, Aragao C, **Cabrita E**, Estevez A, Yúfera M, Valente LMP, Conceição LEC, Dias J Engrola S, Gisbert E, Costas B, Constenla M, Mañanós E, Duncan N, Dinis MT. New developments and biological insights into the farming of *Solea senegalensis* reinforcing its aquaculture potential. *Reviews in Aquaculture* 6, 1–37. doi: 10.1111/raq.12091.

- 2014- **Cabrita E**, Martínez-Páramo S, Gavaia PJ, Riesco MF, Valcarce DG, Sarasquete C, Herráez MP, Robles V. Factors enhancing fish sperm quality and emerging tools for sperm analysis. *Aquaculture* 432, 389–401. doi: 10.1016/j.aquaculture.2014.04.034.
- 2013- Migaud H, Bell G, **Cabrita E**, McAndrew B, Davie A, Bobe J, Herráez MP, Carrillo M. Gamete quality and broodstock management in temperate fish. *Reviews in Aquaculture* 5 (1), S194-S223. doi: 10.1111/raq.12025
- 2010- **Cabrita E**, Sarasquete C, Martínez-Páramo S, Robles V, Beirão J, Pérez-Cerezales S., Herráez MP. Cryopreservation of fish sperm: applications and perspectives. *Journal of Applied Ichthyology* 26, 623-635.
- 2009- Robles V, **Cabrita E**, Herráez MP. Germplasm cryobanking in zebrafish and other aquarium model species. *Zebrafish* 6, 281-293.

#### **Peer-reviewed Research Articles (64)**

- 2020- Oliveira CCV, Fatsini E, Fernández I, Anjos C, Chauvigné F, Cerdà J, Mjelle R, Fernandes J, **Cabrita E**. Kisspeptin influences the reproductive axis and circulating levels of microRNAs in the flatfish Senegalese sole. *Int. J. Mol. Sci.* 21, 9051. doi:10.3390/ijms21239051
- 2020- Santana, J, **Cabrita E**, Babiak I, Eggen B, Beirão J. Step by step optimization of a sperm cryopreservation protocol for spotted wolffish (*Anarhichas minor* Olafsen, 1772). *Theriogenology* 149, 16-24. https://doi.org/10.1016/j.theriogenology.2020.03.019
- 2020- Martins G, Diogo P, Santos T, **Cabrita E**, Pinto W, Dias J, Gavaia PJ. Microdiet Formulation with Phospholipid Modulate Zebrafish Skeletal Development and Reproduction. *Zebrafish* 17, 27-37. http://doi.org/10.1089/zeb.2019.1794.
- 2020- Oliveira C, McStay E, Migaud H, **Cabrita E**, Castanheira MF, Dinis MT, Davie A. Investigating the kisspeptin system in the hermaphrodite teleost gilthead seabream (*Sparus aurata*). *Comparative Biochemistry and Physiology, Part A* 241, 110624 doi.org/10.1016/j.cbpa.2019.110624.
- 2019- Fernández I, Fernandes J, Roberto V, Koop M, Oliveira C, Riesco MF, Dias J, Cox CJ, Cancela ML, **Cabrita E**, Gavaia PJ. Circulating small non-coding RNAs provide new insights into vitamin K nutrition and reproductive physiology in teleost fish. *Biochimica et Biophysica Acta (BBA) - General Subjects* 1863, 39-51. http://DOI.org/10.1016/j.bbagen.2018.09.017
- 2019- Diogo P, Martins G, Nogueira R, Marreiros A, Gavaia PJ, **Cabrita E**. Cryoprotectants synergy improve zebrafish sperm cryopreservation and offspring skeletogenesis. *Cryobiology* 91, 115–127.
- 2019- Riesco MF, Félix F, Matias D, Joaquim S, Suquet M, **Cabrita E**. Comparative study on cellular and molecular responses in oyster sperm revealed different susceptibilities to cryopreservation. *Aquaculture* 498, 223-229. 10.1016/j.aquaculture.2018.08.049.
- 2019- Diogo P, Martins G, Eufrásio A, Silva T, **Cabrita E**, Gavaia PJ. Selection criteria of zebrafish male donors for sperm cryopreservation. *Zebrafish* 16, 189-196.
- 2018- Diogo P, Martins G, Quinzico I, Nogueira R, Gavaia PJ, **Cabrita E**. Electric ultrafreezer as an alternative for zebrafish sperm cryopreservation and storage. *Fish Physiology and Biochemistry* 44, 1443-1455. 1-13. doi.org/10.1007/s10695-018-0500-6.
- 2017- Riesco MF, Oliveira C, Soares F, Gavaia PJ, Dinis MT, **Cabrita E**. *Solea senegalensis* sperm cryopreservation: new insights on sperm quality. *Plos One* 12(10): e0186542. http://doi.org/10.1371/journal.pone.0186542.

- 2017-** Riesco MF, Raposo C, Engrola S, Martínez-Páramo S, Cunha ME, Mira S, **Cabrita E.** Improvement of the cryopreservation protocols for the dusky grouper, *Epinephelus marginatus*. *Aquaculture* 470, 207-213. doi: 10.1016/j.aquaculture.2016.12.027.
- 2017-** Riesco MF, Félix F, Matias D, Joaquim S, Suquet M, **Cabrita E.** First study in cryopreserved sperm of *Crassostrea angulata*. *Gen. Comp. Endocrinol.* 245, 108-115 doi: 10.1016/j.ygcn.2016.05.003.
- 2017-** Robles V, Herráez MP, Labbé C, **Cabrita E**, Pšenička M, Valcarce DG, Riesco MF. Molecular basis of sperm quality. *Gen. Comp. Endocrinol.* 245, 5-9. doi.org/10.1016/j.ygcn.2016.04.026.
- 2015-** Beirão J, Soares F, Pousão-Ferreira P, Diogo P, Dias J, Dinis MT, Herráez MP, **Cabrita E.** The effect of enriched diets on *Solea senegalensis* sperm quality. *Aquaculture* 435, 187-194. doi:10.1016/j.aquaculture.2014.09.025.
- 2014-** Pacchiarini T, Olague E, Sarasquete C, **Cabrita E.** Busulfan administration produces sublethal effects on somatic tissues and inhibits gametogenesis in Senegalese sole juveniles. *Histology and Histopathology* 29, 619-628. doi: 10.14670/HH-29.10.619.
- 2014-** Pacchiarini T, Sarasquete C, **Cabrita E.** Development of interspecies testicular germ cells transplantation in flatfish. *Reproduction, Fertility and Development* 26, 690-702. doi: 10.1071/RD13103.
- 2013-** Martínez-Páramo S, Diogo P, Dinis MT, Soares F, Sarasquete C, **Cabrita E.** Effect of two sulfur-containing amino acids, taurine and hypotaurine in European sea bass (*Dicentrarchus labrax*) sperm cryopreservation. *Cryobiology* 66 (3), 333-338. doi: 10.1016/j.cryobiol.2013.04.001.
- 2013-** Cartón-García F, Riesco MF, **Cabrita E**, Herráez MP, Robles V. Quantification of lesions in nuclear and mitochondrial genes of *Sparus aurata* cryopreserved sperm. *Aquaculture* 402-403, 106-112. doi: 10.1016/j.aquaculture.2013.03.034
- 2013-** Guerra SM, García-Valcarce D, **Cabrita E**, Robles V. Analysis of transcripts in gilthead seabream sperm and zebrafish testicular cells: mRNA profile as a predictor of gamete quality. *Aquaculture* 406-407, 28-33. doi: 10.1016/j.aquaculture.2013.04.032.
- 2013-** Pacchiarini T, Cross I, Leite R, Gavaia P, Ortiz-Delgado JB, Pousão-Ferreira P, Rebordinos L, Sarasquete C, **Cabrita E.** *Solea senegalensis* vasa transcripts: molecular characterization, tissue distribution and developmental expression profiles. *Reproduction, Fertility and Development* 25, 646-660. doi: 10.1071/RD11240.
- 2012-** Martínez-Páramo S, Diogo P, Beirão J, Dinis MT, **Cabrita E.** Sperm lipid peroxidation explains differences in sperm quality during reproductive season in precocious European seabass (*Dicentrarchus labrax*) males. *Aquaculture* 358, 246-252. doi: 10.1016/j.aquaculture.2012.06.010.
- 2012-** Beirão J, Zilli L, Vilella S, **Cabrita E**, Fernandez-Diez C, Schiavone, Herráez MP. Fatty acid composition of the head membrane and flagella affects *Sparus aurata* sperm quality. *Journal of Applied Ichthyology* 28, 1017-1019. doi: 10.1111/jai.12085.
- 2012-** Fernández-Díez C, Pérez-Sanchiz R, Sarasquete C, **Cabrita E**, Herráez MP. New tools for genome preservation: grafting spermatogonia in brown trout (*Salmo trutta*). *Journal of Applied Ichthyology* 28, 916–918. doi: 10.1111/jai.12077.
- 2012-** Martínez-Páramo S, Diogo P, Dinis MT, Herráez MP, Sarasquete C, **Cabrita E.** Sea bass sperm freezability is influenced by motility variables and membrane lipid composition but not by membrane integrity and lipid peroxidation. *Animal Reproduction Science* 131, 211-218. doi:10.1016/j.anireprosci.2012.03.008.
- 2012-** Martínez-Páramo S, Diogo P, Dinis MT, Herráez MP, Sarasquete C, **Cabrita E.** Incorporation of ascorbic acid and α-tocopherol to the extender media to enhance

- antioxidant system of cryopreserved seabass sperm. *Theriogenology* 77, 1129-1136. <http://doi.org/10.1016/j.theriogenology.2011.10.017>.
- 2012-** Beirão J, Zilli L, Vilella S, **Cabrita E**, Schiavone R, Herráez MP. Improving sperm cryopreservation with antifreeze proteins: effect on gilthead seabream (*Sparus aurata*) plasma membrane lipids. *Biology of Reproduction* 86 (2) 59, 1-9. doi: 10.1095/biolreprod.111.093401.
- 2011-** Zilli L, Beirão J, Schiavone R, Herráez MP, **Cabrita E**, Storelli C, Vilella C. Aquaporin inhibition changes protein phosphorylation pattern following sperm motility activation in fish. *Theriogenology* 76, 737-744. doi: 10.1016/j.theriogenology.2011.04.006.
- 2011-** **Cabrita E**, Ma S, Diogo P, Martínez-Páramo S, Sarasquete C, Dinis MT. The influence of certain aminoacids and vitamins on post-thaw fish sperm motility, viability and DNA fragmentation. *Animal Reproduction Science* 125, 189-195. doi: 10.1016/j.anireprosci.2011.03.003.
- 2011-** Beirão J, Soares F, Herráez MP, Dinis MT, **Cabrita E**. Changes in *Solea senegalensis* sperm quality throughout the year. *Animal Reproduction Science* 126, 122-129. doi: 10.1016/j.anireprosci.2011.04.009.
- 2011-** **Cabrita E**, Soares F, Beirão J, García-López A, Martínez-Rodríguez G, Dinis MT. Endocrine and milt response of Senegalese sole, *Solea senegalensis*, males maintained in captivity. *Theriogenology* 75, 1-9. doi: 10.1016/j.theriogenology.2010.07.003.
- 2011-** Beirão J, **Cabrita E**, Pérez-Cerezales S, Martínez-Páramo S, Herráez MP. Effect of cryopreservation on fish sperm subpopulations. *Cryobiology* 62, 22-31. doi: 10.1016/j.cryobiol.2010.11.005.
- 2010-** Diogo P, Soares F, Dinis MT, **Cabrita E**. Ovarian fluid influence on *Solea senegalensis* sperm motility. *Journal of Applied Ichthyology* 26, 690-695. doi: 10.1111/j.1439-0426.2010.01554.x.
- 2009-** Beirão J, Soares F, Herráez MP, Dinis MT, **Cabrita E**. Sperm quality evaluation in *Solea senegalensis* during the reproductive season at cellular level. *Theriogenology* 72, 1251-1261. doi: 10.1016/j.theriogenology.2009.07.021.
- 2009-** Cunha ME, Quental H, Barradas A, Pousão-Ferreira P, **Cabrita E**, Engrola S. Rearing larvae of dusky grouper, *Epinephelus marginatus* (Lowe, 1834), (Pisces: Serranidae) in a semi-extensive mesocosm. *Scientia Marina* 73S1, 201-212. doi: 10.3989/scimar.2009.73s1201.
- 2009-** Oliveira C, Dinis MT, Soares F, **Cabrita E**, Pousão-Ferreira P, Sánchez-Vázquez FJ. Lunar and daily spawning rhythms of Senegal sole (*Solea senegalensis*). *Journal of Fish Biology* 75, 61-74. doi: 10.1111/j.1095-8649.2009.02263.x.
- 2009-** **Cabrita E**, Engrola S, Conceição LEC, Pousão-Ferreira P, Dinis MT. Successful cryopreservation of sperm from sex-reversed dusky grouper, *Epinephelus marginatus*. *Aquaculture* 287, 152-157. doi: 10.1016/j.aquaculture.2008.10.019.
- 2009-** Pérez-Cerezales S, Martínez-Páramo S, **Cabrita E**, Martínez-Pastor F, de Paz P, Herráez MP. Evaluation of oxidative DNA damage promoted by storage in sperm from sex-reversed rainbow trout. *Theriogenology* 71, 605-613. doi: 10.1016/j.theriogenology.2008.09.057.
- 2008-** Conceição L, **Cabrita E**, Engrola S, Lacuisse M, Pousão-Ferreira P, Dinis MT. Hormonal induction of Atlantic dusky grouper (*Epinephelus marginatus*) broodstock. *Cybium* 32 (2), 324-325.

- 2008-** **Cabrita E**, Martinez-Pastor F, Soares F, Dinis MT. Motility activation and subpopulation analysis in *Solea senegalensis* spermatozoa. *Cybium* 32 (2), 185-186.
- 2008-** Martinez-Pastor F, **Cabrita E**, Soares F, Anel L, Dinis MT. Multivariate cluster analysis to study motility activation of *Solea senegalensis* spermatozoa: a model for marine teleosts. *Reproduction* 135, 449-459. doi: 10.1530/REP-07-0376.
- 2008-** Beirão J, **Cabrita E**, Soares F, Herráez MP, Dinis MT. Cellular damage in spermatozoa from wild-captured *Solea senegalensis* as detected by two different assays: comet analysis and annexin V–Fluorescein staining. *Journal of Applied Ichthyology* 24, 508-513. doi: 10.1111/j.1439-0426.2008.01144.x.
- 2007-** Robles V, **Cabrita E**, Paz P, Herráez MP. Studies on chorion hardening inhibition and dechorionization in turbot embryos. *Aquaculture* 262, 535-540. doi: 10.1016/j.aquaculture.2006.10.034.
- 2006-** **Cabrita E**, Soares F, Dinis MT. Characterization of Senegalese sole, *Solea senegalensis*, male broodstock in terms of sperm production and quality. *Aquaculture* 261, 967-975. doi: 10.1016/j.aquaculture.2006.08.020.
- 2006-** Beirão J, Robles V, Herráez MP, Sarasquete C, Dinis MT, **Cabrita E**. Cryoprotectant microinjection toxicity and chilling sensitivity in gilthead seabream (*Sparus aurata*) embryos. *Aquaculture* 261, 897-903. doi: 10.1016/j.aquaculture.2006.07.039.
- 2006-** Robles V, **Cabrita E**, Anel L, Herráez MP. Microinjection of the antifreeze protein type III (AFPIII) in turbot embryos (*Scophthalmus maximus*): toxicity and protein distribution. *Aquaculture* 261, 1299-1306. doi: 10.1016/j.aquaculture.2006.07.047.
- 2006-** **Cabrita E**, Robles V, Wallace JC, Sarasquete C, Herráez MP. Preliminary studies on the cryopreservation of gilthead seabream (*Sparus aurata*) embryos. *Aquaculture* 251, 245-255. doi: 10.1016/j.aquaculture.2005.04.077.
- 2005-** Robles V, **Cabrita E**, Fletcher GL, Shears MA, King MJ, Herráez MP. Vitrification assays with embryos from a cold tolerant sub-arctic fish species. *Theriogenology* 64, 1633-1646. doi: 10.1016/j.theriogenology.2005.04.014.
- 2005-** Beirão J, **Cabrita E**, Robles V, Sarasquete C, Dinis MT, Herráez MP. Microinjection of cryoprotectants into seabream embryos. *Cryobiology* 49 (3), 145.
- 2005-** **Cabrita E**, Robles V, Rebordinos L, Sarasquete C, Herráez MP. Evaluation of DNA damage in rainbow trout (*Oncorhynchus mykiss*) and gilthead sea bream (*Sparus aurata*) cryopreserved sperm. *Cryobiology* 50, 144-153. doi: 10.1016/j.cryobiol.2004.12.003.
- 2005-** **Cabrita E**, Robles V, Cuñado S, Wallace JC, Sarasquete C, Herráez MP. Evaluation of gilthead sea bream, *Sparus aurata*, sperm quality after cryopreservation in 5 ml macrotubes. *Cryobiology* 50, 273-284. doi: 10.1016/j.cryobiol.2005.02.005.
- 2004-** Robles V, **Cabrita E, de Paz P**, Cuñado S, Anel L, Herráez MP. Effect of a vitrification protocol on the lactate dehydrogenase and glucose-6-phosphate dehydrogenase activities and the hatching rates of Zebrafish (*Danio rerio*) and Turbot (*Scophthalmus maximus*) embryos. *Theriogenology* 61, 1367-1379. doi: 10.1016/j.theriogenology.2003.08.010.
- 2003-** Robles V, **Cabrita E**, Real M, Álvarez R, Herráez MP. Vitrification of turbot embryos: preliminary assays. *Cryobiology* 47, 30-39. doi: 10.1016/S0011-2240(03)00066-X.
- 2003-** **Cabrita E**, Robles V, Chereguini O, Wallace JC, Herráez MP. Effect of different cryoprotectants and vitrification solutions on the hatching rate of turbot embryos (*Scophthalmus maximus*). *Cryobiology* 47, 204-213. doi: 10.1016/j.cryobiol.2003.10.001.

- 2003- Robles V, **Cabrita E**, Cuñado S, Herráez MP. Sperm cryopreservation of sex-reversed rainbow trout (*Oncorhynchus mykiss*): parameters that affect its ability for freezing. *Aquaculture* 224, 203-212. doi: 10.1016/S0044-8486(03)00221-7.
- 2003- **Cabrita E**, Robles V, Chereguini O, de Paz P, Anel L, Herráez MP. Dimethyl sulfoxide influx in turbot embryos exposed to a vitrification protocol. *Theriogenology* 60 (3), 463-473. doi: 10.1016/S0093-691X(03)00033-5.
- 2003- **Cabrita E**, Chereguini O, Luna M, de Paz P, Herráez MP. Effect of different treatments on the chorion permeability to DMSO of turbot embryos (*Scophthalmus maximus*). *Aquaculture* 221, 593-604. doi: 10.1016/S0044-8486(03)00073-5.
- 2001- **Cabrita E**, Martínez F, Alvarez M, Herráez MP. The use of flow cytometry to assess membrane stability in fresh and cryopreserved trout spermatozoa. *Cryo-Letters* 22, 263-272.
- 2001- **Cabrita E**, Anel L, Herráez MP. Effect of external cryoprotectants as membrane stabilizers on cryopreserved rainbow trout sperm. *Theriogenology* 56 (4), 623-635. doi: 10.1016/S0093-691X(01)00594-5.
- 2001- **Cabrita E**, Robles V, Alvarez R, Herráez MP. Cryopreservation of rainbow trout sperm in large volume straws: application to large scale fertilization. *Aquaculture* 201, 301-314. doi: 10.1016/S0044-8486(01)00636-6.
- 2001- Robles V, **Cabrita E**, Alvarez R, Herráez MP. Influence of caffeine and theophylline in sperm motility, cell ATP content and fertility of cryopreserved neomale trout spermatozoa. *Theriogenology* 55 (1) 316. doi: 10.1016/S0093-691X(00)00457-X.
- 1999- **Cabrita E**, Pastor F, Real M, Alvarez R, Anel L, Herráez MP. Effect of different external cryoprotectants as membrane stabilizers for cryopreservation of rainbow trout sperm. *Cryobiology* 39 (4) 345. doi: 10.1006/cryo.1999.2210.
- 1999- **Cabrita E**, Luna MJ, Herráez MP. Effect of different permeability agents on the penetration of Me<sub>2</sub>SO in turbot (*Scophthalmus maximus*) embryos. *Cryobiology* 39 (4) 346. doi: 10.1006/cryo.1999.2210.
- 1999- **Cabrita E**, Alvarez R, Anel E, Herráez MP. The hypoosmotic swelling test performed with coulter counter: a method to assay functional integrity of sperm membrane in rainbow trout. *Animal Reproduction Science* 55, 279-287. doi: 10.1016/S0378-4320(99)00014-7.
- 1998- **Cabrita E**, Alvarez R, Anel L, Rana K, Herráez MP. Sublethal Damage during Cryopreservation of Rainbow Trout Sperm. *Cryobiology* 37 (3), 245-253. doi: 10.1006/cryo.1998.2121.

## 7- PRESENTATIONS IN CONGRESS, WORKSHOPS and WEBINARS (145)

### Oral and Oral Invited Presentations:

- 2020-**Cabrita E**. Strategies for ex situ conservation of aquatic resources: lessons from nature. 2020 CCMAR Symposium, 18<sup>th</sup> Dec (oral invited).
- 2020- **Cabrita E**. Computer assisted sperm analysis (CASA): applications in research. Tools for assessing the impacts of contamination in the reproduction of marine organisms, 14th October (online).
- 2019- **Cabrita E**. Cryopreservation as a Breeding Management Technique for Aquaculture and Conservation. Congreso Conjunto Iberoamericano de Reproducción, 16-19 Sep, Santiago do Chile, Chile (oral invited).

- 2019-** Oliveira C, Fatsini E, Anjos C, Chauvigné F, Cerdà J, **Cabrita E.** Effects of kisspeptin treatment on Senegalese sole (*Solea senegalensis*) reproductive axis. LAQUA 2019, 19-25 Nov., San Jose, Costa Rica (oral)
- 2019-** Anjos C, Duarte D, Diogo P, Matias D and **Cabrita E.** The effect of cryoprotectants exposure and cryopreservation on *Crassostrea angulata* and *Chamelea gallina* larvae. LAQUA 2019, 19-25 Nov., San Jose, Costa Rica (oral).
- 2019-** Fatsini E, Diogo P, Martins G, Anjos C, Gavaia PJ, **Cabrita E.** Social status impacts on sperm competition in fish. Fish Gametes2019, 2-7 Sept, Rennes, France.
- 2019-** **Cabrita E.**, Breeding management for Aquaculture and Conservation, Bodo, 7<sup>th</sup> January 2019 (oral invited).
- 2019-** **Cabrita, E.** New tools for the conservation of two commercial bivalve species: *Crassostrea angulata* and *Chamelea gallina*, Current Perspectives in Aquaculture, Tromsø 9-11 January 2019 (oral invited).
- 2018-** **Cabrita, E.** Cryobanking for aquaculture and conservation. 2<sup>nd</sup> Annual Meeting of the International Joint-Research Centre for Marine Sciences. 21<sup>st</sup> November 2018 (oral invited).
- 2018-** **Cabrita E**, Riesco MF, Martinez-Páramo S, Dinis MT. Cryopreservation of germ cells for the production of marine species. CCMAR seminars (oral invited).
- 2017-** **Cabrita E.** Calidad de gametos en peces y factores que la determinan. International seminar “Calidad de gametos y malformaciones embrionarias en salmónidos de la Araucanía: problemas y desafíos, Universidad Católica de Temuco, 21 July, Chile (oral invited).
- 2017-** **Cabrita E.** Criobiología y su relación con la calidad de gametos. International seminar “Calidad de gametos y malformaciones embrionarias en salmónidos de la Araucanía: problemas y desafíos, Universidad Católica de Temuco, 21 July, Chile (oral invited).
- 2017-** Diogo P, Martins G, Eufrásio A, Nogueira R, Quinzico I, Silva T, **Cabrita E**, Gavaia P. Guidelines for zebrafish sperm cryopreservation and storage. Fishgametes 2017, 7-11 September, Vodnany, Czech Republic.
- 2016-** **Cabrita E.** Cryobanking of Fish Germ Cells. EMBRIC Workshop, 29-30<sup>th</sup> November, Plymouth, UK (oral invited).
- 2016-** **Cabrita E**, Riesco MF, Martinez-Páramo S, Dinis MT. Cryopreservation of germ cells for the production of marine species. ESDAR 2016, October, Lisbon, Portugal (oral invited).
- 2015-** Serradeiro R, Pinto M, Oliveira C, Riesco MF, Blanquet I, Dias J, Conceição L, **Cabrita E.** Effect of dietary arachidonic acid supplementation on Senegalese sole sperm quality. Aquaculture Europe 2015, October 20-23, Rotterdam, The Netherlands (oral).
- 2015-** Robles V, Herráez P, Labbé C, **Cabrita E**, Pšenička M, Valcarce DG, Riesco MF. Molecular basis of sperm quality. Fishgametes 2015. 6-11 September, Ancona, Italy (oral invited).
- 2015-** Horváth A, Bernáth G, Bokor Z, Kása E, Ősz A, Urbányi B, **Cabrita E**, Gavaia PJ, Snoj A, Bravničar N, Jesenšek D. Progress towards standardization of cryopreservation methods for salmonid species of the Adriatic drainage basin. Fishgametes 2015. 6-11 September, Ancona, Italy (oral)
- 2015-** Félix F, Riesco MF, Martinez-Páramo S, Matias D, Joaquim S, Soares F, Suquet M, **Cabrita E.** Preliminary studies on Portuguese oyster (*Crassostrea angulata*) sperm cryopreservation. Fishgametes 2015. 6-11 September, Ancona, Italy (oral).

- 2015-** Cabrita E, Labbé C, Horváth A, Herráez P, Robles V, Asturiano JF, Tiersch T, Martínez-Páramo S. Cryobanking in aquatic species: applications and perspectives in fish germ cells. CRYO2015, 25-30 July, Ostrava, Czech Republic (oral invited).
- 2015-** Asturiano JF, **Cabrita E**, Horváth A. Progress, challenges and perspectives on fish gamete cryopreservation. Fishgametes 2015. 6-11 September, Ancona, Italy (oral invited).
- 2014-** Oliveira C, McStay E, Davie A, Castanheira MF, **Cabrita E**, Dinis MT, Migaud H. Investigating the kiss system during larval ontogeny and sex reversal process in gilthead seabream (*Sparus aurata*). EAS 2014, 13-17 October, San Sebastian, Spain (oral).
- 2014-** **Cabrita E**. Biotecnologia da reprodução de peixes: aplicações e perspectivas. 51<sup>a</sup> Reunião Anual da Sociedade Brasileira de Zootecnia, 29-1 August, Sergipe, Brasil (oral invited).
- 2013-** **Cabrita E**. How to do it: Fish germline cryobanking. Fishgametes 2013. 17-20 September, Faro, Portugal (oral invited).
- 2013-** Martínez-Páramo S, Dinis MT, Pacchiarini T, Sarasquete C, **Cabrita E**. A nutritional approach to enhance the antioxidant system of fish teleosts. Fishgametes 2013. 17-20 September, Faro, Portugal (oral).
- 2013-** **Cabrita E**, Martínez-Páramo S, Gavaia P, Pacchiarini T, Valcarce DG, Sarasquete C, Robles V. Factors affecting sperm quality and emerging tools for sperm analysis. Larvi 2013, 2-6 September, Ghent, Belgium (oral invited).
- 2013-** **Cabrita E**, Martínez-Páramo S, Sarasquete C. State of the art of the cryopreservation of fish sperm. 12<sup>th</sup> FELASA SECAL Congress, 10-13 June, Barcelona, Spain (oral invited).
- 2012-** Pacchiarini T, Sarasquete C, Olague E, Herráez MP, **Cabrita E**. Transplantation of cryopreserved testicular germ cells in flatfish species: a useful technique for reproductive biotechnology. 49<sup>th</sup> Annual meeting of the Society for Cryobiology, 2-6 June, Rosario, Argentine (oral).
- 2012-** Leite R, Martínez-Páramo S, Sarasquete C, Milan M, Bargelloni L, **Cabrita E**. Can post-thaw sperm quality affect progeny from European seabass? 49<sup>th</sup> Annual meeting of the Society for Cryobiology, 2-6 June, Rosario, Argentine (oral).
- 2011-** Fernández-Díez C, Pérez-Sanchiz R, Sarasquete C, **Cabrita E**, Herráez MP. New tools for genome preservation: grafting spermatogonia in brown trout (*Salmo trutta*). The 3<sup>rd</sup> International Workshop on Biology of Fish Gametes, 6-9 September, Budapest, Hungary (oral).
- 2011-** **Cabrita E**, Martínez-Páramo S, Engrola S, Dinis MT, Asturiano J, Sarasquete C. Sperm cryopreservation from grouper, eel, bass and other species: advances and applications. World Aquaculture Society Meeting, 6-10 June, Natal, Brasil (oral invited).
- 2011-** Beirão, J., Soares F, Diogo P, Pousão-Ferreira P, Dias J, Dinis MT, Herráez MP, **Cabrita E**. Sperm quality of a *Solea senegalensis* broodstocks could be improved through diet. V Workshop on the Cultivation of Sole. 5-7 Abril, Faro, Portugal (oral).
- 2011-** Pacchiarini T, **Cabrita E**, Cross I, Ortiz-Delgado J, Gavaia P, Leite R, Herráez MP, Rebordinos L, Sarasquete C. Two isoforms of *vasa* maternal factor in *Solea senegalensis*: biotechnological applications. V Workshop on the Cultivation of Sole. 5-7 Abril, Faro, Portugal (oral).
- 2011-** **Cabrita E**, Pacchiarini T, Sarasquete C, Rebordinos L, Herráez MP. Cryobanking the reproductive potential of *Solea senegalensis*. V Workshop on the cultivation of Sole. 5-7 Abril, Faro, Portugal (oral).

- 2010-** Migaud H, Davie A, Bell G, **Cabrita E**, Herráez MP, Bobe J, Kjorvik E, McAndrew B, Carrillo M. Review on broodstock management & gamete quality in commercially important European species. Aquaculture Europe 2010, 5-8 October, Oporto, Portugal (oral).
- 2009-** **Cabrita E.** Cryopreservation of fish sperm: perspectives and applications. The 2<sup>nd</sup> International Workshop on Biology of Fish Gametes, 8-12 September, Valencia, Spain (oral invited).
- 2009-** **Cabrita E.** Cryopreservation of gametes of marine organisms. Workshop of cryopreservation of marine organisms, 13-17 June, Coquimbo, Chile (oral invited).
- 2009-** **Cabrita E.**, Sarasquete C., Martinez-Paramo S., Robles V., Beirão J., Cerezalez C., Herráez MP. Perspectives of cryopreservation of gametes and germinal cells. Workshop of cryopreservation of marine organisms, 13-17 June, Coquimbo, Chile (oral invited).
- 2008-** Cunha ME, Quental H, Barradas A, Pousão-Ferreira P, **Cabrita E**, Engrola S. Rearing larvae of dusky grouper, *Epinephelus marginatus* (Lowe, 1834) in a mesocosm system. 32<sup>nd</sup> Annual Larval Fish Conference, 4-7 August, Kiel, Germany (oral).
- 2008-** Dinis MT, Engrola S, **Cabrita E**, Soares F, Conceição L. Experiências de cultivo de *Epinephelus marginatus* (Lowe, 1834) (Pisces Serranidae). VIII Reunião Ordinária do Conselho Científico do INDP, "Semana Científica do Mar e das Pescas", 3-7 November, Mindelo, Cabo Verde (oral invited).
- 2008-** **Cabrita E**, Soares F, Aragão C, Beirão J, Mira S, Madeira C, Dinis MT. Male reproductive performance in Solea senegalensis. IV Workshop on Sole. 11-13 November, Faro, Portugal (oral invited).
- 2008-** Beirão J, Soares F, Herráez MP, Dinis MT, **Cabrita E**. Annual variation of the senegalese sole (*Solea senegalensis*) sperm quality analyzed through cellular and motility parameters. Aqua Europe 2008, 15-18 September, Krakow, Poland (oral).
- 2008-** Madeira C, Mira S, **Cabrita E**, Soares F, Cancela L. Estudo da contribuição de um lote de reprodutores de *Solea senegalensis* para a descendência. III Encontro Nacional de Pos-graduações em Ciencias Biologicas. 2-5 September, Faro, Portugal (oral).
- 2008-** **Cabrita E.** Cryopreservation as a tool for the management and selection of breeders in Aquaculture. Workshop "Novas abordagens à reprodução de peixes de cultura: gestão e avaliação de qualidade", Funchal, 18<sup>th</sup> July, Funchal, Madeira, Portugal (oral-invited).
- 2007-** **Cabrita E**, Beirão J, Soares F, Herráez MP, Dinis MT. Hyper-osmotic resistance of *Solea senegalensis* spermatozoa after motility activation with seawater. The 1<sup>st</sup> International Workshop on Biology of Fish Sperm, 29-31 August, Vodnany, Czech Republic (oral).
- 2006-** **Cabrita E.** Optimização da Reprodução em Linguado (*Solea senegalensis*). I Jornadas de Aquacultura, 6<sup>th</sup> December, University of Algarve, Faro, Portugal (oral).
- 2006-** Soares F, **Cabrita E**, Dinis MT. Characterisation of sole, *Solea senegalensis*, broodstock quality at the facilities of the University of Algarve. Workshop "The cultivation of soles", 22-23 March, El Toruño, Cadiz, Spain (oral).
- 2004-** Robles V, **Cabrita E**, Cuñado S, Fletcher G, Shears M, King M, Herráez MP. Vitrification assays with winter flounder *Pleuronectes americanus* embryos. World Aquaculture Congress, 1-5 March, Honolulu, Hawaii, USA (oral).
- 2003-** **Cabrita E**, Robles V, Herráez MP. Advancements in cryopreservation of rainbow trout (*Oncorhynchus mykiss*) sperm. CryoBiomol 2003, 14-18 September, Coimbra, Portugal (oral).

- 2002-** Robles V, **Cabrita E**, Cuñado S, Herráez MP. Effect of the seasonality in the ability for freezing of sex-reversed trout sperm (*Oncorhynchus mykiss*). SLTB Annual Meeting, 18<sup>th</sup> October, Londres, UK (oral).
- 2000-** **Cabrita E**, Chereguini O, Polo S, Herráez MP. A new approach on the evaluation of vitrification protocols for fish embryos. World Congress of Aquaculture AQUA2000, 2-6 May, Nice, France (oral).
- 2004-** Robles V, **Cabrita E**, Herráez MP. Microinjection of antifreeze protein into turbot embryos. 40<sup>th</sup> Meeting of the Society for Cryobiology, 17-21 July, Beijin, China (oral).

**Panel Presentations:**

- 2020-** Castro D, Martins G, Santos T, Diogo P, Tarasco M, Rodrigues A, Pino V, Navalho J, Varela J, **Cabrita E**, Pereira H, Gavaia PJ. Male broodstock fed rotifers encapsulated with different microalgae: gamete quality and transgenerational osteological alterations. 11<sup>th</sup> European Zebrafish Meeting (online).
- 2020-** Diogo P, Martins G, Santos T, **Cabrita E**, del Pino V, Navalho J, Varela J, Gavaia PJ. Sustainable microalgae products to improve zebrafish reproduction and larvae development. 11<sup>th</sup> European Zebrafish Meeting (online).
- 2019-** Anjos C, Duarte D, Diogo P, Matias D, **Cabrita E**. The response of *Crassostrea angulata* (Portuguese oyster) larvae to cryoprotectants exposure and cryopreservation. Fish Gametes2019, 2-7 Sept, Rennes, France.
- 2019-** Gallego V, Ferrão L, Fatsini E, Morini M, Frias P, **Cabrita E**, Oliveira C. Determination of day/night melatonin levels in seminal plasma in relation to sperm quality in Senegalese sole. Fish Gametes2019, 2-7 Sept, Rennes, France.
- 2019-** Diogo P, Martins G, Nogueira R, Marreiros A, Gavaia PJ, **Cabrita E**. Cryoprotectants used in zebrafish sperm cryopreservation modulate offspring skeletal development. Fish Gametes2019, 2-7 Sept, Rennes, France.
- 2019-** Morini M, Fatsini E, Ferrão L, Gallego V, Frias P, Oliveira C, **Cabrita E**. Daily rhythms of melatonin receptors in high and low quality sperm samples in Senegalese sole, *Solea senegalensis*. Fish Gametes2019, 2-7 Sept, Rennes, France.
- 2019-** Ferrão L, Gallego V, Morini V, Fatsini E, **Cabrita E**, Oliveira CCV. Searching for daily rhythms in transcript levels of melatonin receptor *mt2* and other quality parameters in Senegalese sole sperm. 12th Congress of the Iberian Association of Comparative Endocrinology (AIEC), 26-28 Sep, Faro, Portugal.
- 2019-** Fatsini E, Oliveira C, Fernandez I, Marques-Almeida C, Mjelle R, Fernandes JMO, **Cabrita E**. Circulating microRNA expression is related to hormonal kisspeptin treatment in Senegalese sole (*Solea senegalensis*) breeders. LAQUA 2019, 19-25 Nov., San Jose, Costa Rica.
- 2018-** Diogo P, Martins G, Pinto W, Silva T, **Cabrita E**, Gavaia P. New insights on zebrafish broodstock management and sperm cryopreservation. Zebrafish Husbandry, October, Lisbon, Portugal.
- 2018-** Santos T, Pinheiro F, Pereira H, Varela J, **Cabrita E**. Effect of different cryopreservation conditions on the freezing storage of *Tetraselmis* genus. WEFTA 2018, October, Lisboa, Portugal.
- 2018-** Anjos C, Santos AL, Matias D, Joaquim S, **Cabrita E**. Oxidative stress response in *Crassostrea angulata* cryopreserved sperm. WEFTA 2018, October, Lisboa, Portugal.
- 2018-** Santos AL, Anjos C, Matias D, Joaquim S, **Cabrita E**. Does sugar extender supplementation improve *Crassostrea angulata* sperm cryopreservation? WEFTA 2018, October, Lisboa, Portugal.

- 2018-** Diogo P, Nogueira R, Martins G, Gavaia PJ, **Cabrita E.** Effect of water temperature and conductivity on the activation of zebrafish sperm motility. SIBIC2018, Faro, Portugal.
- 2018-** Diogo P, Martins G, Nogueira R, **Cabrita E**, Gavaia PJ. Does sperm cryopreservation affect osteological development of zebrafish (*Danio rerio*) progeny? IAFSB 2018, Tavira, Portugal.
- 2016-** Diogo P, Eufrásio A, Martins G, Cardeira J, Cancela L, **Cabrita E**, Gavaia P. Analysis of sperm quality in a type I diabetes zebrafish model. ESDAR 2016, October, Lisbon, Portugal.
- 2016-** Riesco MF, Felix F, Matias D, Joaquim S, **Cabrita E.** Sperm cryopreservation in the *Crassostrea* genus: is there any difference in susceptibility between species? Aquaculture Europe 2016. Edinburgh, UK.
- 2016-** Riesco MF, Oliveira C, Almeida C, Serradeiro R, Soares F, Gavaia PJ, Dinis MT, **Cabrita E.** Sperm cryopreservation from wild Senegalese sole, *Solea senegalensis* males. Aquaculture Europe 2016. Edinburgh, UK.
- 2015-** Santos M, Soares F, Moreira M, **Cabrita E**, Beirão J. Refrigeração do sémen de corvina (*Argyrosomus regius*): desenvolvimento de um protocolo e avaliação de parâmetros de qualidade. Congreso Nacional de Acuicultura, Huelva, October, Spain.
- 2015-** Félix F, Riesco MF, Matias D, Joaquim S, **Cabrita E.** Standardization of a protocol for the cryopreservation of two important commercial oyster species. Congreso Nacional de Acuicultura, Huelva, October, Spain.
- 2015-** Pérez L, Riesco MF, Vílchez MC, Asturiano JF, **Cabrita E.** Effect of extenders on Senegalese sole (*Solea senegalensis*) sperm. Fishgametes 2015. 6-11 September, Ancona, Italy
- 2015-** Vílchez MC, Riesco MF, Asturiano JF, **Cabrita E**, Pérez L. Effect of ions Ca<sup>2+</sup>, K<sup>+</sup> and Na<sup>+</sup> on sperm motility of European eel and Senegalese sole. Fishgametes 2015. 6-11 September, Ancona, Italy.
- 2015-** Asturiano JF, Riesco MF, Martins G, Vílchez MC, Pérez L, Gavaia PJ, **Cabrita E.** Cryopreservation of zebrafish sperm, first trials and results. Fishgametes 2015. 6-11 September, Ancona, Italy.
- 2015-** Riesco MF, Félix F, Martinez-Páramo S, Matias D, Joaquim S, Labbé C., Suquet M, **Cabrita E.** Cryoprotectant toxicity studies on *Crassotrea angulata* sperm. CRYO2015, 25-30 July, Ostrava, Czech Republic.
- 2015-** Vasconcelos ACN, Garcia R, Varela Jr A, Goulart K, Corcini CD, **Cabrita E**, Streit Jr DP. Preliminary results of cryopreservation effect on the seminal protein profile of *Collossoma macropomum*. Fishgametes 2015. 6-11 September, Ancona, Italy.
- 2015-** **Cabrita E**, Oliveira C, Riesco MF, Livramento M, Mañanós EL, Conceição LEC, Serradeiro R. Effect of hormonal treatments on Senegalese sole sperm quality. Fishgametes 2015. 6-11 September, Ancona, Italy.
- 2015-** Garcia R, Streit Jr DP, Salomão PH, Corcini CD, **Cabrita E**, Varela Jr A. Standardization of the SDS-page technique to seminal plasma of *Collossoma macropomum* breeding to verify the seminal protein profile. Fishgametes 2015. 6-11 September, Ancona, Italy.
- 2015-** Pinto W, Martins G, Santos T, Rodrigues V, Riesco M, **Cabrita E**, Gavaia P, Dias J. Does size really matter? A study focusing on the role of dietary phospholipids on zebrafish reproductive performance. Zebrafish 2015, Oslo, Norway.
- 2014-** Martínez-Páramo S, Dinis MT, Sarasquete C, **Cabrita E.** Vitamin, selenium and zinc supplemented diets improved antioxidant defences of European seabass and gilthead seabream male breeders. EAS 2014, 13-17 October, San Sebastian, Spain (poster).

- 2014-** McStay E, Davie A, **Cabrita E**, Dinis MT, Migaud H, Oliveira C. Expression of Kiss2 and Kiss1 genes in Seabream (*Sparus aurata*) broodstock and ontogeny. 10<sup>th</sup> International Symposium on Reproductive Physiology of Fish, May, Olhão, Portugal.
- 2013-** Oliveira C, Meiri I, Rosenfeld H, Custódio M, Dinis MT, **Cabrita E**. Daily rhythms of sperm quality and luteinizing hormone in plasma and in seminal fluid of gilthead seabream, *Sparus aurata*. Fish Gametes 2013, The 4<sup>th</sup> International Workshop on Biology of Fish Gametes, September, Faro, Portugal.
- 2013-** Riesco M, García-Valcarce D, Chereguini O, **Cabrita E**, Robles V. Cryopreservation of gilthead seabream (*Sparus aurata*) primordial germ cells. Fish Gametes 2013, The 4<sup>th</sup> International Workshop on Biology of Fish Gametes, September, Faro, Portugal.
- 2013-** Oliveira C, Davie A, **Cabrita E**, Castanheira MF, Dinis MT, Migaud H. Ontogeny of *kiss2* and *kiss1r* genes on gilthead sea bream (*Sparus aurata*) larvae. Larvi 2013, 2-7 September, Ghent, Belgium (poster).
- 2012-** Cartón-García F, Riesco MF, **Cabrita E**, Martínez-Pastor F, Herráez MP, Robles V. Quantification of DNA damage on specific sequences after gilthead sea bream sperm cryopreservation. 49<sup>th</sup> Annual meeting of the Society for Cryobiology, 2-6 June, Rosario, Argentine (poster).
- 2012-** Martínez-Páramo S, Dinis MT, Sarasquete C, **Cabrita E**. Biofreezer vs. Nitrogen: new methods for European seabass (*Dicentrarchus labrax*) sperm cryobanking. EAS2012, 1-5 September, Prague, Czech Republic (poster).
- 2012-** Olague E, Pacchiarini T, Sarasquete C, **Cabrita E**. Effect of Busulfan administration on somatic and gonadal tissues of Senegalese sole juveniles. 28<sup>th</sup> ESCPB European Society for Comparative Physiology and Biochemistry Congress, September 2-5, Bilbao, Spain (poster).
- 2011-** Beirão J, Zilli L, Vilella S, **Cabrita E**, Fernandez-Diez C, Schiavone R, Herráez MP. Stabilization of sperm membrane lipids during cryopreservation by the addition of AFPs. 3<sup>rd</sup> International Workshop on Biology of Fish Gametes, 6-9 September, Budapest, Hungary (poster).
- 2011-** Beirão J, Zilli L, Vilella S, **Cabrita E**, Fernandez-Diez C, Schiavone R, Herráez MP. Fatty acid composition of the head membrane and flagella affects *Sparus aurata* sperm quality. 3<sup>rd</sup> International Workshop on Biology of Fish Gametes, 6-9 September, Budapest, Hungary (poster).
- 2011-** **Cabrita E**, Pacchiarini T, Sarasquete C, Pousão-Ferreira P, Dinis MT, Herráez MP. Biotechnological use of germ cells from the commercial flatfish *Solea senegalensis*. The 3<sup>rd</sup> International Workshop on Biology of Fish Gametes, 6-9 September, Budapest, Hungary (poster).
- 2011-** Oliveira C, Villamizar N, Vives BB, Santos C, Mañanos E, **Cabrita E**, Soares F, Dinis MT, Sanchez Vazquez J. Chronobiology applied to spawning and gamete withdrawal: importance of daily rhythms. The 3<sup>rd</sup> International Workshop on Biology of Fish Gametes, 6-9 September, Budapest, Hungary (poster).
- 2011-** Martínez-Páramo S, Cerqueira M, Diogo P, Dinis MT, Sarasquete C, **Cabrita E**. European seabass (*Dicentrarchus labrax*) sperm modulation to improve antioxidant system for cryopreservation. The 3<sup>rd</sup> International Workshop on Biology of Fish Gametes, 6-9 September, Budapest, Hungary (poster).
- 2011-** **Cabrita E**, Martínez-Páramo S, Diogo P, Pacchiarini T, Dias J, Dinis MT, Sarasquete C. Antioxidant and PUFA supplemented diet improves fertilization success of cryopreserved sperm. World Aquaculture Society Meeting, 6-10 June, Natal, Brasil (poster)

- 2011-** Engrola S, **Cabrita E**, Mira S, Rocha F, Teixeira H, Pousão-Ferreira P, Cancela ML, Dinis MT. Sperm competition: effects on fertilization success of dusky grouper. World Aquaculture Society Meeting, 6-10 June, Natal, Brasil (poster).
- 2011-** Martínez-Vázquez R, Martínez-Pastor F, Herráez P, **Cabrita E**, Robles V. Evaluation of fluorescent stains and flow cytometry for viability assessment of gilthead sea bream (*Sparus aurata*) spermatozoa. The 15<sup>th</sup> annual ESDAR Conference, Antalya, Turkey, 15-17<sup>th</sup> September (poster).
- 2010-** Beirão J, Schiavone R, **Cabrita E**, Vilella S, Herráez MP, Zilli L. Antifreeze proteins (AFPs) improve gilthead seabream sperm resistance to cryopreservation. Aquaculture Europe 2010, 5-8 October, Oporto, Portugal.
- 2010-** Ma S, Diogo P, Martínez-Páramo S, Dinis MT, Sarasquete C, **Cabrita E**. Effect of antioxidant supplementation in fish sperm extenders on post-thaw sperm quality and DNA fragmentation. Aquaculture Europe 2010, 5-8 October Oporto, Portugal.
- 2010-** Pacchiarini T, **Cabrita E**, Cross I, Ortiz-Delgado J-B, Pousão-Ferreira P, Gavaia PJ, Rebordinos L, Sarasquete C. The *vasa* maternal factor in Senegalese sole, *Solea senegalensis*: molecular characterization and gene expression pattern analysis during early development and adulthood. Aquaculture Europe 2010, 5-8 October, Oporto, Portugal.
- 2010-** Diogo P, Soares F, Beirão J, Dinis MT, **Cabrita E**. Parameters affecting sperm motility activation in *Solea senegalensis*: multivariate cluster analysis vs mean values analysis. Aquaculture Europe 2010, 5-8 October, Oporto, Portugal.
- 2010-** Martínez-Páramo S, Diogo P, Dinis MT, Pousão-Ferreira P, Herráez MP, **Cabrita E**. Seasonal determination of European seabass (*Dicentrarchus labrax*) sperm quality: is there any correlation with sperm resistance to cryopreservation? Aquaculture Europe 2010, 5-8 October, Oporto, Portugal.
- 2010-** Engrola S, **Cabrita E**, Teixeira H, Conceição LEC, Pousão-Ferreira P, Dinis MT. Female performance of dusky grouper *Epinephelus marginatus* (lowe, 1854) during consecutive years. Aquaculture Europe 2010, 5-8 October, Oporto, Portugal.
- 2010-** Mira S, Madeira C, **Cabrita E**, Soares F, Cancela ML, Dinis MT. Parental contribution of *Solea senegalensis* assessed with microsatellite markers. Aquaculture Europe 2010, 5-8 October, Oporto, Portugal.
- 2010-** Pousão-Ferreira P, Ribeiro L, Soares F, Nicolau L, Mendes AC, Castanho S, Barata M, Damaso-Rodrigues L, **Cabrita E**, Dinis MT. Adaptation to captivity and spawning induction of meagre (*Argyrosomus regius*) at IPIMAR aquaculture research station. Aquaculture Europe 2010, 5-8 October, Oporto, Portugal.
- 2010-** Martínez-Páramo S, Diogo P, Dinis MT, Herráez MP, **Cabrita E**. Does antioxidant addition to the extender produce any effect on European seabass sperm cryoresistance? 47<sup>th</sup> Annual meeting of the Society for Cryobiology, 17-21 July, Bristol, UK.
- 2010-** **Cabrita E**, Pacchiarini T, Sarasquete C, Herráez MP. Development of a cryopreservation protocol for Senegalese sole testicular germ cells. 47<sup>th</sup> Annual meeting of the Society for Cryobiology, 17-21 July, Bristol, UK.
- 2009-** Pacchiarini T, **Cabrita E**, Cross I, Ortiz-Delgado JB, Herráez MP, Sarasquete C, Rebordinos L. Cloning and characterization of the Senegalese sole, *Solea senegalensis* *vasa* cDNA: an approach to a non-transgenic method to label PGCs. The 2<sup>nd</sup> International Workshop on Biology of Fish Gametes, 8-12 September, Valencia, Spain (poster).

- 2009-** Martínez-Páramo S, Martínez-Pastor F, Martínez G, Herráez MP, **Cabrita E.** Antioxidant status in fresh and cryopreserved sperm from gilthead sea bream (*Sparus aurata*). The 2<sup>nd</sup> International Workshop on Biology of Fish Gametes, 8-12 September, Valencia, Spain (poster).
- 2009-** Diogo P, Soares F, Dinis MT, **Cabrita E.** Ovarian fluid influence on *Solea senegalensis* sperm motility. The 2<sup>nd</sup> International Workshop on Biology of Fish Gametes, 8-12 September, Valencia, Spain (poster).
- 2009-** Cunha ME, Quental Ferreira H, Barradas A, Pousão-Ferreira P, **Cabrita E**, Engrola S. 2009. Growth and development of Dusky grouper /*Epinephelus marginatus*/ larvae in mesocosm of semi-intensive technology. In: Larvi '09 - Fish & Shellfish Larviculture Symposium, C.I. Hendry, G. Van Stappen, M. Wille and P. Sorgeloos (Eds). European Aquaculture Society, Special Publication No. 38, 52-55, Ghent, Belgium.
- 2008-** **Cabrita E**, Soares F, Aragão C, Beirão J, Pinto W, Petochi T, Marino G, Dinis MT. Milt quality in low and high cortisol responsive Senegalese sole males. Aqua Europe 2008, 15-18 September, Krakow, Poland (poster).
- 2008-** Beirão J, **Cabrita E**, Pérez-Cerezales S, Martínez-Páramo S, Herráez MP. Evaluation of cryopreservation protocols for gilthead seabream (*Sparus aurata*) sperm based in the characterization of sperm subpopulations. Aqua Europe 2008, 15-18 September, Krakow, Poland (poster).
- 2008-** Aragão C, Ribeiro L, **Cabrita E**, Dinis MT, Soares F. Amino acid and fatty acid composition in viable and unviable eggs of Senegalese sole (*solea senegalensis*). Aqua Europe 2008, 15-18 September, Krakow, Poland (poster).
- 2008-** Pérez-Cerezales S, **Cabrita E**, Martínez-Páramo S, Beirão J, Herráez MP. Analysis of Sperm DNA oxidation and fragmentation after cryopreservation in *Sparus aurata*. 41st Annual Meeting of the Society for the Study of Reproduction, 27–30 May 2008, Kona, Big Island, Hawaii, USA (poster).
- 2008-** **Cabrita E**, Beirão J, Soares F, Garcia-Lopez A, Martinez-Rodriguez G, Herráez MP, Dinis MT. Endocrine and milt response of Senegalese sole males maintained in captivity. International Symposium on Sex Determination and Gametogenesis in Fish: Current Status and Future Challenges. 30-1 June, Honolulu, Hawaii, USA (poster).
- 2008-** Oliveira C, Dinis MT, Soares F, **Cabrita E**, Pousão-Ferreira P, Sánchez-Vázquez FJ. Environmental transduction of lunar and seasonal cycles on the synchronization of spawning rhythms in Senegal sole (*Solea senegalensis*). 7<sup>th</sup> Flatfish Symposium, 2-7 November, Sesimbra, Portugal (poster).
- 2008-** Diogo P, Soares F, Dinis MT, **Cabrita E.** Sperm motility in *Solea senegalensis*: relationship with water temperature, salinity and pH. 7<sup>th</sup> Flatfish Symposium, 2-7 November, Sesimbra, Portugal (poster).
- 2008-** Quental H, Cunha ME, Barradas A, **Cabrita E**, Engrola S, Pousão-Ferreira P. Growth of Dusky grouper (*Epinephelus marginatus*) larvae reared in mesocosm. 8<sup>th</sup> Larval Biology Symposium, IPMAR, Lisboa, Portugal (poster).
- 2007-** **Cabrita E**, Engrola S, Conceição L, Lacuisse M, Herráez MP, Pousão-Ferreira P, Marino G, Dinis MT. Preliminary attempts on the cryopreservation of dusky grouper (*Epinephelus marginatus*) sperm. Aquaculture Europe 2007, 24-27 October, Istambul, Turkey (poster).
- 2007-** Engrola S, **Cabrita E**, Conceição L, Lacuisse M, Pousão-Ferreira P, Dinis MT. Utilización de implantes de GnRHa en la inducción de hembras de mero del Atlántico (*Epinephelus marginatus*). XI Congreso nacional de Acuicultura, 24-28 de September, Vigo, Spain (poster).

- 2007- **Cabrita E**, Lacuisse M, Conceição L, Engrola S, Pousão-Ferreira P, Dinis MT. Características de la calidad seminal de machos de mero, *Epinephelus marginatus*, obtenidos mediante reversión sexual: estudios preliminares de criopreservación seminal. XI Congreso nacional de Acuicultura, 24-28 de September, Vigo, Spain (poster).
- 2007- Beirão J, **Cabrita E**, Soares F, Herráez MP, Dinis MT. Cellular damage in spermatozoa from wild-captured *Solea senegalensis* detected with comet analysis and annexin-V. The 1<sup>st</sup> International Workshop on Biology of Fish Sperm, 29-31 August, Vodnany, Czech Republic (poster).
- 2007- Conceição L, **Cabrita E**, Engrola S, Lacuisse M, Pousão-Ferreira P, Dinis MT. Hormonal induction of Atlantic dusky grouper (*Epinephelus marginatus*) broodstock. 8<sup>th</sup> International Symposium on Reproductive Physiology of Fish. 3-8 June, Saint-Malo, France (poster).
- 2007- **Cabrita E**, Martinez-Pastor F, Soares F, Dinis MT. Motility activation and subpopulation analysis in *Solea senegalensis* spermatozoa. 8<sup>th</sup> International Symposium on Reproductive Physiology of Fish. 3-8 June, Saint-Malo, France (poster).
- 2006- Martinez-Pastor F, **Cabrita E**, Soares F, Dinis MT. Definition and changing patterns of *Solea senegalensis* spermatozoa after activation. F. 10<sup>th</sup> International Symposium on Spermatology, 17-22 September, Madrid, Spain (poster).
- 2006- **Cabrita E**, Paramo S, Anel L, Herráez MP. Motility of cryopreserved seabream spermatozoa: effect of channel blockers. 10<sup>th</sup> International Symposium on Spermatology, 17-22 September, Madrid, Spain (poster).
- 2006- **Cabrita E**, Soares F, Dinis MT. Characteristics of sole *Solea senegalensis* sperm during the spermiation period. Aqua2006, 8-13 May, Florence, Italy (poster).
- 2006- Pérez-Cerezales S, Martínez-Páramo S, **Cabrita E**, Anel L, Martínez-Pastor F, Herráez MP. Chromatin stability during short and long-term storage of sex reversed rainbow trout sperm. Aqua2006, 8-13 de May, Florence, Italy (poster).
- 2006- Soares F, **Cabrita E**, Aragão C, Dinis MT. Does feeding polychaetes affects reproduction in captive Senegalese sole? Fish Nutrition, 24-30 May, Biarritz, France (poster).
- 2005- Beirão J, **Cabrita E**, Robles V, Dinis MT, Sarasquete MC, Herráez MP. Microinjection of cryoprotectants into fish embryos. 41<sup>th</sup> Meeting of the Society for Cryobiology, 24-29 July, Minneapolis, USA (poster).
- 2005- **Cabrita E**, Robles V, Dinis MT, Soares F, Sarasquete C, Herráez MP. Sperm quality evaluation in fish: perspectives and applications. Larvi 2005, 5-8 September, Ghent, Belgium (poster).
- 2004- **Cabrita E**, Robles V, Cuñado S, Wallace JC, Rebordinos L, Sarasquete C, Herráez MP. Evaluation of DNA damage in cryopreserved sperm of gilthead seabream (*Sparus aurata*). 40<sup>th</sup> Meeting of the Society for Cryobiology, 17-21 July, Beijin, China (poster).
- 2004- **Cabrita E**, Robles V, Sarasquete C, Herráez MP. Cryopreservation of gilthead seabream (*Sparus aurata*) sperm. World Aquaculture Congress, 1-5 March, Honolulu, Hawaii, USA (poster).
- 2003- Robles V, **Cabrita E**, Cuñado S, Herráez MP. Attempts to dechorionize turbot embryos as a previous step for vitrification. CryoBiomol 2003, 14-18 September, Coimbra, Portugal (poster).
- 2003- **Cabrita E**, Robles V, Cuñado S, Sarasquete MC, Herráez MP. Vitrificación de embriones de dorada (*Sparus aurata*): efecto de las soluciones vitrificantes y del proceso de congelación/descongelación. IX Congreso Nacional de Acuicultura 12-16 May, Cádiz, Spain (poster).

- 2003-** Robles V, **Cabrita E**, Cuñado S, Herráez MP. Ensayos de vitrificación de embriones de rodaballo. IX Congresso Nacional de Acuicultura 12-16 May, Cádiz, Spain (poster).
- 2002-** **Cabrita E**, Robles V, Chereguini O, Herráez M.P. Toxicity of different permeable and non-permeable cryoprotectants on turbot embryos. 38<sup>th</sup> Meeting of the Society for Cryobiology, 27-31 July, Brekenridge, Colorado, USA (poster).
- 2002-** Robles V, **Cabrita E**, Cuñado S, Chereguini O, Alvarez R, Herráez MP. Effect of vitrification solutions on the hatching rate and the activity of selected enzymes in fish embryos. 38<sup>th</sup> Meeting of the Society for Cryobiology, 27-31 July, Brekenridge, Colorado, USA (poster).
- 2002-** Robles V, **Cabrita E**, Cuñado S, Anel L, de Paz P, Herráez MP. Sperm ability for freezing in trout neomales: effect of spawning time. 9<sup>th</sup> International Symposium on Spermatology, 6-11 October, Cape Town, South Africa (poster).
- 2001-** Robles V, **Cabrita E**, Alvarez R, Herráez MP. Influence of caffeine and theophylline in sperm motility, cell ATP content and fertility of cryopreserved neomale trout spermatozoa. Annual Conference IETS, 4-8 January, Omaha, Nebraska, USA (poster).
- 2001-** **Cabrita E**, Robles V, Herráez MP. Cryopreservation of rainbow trout sperm in large volume. Aquaculture Europe 2001, 4-7 August, Trondheim, Norway (poster).
- 2001-** Robles V, **Cabrita E**, Herráez MP. Cryopreservation of sex reversed trout spermatozoa. Aquaculture Europe 2001, 4-7 August, Trondheim, Norway (poster).
- 1999-** **Cabrita E**, Martinez F, Real M, Alvarez R, Herráez MP. Effect of different external cryoprotectants as membrane stabilizers for cryopreservation of rainbow trout sperm. 36<sup>th</sup> Meeting of the Society for Cryobiology, 12-15 July, Marseille, France (poster).
- 1999-** **Cabrita E**, Chereguini O, Luna MJ, Herráez MP. Effect of different permeabilization agents on the penetration of DMSO in turbot embryos. 36<sup>th</sup> Meeting of the Society for Cryobiology, 12-15 July, Marseille, France (poster).
- 1998-** **Cabrita E**, Alvarez R, Herráez MP. Permeabilization of turbot embryos before freezing. VI Seminario de Aquacultura, 15-16 October, Viana do Castelo, Portugal (poster).
- 1997 -** **Cabrita E**, Alvarez R, Anel L, Rana K, Herráez MP. Evidence of sublethal sperm membrane damage during cryopreservation of rainbow trout sperm. 34<sup>th</sup> Annual Meeting of the Society for Cryobiology, 8-12 June, Barcelona, Spain (poster).
- 1997 -** **Cabrita E**, Alvarez R, Anel L, Herráez MP. Assessment of different methods of sperm cryopreservation for the creation of a gene bank for brown trout (*Salmo trutta*). VI Congresso Nacional de Aquacultura, 9-11 July, Cartagena, Spain (poster).

## 8- STAYS IN INTERNATIONALLY RECOGNIZED CENTRES

- | IEO-Instituto Espanhol de Oceanografia, Santander, Spain (Dr Olvido Chereguini).  
Objective: Turbot broodstock management, gamete assay, fertility trials, cryopreservation of sperm and embryos.
- | University of León, Faculty of Biology, León, Spain (Dr Paz Herráez, Dr Luis Anel).  
Objective: CASA analysis of motility in sperm
- | INRA-Laboratoire de Physiology des Poisson, Rennes, France (Dr Catherine Labb  , Dr Gerard Maisse).  
Objective: Spermatozoa plasma membrane characterization, cholesterol and phospholipids analysis, cryopreservation procedures in trout sperm.

- ) ICMAN/CSIC-Instituto de Ciências Marinas de Andalucía, Cádiz, Spain (Dr Carmen Sarasquete, Dr Gonzalo Martinez).
- ) Objective: Seabream broodstock management, cryopreservation of sperm and embryos in this species.
- ) University of Newfoundland, St. John's, Canada (Dr. Gary Fletcher).  
Objective: Cryopreservation of winterflounder embryos using anti-freeze proteins.
- ) University of Salzburg, Institute for Zoology, Salzburg, Austria (Dr Franz Lahnsteiner).  
Objective: Spermatozoa metabolism, determination of enzymes and metabolites in fresh and cryopreserved samples, Characterization of sole eggs metabolism.
- ) University of Godollo, Hungary (Dr. Akos Horvath).  
Objective: Management and cryopreservation of sperm from freshwater species using blood plastic-bags for application to commercial scale.
- ) University of Tokyo, Japan (Dr. Goro Yoshisaki)  
Objective: Spermatogonial germ cell isolation and transplantation into marine and freshwater fish larvae.
- ) IFREMER, Brest, France (Dr. Marc Suquet)  
Objective: Cryopreservation of *Crassostrea gigas* larvae

## **9- SCIENTIFIC AND MANAGEMENT (ORGANIZATION AND COMMITTEES)**

**2020-21**-European Society Aquaculture Steering committee for EAS2021 Madeira meeting.

**2015**-Seminário organizado no âmbito do projeto KLING “Estudo piloto para melhoramento do *status* nutricional em vitamina K: optimização da reprodução e demonstração da melhoria na qualidade larvar de linguado”, financiado pelo Programa PROMAR, Direção Geral das Pescas. Local de realização: anfiteatro 1.8, Edif 8, 18 de Dezembro de 2015

**2015**- Seminário organizado no âmbito do projeto CRIOBIV “Estabelecimento de bases para a criação de um crio-banco do género *Crassostrea* para fins comerciais”, financiado pelo Programa PROMAR, Direção Geral das Pescas. Local de realização: anfiteatro vermelho, Edif. da Economia, 17 de Dezembro de 2015

**2015**- Training school from COST action Aquagamete, Techniques in Reproductive Biology and Cryobanking, January, Faro, Portugal.

**2013**- Training school from COST action Aquagamete, Techniques in Cryobanking, May, Cádiz, Spain.

**2013**- The 4<sup>rd</sup> International Workshop on Biology of Fish Gametes, 12-18 September, Faro, Portugal.

**2012**- Management Committee (Spain) of COST action AQUAGAMETE (FA1205).

**2011**- The 3<sup>rd</sup> International Workshop on Biology of Fish Gametes, 6-9 September, Budapest, Hungary.

- 2009-** The 2<sup>nd</sup> International Workshop on Biology of Fish Gametes, 7-12 September, Valencia, Spain.
- 2007-** The 1<sup>st</sup> International Workshop on Biology of Fish Sperm, 5-10 September, Vodnany, Czech Republic
- 2006-** Organization of the 1<sup>st</sup> Portuguese Aquaculture Meeting, 5<sup>th</sup> December, University of Algarve, Faro, Portugal. This event was associated with the presentation of the results from a project. Several students, fish farmers and researchers (90 persons) attend this event.

## **10- MEMBER OF SCIENTIFIC SOCIETIES:**

**2020- SIBIC** (member of board)

**2012-2014-** European Society for Comparative Physiology and Biochemistry

**1998-2015-** Society for Cryobiology

**1992-2000-** Biology Society

## **11-REVIEWER ACTIVITY**

### **Scientific Journals:**

Aquaculture International

Aquaculture

Fish Biology

Theriogenology

Cryoletters

Cryobiology

Journal of Aquatic Toxicology

Reproduction

CBP

Zebrafish

Biology of Reproduction

Aquaculture Research

Reproductive Biology

Animal Reproduction Science

Journal of Applied Ichthyology

Reproduction, Fertility and Development

PlosOne

Zygote

### **Project and fellowships:**

ANEPE (National Evaluation and Foresight Agency), Spain

Agency FONDECYT, call CONICYT, Chile

Czech Science Foundation, Czech Republic

FCT, Portuguese Foundation for Science and Technology, Portugal

DGPM-Direção Geral de Política do Mar, Portugal

Poland National Science Centre, Poland

### **PhD Expert (PhD European mention):**

2010- David Peñaranda, Politecnical University of Valencia, Spain  
2015- Zuzana Linhartová, University of South Bohemia, Czech Republic.  
2016- Carmen Navarro, University of Cadiz, Spain

## 12-AWARDS

**Best Poster Award 2019-** Diogo P, Martins G, Nogueira R, Marreiros A, Gavaia PJ, Cabrita E. Cryoprotectants used in zebrafish sperm cryopreservation modulate offspring skeletal development. Fish Gametes2019, 2-7 Sept, Rennes, France.

**Best Poster Award 2018-** P. Diogo, R. Nogueira, G. Martins, PJ. Gavaia and E. Cabrita. Effect of water temperature and conductivity on the activation of zebrafish sperm motility. SIBIC2018, Faro, Portugal.

**Best Poster Award 2009-** P. Diogo, F. Soares, M.T. Dinis, **E. Cabrita**. Ovarian fluid influence on *Solea senegalensis* sperm motility. The 2<sup>nd</sup> International Workshop on Biology of Fish Gametes, 8-12 September, Valencia, Spain.

**Second Best Poster Award 2007:** **E. Cabrita**, M. Lacuisse, L. Conceição, S. Engrola, P. Pousão-Ferreira, MT Dinis. Características de la calidad seminal de machos de mero, *Epinephelus marginatus*, obtenidos mediante reversión sexual: estudios preliminares de criopreservación seminal. XI Congreso nacional de Acuicultura, 24-28 de September, Vigo, Spain.

**Best Poster Award 2002:** Robles,V., **Cabrita, E.**, Cuñado, S., Chereguini, O., Alvarez, R., Herráez, M.P. Effect of vitrification solutions on the hatching rate and the activity of selected enzymes in fish embryos. 38th Meeting of the Society for Cryobiology, 27-31 July, Brekenridge, Colorado, USA.

## 13-PARTICIPATION IN PLATAFORMS AND NETWORKING

- Zebrafish Plataform
- Research team (GRUPO PAI-RNM181), Junta de Andalusia
- Unidade asociada ICMAN.UCA- "Calidad Ambiental y Patología Molecular"
- LARVANET COST action (FA0801)
- AQUAGAMETE COST action (FA1205)

## 14-WORK SUPERVISED AND CO-SUPERVISED

### Undergraduate training supervision (15):

**2020-ongoing-** Raquel Antunes, Influência da melatonina endógena e exógena na criopreservação de sémen de dourada. Universidade do Algarve, Orientadores: Elsa Cabrita, Francisca Felix.

**2019-** Filipa Pinheiro, Effect of different cryopreservation conditions on the freezing storage of *Tetraselmis* genus. Universidade do Algarve, Orientadores: Elsa Cabrita, Tamara Santos.

- 2019-** José Marques, Alternative methods for the cryopreservation of marine microalgae. Universidade do Algarve, Orientadores: Elsa Cabrita, Tamara Santos.
- 2018-** Gabriel Moço- Effects of Kisspeptin on the behaviour, sperm motility and hormonal profile of *Solea senegalensis*. Universidade do Algarve, Orientadores: Elsa Cabrita, Catarina Oliveira, Elvira Fatsini.
- 2017-**Isa Quinzico, Projeto de dissertação da licenciatura em Biologia Marinha: New methods to store zebrafish cryopreserved samples, Universidade do Algarve, Orientadores: Elsa Cabrita, Patricia Diogo.
- 2017-**Rita Nogueira, Projeto de dissertação da licenciatura em Biologia Marinha: Cryopreservation of zebrafish sperm: analysis of quality, Universidade do Algarve, Orientadores: Elsa Cabrita, Patricia Diogo.
- 2016-**Daniel Duarte, Projeto de dissertação da licenciatura em Biologia Marinha: Universidade do Algarve, Orientadores: Elsa Cabrita, Catarina Oliveira, Benjamin Costas.
- 2016-**Cheila Almeida, Projeto de dissertação da licenciatura em Biologia Marinha: Standardization of a protocol for sperm cryopreservation of *Solea senegalensis*, Universidade do Algarve, Orientadores: Elsa Cabrita, Marta Riesco.
- 2015-** Hugo João, Projeto de dissertação da licenciatura em Biologia Marinha: Análise da qualidade e crescimento de ostras diplóides e triplóides em condições de produção, Universidade do Algarve, Orientadores: Elsa Cabrita.
- 2015-** Fábio Marcelino, Projeto de dissertação da licenciatura em Biologia Marinha: Optimização de vários aspectos da reprodução de linguado e dourada, Universidade do Algarve, Orientadores: E. Cabrita e C. Oliveira.
- 2008-** Barbara Sousa, (nº26088), Trabalho Experimental em Biologia Marinha: Análise da qualidade seminal em peixes marinhos, Universidade do Algarve, (MT Dinis, E. Cabrita, orientadores), 42h (3 ECTS).
- 2008-** Angela Vicente (nº24975), Trabalho Experimental em Biologia Marinha: Análise da qualidade seminal em peixes marinhos, Universidade do Algarve, (MT Dinis, E. Cabrita, orientadores), 42h (3 ECTS).
- 2006-** Ilse Caputo- training on *Solea* reproduction and broodstock management, University of Bologna (Italy). Supervisors: Florbela Soares, Elsa Cabrita and Maria Teresa Dinis.
- 2006-** Sara Silva, PhD. student at the Santiago of Compostela University (Spain) did an experiment on “Characterization of Cholesterol/Phospholipid content in Sole (*Solea senegalensis*) sperm” to be part of his thesis. Supervisors: Elsa Cabrita and Florbela Soares.
- 2005-** José Santos, Microinjecção de agentes crioprotectores em embriões de dourada (*Sparus aurata*): ensaios de soluções vitrificantes., University of Algarve, Graduation thesis.

**Master supervision (25):**

- 2020-** Leonor Ferrão, “The role of melatonin in sperm from two aquaculture fish species with reproductive problems: *Solea senegalensis* and *Anguilla anguilla*”. Master thesis, Supervisors: Elsa Cabrita (UAlg) and Catarina Oliveira (CCMAR).

- 2019- ongoing-** Daniel Rodrigues, "Optimization of reproductive management techniques for artificial reproduction in sea urchin (*Paracentrotus lividus*)". Master thesis, Supervisors: Elsa Cabrita (UAlg), Florbela Soares (IPMA).
- 2019-ongoing-** Matteo Igiddi, "Comparative histological analysis of the spermatogenesis in captive-reared and hatchery-produced greater amberjack (*Seriola dumerili*)". Master thesis, Supervisors: Elsa Cabrita (UAlg) and Aldo Corriero (Bari University).
- 2017- ongoing-** Carlos Moraes, "Optimization of biomass estimation algorithms in cultured sea bass (*Dicentrarchus labrax*)". Master thesis, Supervisors: Elsa Cabrita (UAlg) and Pedro Encarnaçao (Seaculture S.A.).
- 2018-** Diogo Soares, "Optimisation of algorithms to predict biomass of fish in cages as well as size distribution, using the Aquanetix production management software". Master thesis, Supervisors: Elsa Cabrita (UAlg) and Diogo Thomaz (Aquanetix).
- 2018-** João Santana "Optimization of a sperm cryopreservation protocol for spotted wolffish (*Anarhichas minor*).". Master thesis, Supervisors: Jose Beirão (Univ. Bodo) and Elsa Cabrita.
- 2018-** Ana Luisa Santos, "Optimization of *in vitro* fertilization using cryopreserved sperm of *Crassostrea angulata* and *Chamelea gallina*" Master thesis, Supervisors: Elsa Cabrita (UAlg) and Catarina Anjos (UAlg).
- 2017-** Filipa Beça, "Effect of native probiotic-candidates on the immune status, inflammatory response and disease resistance of turbot (*Scophthalmus maximus*) upon rectal administration" Master thesis in Aquaculture, Supervisors: Sven Wurtz (Leibniz Institute) and Elsa Cabrita (UAlg).
- 2017-** Jerome Darras, "Aquaculture of the stalked barnacle *Pollicipes pollicipes*: improving farming techniques through the use of different size of artificial substrates and by diminishing fouling problems". Master thesis in Aquaculture, Supervisors: Teresa Cruz and Elsa Cabrita.
- 2017-** Maria Ruiz, "Effects of purslane (*Portulaca oleracea*) and *Shewanella putrefaciens* probiotic enriched diet on gilthead seabream (*Sparus aurata*)". Master thesis in Aquaculture, Supervisors: Maria Esteban (Univ. Murcia) and Elsa Cabrita.
- 2015-ongoing-** João Duarte, "Aquaculture of the stalked barnacle *Pollicipes pollicipes*: the influence of timing of deployment of juveniles collectors in the production of barnacles." Master thesis, Supervisors: Teresa Cruz and Elsa Cabrita.
- 2015-ongoing-** Antonio Raposo, "The effect of perpyton on the growth of *Mugil cephalus* juveniles". Master thesis, Supervisors: Emilia Cunha and Elsa Cabrita.
- 2017-** Eunice Cassoma, "Caracterização da microbiota associada ao muco da pele de corvinas (*Argyrosomus regius*) produzidas em diferentes sistemas multitoloficos integrados (IMTA)." Master thesis in Aquaculture, Supervisors: Florbela Soares and Elsa Cabrita.
- 2017-** Renata Santos, "Enhancement of spermiation in meagre using two administration methods of GnRHa" Master thesis in Aquaculture, Supervisors: Konstantino Mylonas and Elsa Cabrita.
- 2015-** Simão Santos, "Otimização da fragmentação e dos processos de fixação na reprodução assexuada do coral mole *Sarcophyton sp.*" Master thesis, Supervisors: Rui Rocha and Elsa Cabrita.
- 2015-** Francisca Félix, "Development of cryopreservation protocols for larvae of Portuguese oyster (*Crassostrea angulata*)", Master thesis, Supervisors: Elsa Cabrita and Marta Riesco

- 2015-** Joana Moura "Ontogeny of the expression of enzymes of PUFA metabolism in *Octopus vulgaris* paralarvae" Master thesis, Supervisors: Eduardo Almansa and Elsa Cabrita.
- 2015-** Martim Magro "Effect of Temperature on Embryonic Development, Larval Viability and Biomarkers in the First Stages of Life of *Octopus vulgaris* (Cuvier, 1797)", Master thesis, Supervisors: Eduardo Almansa and Elsa Cabrita.
- 2015-** Ana Leonardo, "Comparison of two validated methods for cryopreserving European eel (*Anguilla anguilla*) sperm: standardization as a target", Master thesis, Supervisors: Juan F. Asturiano and Elsa Cabrita.
- 2014-** Monica Barbeiro, Inclusão da microalga (*Phaedactylum tricornutum*) em rações de acabamento para dourada: efeito na pigmentação e outros atributos da qualidade, tese de mestrado, Univ. Algarve.
- 2011-** Elena Olague, "Efectos del busulfan en juveniles de lenguado senegalés, *Solea senegalensis*: implicaciones en tejidos germinal y somático", Master thesis supervisors: Elsa Cabrita, Carmen Sarasquete (ICMAN.CSIC).
- 2010-** Simão Ma, "Efeito da adição de anti-oxidantes na cryopreservação de semen de dourada e robalo", Master thesis supervisors: Elsa Cabrita, Maria Teresa Dinis (University of Algarve).
- 2011-** Patricia Diogo, "Characterization of sperm motility in *Solea senegalensis*", Master Thesis supervisors: Elsa Cabrita, Maria Teresa Dinis, Florbela Soares (University of Algarve).
- 2007-** Emilio Mota "Evaluation of Enzymatic and Metabolic Parameters of Quality in Sole Eggs (*Solea senegalensis*)", Master Thesis supervisors: Elsa Cabrita, Maria Teresa Dinis, Florbela Soares (University of Algarve).
- 2006-** Serafim Pérez-Cerezales "Analysis of chromatin damage in sperm from sex-reversed trout", University of León, Spain, Master thesis. Master Thesis supervisors: Elsa Cabrita, Paz Herráez (University of León).

**PhDs supervision (6):**

- 2019-ongoing-** Francisca Felix, "Improvement of Senegalese sole sperm quality through the action of Melatonin as an antioxidant-ref: SFRH/BD/148280/2019. PhD thesis, Supervisors: Elsa Cabrita (UALG), Catarina Oliveira (CCMAR), Luisa Vera (Universidade de Murcia).
- 2017-ongoing-** Catarina Anjos, "Establishment of a genetic resource bank for restocking management in Portuguese oyster (*Crassostrea angulata*) and Striped-venus clam (*Chamelea gallina*)" PhD thesis, Supervisors: Elsa Cabrita (UALG), Domitio Matias (IPMA).
- 2019-** Patricia Diogo, "Cryopreservation of zebrafish germ cells: technological improvements and methodological standardization for gene banking and management" PhD thesis, Supervisors: Paulo Gavaia (CCMAR), Elsa Cabrita (UALG).
- 2014-2017-** Raycon Garcia, "Perfil seminal e correlação com a qualidade do sêmen criopreservado de Tambaqui *Colossoma macropomum*" PhD thesis, Supervisors: Danilo Streit (University of Porto Alegre, Brasil) and Elsa Cabrita (UALG), supported by CNPq (Brasil).
- 2012-** Tiziana Pacchiarini, "El factor maternal *vasa* como marcador molecular para la caracterización de las Células Germinales/CG en dos especies de peces planos: el lenguado Senegalés (*Solea senegalensis*) y el rodaballo (*Scophthalmus maximus*). Aplicaciones Biotecnológicas en Acuicultura", PhD thesis supervisors: Laureana Rebordinos (UCA), Carmen Sarasquete (ICMAN.CSIC) co-advisor (ICMAN.CSIC).

**2011-** José Beirão, Sperm quality in marine fish: applications to broodstock management and sperm storage in two farmed species *Solea senegalensis* and *Sparus aurata*, University of León, Spain, PhD thesis. Supervisors: Elsa Cabrita (CCMAR), Paz Herraez (ULE).

### **Post-Graduate supervision**

**2020-2021-** Elvira Fatsini, Pos-doc fellowship at project EBB- European biobanks, UAlg.

**2018-2020-** Elvira Fatsini, "Reproductive strategies in Senegalese sole", Pos-doc fellowship at project REPROF1, UAlg.

**2018-** Catarina Oliveira, "Cryobanking in bivalves", BI (doctor) fellowship at project VENUS, UAlg.

**2015-2017-** Marta Riesco, "Cryobiology and Cryobanking of marine resources", Post-doc contract at UALG and CCMAR.

**2010-2017-** Catarina Oliveira, "Chrono-Reproduction in teleost fish: Mechanisms of synchronization to environmental cycles"-SFRH/BPD/63933/2009", post-doc coadvisor at CCMAR.

**2009-2014-** Sonia Martinez-Paramo, "Development of tools to analyse fresh and cryopreserved sperm quality in fish", post-doc co-advisor at CCMAR.

### **15-LECTURER: BACHELOR, MASTER AND POST-GRADUATION COURSES**

**2016 until present-** Lecture in the courses: Developmental biology from the Biology degree. UAlg, Portugal.

**2013 until present-** Responsible for teaching the master courses: Topics in Aquaculture, Fisheries and Conservation (45h), Live Feeding and Larviculture (50h), Techniques in Reproductive Biology (50h) from the Master in Aquaculture and Fisheries, UAlg, Portugal.

**2016-** Lecture in the courses: Fisheries and Aquaculture and Marine Biology Resources both from the Marine Biology degree. UAlg, Portugal.

**2015, 2018, 2019, 2020-** Responsible for the course Invertebrate Biology from the degrees in Marine Biology and Biology, UAlg, Portugal.

**2015**-Training course AQUAGAMETE COST ACTION FA1205- Lecture: "What cells can we preserve and at what risk: new insights in cryodamage", CCMAR, Faro, Portugal.

**2015**-Training course AQUAGAMETE COST ACTION FA1205- Practical class: "Isolation of testicular germ cells and microinjection", CCMAR, Faro, Portugal.

**2013-2018-** Practical and theoretical classes in course Marine invertebrates from the degrees in Marine Biology and Biology, UAlg, Portugal.

**2013-** Master de Acuicultura y Pesca de la UCA/ICMAN.CSIC, curso Reproducción en Acuicultura, lecture: Calidad de Gametos. Avances y Perspectivas en criobiología de peces. 2h theoretical.

**2013**-Training course AQUAGAMETE COST ACTION FA1205- Lecture: "Cryopreservation in aquatic species: marine teleosts as a case study", 1h theoretical; 4h practical, ICMAN.CSIC, Cádiz, Spain.

- 2012-** Course FUECA "Experimentación animal con peces", modulo: Técnicas no invasivas: alternativa al uso de organismos vivos". Cultivos y líneas celulares: avances en técnicas de criopreservación en peces. 2h theoretical.
- 2012-** Master de Acuicultura y Pesca de la UCA/ICMAN.CSIC, curso Reproducción en Acuicultura, lecture: Calidad de Gametos. Avances y Perspectivas en criobiología de peces. 2h theoretical.
- 2011-** Master de Acuicultura y Pesca de la UCA/ICMAN.CSIC, curso Reproducción en Acuicultura, lecture: Calidad de Gametos. Avances y Perspectivas en criobiología de peces. 2h theoretical.
- 2011-** Course: Gabinete de Formación CSIC "Experimentación animal con peces", modulo: Técnicas no invasivas: alternativa al uso de organismos vivos". Cultivos y líneas celulares: avances en técnicas de criopreservación en peces. 2h theoretical.
- 2010-** Master de Acuicultura y Pesca, UCA/ICMAN.CSIC, curso Reproducción en Acuicultura, lecture: Avances y Perspectivas en criobiología de peces. Calidad de Gametos. 8h teórico/prácticas.
- 2010-** Master in Aquaculture, Master course- Advances in Reproduction, 1<sup>st</sup> part class lecture (4h): "Advances in reproductive techniques"; 2<sup>nd</sup> part class lecture(4h): "Perspectives of cryopreservation of fish gametes, embryos and germinal cells" University of Peniche (Leiria Polytechnic School), Portugal, 3<sup>rd</sup> part class- practical: "Cryopreservation of seabream sperm" (IPIMAR).
- 2010-**Training course "LARVITA" (LARVANET COST)- Lecture: Broodstock: gamete quality, 4h theoretical; 4h practical, CCMAR, Portugal.
- 2009-** Master de Acuicultura y Pesca, UCA/ICMAN.CSIC, course: "Reproducción en Acuicultura", lecture: Criopreservación de gametos y células germinales: perspectiva y aplicaciones, 4 h theoretical.

## **16-ACTIVITIES OF SCIENTIFIC DIVULGATION:**

- 2018-2020-** Participação nas atividades do dia Aberto da UAAlg.
- 2007-** Programa "Os cientistas vão às escolas-CCMAR", Escola Secundaria de Lagoa, lecture: Os peixes também se cultivam?
- 2011-** Semana de la Ciencia y Tecnología, lecture: Ciclo de vida de los peces en acuicultura (1h), ICMAN.CSIC.

## **17-JURY IN ACADEMIC DISSERTATIONS (MASTER AND PhD)**

- 2007-** Victor Cortés, PhD thesis, University of Valencia, Spain.
- 2007-** Vera Barbosa Master thesis, University of Algarve, Portugal.
- 2007-** Emilio Mota, Master thesis, University of Algarve.
- 2008-** Sonia Martínez Paramo, PhD thesis, University of León, Spain.
- 2009-** David Peñaranda, PhD thesis, University of Valencia, Spain.
- 2010-** Simão Ma, Master thesis, University of Lisbon.
- 2011-** Patricia Diogo, Master thesis, University of Algarve, Portugal.
- 2013-** Victor Gallego, PhD thesis, University of Valencia, Spain.
- 2014-** Luis Negrão, Master thesis, University of Algarve, Portugal.
- 2014-** Marco Custodio, Master thesis, University of Algarve, Portugal.

**2014-** Tamara Santos, Master thesis, University of Algarve, Portugal  
**2014-** Mónica Barbeiro, master student, University of Algarve, Portugal  
**2015-** Ana Leonardo, Master thesis, University of Algarve, Portugal.  
**2015-** Martim Magro, Master thesis, University of Algarve, Portugal.  
**2015-** Joana Moura, Master thesis, University of Algarve, Portugal.  
**2016-** Felisa Eiras, PhD thesis, University of Aveiro, Portugal.  
**2016-** Maarten Fritz, Master thesis, University of Algarve, Portugal.  
**2016-** Leila Pereira, Master thesis, University of Algarve, Portugal.  
**2016-** Claudia Raposo, Master thesis, University of Algarve, Portugal.  
**2016-** Ana Medeiros, Master thesis, Polytechnic University of Leiria, Peniche, Portugal.  
**2017-** Gonçalo Brito, Master thesis, University of Algarve, Portugal  
**2017-** Miguel Cabano, Master thesis, University of Algarve, Portugal  
**2017-** Madalena Carias, Master thesis, University of Algarve, Portugal  
**2017-** Sara Canhoto, Master thesis, University of Algarve, Portugal  
**2018-** Sandra Rebocho, Master thesis, Polytechnic University of Leiria, Peniche, Portugal.  
**2018-** Ana Luisa Santos, Master thesis, University of Algarve, Portugal.  
**2018-** João Nascimento, Master thesis, University of Algarve, Portugal.  
**2018-** Neuza Belela, Master thesis, University of Algarve, Portugal.  
**2019-** Rafael Vieira, Master thesis, University of Algarve, Portugal.  
**2019-** Francisco Machado, Master thesis, University of Algarve, Portugal.  
**2019-** Johannes Muller, Master thesis, University of Algarve, Portugal.  
**2019-** João Pontes, Master thesis, University of Algarve, Portugal.  
**2020-** Leonor Ferrão, Master thesis, University of Algarve, Portugal.  
**2020-** Miguel Batista, Master thesis, University of Algarve, Portugal.  
**2020-** Daniel Afonso, Master thesis, University of Algarve, Portugal.

## 18- LANGUAGES

- ) English - (reading, writing and understanding – high level)
- ) Spanish - (reading, writing and understanding – high level )
- ) French - (reading, writing and understanding – medium level



(Elsa Cabrita)