PERSONAL INFORMATION

Dario Balestra

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blsdra@unife.it; blsdra1983@gmail.com

Sex M | Date of birth 14/03/1983 | Nationality Italian

WORK EXPERIENCE

From May 2012 to February 2017

Postdoctoral fellow

Prof. Francesco Bernardi (Tel +39 0532 974425, ber@unife.it) and Mirko Pinotti (Tel. +39 0532 974424,pnm@unife.it) , Laboratory of Molecular Biology and Hemostasis, Department of Molecular Biology, University of Ferrara. Via Fossato di Mortara 74, Ferrara, Italy.

- Development of new therapeutic approaches for inherited diseases through the modulation of RNA processing.

Business or sector Research and Development

From September 2014 to December 2015

Researcher

Raresplice s.r.l., a spin-off of University of Ferrara, Italy, Headed by Prof. Francesco Bernardi (Tel +39 0532 974425, ber@unife.it) and Mirko Pinotti (Tel. +39 0532 974424,pnm@unife.it) , Laboratory of Molecular Biology and Hemostasis, Department of Molecular Biology, University of Ferrara. Via Fossato di Mortara 74, Ferrara, Italy.

- Development of new therapeutic approaches for inherited diseases through the modulation of RNA processing.

Business or sector Research and Development

From October 2010 to March 2011

Research Scholar

Prof Valder R. Arruda (Tel. +1 215-590-4907, arruda@email.chop.edu) and Paris Margaritis (Tel. +1 267-426-7262, margaritis@email.chop.edu), The Children's Hospital of Philadelphia, University of Pennsylvania, Philadelphia, USA.

- Assessment *in vivo* of new therapeutic approaches for inherited diseases through the modulation of RNA processing.

Business or sector Research and Development

From December 2007 to December 2008

Postdoctoral fellow

Prof. Francesco Bernardi (Tel +39 0532 974425, ber@unife.it) and Mirko Pinotti (Tel. +39 0532 974424,pnm@unife.it) , Laboratory of Molecular Biology and Hemostasis, Department of Molecular Biology, University of Ferrara. Via Fossato di Mortara 74, Ferrara, Italy.

- Development of new therapeutic approaches for inherited diseases through the modulation of RNA processing.

Business or sector Research and Development

EDUCATION AND TRAINING

From January 2009 to December 2011

PhD. Research doctorate in Biochemistry, Molecular Biology and Biotechnologies.

Department of Molecular Biology, University of Ferrara, Italy, Via Fossato di Mortara 74, Ferrara, Italy

From September 2005 to July 2007

Master Degree in Biomolecular and Cellular Sciences. Final degree mark: 110/110 cum laude.

Department of Molecular Biology, University of Ferrara, Italy, Via Fossato di Mortara 74, Ferrara, Italy

From September 2002 to October 2005

Bachelor Degree in Biomolecular and Cellular Sciences. Final degree mark: 110/110 cum laude.

Department of Molecular Biology, University of Ferrara, Italy, Via Fossato di Mortara 74, Ferrara, Italy

PERSONAL SKILLS

Mother tongue(s): Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	B2
	PET certificate B1				
French	A1	A1	A1	A1	A1

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Communication skills

Organisational / managerial skills

Job-related skills

During my experience in the University environment, I gained the following job skills: maintenance of mammalian cellular coltures; nucleic acids extraction and purification (DNA,RNA and expression vectors form cells and tissues); PCR, RT-PCR, retrotranscription to cDNA, qPCR (real time RT-PCR and gene copy number qPCR); Mutagenesis (one site, multi sites, insertion, deletion); Cloning of promoter, gene and recombinant cassettes in expression and reporter vectors; Endonuclease digestion; Minigene construction (promoter - cDNA hybrid, cDNA – genomic DNA hybrid); Bacterial and Eukaryotic cell cultures (primary and immortalized cell lines); Transfection (stable or transient); Transformation bacterial cells (chemically competent cells); Reporter assay (luciferase and fluorescent protein); E.L.I.S.A., Western blot, Immunohystochemistry; Enzymatic activity assays; Sequencing; Bioinformatics analysis (splice site score prediction, oligonucleotide and probe design, RNA secondary structure, endonuclease digestion); Mouse anatomy (tissue and organs explant); Laboratory animal care (mouse); Animal procedure (blood collection from various sites, euthanasia procedure, suture).

Excellent analytical and problem solving skills

Computer skills	▪ Operating systems: Excellent ▪ Programming languages : good (python, ms-dos) ▪ Word processing: Excellent ▪ Electronic spreadsheet : Excellent ▪ Data base: Basic ▪ CAD skills: Basic ▪ Internet skills: Excellent ▪ Data transmission networks: Good ▪ Multimedia: Excellent ▪ Bioinformatic tools: Excellent
Other skills	▪ Aerial Modellism
Driving licence	driving licence category D

Publications

- Scalet D, **Balestra D**, Rohban S, Bovolenta M, Perrone D, Bernardi F, Campaner S, Pinotti M. Exploring Splicing-Switching Molecules For Seckel Syndrome Therapy. Biochim Biophys Acta. 2016 Sep 14. pii: S0925-4439(16)30229-0.
- **Balestra D**, Scalet D, Pagani F, Malgorzata ER, Rosella M, Bernardi F, Pinotti M. An Exon-Specific U1snRNA Induces A Robust Factor IX Activity In Mice Expressing Multiple Human FIX Splicing Mutants. Mol Ther Nucleic Acids. 2016 Oct 4;5(10):e370. doi: 10.1038/mtna.2016.77.
- Tajnik M, Rogalska M.E., Bussani E, Barbon E, **Balestra D**, Pinotti M, Pagani F. Molecular Basis and Therapeutic Strategies to Rescue Factor IX Variants That Affect Splicing and Protein Function. PLOS Genetics. 2016 May 26; 12(5):e1006082.
- Morciano G, Giorgi C, **Balestra D**, Marchi S, Perrone D, Pinotti M, Pinton P. Mcl-1 involvement in mitochondrial dynamics is associated with apoptotic cell death. Mol Biol Cell. 2015 Nov 4. pii: mbc.E15-01-0028.
- **Balestra D**, Barbon E, Scalet D, Cavallari N, Perrone D, Zanibellato S, Bernardi F, Pinotti M. Regulation of a strong F9 cryptic 5'ss by intrinsicelements and by combination of tailored U1snRNAs with antisense oligonucleotides. Hum Mol Genet. 2015 Sep 1;24(17):4809-16. doi: 10.1093/hmg/ddv205.
- **Balestra D**, Faella A, Margaritis P, Cavallari N, Pagani F, Bernardi F, Arruda VR, Pinotti M. An engineered U1 small nuclear RNA rescues splicing defective coagulation F7 gene expression in mice. J Thromb Haemost. 2014 Feb;12(2):177-85.
- Cavallari N, **Balestra D**, Branchini A, Maestri I, Chuamsunrit A, Sasanakul W, Mariani G, Pagani F, Bernardi F, Pinotti M. Activation of a cryptic splice site in a potentially lethal coagulation defect accounts for a functional protein variant. Biochim Biophys Acta. 2012 Jul;1822(7):1109-13. doi: 10.1016/j.bbadis.2012.03.001.
- Fernandez Alanis E, Pinotti M, Dal Mas A, **Balestra D**, Cavallari N, Rogalska ME, Bernardi F, Pagani F. An exon-specific U1 small nuclear RNA (snRNA) strategy to correct splicing defects. Hum Mol Genet. 2012 Jun 1;21(11):2389-98. doi: 10.1093/hmg/dds045.
- Pinotti M, **Balestra D**, Rizzotto L, Maestri I, Pagani F, Bernardi F. Rescue of coagulation factor VII function by the U1+5A snRNA. Blood. 2009 Jun 18;113(25):6461-4. doi: 10.1182/blood-2009-03-207613.
- Pinotti M, Rizzotto L, **Balestra D**, Lewandowska MA, Cavallari N, Marchetti G, Bernardi F, Pagani F. U1-snRNA-mediated rescue of mRNA processing in severe factor VII deficiency. Blood. 2008 Mar 1;111(5):2681-4.

Presentations

- SISET XXIV National Congress (Italian Society for the Study of Haemostasis and Thrombosis). Abano Terme (ITA). 9th-12th November 2016. An Exon Specific U1snRNA rescues different Haemophilia B -causing splicing-defective factor IX variants in mice. **Balestra D**, Scalet D, Pagani F, Bernardi F, Pinotti M. Lecture.
- XXV Congress of the International Society on Thrombosis and Haemostasis (ISTH). Toronto (CDN). June 20th – 25th 2015. A unique Exon Specific U1snRNA rescues different Haemophilia B -causing splicing-defective factor IX variants in mice. **Balestra D**, Scalet D, Pagani F, Bernardi F, Pinotti M. Lecture and Young investigator Award.
- Pinotti M, Rizzotto L, **Balestra D**, Lewandowska MA, Cavallari N, Marchetti G, Bernardi F, Pagani F. U1-snRNA-mediated rescue of mRNA processing in severe factor VII deficiency. Blood. 2008 Mar 1;111(5):2681-4.XXV Congress of the International Society on Thrombosis and Haemostasis (ISTH). Toronto (CDN). June 20th – 25th 2015. A unique Exon Specific U1snRNA rescues different Haemophilia B -causing splicing-defective factor IX variants in mice. Balestra D, Scalet D, Pagani F, Bernardi F, Pinotti M.
- SISET XXIII National Congress (Italian Society for the Study of Haemostasis and Thrombosis). Milan (ITA). November 6th- 9th 2014. An engineered U1 small nuclear RNA rescues splicing-defective coagulation F7 gene expression in mouse models. Dario Balestra, Armida Faella, Paris Margaritis, Fraco Pagani, Francesco Bernardi, Valder R. Arruda, and Mirko Pinotti.

And other international and national congresses.

Honours and awards

- Young Investigator Award during the XXV Congress of the International Society on Thrombosis and Haemostasis (ISTH). Toronto (CDN). June 20th – 25th 2015
- "Best Abstract" Award during the SISET XXIII National Congress (Italian Society for the Study of Haemostasis and Thrombosis), helded on 6th- 9th November 2014, Milan (ITA)
- Calogero Vullo Award during the 57th National Meeting of the Italian Society of Biochemistry and Molecular Biology (SIB), September 18th-20th 2013, Ferrara (ITA).
- Young Invertigator Award during the XXIV Congress of the International Society on Thrombosis and Haemostasis (ISTH). Amsterdam (NL). June 29th – July 4th 2013
- "Best PhD thesis 2012 in Biochemistry, Molecular Biology and Biotechnologies" award by IUSS-Ferrara 1391 (The University Institute for Higher Studies), University of Ferrara.
- "Best of the Best oral comunication" award during the XXII National SISET Congress (Italian Society of Trombosis and Hemostasis). Vicenza (ITA) , 4th – 6th October 2012.

Il sottoscritto acconsente, ai sensi del D.Lgs. 30/06/2003 n.196, al trattamento dei propri dati personali.

Il sottoscritto acconsente alla pubblicazione del presente curriculum vitae sul sito dell'Università di Ferrara.

Firma