

EDUCATION

- *November 2018, Italian qualification (Abilitazione Scientifica Nazionale) as Associate Professor (Bio05);*
- *April 2011, Master degree in Genetics and Molecular Biology at the University of Pavia (Italy)*
Supervisor: Dr. Elena Raimondi, Mark: 110/110 summa cum laude;
- *October 2000-February 2004, Ph.D. in Animal Biology at the University of Milan (Italy)*
Supervisor: Dr. Marco Ferraguti
- *November 1999, Master degree in Natural Sciences at the University of Milan (Italy)*
Supervisor: Dr. Marco Ferraguti, Mark: 110/110 summa cum laude;

EXPERIENCE

- February 2017- present: **manager supervisor of the Life-Science & Soft Materials area** at the Electron Microscopy Facility, Istituto Italiano di Tecnologia (IIT), Genoa (Italy);
- *February 2012-February 2017: Research Technologist* at the Electron Microscopy Laboratory, Istituto Italiano di Tecnologia (IIT), Genoa (Italy);
- *February 2010-February 2012: Senior Post-Doc* at the Electron Microscopy Laboratory, Istituto Italiano di Tecnologia (IIT), Genoa (Italy);
- *November 2004-November 2009: Post-Doc* at the Department of Biology, University of Milan (Italy);
- *February 2006-September 2006: Guest researcher* at the Department of Biology, Rutgers University, Camden-New Jersey (USA;)
- *July 2004-November 2004: Guest researcher* at the Naturhistoriska riksmuseet, Stockholm (Sweden);
- *September 2002-November 2002: Guest researcher* at the Naturhistoriska riksmuseet, Stockholm (Sweden);

MAIN ACTIVITIES AND INTERESTS

- cryo-EM, cryo electron tomography and 3D reconstructions on samples ranging from supramolecular (polymers and polymer- nanocrystals complexes) to macromolecular (from cellular organelles to viruses and proteins) complexes;
- scanning transmission (STEM) and transmission electron tomography and 3D reconstructions on sample ranging from cell cultures to tissues;
- participate in competitive projects to get access to infrastructures and funding;
- attending courses and workshops, writing papers, presenting work at scientific meetings and keeping updated of the relevant literature;
- participate in the development of new EM techniques and technologies;
- coordinate basic and advanced electron microscopy (EM) characterizations on biological samples (from cells to tissues);

EXPERTISE

I have more than 15 years of experience in bio-electron microscopy (BioEM). During these years I acquired a deep knowledge of various EM based approaches and analyses I applied on a wide variety of biological samples through length scale and complexity (from whole organisms to molecules). In the last five years I focused my activity in cryo electron

microscopy and electron tomography data collection and analysis, approaches that represent now my main area of activity and learning. The following is a detailed description of my expertise relevant for this position.

1. ELECTRON MICROSCOPY

- **EM sample preparation:**

1. cryo preparation of cells and tissues for transmission electron microscopy by high pressure freezing and freeze substitution using respectively the Leica EM PACT2 and the Leica AFS2 (see references n. 8 and 26 in *List of Publication*) and SEM by freeze drying (see reference n. 32 in *List of Publication*);
2. negative staining of supramolecular (polymers and polymer- nanocrystals complexes) and macromolecular (from cellular organelles to viruses and protein oligomers) complexes (see reference n. 10 in *List of Publication*);
3. vitrification of supramolecular (polymers and polymer- nanocrystals complexes) and macromolecular (from cellular organelles to viruses and protein oligomers) complexes for cryo-EM analysis using the FEI Vitrobot Mark IV cryoplunger;

- **Immuno electron microscopy:**

1. pre/post-embedding immuno EM: see reference n. 26 in *List of Publication*;
2. immuno SEM: see reference n. 1 in *List of Publication*;
3. Tokuyasu cryo-sectioning: see references n. 17, 24 and 34 in *List of Publication*;

- **Correlative light and electron microscopy (CLEM):** see references n. 1 and 14 in *List of Publication*;

- **TEM/Scanning TEM room temperature Electron Tomography (ET):** see references n. 1 (single tilt STEM HAADF ET on GABA_AR α 1 immunolabeled hippocampal neurons), 3, 4, 5, 11 (double-tilt STEM HAADF ET on HeLa cells incubated with Pt nanoparticles), 13 (single tilt STEM HAADF serial section ET in Lmnb1^{+/+} and Lmnb1 $\Delta\Delta$ primary mice cortical neurons), 34 (single tilt STEM HAADF ET on cryosections of HeLa cells incubated with iron oxide nanoparticles) in *List of Publication*;

- **Cryo EM and cryo electron tomography:** see references n. 2, 6, 7, 9, 15, 16, 19, 27, 35 in *List of Publication*;

- **EM Spectrometry:**

1. Energy dispersive X-ray spectroscopy (EDXS): see references n. 31, 34 in *List of Publication*;
2. Electron energy loss spectroscopy (EELS): see references n. 29 in *List of Publication*;

2. OTHERS:

- **Histology:** samples preparation, sectioning with microtomes, routine staining techniques (see reference n. 43 in *List of Publication*);
- **Fluorescence and Confocal Microscopy:** sample preparation, data acquisition (Leica TCS NT, Nikon A1R+/A1+);
- **Molecular Biology:** SDS-PAGE, western blotting, DNA extraction, southern blotting, molecular cloning, polymerase chain reaction (PCR), fluorescence in situ hybridization (FISH) (see references n. 25, 42, 45 in *List of Publication*);

3. SOFTWARE EXPERTISE:

- **3D Electron Microscopy:**

1. electron tomography: IMOD (4.9.2), ETOMO (4.9.2), TOMOCTF (2013), PEET (1.11.0), DYNAMO, AMIRA (6.4),
2. single particle analysis: EMAN2, RELION2;

- **Macromolecular visualization/analysis crystallography software:**
CHIMERA (1.11.2), PyMOL, COOT, PHENIX;
- **Other image analysis software:**
DIGITAL MICROGRAPH, ESPRIT 2.1, IMAGEJ, ADOBE PHOTOSHOP;
- **Programming:**
LINUX, MATLAB (Image Processing Toolbox), PYTHON;
- **Others:** WINDOWS, Microsoft Office, Origin, EndNote;

LANGUAGE

- Mother tongue: **Italian**
- **English:** working knowledge written and spoken
- **French:** basic knowledge written and spoken
-

PERSONAL SKILLS

- I'm curious and
- I'm supportive, collaborative and experienced in problem solving;
- I'm enthusiastic and committed and I really enjoy to learn;
- I enjoy to work in team and I like to motivate people;
- I enjoy to teach and train people;
- I feel myself able to handle pressure and meet deadlines;
- I enjoy to work in a collaborative atmosphere;

MENTORING AND TEACHING ACTIVITIES

During my PostDoc at the University of Milano (Italy) I have been mentor/supervisor of several Master/PhD students. Once in IIT I have been part from the beginning to the teaching staff for the course in electron microscopy at the PhD school in Science and Technology of Chemistry and Materials. In the last few years I have given lectures dealing with cryoEM, cryo electron tomography in other IIT laboratories and in Italian universities. The following is a detailed description of my main mentoring and teaching activities.

Seminars and lessons held:

1. 15th-16th April 2019, University of Milano, Department BIOMETRA - PhD Program in Experimental Medicine
- Basic and advanced techniques for electron microscopy application in biological and preclinical research.
Lecture titled: From 2D to 3D electron microscopy (I): Electron Tomography (TEM, STEM tomography);
2. 20th March 2019, Istituto Italiano di Tecnologia, Genoa (Italy), PhD school in Science and Technology of Chemistry and Materials - XXXIV cycle/Curriculum: Nanochemistry. MODULE 3 - Transmission electron microscopy: basics and applications to materials science and life science. Lecture titled: Introduction to electron microscopy in biology, cryo electron microscopy (Cryo-EM) and electron tomography;

3. 20th March 2018, Istituto Italiano di Tecnologia, Genoa (Italy), PhD school in Science and Technology of Chemistry and Materials - XXXIII cycle/Curriculum: Nanochemistry. Lecture titled: Introduction to electron microscopy in biology, cryo electron microscopy (Cryo-EM) and electron tomography;
4. 5th June 2017, University of Bologna (Italy), Master School in Chemistry, course “Struttura e reattività dello stato solido”. Seminar titled: Introduction to cryo electron microscopy (Cryo-EM) and single particle analysis;
5. 21st April 2017, Istituto Italiano di Tecnologia, Genoa (Italy), PhD school in Science and Technology of Chemistry and Materials - XXXII cycle/Curriculum: Nanochemistry. Lecture titled: Introduction to electron microscopy in biology, cryo electron microscopy (Cryo-EM) and electron tomography;
6. 26th October 2016, Center for Nanotechnology Innovation@Pisa-IIT@Nest, Pisa (Italy). Seminar titled: Cryo-EM and cryo electron tomography: applications and perspectives.
7. 30th June 2016, Istituto Italiano di Tecnologia, Genoa (Italy), PhD school in Science and Technology of Chemistry and Materials - XXXI cycle/Curriculum: Nanochemistry. Lecture titled: Introduction to electron microscopy in biology, cryo electron microscopy (Cryo-EM) and electron tomography;
8. 16th June 2016, Istituto di Neuroscienze CNR & Università degli Studi di Milano, Seminar on quality control in the secretory pathway, Marie Curie Initial Training Network–TAMPTing. Lecture titled: Cryo-plunging of polymers and membrane proteins enriched extracellular vesicles;
9. 21st July 2015, Istituto Italiano di Tecnologia, Genoa (Italy), Advances on CLEM and 3D electron microscopy for life sciences workshop. Lecture titled: An introduction to CLEM and 3D electron microscopy;
10. 25th June 2015, Istituto Italiano di Tecnologia, Genoa (Italy), PhD school in Science and Technology of Chemistry and Materials - XXX cycle/Curriculum: Nanochemistry. Lecture titled: Introduction to electron microscopy in biology: sample preparation for transmission (TEM), scanning (SEM), and cryo (cryoEM) electron microscopy;
11. 3rd-6th June 2014, Fondazione Filarete, Milan (Italy), Corso teorico pratico di ultramicrotomia e cryoultramicrotomia. Lecture titled: High pressure freezing and freeze substitution of biological samples;
12. 3rd-6th June 2013, Istituto Italiano di Tecnologia, Genoa (Italy), 1st Workshop Cryo-Techniques for electron microscopy. Lecture titled: High pressure freezing and freeze substitution of various biological samples;
13. 6th March 2013, Postgraduate School in Pharmacological Sciences, University of Milan, Milan (Italy). Lecture titled: High pressure freezing and freeze substitution of biological samples;
14. 9th-12th April 2013, Council Institute for Physical and Chemical Processes, Bari (Italy). Lecture titled: Introduction to the electron microscopy for biological samples;
15. 30th September 2013, Istituto Italiano di Tecnologia, Genoa (Italy), PhD school in Nanophysics. Lecture titled: Electron microscopy in biology;
16. 10th-14th September 2012, Fondazione Filarete, Milan (Italy), Corso teorico pratico di ultramicrotomia e cryoultramicrotomia. Lecture titled: High pressure freezing and freeze substitution of biological samples;
17. 2000-2009, Department of Biology, University of Milan (Italy), practical course in zoology for undergraduate students;

Mentoring:

2003-2009: I have been the mentor/supervisor of several Master/PhD students during my postdoc at the University of Milano (Italy);

Workshop organization:

1. 21st June 2015 I organized with colleagues the following workshop: "Advances on CLEM and 3D electron microscopy for life sciences", held at the Istituto Italiano di Tecnologia, Genoa (Italy). Sponsor: FEI.
2. 3rd to 5th June 2013 I organized with colleagues the following international workshop: "Cryo-techniques for electron microscopy. Cryo-EM & cryo preparation methods for correlative light and electron microscopy", held at the Istituto Italiano di Tecnologia, Genoa (Italy). Sponsors: Leica Microsystems, Microcontrol n.t., Diatome, FEI.

PROJECTS AND FELLOWSHIPS

In the last five years I and colleagues have applied for the access to high end cryo electron microscopy tools and laboratories trough pan European platforms as INSTRUCT or iNEXT. These are the projects that have been definitively approved after peer-review:

1. January 2019: INSTRUCT access at the Instruct Image processing Center in Madrid (Spain) with the proposal titled: "Dissecting the structural interactions between PSII-LHCII supercomplexes facing in adjacent thylakoid membranes (PID: 6713)" with C. Pagliano (PI, Polytechnic University of Turin, Italy) and myself;
2. December 2017: iNEXT access at the Electron Bio-Imaging Centre (eBIC) in Diamond (UK) with the proposal titled: Dissecting the structural interactions between PSII-LHCII supercomplexes facing in adjacent thylakoid membranes (PID: 3690) with C. Pagliano (Polytechnic University of Turin, Italy), P. Albanese (Polytechnic University of Turin, Italy), and myself;
3. October 2017: iNEXT access at NeCEN (Leiden, The Netherlands) with the proposal titled: Structure of paired Photosystem II-LHCII supercomplexes: from 14 Å towards atomic resolution "(PID:2959) with C. Pagliano (PI, Polytechnic University of Turin, Italy), P. Albanese (Polytechnic University of Turin, Italy), P. Swec (University of Milan, Italy) and myself;
4. September 2016: INSTRUCT access to the IBS in Grenoble (FRANCE) with the proposal titled "Unravelling the pathway of regulation of photosynthetic AB-GAPDH by cryoEM" (PID:1829) by F. Sparla (University of Bologna, Italy), S. Fermani (University of Bologna, Italy), L. Gurrieri (University of Bologna, Italy) and myself (PI);
5. April 2015: INSTRUCT access to the MPI of Biochemistry (Martinsried, Germany) and the CERM (Florence, Italy) with the proposal titled: "Interaction and dynamics of human membrane NAPE-PLD integrating Cryo-EM and EPR" (PID: 1588) with G. Garau (CNI@NEST Pisa, Italy), E. Margheritis (CNI@NEST Pisa, Italy) and myself (PI);
6. January - April 2004: Swedish Institute funded access at the Naturhistoriska riksmuseet of Stockholm (Sweden) with the proposal titled: The contribution of the ultrastructure of the spermatozoon to the phylogeny of some of the more interesting aquatic oligochaete families;

7. September- November 2002: European Community funded High Lat-resources access at the Naturhistoriska riksmuseet of Stockholm (Sweden) with the proposal titled: "Spermatozoa as a tool for improving phylogenetic analysis among clitellates (Annelida, Clitellata).

FUND RAISING FROM TECHNOLOGY TRANSFER

2016: contract for provision of services agreed with Monasterium Laboratory-skin and hair research solution UG, Munster (Germany) to identify the subcellular localization of the TRH-R in human scalp hair follicles by immuno-EM. The contract included a two weeks training in electron microscopy (sample preparation, pre-embedding immunoEM, data collection) to J. Hardmann (Research Associate, University of Manchester, UK);

PATENTS

1. Di Fabrizio E, Limongi T, Gentile F, **Marotta R**, Benfenati F, Cesca F (2012). Novel method of 3D neuronal cell culture . TO2012A0000331
2. **Marotta R**, Catelani T, Moglianetti M, De Luca E, Pompa PP (2017). System of correlative light electron microscopy/immunogold probes for bioimaging. IT 102017000087291 (PT170386).

SELECTED WORKSHOPS & COURSES

I deepen my knowledge in cryo-EM and cryo electron tomography trough the following workshop and courses:

1. 28th-31st August 2018: Workshop on subtomogram averaging with Dynamo, Biozentrum, Basel, Switzerland;
2. 9th-14th April 2018: Workshop on single-particle cryo-EM and tomography, Monash University, Prato, Italy;
3. 3rd-6th September 2017: AIC International School 2017, Bridging the gap between cryo-EM and crystallography, Pavia, Italy;
4. 3rd November 2016: Latest Technology in STEM, TEM and Cryo-TEM, Istituto Italiano di Tecnologia, Genova, Italy;
5. 8th-12th June 2015: Advanced course on cryo-electron tomography, Campus Vienna BioCenter Wien, Austria;
6. 6th October 2015: State-of-art 3D imaging SEM and TEM techniques, IFOM, Milan, Italy;
7. 2nd-5th December 2014: 1st NIC@IIT Nanoscopy 2.0, Istituto Italiano di Tecnologia, Genova, Italy;
8. 9th-11th March 2014: Hands-on Training school on Three-dimensional EM of Macromolecular Complexes, CNB, Madrid, Spain;
9. 23rd-24th October 2013 High Pressure Freezer Users Meeting, Weiterbildungszentrum Universität Zürich, Zürich (Switzerland). **Oral**: Increasing nuclear membrane contrast in high pressure frozen, freeze substituted HEK 293 cells;
10. 27th June-2nd-July 2013: Advanced immuno-electron microscopy, Cell Microscopy Center, University Medical Center, Utrecht, The Netherlands;
11. 29th May 2013: Le nuove frontiere della Microscopia 3D in Biologia, Fondazione Filarete, Milan, Italy;
12. 16th January 2013: State-of-art 3D imaging - TEM and SEM techniques and State-of-art correlative microscopy TEM, SEM and workflow roadmap, IFOM-IEO-Campus, Milan, Italy;
13. 27th-30th September 2011: Workshop on 3D Solutions in Electron Cryo-Microscopy, University of Barcelona, Spain;

SELECTED CONFERENCE AND SEMINAR CONTRIBUTIONS

1. 6th-7th July 2017: Cryo-EM Symposium, ESRF Grenoble, France. Poster: Unravelling the pathway of regulation of photosynthetic AB-GAPDH;
2. 27th March 2017, Cancer stem cells and autophagy: diagnostics and drug discovery seminar, Istituto Italiano di Tecnologia, Genoa (Italy). **Oral:** A view on electron microscopy in life sciences;
3. 20th-23rd November 2016, Molecular machines: Integrative structural and molecular biology, EMBO Conference Series, Heidelberg, Germany. Poster: Unravelling the Pathway of Regulation of Photosynthetic AB-GAPDH by Cryo-EM;
4. 28th August - 2nd September 2016: the 16th European microscopy congress, Lyon, France. **Oral:** Role of Lamin B1 in structuring the cell nucleus in eukaryotic cells;
5. 14-16 March 2016: Supramolecules, crystal engineering, and nanocarbon chemistry workshop, Okayama University, Okayama, Japan. **Oral:** Interaction of nanomaterials with biological systems: an electron microscopy perspective;
6. 9th-11th March 2014: From 3D Light to 3D Electron Microscopy, Ghent, Belgium. Poster: A CLEM approach to investigate fine morphological changes associated with the overexpression of Lamin B1 in a mammalian cell line;
7. 7th-12th September 2014: 18th International Microscopy Congress, Prague, Czech Republic. Poster: A CLEM approach to investigate fine morphological changes associated with the overexpression of Lamin B1 in a mammalian cell line;
8. 16th-21st September 2012: European Microscopy Congress 2012, Manchester, UK. Poster: Correlating in vivo fluorescence light microscopy with high resolution immuno-scanning electron microscopy to study GABAA receptor distribution in cultured rat hippocampal neurons;
9. 3rd-4th October 2011: Molecular Mechanisms in Neuroscience, Rome, Italy. Poster: Conditioned Taste Aversion-elicited ERK activation and changes of dendritic spines density: a multidisciplinary study;
10. 8th-11th June 2010: SCANDEM 2010, Stockholm, Kista Elektron, Sweden. Poster: Neuronal plasticity: morphological characterization of dendritic spines using a combination of chemical fixation with high pressure freezing and freeze substitution;
11. 5th-12th October 2009: XIth International Symposium on Aquatic Oligochaeta, Antalya, Turkiye. **Oral:** The *Tubifex* species complex from the Lambro River: a chromosomal investigation;
12. 2nd-5th October 2008: 3rd International Congress ISEB (Italian Society for Evolutionary Biology), Alghero, Italy. **Oral:** Investigation on the genetic polymorphism of *Tubifex* (Annelida: Clitellata) species complex, with evidence for the coexistence of different genome size strains. Poster: Morphological changes accompanying anhydrobiosis in the rotifer *Macrotrachela quadricornifera* (Rotifera, Bdelloidea);
13. 17th-21st August 2008: 1st International Congress on Invertebrate Morphology, Copenhagen, Denmark. **Oral:** Morphological changes accompanying anhydrobiosis in the rotifer *Macrotrachela quadricornifera* (Rotifera, Bdelloidea);
14. 5th-6th June 2008: Gli strumenti della Biosistemica moderna: dalla morfologia allo studio dei genomi, University of Milan, Italy. **Oral:** La spermioclastica: sue applicazioni alla analisi filogenetica degli anellidi;
15. 16th-21st October 2006: 10th International Symposium on Aquatic Oligochaeta, Wuhan, Cina. **Oral:** Investigation on the biological status of the *Tubifex tubifex* forms (Tubificidae: Clitellata) of the Lambro River, Northern Italy: a molecular and morphological approach. Poster: A preliminary study on the genetic variability of *Tubifex tubifex* populations (Tubificidae: Clitellati) from the Lambro River (Milano, Italy);

16. 19th-22nd September 2005: 66th Congress of the Unione Zoologica Italiana (UZI) Rome, Italy. **Oral:** Total Evidence Phylogenetic Analysis of Clitellata (Annelida: Clitellata). Poster: Spermatozoa without mitochondria: the case of Macrodesyidae (Gastrotricha, Macrodesyida);
17. 21st-25th September 2004: 65th Congress of the Unione Zoologica Italiana (UZI) Giardini Naxos, Italy. Poster: Comparative spermatology and phylogeny of Gastrotricha. First spermatological record of the genus *Xenodasys* (Gastrotricha, Macrodesyida, Dactylopodolidae) with their phylogenetic implications;
18. 6th-10th October 2003: IXth International Symposium on Aquatic Oligochaeta, Wageningen, Olanda. **Oral:** Towards a wide phylogenetic analysis among aquatic oligochaetes (Annelida: Oligochaeta) using sperm ultrastructure with some phylogenetic considerations. Poster: Variation of sperm models in Lumbriculidae (Oligochaeta);
19. 21st-25th September 2003: 64th Congress of the Unione Zoologica Italiana (UZI) Varese, Italy. Poster: The unique spermatozoa of *Urodasys* (Gastrotricha, Macrodesyda): an ultrastructural analysis;
20. 23rd-27th September 2002: Symposium Morphology, Molecules, Evolution and Phylogeny in the Polychaeta and Related Taxa. Haus Ohrbeck – Osnabrück (Germany). Poster: Spermiogenesis and seminal receptacles in *Aeolosoma singulare* (Annelida: Polychaeta: Aeolosomatidae);
21. 23rd-27th September 2001: 62th Congress of the Unione Zoologica Italiana (UZI) San Remo – Italy. Poster: Limnodriloidinae and Tubificinae (Annelida, Oligochaeta): cladistic analysis of two tubificid subfamilies using spermatological and olomorphological characters;
22. 18th-22nd July 2000: VIIIth International Symposium on Aquatic Oligochaeta, Bilbao – Spain. **Oral:** Sperm phylogeny of Limnodriloidinae (Tubificidae, Oligochaete);

PUBLICATIONS IN INTERNATIONAL PEER-REVIEWED JOURNALS

- I'm author of 70 publications including two book chapters (in 24 publications I'm the first/last author) dealing with (1) cryo-EM and cryo electron tomography 3D reconstructions of supramolecular complexes; (2) cell biology and neuroscience; (3) structural and molecular biology; (4) ultracellular characterization of nanoparticles/polymer-nanoparticles hybrid assemblies in cells and tissues; (5) molecular systematics and zoology; and (6) methods in biological electron microscopy.
 - *Total citations:* 1034 – *h-index:* 19 (from Scopus: Author ID: 7005551012);
 - *List of Publications*
1. Al-Ahmady Z, Donno R, Gennari A, Prestat E, Marotta R, Mironov A, Newman L, Lawrence J, Tirelli N, Ashford MB, Kostarelos K. Enhanced Intra-Liposomal Metallic Nanoparticle Payload Capacity Using Microfluidics Assisted Self-Assembly. Accepted in Langmuir.
 2. Mike Geven, Hanying Luo, Donghun Koo, Gangadhar Panambur, Roberto Donno, Arianna Gennari, Roberto Marotta, Benedetto Grimaldi, and Nicola Tirelli. Disulfide-mediated bioconjugation. Disulfide formation and re-structuring on the surface of nanomanufactured (microfluidics) nanoparticles. ACS Applied Material and Interfaces.
 3. Avugadda, Sahitya; Materia, Maria; Nigmatullin, Rinat; Cabrera, David; Marotta, Roberto; Fernandez Cabada, Tamara; Marcello, Elena; Nitti, Simone; Artés-Ibáñez, Emilio; Basnett, Pooja; Wilhelm, Claire; Teran, Francisco; Roy,

- Ipsita; Pellegrino, Teresa .Esterase Cleavable 2D Assemblies of Magnetic Iron Oxide Nanocubes: Exploiting Enzymatic Polymer Disassembling to Improve Magnetic Hyperthermia Heat Losses. *Chemistry of Materials*.
4. Altamura E, Albanese P, Marotta R, Stano P, Milano F, Trotta M, Mavelli F (2019). Towards the Synthesis of Photo-Autotrophic Protocells. 14th International Meeting, CIBB 2017, Cagliari, Italy, September 7-9, 2017, Revised Selected Papers. DOI: 10.1007/978-3-030-14160-8_18.
 5. Mai BT, Barthel M, Marotta R, Pellegrino T (2019). Crosslinked pH-responsive Polymersomes via Diels-Alder Click Chemistry: a switchable Reversible pH-dependent Vesicular Nanosystem. ***Polymer*** 165(28): 19-27. DOI:
 6. Solari P[¶], Maccioni R[¶], **Marotta R[¶]**, Catelani T, Debellis D, Baroli B, Peddio S, Muron P, Kasture S, Solla P, Stoffolano JG Jr, Liscia A. (2018) The imbalance of serotonergic circuitry impairing the crop supercontractile muscle activity and the mitochondrial morphology of PD PINK1B9 *Drosophila melanogaster* are rescued by *Mucuna pruriens*. *Journal of Insect Physiology*, 111: 32-40. DOI: 10.1016/j.jinsphys.2018.10.007 ([¶] Co-first author).
 7. Begarani F, Cassano D, Margheritis E, **Marotta R**, Cardarelli F, Voliani V (2018). Silica-based nanoparticles for protein encapsulation and delivery. ***Nanomaterials*** 8(11): 826. DOI: 10.3390/nano8110886.
 8. Ponzoni M, Curnis F, Brignole C, Bruno S, Guarnieri D, Sitia L, **Marotta R**, Sacchi A, Bauckneht M, Buschiazio A, Rossi A, Di Paolo D, Perri P, Gori A, Sementa AR, Emionite L, Cilli M, Tamma R, Ribatti D, Pompa PP, Marini C, Sambucetti G, Corti A, Pastorino F (2018). Enhancement of tumor homing by chemotherapy-loaded nanoparticles. ***Small*** 14(45), 1802886. DOI: 10.1002/smll.201802886.
 9. Turco A, Moglianetti M, Corvaglia S, Rella S, Catelani T, **Marotta R**, Malitesta C, Pompa PP (2018) Sputtering-Enabled Intracellular X-Ray Photoelectron Spectroscopy (SEI-XPS): A Versatile Method To Analyze The Biological Fate Of Metal Nanoparticles. ***ACS Nano*** 14(45), 1802886. DOI: 10.1002/smll.201802886.
 10. Garcia Gonzales A, Jacchetti, **Marotta R**, Nava MM, Tunesi M, Rodriguez Matas JF, Raimondi MT (2018). The effect of cell morphology on the permeability of the nuclear envelope to diffusive factors. ***Frontiers in Physiology*** 9, 925. DOI: 10.3389/fphys.2018.00925
 11. Grimaldi B, Allavena G, Debellis D, **Marotta R**, Joshi C, Mysorekar I (2018). A broad-spectrum antibiotic, DCAP, reduces uropathogenic *Escherichia coli* infection and enhances vorinostat anticancer activity by modulating autophagy. ***Cell Death and Disease*** 9(7), 780. DOI: 10.1038/s41419-018-0786-4.
 12. Trusel M, Baldrighi M, **Marotta R**, Gatto F, Pesce M, Frasconi M, Catelani T, Papaleo F, Pompa P, Tonini R, Giordani S (2018). Internalization of carbon nano-onions by hippocampal cells preserves neuronal circuit function and recognition Memory. ***ACS Applied Materials and Interfaces***, 10(20): pp. 16952-16963. DOI: 10.1021/acsami.7b17827.
 13. Cavaccini A, Gritti M, Giorgi A, Locarno A, Heck N, Migliarini S, Bertero A, Mereu M, Margiani G, Trusel M, Catelani T, **Marotta R**, De Luca MA, Caboche J, Gozzi A, Pasqualetti M, Tonini R (2018) Serotonergic signaling controls input-specific synaptic plasticity at striatal circuits. ***Neuron*** 98(4): 801-816. DOI: 10.1016/j.neuron.2018.04.008.
 14. Parodi C, Hardman JA, Catelani T, **Marotta R**, Paus R, Grimaldi B (2018). Autophagy is essential for maintaining the growth of a human (mini-)organ: Evidence from scalp hair follicle organ culture. ***Plos Biology***, 28; 16(3): e2002864. doi: 10.1371/journal.pbio.2002864.

15. Orlando M, Ravasenga T, Petrini EM, Falqui A, **Marotta R**[#], Barberis A[#] (2017). Correlating fluorescence and high-resolution scanning electron microscopy (HRSEM) for the study of GABAA receptor clustering induced by inhibitory synaptic plasticity. **Scientific Reports**, 7: 13768; doi:10.1038/s41598-017-14210-5. [#] Co-last authors.
16. Lee A, De Mei C, Ferreira M, **Marotta R**, Yoon YY, Kim K, Chan Kwon I, Decuzzi P. (2017). Dexamethasone-loaded polymeric nanoconstructs for monitoring and treating inflammatory bowel disease. **Theranostics**, 7: 3653-3666; doi: 10.7150/thno.18183.
17. Guarnieri D, Melone P, Moglianetti M, Marotta R, Netti PA, Pompa PP. (2017). Particle size affects the cytosolic delivery of membranotropic peptide-functionalized platinum nanozymes. **Nanoscale** 10:11288-11296; doi: 10.1039/c7nr02350b.
18. Dante S[¶], Petrelli A[¶], Petrini EM[¶], **Marotta R**[¶], Maccione A, Alabastri A, Quarta A, De Donato F, Ravasenga T, Sathya A, Cingolani R, Proietti Zaccaria R, Berdondini L, Barberis A, Pellegrino T. (2017). Selective Targeting of Neurons with Inorganic Nanoparticles: Revealing the Crucial Role of Nanoparticle Surface Charge. **ACS Nano**, 11 (7), 6630–6640. DOI: 10.1021/acsnano.7b00397. [¶]These authors contributed equally to this work.
19. De Rose F[¶], **Marotta R**[¶], Talani G, Catelani T, Solari P, Poddighe S, Borghero G, Marrosu F, Sanna E, Kasture S, Acquas E, Liscia A. (2017). Differential effects of phytotherapeutic preparations in the hSOD1 Drosophila melanogaster model of ALS. **Scientific Reports** 7: 41059; doi: 10.1038/srep41059. *These authors contributed equally to this work.
20. Vecchione R, Quagliariello V, Giustetto P, Calabria D, Sathya A, Marotta R, Pellegrino T, Iaffaioli R (2017). Oil/Water nano-emulsion loaded with cobalt ferrite oxide nanocubes for photo-acoustic and magnetic resonance dual imaging in cancer: in vitro and preclinical studies. **Nanomedicine**, S1549-9634(16) 30134-4. doi: 10.1016/j.nano.2016.08.022
21. Mattiello S, Monguzzi A, Pedrini J, Sassi M, Villa C, Torrente Y, Marotta R, Meinardi F, Beverina L (2016). Self-Assembled Dual Dye-Doped Nanosized Micelles for High-Contrast Up-Conversion Bioimaging. **Advanced Functional Materials**, 26, 8447–8454; doi: 10.1002/adfm.201603303
22. Emanuele M, Esposito A, Camerini S, Antonucci F, Ferrara S, Seghezza S, Catelani T, Crescenzi M, Marotta R, Canale C, Matteoli M, Menna E, Chierigatti E. (2016). Exogenous alpha-synuclein alters pre- and post-synaptic activity by fragmenting lipid rafts. **EBioMedicine**, 7: 191–204. <http://dx.doi.org/10.1016/j.ebiom.2016.03.038>.
23. Vecchione R, Iaccarino G, Bianchini P, D'aulia F, Marotta R, Diaspro A, Netti P (2016). Nanocapsule: ultrastable liquid-liquid interface as viable route for controlled deposition of biodegradable polymer nanocapsules. **Small**, 12(22): 3005-13. doi: 10.1002/sml.201600347.
24. Barini E, Antico O, Zhao Y, Asta F, Tucci V, Catelani T, Marotta R, Xu H, Gasparini L (2016). Metformin promotes tau aggregation and exacerbates abnormal behavior in a mouse model of tauopathy. **Molecular Neurodegeneration**, 11:16. DOI: 10.1186/s13024-016-0082-7
25. Moglianetti M, De Luca E, Pedone D, Marotta R, Catelani T, Sartori B, Amenitsch H, Retta SF, Pompa PP (2016). Platinum nanozymes recover cellular ROS homeostasis in an oxidative stress-mediated disease model. **Nanoscale**, 2016,8, 3739-3752.
26. DeRose F[¶], **Marotta R**[¶], Poddighe S[¶], Talani G, Catelani T, Setzu MD, Paosol, Marrosu F, Esanna, Acquas E, Liscia A (2016). Functional and morphological correlates in the Drosophila LRRK2 loss-of-function model of Parkinson's disease: drug effects of *Withania somnifera* (Dunal) administration. Accepted in **PlosOne**. PLoS One. 2016 Jan

- 4;11(1):e0146140. doi: 10.1371/journal.pone.0146140. eCollection 2016. ¶ These authors contributed equally to this work.
27. Giacomini C, Mahajani S, Ruffilli R, Marotta R, Gasparini L (2016). Lamin B1 protein is required for dendrite development in primary mouse cortical neurons. *Molecular biology of the cell*, 27(1): 35-47. doi: 10.1091/mbc.E15-05-0307
 28. Frascioni M, Marotta R, Markey L, Flavin K, Spampinato V, Ceccone G, Echegoyen LA, Scanlan EM, Silvia Giordani (2015). Multi-Functionalized Carbon Nano-Onions as Imaging Probes for Cancer Cells. *Chemistry*, 21, 1-11. DOI: 10.1002/chem.201503166.
 29. Tangorra R, Operamolla A, Milano F, Hassan O, Henrard J, Comparelli R, Italiano F, Agostiano A, De Leo V, Marotta R, Falqui A, Farinola G, Trotta M. (2015). Assembly of a photosynthetic reaction center with ABA tri-block polymersomes: highlights on protein localization. *Photochemical & Photobiological Sciences*, 14, 1844-1852. DOI: 10.1039/C5PP00189G.
 30. Kakwere H, Pernia Leal M, Materia ME, Curcio A, Guardia P, Niculaes D, Marotta R, Falqui A, Pellegrino T (2015) Functionalization of strongly interacting magnetic nanocubes with (thermo)responsive coating and their application in hyperthermia and heat-triggered drug delivery. *ACS Applied Materials & Interfaces*, 7 (19): 10132-10145. doi: 10.1021/am5088117.
 31. Magotti P, Bauer I, Igarashi M, Babagoli M, Marotta R, Piomelli D, Garau G (2015) Structure of Human N-Acylphosphatidylethanolamine-Hydrolyzing Phospholipase D: Regulation of Fatty Acid Ethanolamide Biosynthesis by Bile Acids. *Structure*, 23(3): 598-604. doi: 10.1016/j.str.2014.12.018.
 32. Ahmed RB, Bacchetta R, Boesi R, Froman N, Marotta R, Ferraguti M (2015). The spermatozoa of Hirudinea with examples from three different taxa. *Zoologischer Anzeiger*, 255: 54-61. doi: 10.1016/j.jcz.2015.02.001
 33. Materia ME, Guardia P, Sathya A, Pernia Leal M, Marotta R, Di Corato R, Pellegrino T. (2015). Mesoscale assemblies of iron oxide nanocubes as heat mediators and image contrast agents, *Langmuir*, 31(2):808-816. doi: 10.1021/la503930s
 34. Prada V, Capponi S, Ursino G, Alberti A, Callegari I, Passalacqua M, Marotta R, Mandich P, Bellone E, Schenone A, Grandis M (2015). Sural nerve biopsy and functional studies support the pathogenic role of a novel MPZ mutation, *Neuropathology*, 35 (3): pp. 254 10.1111/neup.12179.
 35. De Mei C, Ercolani L, Parodi C, Veronesi M, Vecchio CL, Bottegoni V, Torrente E, Scarpelli R, Marotta R, Ruffilli R, Mattioli M, Reggiani A, Wade M, Grimaldi B. (2015) Dual inhibition of REV-ERB β and autophagy as a novel pharmacological approach to induce cytotoxicity in cancer cells. *Oncogene*, 34(20): 2597-2608. doi: 10.1038/onc.2014.203.
 36. Poddighe S¶, De Rose FE¶, **Marotta R¶**, Ruffilli R, Fanti M, Secci PP, Mostallino MC, Setzu MD, Zuncheddu MA, Collu I, Solla P, Marrosu F, Kasture S, Acquas E, Liscia A (2014) *Mucuna pruriens* (Velvet bean) rescues motor, olfactory, 1 mitochondrial and synaptic impairment in PINK1B9 *Drosophila melanogaster* genetic model of Parkinson's disease, *PlosOne*, 9 (10): e110802. doi: 10.1371. ¶These authors contributed equally to this work.
 37. Tirinato L, Liberale C, Di Franco S, Candelo P, La Rocca R, Potze L, Marotta R, Ruffilli R, Vijayakumar P. Rajamanickam, Malerba M, De Angelis F, Falqui A, Carbone E, Todaro M, Medema JP, Stassi G, Di Fabrizio E (2015)

- Lipid Droplets: a New Player in Colorectal Cancer Stem Cells Unveiled by Spectroscopic Imaging, **Stem Cells**, 33 (1): 35-45. doi: 10.1002/stem.1837.
38. Ferrera D, Canale C, Marotta R, Mazzaro N, Gritti M, Mazzanti M, Capellari S, Cortelli P, Gasparini L (2014). Lamin B1 overexpression increases nuclear rigidity in autosomal dominant leukodystrophy fibroblasts. **The FASEB Journal**, 28: 3906-3918. doi:10.1096/fj.13-247635.
39. **Marotta R**, Crottini A, Raimondi E, Fondello C, Ferraguti M (2014). Alike but different: the evolution of the *Tubifex tubifex* species complex (Annelida, Clitellata) through polyploidization. **BMC Evolutionary Biology**, 14(1): 73. doi: 10.1186/1471-2148-14-73.
40. **Marotta R**, Fenu S, Scheggi S, Vinci S, Rosas M, Falqui A, Gambarana C, De Montis MG, Acquas E. (2014). Acquisition and expression of conditioned taste aversion differentially affects extracellular signal regulated kinase and glutamate receptor phosphorylation in rat prefrontal cortex and nucleus accumbens. **Frontiers in Behavioral Neurosciences**, 8: 153.
41. De Leo V, Catucci L, Falqui A, Marotta R, Striccoli M, Agostiano A, Comparelli R, Milano F. (2014) Hybrid assemblies of fluorescent nanocrystals and membrane proteins in liposomes. **Langmuir**, 30, 1599-1608
42. Poddighe S, Bath KM, Setzu MD, Solla P, Angioy AM, Marotta R, Ruffilli R, Marrosu F, Liscia A (2013). Impaired sense of smell in a Drosophila Parkinson's model. **PLoS ONE** 8(8): e73156. DOI: 10.1371/journal.pone.0073156
43. Ricotti L, Fujie T, Vazão H, Ciofani G, Marotta R, Brescia R, Filippeschi C, Corradini I, Matteoli M, Mattoli V, Ferreira L, Menciassi A. (2013). Boron nitride nanotube-mediated stimulation of cell co-culture on micro-engineered hydrogels. **PLoS ONE**, 8, (8): 10.1371.
44. Rossi AM, Saidel WM, Marotta R, Saglam N, Shain DH (2013). Operculum ultrastructure in leech cocoons. **Journal of Morphology**, 274 (8) 940-946. DOI: 10.1002/jmor.20150
45. Bagga K, Barchanski A, Intartaglia R, Dante S, Marotta R, Diaspro A, Sajti CL, Brandi F (2013). Laser-assisted synthesis of *Staphylococcus aureus* protein-capped silicon quantum dots as bio-functional nanoprobe. **Laser Physics Letters**, 10,6. DOI:10.1088/1612-2011/10/6/065603.
46. Caboni P, Aissani N, Cabras T, Falqui A, Marotta R, Liori B, Ntalli N, Sarais G, Sasanelli N, Tocco G. (2013) Potent Nematicidal Activity of Phthalaldehyde, Salicylaldehyde, and Cinnamic Aldehyde Against the Gall Nematode *Meloidogyne incognita*. **Journal of Agricultural and Food Chemistry**, 61 (8): 1794-1803. DOI: 10.1021/jf305164m
47. Limongi, T., Cesca F., Gentile, F., Marotta, R., Ruffilli R., Barberis, A., Dal Maschio M., Petrini E.M., Santoriello, S., Benfenati F., Di Fabrizio, E. (2013). Nanostructured Superhydrophobic Substrates Trigger the Development of 3D Neuronal Networks. **Small**, 9, 402-412: 10.1002/sml.201201377.
48. **Marotta R**, Falqui A, Curcio A, Quarta A, Pellegrino, T. (2013). Immunocytochemistry, Electron Tomography and Energy Dispersive X-ray Spectroscopy (EDXS) on cryosections of human cancer cells doped with stimuli responsive polymeric nanogels loaded with iron oxide nanoparticles. **Methods in Molecular Biology**, Ch. 14, 179-198;1025:179-98. doi: 10.1007/978-1-62703-462-3_14.
49. Di Corato R, Palumberi D, Marotta R, Scotto M, Carregal-Romero S, Riviera-Gil P, Parak WJ and Pellegrino T (2012). Magnetic nanobeads decorated with silver nanoparticles as cytotoxic agents and photothermal probes. **Small**, 8 (17), 2731-2742.

50. Curcio A, Marotta R, Riedinger A, Palumberi D, Falqui A, Pellegrino T. (2012). Magnetic pH-responsive Nanogels as Multifunctional Delivery Tool for small interfering RNA molecules and iron oxide nanoparticles. **Chemical Communications**, 48, 2400-2402.
51. Scaglione S, Giannoni P, Bianchini P, Sandri M, Marotta R, Firpo G, Valbusa U, Tampieri A, Diaspro A, Bianco P and Quarto R (2012). Order versus Disorder: in vivo bone formation within osteoconductive scaffolds. **Scientific Reports** 2 : 274
52. **Marotta R**, Uggetti A, Ricci C, Leasi F and Melone G (2012). Surviving Starvation: Changes Accompanying Starvation Tolerance in a Bdelloid Rotifer. **Journal of Morphology**, 273, 1-7.
53. **Marotta R**, Balsamo M, Ferraguti M, Fondello C, Guidi L and Todaro MA (2011). The spermatozoon of *Thaumastoderma moebjergi* with the description of the sperm model for the family Thaumastodermatidae (Gastrotricha, Macrotrichida). **Meiofauna Marina**, 19, 89-95.
54. Di Corato R, Bigall NC, Ragusa A, Dorfs D, Genovese A, Marotta R, Manna L, and Pellegrino T (2011). Multifunctional Nanobeads Based on Quantum Dots and Magnetic Nanoparticles: Synthesis and Cancer Cell Targeting and Sorting. **ACSNano**, 5(2), 1109-1121.
55. **Marotta R**, Leasi F, Uggetti A, Ricci C, Melone G (2010). Dry and survive: Morphological changes during anhydrobiosis in a bdelloid rotifer. **Journal of Structural Biology**, 171, 11-17.
56. **Marotta R**, Parry B and Shain D (2009). Divergence of the AMP-deaminase in the ice-worm *Mesenchytraeus solifugus* (Annelida, Clitellata, Enchytraeidae). **International Journal of Evolutionary Biology**, ID 715086.
57. **Marotta R**, Crottini A, Prada V and Ferraguti M (2009). A morphological reappraisal of *Tubifex blanchardi* Vejdovský, 1891 (Clitellata: Tubificidae). **Acta Zoologica** 90, 179-188.
58. **Marotta R**, Ferraguti M. (2009). Sperm Ultrastructure in Assessing Phylogenetic Relationships among Clitellate Annelids, Ch. 17, pag. 314-327. In *Annelids in Modern Biology*, Ed. Daniel H Shain, John Wiley & Sons, Inc.
59. Crottini A, Marotta R, Barbuto M, Casiraghi M and Ferraguti M (2008) The world in a river? A preliminary analysis of the genetic variability of *Tubifex tubifex* from the Lambro River (Milan, northern Italy). **Molecular Phylogenetic and Evolution**, 48, 1189-1203.
60. Coleman J, Marotta R, Shain DH (2008). Surface topology and structural integrity of the *Theromyzon tessulatum* (Annelida: Hirudinea: Glossiphoniidae) cocoon. **Journal of Morphology**, 269, 812-819.
61. **Marotta R**, Todaro A and Ferraguti M (2008). The unique gravireceptor organs of *Pleurodasys helgolandicus* (Macrotrichida: Gastrotricha). **Zoomorphology**, 127, 111-119.
62. **Marotta R**, Ferraguti M, Erséus C and Gustavsson L (2008) Combined-data phylogenetics and character evolution of Clitellata (Annelida) using 18S rDNA and morphology. **The Zoological Journal of the Linnean Society**, 154, 1-26.
63. Gustavsson L, Ferraguti M and **Marotta R**. (2008). Comparative ultrastructural study of the cuticle and spermatozoa in *Proppappus volki* Michaelsen, 1916 (Annelida, Clitellata). **Zoologischer Anzeiger**, 247, 123-132.
64. **Marotta R**, Shain D. (2007). Irregular Helicoids in the Leech Cocoon membrane. **Journal of Structural Biology**, 158, 336-343.
65. Balsamo M., Guidi L., Pierboni L., Marotta R, Todaro A. and Ferraguti M. (2007). Living without mitochondria: spermatozoa and spermatogenesis in two species of Urodasys (Gastrotricha, Macrotrichida) from dysoxic sediments. **Invertebrate Biology**, 126, 1-9.

66. **Marotta R**, Melone G, Bright M and Ferraguti M. (2005). Spermatozoa and sperm aggregates in the Vestimentiferan *Lamellibrachia luymesii* compared with those of *Riftia pachyptila* (Polychaeta: Siboglinidae: Vestimentifera). **Biological Bulletin**, 209, 215-226.
 67. **Marotta R**, Guidi L, Pierboni L, Balsamo M, Ferraguti M, Todaro A, (2005). Sperm ultrastructure of *Macrodasys caudatus* (Gastrotricha: Macrodasysida) and a sperm based phylogenetic analysis of Gastrotricha. **Meiofauna Marina**, 14, 9-21.
 68. **Marotta R**, Ruhberg H, (2004). Sperm ultrastructure of the oviparous *Ooperipatellus insignis* (Dendy, 1890) and of the ovoviviparous *Opisthopatus cinctipes* Purcell, 1899 (Onychophora: Peripatopsidae) with some phylogenetic considerations. **Journal of Zoological Systematics and Evolutionary Research**, 42, 313-322.
 69. Guidi L, Marotta R, Pierboni L, Ferraguti M, Todaro A, Balsamo M, (2003). Comparative sperm ultrastructure of *Neodasys cirtus* and *Musellifer delamarei*, two putatively primitive chaetonotid species (Gastrotricha). **Zoomorphology**, 122, 135-143.
 70. Corbelli A, Ferraguti M, **Marotta R**, (2003). The spermatozoon of *Caribdea marsupialis* (Cubozoa, Cnidaria). **Invertebrate Reproduction and Development**, 43, 2, 95-104.
 71. **Marotta R**, Ferraguti M, Erséus C, (2003). A phylogenetic analysis of Tubificinae and Limnodriloidinae (Annelida: Clitellata: Tubificidae) using sperm and somatic characters. **Zoologica Scripta**, 32, 3, 255-278.
 72. **Marotta R**, Ferraguti M, Martin P, (2003). Spermiogenesis and seminal receptacles in *Aeolosoma singulare* (Annelida: Polychaeta: Aeolosomatidae). **Italian Journal of Zoology**, 70, 123-132.
 73. Ferraguti M, Marotta R, Martin P, (2002). The double sperm line in *Isochaetides* (Annelida, Clitellata, Tubificidae). **Tissue and Cell**, 34, 305-314.
- Journal Covers:



SCIENTIFIC COMMUNITY SERVICE

14. 2004: Italian translation of the encyclopedia "Life on Earth. An Encyclopaedia of Biodiversity, Ecology and Evolution." Ed. ABC-CLIO, Santa Barbara, California, N. Eldredge (Editor).
15. 2016: I have been reviewer of the international PhD thesis titled "Anatomical characterization of the type-1 cannabinoid receptor in specific brain cell populations of mutant mice", by Ana Gutiérrez Rodríguez, University of Basque country, Spain/University of Bordeaux, France. Supervisors: Dr. P. Grandes and Dr. G. Marsicano;
16. I am reviewer for the following peer reviewed international journals: *Invertebrate Biology*, *Journal of Morphology*, *Micron*, *Microscopy Research and Techniques*, *Molecular Phylogenetic and Evolution*, *Scientific Report*;

17. I am member of AIC (Associazione Italiana di Cristallografia since 2017) and of SISM (Società Italiana Scienze Microscopiche since 2016);

REFERENCES

1. **Dr. Marco Ferraguti**, Full Professor of Evolutionary Biology, Biology Department, University of Milan (Italy), tel. (+39) 02 5031 4782, e-mail: marco.ferraguti@unimi.it;
2. **Dr. Andrea Falqui**, Associate Professor, King Abdullah University of Science and Technology (KAUST), BESE division, Thuwal, Kingdom of Saudi Arabia. email: Andrea.falqui@kaust.edu.sa;
3. **Dr. Rosaria Brescia**, Head of the EM Facility @ Istituto Italiano di Tecnologia, Genova (Italy). Tel. +39 010 71781 284; email: rosaria.brescia@iit.it;
4. **Dr. Daniel H Shain**, Associate Professor of Zoology, Biology Department, Rutgers - The State University of New Jersey, Camden, NJ 08102-1411, e-mail: dshain@camden.rutgers.edu;