

Curriculum Vitae of Cesare Stefanini

February 2022

cesare.stefanini@santannapisa.it

Biosketch

Cesare Stefanini received the M.Sc. degree in mechanical engineering and the Ph.D. degree in Microengineering, both with honors, from Scuola Superiore Sant'Anna (SSSA), Pisa, Italy, in 1997 and 2002, respectively. In 2003 he joined the Faculty of the BioRobotics Institute of SSSA in Pontedera, Italy, where he is today Full Professor and Head of the Creative Engineering Design Lab. From 2018 to 2021 he has been the Director of the Healthcare Engineering Innovation Center Khalifa University, Abu Dhabi. His research activity is applied to different fields, including small scale robotics, bioinspired systems, biomechatronics and micromechatronics for medical and industrial applications. He received international recognitions for the development of novel actuators for microrobots and he has been visiting researcher at the University of Stanford, Center for Design Research.

Dr. Stefanini is currently the PI of four research projects, including two international projects on underwater swarm robotics. Dr. Stefanini is the scientific advisor of a leading company in the field of robotic surgery (MMI - Medical Micro-instruments SpA) and the recipient of the "Intuitive Surgical Research Award". Dr. Stefanini is the author or co-author of more than 160 articles on refereed international journals and on international conferences proceedings. He is the inventor of 18 international patents, 9 of which industrially exploited by world-leading companies. He is a member of the Academy of Scientists of the UAE and of the IEEE Societies RAS (Robotics and Automation), EMBS (Engineering in Medicine and Biology) and PES (Power and Energy).

Scopus Author ID: 13605957700

ORCID ID: <http://orcid.org/0000-0003-0989-041X>

a. Education Record

- Ph.D. in Microengineering (cum laude), with a thesis titled "Microengineering Principles and Examples in the Design of Actuators and Mechanisms for Minimally Invasive Surgery". Date: October 10, 2002. Institution: Scuola Superiore Sant'Anna, the BioRobotics Institute, Pisa (Italy).
- Visiting Ph.D. student. Date: Dec. 2001 – April 2002. Institution: Stanford University, Center for Design Research, Palo Alto, CA (USA).
- M.Sc. in Robotics (cum laude), with a thesis titled "Electromagnetic Micro-motor for Endoscopic Camera Actuation". Date: July 16, 1997. Institution: Scuola Superiore Sant'Anna, College of Engineering, Pisa (Italy).

b. Employment Record

- Dean, Faculty of Applied Experimental Sciences, Scuola Superiore Sant'Anna, Pisa (Italy), from February 1st, 2022.
- Full Professor of Industrial Bioengineering, Scuola Superiore Sant'Anna, Pisa (Italy), from October 1st, 2018.
- Director, Healthcare Engineering Innovation Center, Khalifa University of Science and Technology, Abu Dhabi (UAE), from July 1st, 2018 to December 23, 2021.
- Associate Professor, the BioRobotics Institute, Scuola Superiore Sant'Anna, Pisa (Italy), from November 1st, 2014 to September 30, 2018:
 - Head of the Creative Engineering Design Area at the BioRobotics Institute, leading a team of post-docs, PhD students, research assistants and one technician.
 - PI for research projects and for industrial research grants
 - Mentoring Ph.D. and M.Sc. students
 - Undergraduate and graduate teaching
- Co-Founder of Spin-off company Encrea Srl, Italy, from January 7, 2004 to June 19, 2009
- Assistant Professor, the BioRobotics Institute of Scuola Superiore Sant'Anna, Pisa (Italy) from July 1st, 2003 to October 30, 2014 (tenured since November 1st, 2010):
 - Applicant and PI for research projects and for industrial research grants
 - Mentoring Ph.D. and M.Sc. students
 - Undergraduate and graduate teaching
- Post-Doc researcher, the BioRobotics Institute of Scuola Superiore Sant'Anna, Pisa (Italy) from October 14, 2002 to June 30, 2003:
 - Project management of R&D research activities
 - Theoretical and experimental contribution in research
 - Support to graduate and undergraduate teaching
- Ph.D. student with full scholarship and living allowance, Scuola Superiore Sant'Anna, Pisa (Italy) from November 1st, 1998 to October 10, 2002:
 - Undergraduate teaching assistant
 - Theoretical and experimental contribution in research
- Officer (Lieutenant) of the Italian Navy, corps of Engineers, Italian Armed Forces (Navy), from September 1997 to December 1998.

c. Honors, Awards and Other Recognitions

- Scientific Committee member, Grand Hamdan International Award for Medical Sciences, UAE, 2020.
- “Encoding lateralization of jump kinematics and eye use in a locust via bio-robotic artifacts”, 2019 most-cited research paper, Journal of Experimental Biology.
- Best Italian PhD Thesis in Bioengineering, Supervisor of Dr. Donato Romano, September 11, 2019, 1st prize.
- Marie Curie Global Fellowship, SSSA-MIT, Supervisor of Dr. Mario Milazzo, 2018-2021
- Best paper Award “Engineering an Artificial Biomimetic Lymph Node” by Aya Shanti et al., UAE Graduate Student Research conference 2019.
- Member of the MBR Academy of Scientists of the UAE since 2017.
- TIP Healthcare Award in the category “Proof of Concept”, Department of Health, Abu Dhabi, 2018.
- May 16, 2017: “Etisalat Innovation Award 2017” for the project “3D Bio-printing”, supervising a team of five BME students from Khalifa University.
- January 2016: 2nd and 3rd place for best paper award in the 2016 IEEE Life Challenges Conference:
 - “Intra-uterine balloon tamponade for use in low resource settings for the treatment of Post-Partum Hemorrhage (PPH)”, by Ahmed Alsaqqa, Alla Saleh, Menat Alla Saleh, Rasha Nasser, Cesare Stefanini and Tim McGloughlin.
 - “Rehabilitation through Assistive Cable-driven Technology (RE-ACT)”, by Abdulrahman Ali, Fahad Al Shaibani, Yousef Abdel-Raouf, Tarek Taha, Dongming Gan, Kinda Khalaf and Cesare Stefanini.
- February 2016: 3rd place in the 2016 UAE AI & Robotics Award for Good (Dubai, February 5) with the project “Rehabilitation through Assistive Cable-driven Technology (RE-ACT)”.
- January 2012: the European project "Lampetra", of which the candidate has been proponent, developer, and technical coordinator, won the recognition of "Project of the month" by the European Commission, awarded by former VP and Commissioner for Digital Agenda, H.E. Neelie Kroes and was presented as "Success Story" in the official bulletin of the FET program.
- January 2010: winner of the grant research "Intuitive Surgical Research Award" given annually by Intuitive Surgical Inc. (Sunnyvale, USA), the leading industry in medical robotics.
- February 2008: Finalist for Best Conference Paper Award at the conference IEEE RoBio 2008, with the article entitled "A Novel Receptor Based on Artificial Hair Aligned PVDF Micro / Nano Fibers ", 21 to 26 February, Bangkok, Thailand.
- 1995, 1996 and 2000: First Prize (three times) at the International Micro Robot Maze Contest, Nagoya, Japan.

d. List of editorial board memberships (ε) and professional memberships (π)

- ε 2017-18: Scientific Committee, the 18th International Conference of The European Society for Precision Engineering and Nanotechnology (euspen), Venice, June 4-8, 2018
- ε 2017-18: Associate Editor, the 2018 IEEE International Conference on Robotics and Automation (ICRA 2018), May 21–25, 2018, Brisbane, Australia
- ε 2017: Associate Editor, the 2017 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2017), September 24-28, 2017, Vancouver, Canada
- ε 2016-17: Associate Editor, the 2017 IEEE International Conference on Robotics and Automation (ICRA 2017), May 29 – June 3, 2017, Singapore
- ε 2016: Associate Editor, the 2016 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2016), October 9-14, 2016, Daejeon, Korea
- ε 2015-16: Associate Editor, the 2016 IEEE International Conference on Robotics and Automation (ICRA 2016), May 16-21, 2016, Stockholm, Sweden
- ε 2015: Associate Editor, the 2015 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2015), September 28 – October 2, 2015, Hamburg, Germany
- ε 06/2012: Bioinspiration & Biomimetics (ISSN 1748-3182), IOP publishing, Guest Editor of Special Issue
- ε 01/2011 - 06/2012: Associate Editor, member of the International Program Committee, The Fourth IEEE / RAS-EMBS International Conference on Biomedical Robotics and Biomechatronics
- ε 9/2006 - 11/2007: Member of the International Program Committee, IROS 2007 IEEE / RSJ International Conference on Intelligent Robots and Systems
- ε 07/2005 - 03/2006: Proceedings Chair, BioRob 2006, The First IEEE / RAS-EMBS International Conference on Biomedical Robotics and Biomechatronics
- π 2017 – today Scientific Advisory Committee, IRT Jules Vernes, Nantes, France
- π 2015 – today Technology Advisory Committee, STRATA, UAE
- π 2013 – today Scientific Advisor, MMI Co., Medical Robotics, Italy
- π 1998 – today Licensed Engineer: Orders of Engineers of Italy

e. Conference and seminar presentation record (keynote / invited / plenary)

- Cesare Stefanini has been organizer and Chair of "Workshop on animal-robot interaction", the IEEE IROS conference, October 2020
- Invited Speaker, Arab Health 2018, Dubai (UAE), January 30, 2018.
- Keynote Speaker, 2017 World Medical Robotics Conference (WMRC 2017), Shenzhen, China, November 25-26, 2017.
- Invited Speaker, Arab Health 2017, Dubai (UAE), January 31st, 2017.

- Invited Presentation at The Fourth Arab-American Frontiers of Science, Engineering and Medicine Symposium, November 6, 2016, Abu Dhabi (UAE)
- Invited Lecture at the 2016 IEEE Life Challenges Conference, January 2016, Abu Dhabi.
- Keynote Speaker at the 7th International Joint Conference on Biomedical Engineering Systems and Technologies, BIOSTEC 2014, Angers (France), March 4, 2014
- Invited lecture at IEEE conference IROS 2012, "High efficiency and adaptive behavior in bio-inspired robots by creative design and smart materials", Algarve (Portugal), October 11, 2012
- Invited Lecture at the IEEE Conference ICRA 2012, "Energy in robots: measuring performance and efficiency", St. Paul (MN, USA), May 18, 2012
- Plenary Lecture at the International Workshop on Bio-Inspired Robots "Bio-inspired approaches to robotics: towards a new generation of adaptive systems", Nantes (France), April 6, 2011
- Participation as guest expert in the Round Table entitled "Robotics and medicine: from the mechanical arm to the intelligent capsules: last frontiers of robotic surgery", at the Academy of Agriculture, Science and Letters, Verona, Italy, January 30, 2009
- Invited Lecture at Zhejiang University (Hangzhou, China), "Energy Issues In Micro-robotics: Jumping Locomotion", December 19, 2007
- Invited Lecture, the "Journées Micro-Nano-Technologies" organized by the French CNRS in Paris on 28 and 29 November 2007 with a presentation titled "Medical Microrobots"
- Invited Lecture entitled "Future Trends in Surgical Robotics" at the "3rd European Summer University on Surgical Robotics" in Montpellier, France, September 5-12, 2007.
- Cesare Stefanini has been organizer and Chair of the workshop "Bioinspired Underwater Robotics", the IEEE IROS conference in Hamburg, on October 2, 2015
- Cesare Stefanini has been organizer of the workshop "Emerging topics in Robotics and Micro / Nano Robotics: from science-based research to high impact applications "at the European Robotics Forum in Odense (Denmark) on March 6, 2012
- Cesare Stefanini has been the organizer and Chair of the workshop "Biologically Inspired actuation" during the conference IEEE International Conference on Robotics and Automation (ICRA) in Shanghai, on May 13, 2011
- Cesare Stefanini has been the General Co-Chair of the International Workshop on Bio-Inspired Robots, Nantes (France), April 6-8, 2011

f. External and internal research funding record

- 2020 – 2025, (SSSA) European Project Robocoenosis: "Robots in cooperation with a biocoenosis", European contract no. 899529, PI
- 2019 – 2021, (SSSA) Amazon Inc. R&D (industrial robotics), PI
- 2014 – 2022, (SSSA) GE Oil & Gas R&D (industrial robotics), PI

- 2018 – 2021, (KU) KUCARS research project (robotics for industry), PI
- 2018 – 2019, (KU) ADEK research project (medical microsystems), PI
- 2016 – 2018, (KU) STRATA/KU research project (industrial robotics), PI
- 2015 – 2018, (KU) ICT research project (medical micro-robotics), PI
- 2015 – 2019, (SSSA) European Project OPTEMUS: "Optimized energy management and use", European contract no. 653288, PI
- 2015 – 2019, (SSSA) European Project subCULTron: "Submarine Cultures Perform Long-Term Robotic Exploration of Unconventional Environmental Niches", European contract no. 640967, PI
- 2014 – 2015, (SSSA) Brembo SpA R&D (mechatronics), PI
- 2013 – 2015, (SSSA) SNAM SpA R&D (robotics for pipe inspection), PI
- 2011 – 2014, (SSSA) European Project Cocoro: "Collective Cognitive Robots", European contract no. 270382, PI
- 2010 – 2013, (SSSA) Project BIOMEAR: "Development of novel micromanufactured Biological and BioHybrid prostheses for Middle Ear surgery ", Reg. Decree n. 4177, PI
- 2008 – 2013, European Project Replicator: "Robotic Evolutionary Self-Programming and Self-Assembling Organisms, "European contract no. 216240, R&D responsible
- 2008 – 2012, European Project INTEG-MICRO: "New production technologies of complex 3D Microdevices through multi-process integration of ultra-precision engineering techniques ", European contract no. CP-IP 214013-2, Project Manager and R&D responsible
- 2010 – 2012, National Project: "Experimental study and numerical characterization of tissue biomechanics of colon, contract no. 2008EM9B92, PI
- 2009 – 2012, European Project ANGELS: "Robot with Anguilliform Electric Sense "European contract no. 231845, PI
- 2008 – 2012, European Project Araknes: "Array of Robots Augmenting the Kinematics of Endoluminal Surgery ", European contract no. 224565, R&D responsible
- 2008 – 2011, European Project Lampetra: "Life-like Artefacts for Motor-Postural Experiments and Development of New Control Technologies inspired by Rapid Animal locomotion", European contract no. 216100, Project Manager and R&D responsible
- 2007 – 2010, National Project "Advanced manufacturing systems for the machining of miniaturized products with combined processes (Multitasking) flexible, contract no. RBIP0692HF, Project Manager and R&D responsible
- 2006 – 2009, European Project ARES: "Assembling Reconfigurable Endoluminal Surgical System", European contract no. 15653, R&D responsible
- 2005 – 2008, European Project Vimpa: "Vibrating Microengines for Power Generation and Microsystem Actuation ", European contract no. 511869, Project Manager and R&D responsible

- 2004 – 2007, European Project NEUROBOTICS: "The fusion of Neuroscience and Robotics", European contract no. FP6-IST-001917, R&D responsible
- 2002 – 2005, European Project BIOLOCH: "Bio-mimetic structures for Locomotion in the Human Body", European contract no. IST-2001-34181, R&D responsible
- 2001 – 2004, European Project MINOSC: "MicroNeuroendoscopy Of Spinal Cord", European contract no. QL5-CT-2001-02150, R&D responsible

g. Record of graduate student supervision (last ten years)

1. Supervisor of Ph.D. student Gaspare Santaera, ongoing.
2. Supervisor of Ph.D. student Francesco Bologna, ongoing.
3. Supervisor of Ph.D. student Michael Tannous, ongoing.
4. Supervisor of Ph.D. student Marco Miraglia, ongoing.
5. Supervisor of Ph.D. student Francesca Digiaco, ongoing.
6. Supervisor of Ph.D. student Ms. Selwa Boularaoui, thesis defended in Fall 2021.
7. Supervisor of Ph.D. student Abanti Afroz, thesis defended in Fall 2021.
8. Supervisor of M.Sc. student Ms. Taif AlTaffaq, thesis defended in Fall 2021.
9. Supervisor of M.Sc. thesis "Continuum Robots for minimally invasive therapy", Ms. Hessa Alfalahi, defended in Spring 2020.
10. Supervisor of M.Sc. thesis "Biomimetic Lymph node for Drug Development", Ms. Aya Shanti, defended in Spring 2019.
11. Supervisor of M.Sc. thesis "Underwater Positioning of a Remotely Operated Underwater Vehicle (ROV) for Optimized Navigation", Mr. Abdelaziz Saeed Mohamed Alzaabi, July 3, 2018.
12. Supervisor of M.Sc. thesis "Bionic Implantable Sphincter for Urinary Incontinence", Ms. Kenana Al Adem, thesis defended in 2017.
13. Supervisor of Ph.D. student Donato Romano (SSSA, thesis defended in Dec. 2018), **Best Italian Thesis in Bioengineering in 2018, 1st prize.**
14. Supervisor of Ph.D. thesis "Mechanical solutions for studying and testing innovative biomedical devices for sound transmission", Dr. Mario Milazzo, November 2016. **Winner of Marie Curie Global Fellowship** SSSA-MIT (Boston, USA).
15. Supervisor of Ph.D. thesis "Control methods and tools for Non-Traditional Bioinspired Robotics", Dr. Elisa Donati, May 2016.
16. Supervisor of Ph.D. thesis "Mechanical design methodologies for miniature medical instrumentation", Dr. Margherita Mencattelli, May 2016.
17. Supervisor of Ph.D. thesis "Development of new bioinspired paradigms for implementing multiple locomotion mode in rescue robots", Dr. Stefano Mintchev, April 2014. Dr. Mintchev is today Faculty at **ETHZ**.

18. Supervisor of Ph.D. thesis "Novel high precision microfabrication methods", Dr. Sarah De Cristofaro, March 2013.
19. Supervisor of Ph.D. thesis "Micro-milling techniques for high precision microfabrication" Dr. Gian Carlo Feriti, May 2013.
20. Supervisor of Ph.D. thesis "Validation of new biological hypotheses through bio-hybrid experiments with biorobotic artefacts", Dr. Lorenza Capantini, April 2012.
21. Supervisor of Ph.D. thesis "Biological observation and actuation modeling in living organisms with applications in biorobotics", Dr. Gabriella Bonsignori, April 2012.
22. Supervisor of Ph.D. thesis "Proprio- and exteroceptive sensing based on novel miniaturized systems for biorobotics", Dr. Stefano Orofino, May 2012.
23. Supervisor of M.Sc. thesis "Comparison of acoustic behavior and middle ear prostheses", Eng. Ilenia Curiale, 2013.
24. Supervisor of M.Sc. thesis "Acoustic characterization of middle ear prostheses", Eng. Virginia Bacchereti, 2013.

h. Patent applications / patents granted

1. Simi, Massimiliano, Giuseppe Maria Prisco, and Cesare Stefanini. "Robotic microsurgical assembly." U.S. Patent Application 16/605,165, filed May 13, 2021 (IP exploited by **MMI SpA**)
2. Stefanini, Cesare; Teo, Jeremy; Aya, Shanti; Amal Abdallah; Bisan Samara. "Microfluidic Device for Generating an in-Vitro Lymph Node" Provisional US patent application No. 62/566,759.
3. Stefanini, Cesare; Castrataro, Piero; Accoto, Dino; "Miniaturized generator with oscillating magnets for the production of electric energy from vibrations", 2013, US Patent 8,593,017 (patent exploited by **Pirelli Tyres SpA**)
4. Stefanini, Cesare; Dario, Paolo; Carrozza, Maria Chiara; De Cristofaro, Sarah; "Electromagnetic step-by-step wobble-type micromotor", 2014, US Patent 8,704,413. (patent exploited by **Faulhaber GmbH**)
5. Ferrari, Mauro; Stefanini, Cesare; "Clip and clip applicator for closing blood vessels", 2012, US Patent 8,282,654 (patent exploited by **Karl Storz GmbH**).
6. Conti P.A., Greco G., Nepote A., Inglese F., Milazzo M., Stefanini C., "Regenerative hydraulic shock-absorber for vehicle suspension". WO2016097898 (A1) - Priority number: IT2014TO01077 20141219. Application number: WO2015IB58746 20151112. Published as: WO2016097898 (A8) (IP exploited by **Magneti Marelli SpA**)
7. Chiari F., Stefanini C., Milazzo M., Magnasco M., Inglese F., "Handling apparatus for performing a tig weld with regulation of speed of the fed wire". WO2016083430 (A1) - Priority number: IT2014MI02041 20141127. Application number: WO2015EP77592 20151125 (IP exploited by **GE Oil and Gas**)
8. Chiari F., Milazzo M., Magnasco M., Stefanini C., Inglese F., "Welding tool for performing SMAW or MIG weld with maintenance of a constant distance between the electrode and

the weld area". WO2016083429 (A1) - Priority number: IT2014MI02040 20141127. Application number: WO2015EP77591 20151125 (IP exploited by **GE Oil and Gas**)

9. Chiari F., Magnasco M., Milazzo M., Stefanini C., Inglese F., "Welding assistance device with a welding mask having a velocity sensor". WO2016083258 (A1) - Priority number: IT2014MI02042 20141127. Application number: WO2015EP77217 20151120 (IP exploited by **GE Oil and Gas**)
10. Posarelli, Roberto, Giuliano Vegni, Giorgio Dinelli, Cesare Stefanini, and Federico Carnasciali. "Device for the fine weeding of a multilayer sheet comprising a support liner and at least one adhesive film coupled with the liner." U.S. Patent 9,434,148, issued September 6, 2016 (patent exploited by **Esanastri Srl**)
11. Dario, Paolo; Menciassi, Arianna; Stefanini, Cesare; Gorini, Samuele; Pernorio, Giuseppe; Accoto, Dino. "Teleoperated endoscopic capsule equipped with active locomotion system", 2011, US Patent 8,066,632.
12. Dario, Paolo; Pietrabissa, Andrea; Magnani, Bernardo; Stefanini, Cesare; "Endoscopic surgery device", 2010, US Patent 7,695,468.
13. Pietrabissa, A., Stefanini, C., Menciassi, A. and Dario, P. "Auxiliary Forceps for Hand-Assisted Laparoscopic Surgery (HALS)", 2008, US Patent 7,399,309.
14. Stefanini, Cesare; Mintchev, Stefano; Dario, Paolo; "Permanent magnet actuator for adaptive actuation", 2011, US Patent Application US20110266904A1
15. Danti, Serena; Berrettini, Stefano; Marrazza, Stefano; Stefanini, Cesare. "Apparatus and process for the preparation of a biomimetic tissue prosthesis of the tympanic membrane", 2014, US Patent Application 15/023,335
16. Ricotti, Leonardo, Tareq Assaf, Cesare Stefanini, and Arianna Menciassi. "System for controlled administration of a substance from a human body-implanted infusion device." US Patent 9,415,163, issued August 16, 2016.

i. Notable university, community and professional service activities

- Since 2020 Cesare Stefanini serves in the Third Mission unit at Scuola Superiore Sant'Anna, with specific contribution to the network of SSSA Spin-off Companies.
- Cesare Stefanini served as link between Khalifa University and Scuola Superiore Sant'Anna, also regarding undergraduate students doing their internship at the BioRobotics Institute in Italy. Since his appointment, Dr. Stefanini tutored 19 undergraduate students from Khalifa University, 8 of which are UAE Nationals.
- Cesare Stefanini is one of the members of the evaluation Committee for the Ph.D. students of the BioRobotics Institute of Scuola Superiore Sant'Anna in Italy.
- Since 2014 Prof. Cesare Stefanini is Scientific Advisor of the company Medical Micro Instruments (MMI Srl, www.mmimicro.com), a start-up founded in Italy by a former senior principal engineer from Intuitive Surgical, in the process of introducing on the market a novel system for robotic microsurgery. The company is currently on its second

round of funding by investors and owns IP already highly valued by stakeholders in the field. Dr. Stefanini is advising MMI especially concerning solutions to the challenge of extreme miniaturization of surgical instruments.

j. Media dissemination:

- 1/1/2021 - Embassy of Italy in Abu Dhabi: Cesare Stefanini is featured as one of the ten Italian personalities in the UAE who notably contributed to face the challenges related to the pandemics, and he has been inducted in the official 2021 Calendar.
- 6/04/2020 - Emirates News Agency: Cesare Stefanini presents a functional emergency Ventilator system developed in the early months of the Covid pandemics.
- 3/10/2017 - Euronews TV documentary: Cesare Stefanini is interviewed about the *SubCULTron* EU Project, describing the underwater robotic system.
- 15/09/2017 - Sky News, Cesare Stefanini is interviewed about the *SubCULTron* EU Project during the experimentation in the Venice lagoon.
- 2014 and 2015 - Prime Video - Amazon and global media channels, Cesare Stefanini featured in "The Age of Robots", a 6-part journey through the state of the art of European robotics (part 4: Cesare Stefanini describes the concept of a Robotic Zoo).
- 10/05/2014 - Cesare Stefanini, participated in the talk show "Uno Mattina" held on Rai 1 (the most watched Italian TV channel), and presented the main outcomes and characteristics of the *Co.Co.Ro.* EU Project.
- 19/4/2013 - Rai 1, Cesare Stefanini describes the *Robotic Zoo* of SSSA during the "Uno Mattina" program.
- 25/1/2012 - Rai 1, TG1 news program – Cesare Stefanini is interviewed on the potential use of robotic systems in the context of the sinking of the ship "Costa Concordia" and the applicability of proximity sensors, developed within the *ANGELS* EU Project for safe navigation.
- 17/7/2011 - Il Sole 24 Ore (most read Italian financial magazine), "In the zoo where the robots learn from nature", *Lampetra* EU project presented.
- 9/7/2011 - The Economist (international magazine) - "Zoobotics" article describing the *Lampetra* EU Project and the international state of the art in the field.
- 26/4/2010 – Rai 3, program "Geo & Geo" - Cesare Stefanini explains bioinspired robotics and shows both static and dynamic demonstrations.
- 3/9/2009 - The Espresso (second most read Italian magazine) - "Insect Robots", Cesare Stefanini describes the scenario of research in the field of small bioinspired robotics.
- 20/8/2008 - Rai 1, program "Uno Mattina" - Cesare Stefanini shows the experimental studies on the jump of small animals and the development of bioinspired robots.
- 7/6/2007 - Rai 1, program "Super Quark" - Cesare Stefanini illustrates the operation of the first prototype of the bioinspired robot developed within the *Lampetra* EU project.

- 28/9/2006 - Corriere della Sera (most read Italian newspaper) - "A robot to study the sixth sense", article in which Cesare Stefanini explains the rationale and early activity within the *Neurobotics* EU project (Lamprey robot).
- 26/4/2006 - Rai Explora - Cesare Stefanini talks about "Bioinspired Inventions".

h. Publication record (Scopus h-index: 31 as of February 2022)

1. Selwa Boularaoui, Aya Shanti, Kamran A. Khan, Saverio Iacoponi, Nicolas Christoforou, Cesare Stefanini, "Harnessing shear stress preconditioning to improve cell viability in 3D post-printed biostructures using extrusion bioprinting", *Bioprinting*, Volume 25, 2022, doi.org/10.1016/j.bprint.2021.e00184
2. Miraglia, Marco, Michael Tannous, Francesco Inglese, Birgit Brämer, Mario Milazzo, and Cesare Stefanini. "Energy recovery from shock absorbers through a novel compact electro-hydraulic system architecture." *Mechatronics* 81 (2022): 102701.
3. Mario Milazzo, Cesare Stefanini, "Chapter 7 - Fabrication of endoluminal medical devices", Editor(s): Luigi Manfredi, Endorobotics, Academic Press, 2022, Pages 165-186, ISBN 9780128217504, doi.org/10.1016/B978-0-12-821750-4.00007-4.
4. Romano, Donato, Giampaolo Rossetti, and Cesare Stefanini. "Learning on a chip: Towards the development of trainable biohybrid sensors by investigating cognitive processes in non-marine Ostracoda via a miniaturised analytical system." *Biosystems Engineering* 213 (2022): 162-174.
5. Bologna, Francesco, Michael Tannous, Donato Romano, and Cesare Stefanini. "Automatic welding imperfections detection in a smart factory via 2-D laser scanner." *Journal of Manufacturing Processes* 73 (2022): 948-960.
6. Romano, D., Stefanini, C. Robot-Fish Interaction Helps to Trigger Social Buffering in Neon Tetras: The Potential Role of Social Robotics in Treating Anxiety. *Int J of Soc Robotics* (2021). <https://doi.org/10.1007/s12369-021-00829-y>
7. Alfalahi, Hessa, Federico Renda, Conor Messer, and Cesare Stefanini. "Exploiting the instability of eccentric tube robots for distal force control in minimally invasive cardiac ablation." *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science* 235, no. 23 (2021): 7212-7232.
8. Boularaoui, Selwa, Aya Shanti, Michele Lanotte, Shaohong Luo, Sarah Bawazir, Sungmun Lee, Nicolas Christoforou, Kamran A. Khan, and Cesare Stefanini. "Nanocomposite Conductive Bioinks Based on Low-Concentration GelMA and MXene Nanosheets/Gold Nanoparticles Providing Enhanced Printability of Functional Skeletal Muscle Tissues." *ACS Biomaterials Science & Engineering* 7, no. 12 (2021): 5810-5822.
9. Digiacoimo, F., Bologna, F., Inglese, F. et al. MechaTag: A Mechanical Fiducial Marker and the Detection Algorithm. *J Intell Robot Syst* 103, 46 (2021). <https://doi.org/10.1007/s10846-021-01507-x>
10. Bloemberg, Jette, Cesare Stefanini, and Donato Romano. "The Role of Insects in Medical Engineering and Bionics: Towards Entomomedical Engineering." *IEEE Transactions on Medical Robotics and Bionics* 3, no. 4 (2021): 909-918.

11. Stefanini, C., & Romano, D. (2021, July). Towards animal phenotype transfer into biomimetic robots: the LAMPETRA project. In *ALIFE 2021: The 2021 Conference on Artificial Life*. MIT Press.
12. Armanini, C., Farman, M., Calisti, M., Giorgio-Serchi, F., Stefanini, C., & Renda, F. (2021). Flagellate Underwater Robotics at Macroscale: Design, Modeling, and Characterization. *IEEE Transactions on Robotics*.
13. Abdel-Raouf, K., Rezgui, R., Stefanini, C., Teo, J., & Christoforou, N. (2021). Transdifferentiation of Human Fibroblasts into Skeletal Muscle Cells: Optimization and Assembly into Engineered Tissue Constructs through Biological Ligands. *Biology*, 10(6), 539.
14. Mathew, A. T., Hussain, I., Stefanini, C., Hmida, I. M. B., & Renda, F. (2021, April). ReSoft Gripper: A reconfigurable soft gripper with monolithic fingers and differential mechanism for versatile and delicate grasping. In *2021 IEEE 4th International Conference on Soft Robotics (RoboSoft)* (pp. 372-378). IEEE.
15. Toniolo, I., C. G. Fontanella, M. Gagner, C. Stefanini, M. Foletto, and E. L. Carniel. "Computational evaluation of laparoscopic sleeve gastrectomy." *Updates in Surgery* (2021).
16. Romano, D., & Stefanini, C. (2021). Individual neon tetras (*Paracheirodon innesi*, Myers) optimise their position in the group depending on external selective contexts: Lesson learned from a fish-robot hybrid school. *Biosystems Engineering*, 204, 170-180.
17. Hallfors, Nicholas, Aya Shanti, Jiranuwat Sapudom, Jeremy Teo, Georg Petroianu, SungMun Lee, Lourdes Planelles, and Cesare Stefanini. "Multi-Compartment Lymph-Node-on-a-Chip Enables Measurement of Immune Cell Motility in Response to Drugs." *Bioengineering* 8, no. 2 (2021): 19.
18. Al Adem, Kenana, Aya Shanti, Cesare Stefanini, and Sungmun Lee. "Inhibition of SARS-CoV-2 Entry into Host Cells Using Small Molecules." *Pharmaceuticals* 13, no. 12 (2020): 447.
19. A.S. Afroz, D. Romano, F. Inglese, and C. Stefanini, *Towards Bio-Hybrid Energy Harvesting in the Real-World: Pushing the Boundaries of Technologies and Strategies Using Bio-Electrochemical and Bio-Mechanical Processes*, Applied Sciences, 2021.
20. Romano, Donato, and Cesare Stefanini. "Bio-robotic cues show how the Trinidadian guppy male recognises the morphological features of receptive females." *Behavioural Processes* (2020): 104283.
21. Romano, D., Benelli, G., Kavallieratos, N.G., Athanassiou, C.G., Canale, A. and Stefanini, C., 2020. Beetle-robot hybrid interaction: sex, lateralization and mating experience modulate behavioural responses to robotic cues in the larger grain borer *Prostephanus truncatus* (Horn). *Biological Cybernetics*, 114(4), pp.473-483.
22. F. Ba Fakih, A. Shanti, C. Stefanini, S. Lee, "Optimization of Gold Nanoparticles for Efficient Delivery of Catalase to Macrophages for Alleviating Inflammation"- *ACS Applied Nano Materials*, 2020.

23. Tannous, Michael, Francesco Bologna, and Cesare Stefanini. "Load cell torques and force data collection during tele-operated robotic gas tungsten arc welding in presence of collisions." *Data in brief* 31 (2020): 105981.
24. Tannous, M., Miraglia, M., Inglese, F., Giorgini, L., Ricciardi, F., Pelliccia, R., Milazzo, M. and Stefanini, C., 2020. Haptic-based touch detection for collaborative robots in welding applications. *Robotics and Computer-Integrated Manufacturing*, 64, p.101952.
25. Mo, Xiaojuan, Donato Romano, Marco Miraglia, Wenjie Ge, and Cesare Stefanini. "Effect of substrates' compliance on the jumping mechanism of *Locusta migratoria*." *Frontiers in bioengineering and biotechnology* 8 (2020): 661.
26. Alfalahi, Hessa, Federico Renda, and Cesare Stefanini. "Concentric tube robots for minimally invasive surgery: Current applications and future opportunities." *IEEE Transactions on Medical Robotics and Bionics* 2, no. 3 (2020): 410-424.
27. Shanti, A., Samara, B., Abdullah, A., Hallfors, N., Accoto, D., Sapudom, J., ... & Stefanini, C. (2020). Multi-compartment 3D-cultured organ-on-a-chip: Towards a biomimetic lymph node for drug development. *Pharmaceutics*, 12(5), 464.
28. Uddin M, Mustafa F, Rizvi TA, Loney T, Suwaidi HA, Al-Marzouqi AH, Eldin AK, Alsabeeha N, Adrian TE, Stefanini C, Nowotny N. SARS-CoV-2/COVID-19: viral genomics, epidemiology, vaccines, and therapeutic interventions. *Viruses*. 2020 May;12(5):526.
29. Romano, D., Benelli, G., Hwang, J. S., & Stefanini, C. (2019). Fighting fish love robots: mate discrimination in males of a highly territorial fish by using female-mimicking robotic cues. *Hydrobiologia*, 833(1), 185-196.
30. Mo, X., W. Ge, D. Romano, E. Donati, G. Benelli, P. Dario, and C. Stefanini. "Modelling jumping in *locusta migratoria* and the influence of substrate roughness." *Entomologia Generalis* 38, no. 4 (2019): 317-332.
31. Awad, M. I., Hussain, I., Gan, D., Stefanini, C., Khalaf, K., Zweiri, Y., ... & Seneviratne, L. (2019). Passive Discrete Variable Stiffness Joint (pDVSJ-II): modeling, design, characterization, and testing toward passive haptic interface. *Journal of Mechanisms and Robotics*, 11(1), 011005.
32. Romano, Donato, Giovanni Benelli, and Cesare Stefanini. "Encoding lateralization of jump kinematics and eye use in a locust via bio-robotic artifacts." *Journal of Experimental Biology* 222, no. 2 (2019): jeb187427.
33. Shanti, Aya, Jeremy Teo, and Cesare Stefanini. "In Vitro Immune Organs-on-Chip for Drug Development: A Review." *Pharmaceutics* 10, no. 4 (2018): 278.
34. Romano, Donato, Elisa Donati, Giovanni Benelli, and Cesare Stefanini. "A review on animal-robot interaction: from bio-hybrid organisms to mixed societies." *Biological cybernetics* (2018): 1-25.
35. Elayan, Hadeel, Cesare Stefanini, Raed M. Shubair, and Josep Miquel Jornet. "End-to-end noise model for intra-body terahertz nanoscale communication." *IEEE transactions on nanobioscience* 17, no. 4 (2018): 464-473.
36. Elayan, Hadeel, Cesare Stefanini, Raed M. Shubair, and Josep M. Jornet. "Stochastic noise model for intra-body terahertz nanoscale communication." In *Proceedings of the 5th*

- ACM International Conference on Nanoscale Computing and Communication, p. 8. ACM, 2018.
37. Bendemra, Hamza, Toufik Al Khawli, Muddasar Anwar, Dewald Swart, and Cesare Stefanini. "Force sensing drill jig for robotic assisted drilling". *Industrial Robot: An International Journal* 45, no. 2 (2018): 181-192.
 38. Benelli, Giovanni, Donato Romano, Guido Rocchigiani, Alice Caselli, Francesca Mancianti, Angelo Canale, and Cesare Stefanini. "Behavioral asymmetries in ticks–Lateralized questing of *Ixodes ricinus* to a mechatronic apparatus delivering host-borne cues". *Acta tropica* 178 (2018): 176-181.
 39. Kim, Mi, Sungwoo Lee, Inug Yoon, Geon Kook, Yeon Jung, Sarah Bawazir, Cesare Stefanini, and Hyunjoo Lee. "Polypyrrole/Agarose Hydrogel-Based Bladder Volume Sensor with a Resistor Ladder Structure". *Sensors* 18, no. 7 (2018): 2288.
 40. Mota, Carlos, Mario Milazzo, Daniele Panetta, Luisa Trombi, Vera Gramigna, Piero A. Salvadori, Stefano Giannotti and Cesare Stefanini "3D fiber deposited polymeric scaffolds for external auditory canal wall". *Journal of Materials Science: Materials in Medicine* 29, no. 5 (2018): 63.
 41. Fakhri, Fatima Ba, Cesare Stefanini, Paolo Dario, and Stefano Mazzoleni. "Instrumentation of an External Fixator for Force and Bone Healing Process Monitoring". In *International Conference on Intelligent Human Systems Integration*, pp. 456-461. Springer, Cham, 2018.
 42. Romano, Donato, Giovanni Benelli, Cesare Stefanini, Nicolas Desneux, Ricardo Ramirez-Romero, Angelo Canale, and Andrea Lucchi. "Behavioral asymmetries in the mealybug parasitoid *Anagyrus* sp. near *pseudococci*: does lateralized antennal tapping predict male mating success?". *Journal of Pest Science* 91, no. 1 (2018): 341-349.
 43. Al Adem, Kenana, Sarah S. Bawazir, Khulood Alameri, Gioia Lucarini, Tommaso Mazzocchi, Paolo Dario, Arianna Menciassi and Cesare Stefanini. "A Bionic Sphincter for Stress Urinary Incontinence: Design and Preliminary Experiments". In *International Conference on Intelligent Human Systems Integration*, pp. 203-208. Springer, Cham, 2018.
 44. Hussein, Aseel, Ayesha Alkhoori, Abdelaziz Al Zaabi, Cesare Stefanini, Federico Renda, Syed Jaffar, Ibrahim Emre Gunduz, Kyriaki Polychronopoulou, Claus Georg Rebolz, and Charalabos Constantinos Doumanidis. "Underwater Robotic Welding of Lap Joints with Sandwiched Reactive Multilayers: Thermal, Mechanical and Material Analysis". *MRS Advances* 3, no. 17 (2018): 911-920.
 45. Romano, Donato, Giovanni Benelli, and Cesare Stefanini. "Escape and surveillance asymmetries in locusts exposed to a Guinea fowl-mimicking robot predator." *Scientific reports* 7, no. 1 (2017): 12825. Nature Publishing Group.
 46. Al Adem, Kenana M., Sarah S. Bawazir, Waleed A. Hassen, Ahsan H. Khandoker, Kinda Khalaf, Tim McGloughlin, and Cesare Stefanini. "Implantable Systems for Stress Urinary Incontinence." *Annals of biomedical engineering* 45, no. 12 (2017): 2717-2732.

47. Romano, D., G. Benelli, E. Donati, D. Remorini, A. Canale, and C. Stefanini. "Multiple cues produced by a robotic fish modulate aggressive behaviour in Siamese fighting fishes." *Scientific Reports* 7, no. 1: 4667, 2017, Nature Publishing Group
48. Mencattelli, Margherita, Elisa Donati, Pasqua Spinelli, Massimo Cultrone, Cesare Luzi, Daniele Cantarella, and Cesare Stefanini. "Measuring 3D-orthodontic actions to guide clinical treatments involving coil springs and miniscrews." *Biomedical Microdevices* 19, no. 1: 14, 2017, Springer
49. Ramacciotti, Marco, Mario Milazzo, Fabio Leoni, Stefano Roccella, and Cesare Stefanini. "A novel shared control algorithm for industrial robots." *International Journal of Advanced Robotic Systems* 13, no. 6: 1729881416682701, 2016, Sage pub
50. Donati, Elisa, Martin Worm, Stefano Mintchev, Marleen van der Wiel, Giovanni Benelli, Gerhard von der Emde, and Cesare Stefanini. "Investigation of Collective Behaviour and Electrocommunication in the Weakly Electric Fish, *Mormyrus rume*, through a biomimetic Robotic Dummy Fish." *Bioinspiration & Biomimetics* 11, no. 6: 066009, 2016, IOP publishing
51. Romano, Donato, Nickolas G. Kavallieratos, Christos G. Athanassiou, Cesare Stefanini, Angelo Canale, and Giovanni Benelli. "Impact of geographical origin and rearing medium on mating success and lateralization in the rice weevil, *Sitophilus oryzae* (L.)(Coleoptera: Curculionidae)." *Journal of Stored Products Research* 69 (2016): 106-112, 2016, Elsevier
52. Romano, Donato; Donati, Elisa; Canale, Angelo; Messing, Russell H; Benelli, Giovanni; Stefanini, Cesare; 'Lateralized courtship in a parasitic wasp', *Laterality: Asymmetries of Body, Brain and Cognition*, vol. 21, n. 3, pp. 243-254, 2016, Routledge
53. Mencattelli, M; Tonazzini, A; Martinelli, I; Menchicchi, M; Stefanini, C; 'A novel fluid driven, foldable joint for minimally invasive surgery', *Biomedical Robotics and Biomechanics (BioRob)*, 2016 6th IEEE International Conference on, pp. 335-340, 2016, IEEE
54. Donati, Elisa; Indiveri, Giacomo; Stefanini, Cesare; 'A novel spiking CPG-based implementation system to control a lamprey robot', *Biomedical Robotics and Biomechanics (BioRob)*, 2016 6th IEEE International Conference on, pp. 1364-1364, 2016, IEEE
55. Milazzo, Mario; Danti, Serena; Inglese, Francesco; Jansen van Vuuren, Godfried; Gramigna, Vera; Bonsignori, Gabriella; De Vito, Andrea; Bruschini, Luca; Stefanini, Cesare; Berrettini, Stefano; 'Ossicular replacement prostheses from banked bone with ergonomic and functional geometry', *Journal of Biomedical Materials Research Part B: Applied Biomaterials*, 2016
56. Ricci, Claudio; Trombi, Luisa; Soriga, Ilaria; Piredda, Fabio; Milazzo, Mario; Stefanini, Cesare; Bruschini, Luca; Perale, Giuseppe; Pertici, Gianni; Danti, Serena; 'Investigating the microenvironmental effects of scaffold chemistry and topology in human mesenchymal stromal cell/polymeric hollow microfiber constructs', *Biomedical Science and Engineering*, vol. 2, n. 1, 2016
57. D'Alessandro, Delfo; Perale, Giuseppe; Milazzo, Mario; Moscato, Stefania; Stefanini, Cesare; Pertici, Gianni; Danti, Serena; 'Bovine bone matrix/poly (l-lactic-co-ε-

- caprolactone) / gelatin hybrid scaffold (SmartBone®) for maxillary sinus augmentation: A histologic study on bone regeneration', *International Journal of Pharmaceutics*, 2016, Elsevier
58. Mintchev, Stefano; Ranzani, Raffaele; Fabiani, Filippo; Stefanini, Cesare; 'Towards docking for small scale underwater robots', *Autonomous Robots*, vol. 38, n. 3, pp. 283-299, 2015, Springer
 59. Chen, Ran; Ruan, Xiaodong; Liu, Weiting; Stefanini, Cesare; 'A reliable and fast hydrogen gas leakage detector based on irreversible cracking of decorated palladium nanolayer upon aligned polymer fibers', *International Journal of Hydrogen Energy*, vol. 40, n. 1, pp. 746-751, 2015, Pergamon
 60. Benelli, Giovanni; Kavallieratos, Nickolas G; Donati, Elisa; Giunti, Giulia; Stefanini, Cesare; Canale, Angelo; 'Singing on the wings! Male wing fanning performances affect female willingness to copulate in the aphid parasitoid *Lysiphlebus testaceipes* (Hymenoptera: Braconidae: Aphidiinae)', *Insect science*, 2015,
 61. Daler, Ludovic; Mintchev, Stefano; Stefanini, Cesare; Floreano, Dario; 'A bioinspired multi-modal flying and walking robot', *Bioinspiration & biomimetics*, vol. 10, n. 1, 16005, 2015, IOP Publishing
 62. Benelli, Giovanni; Donati, Elisa; Romano, Donato; Stefanini, Cesare; Messing, Russell H; Canale, Angelo; 'Lateralisation of aggressive displays in a tephritid fly', *The Science of Nature*, vol. 102, n. 42371, 42378, 2015, Springer Berlin Heidelberg
 63. Mota, Carlos; Danti, Serena; D'Alessandro, Delfo; Trombi, Luisa; Ricci, Claudio; Puppi, Dario; Dinucci, Dinuccio; Milazzo, Mario; Stefanini, Cesare; Chiellini, Federica; 'Multiscale fabrication of biomimetic scaffolds for tympanic membrane tissue engineering', *Biofabrication*, vol. 7, n. 2, 25005, 2015, IOP Publishing
 64. Boyer, Frederic; Lebastard, Vincent; Chevallereau, Christine; Mintchev, Stefano; Stefanini, Cesare; 'Underwater navigation based on passive electric sense: New perspectives for underwater docking', *The International Journal of Robotics Research*, vol. 34, n. 9, pp. 1228-1250, 2015, SAGE Publications
 65. Mencattelli, Margherita; Donati, Elisa; Cultrone, Massimo; Stefanini, Cesare; 'Novel universal system for 3-dimensional orthodontic force-moment measurements and its clinical use', *American Journal of Orthodontics and Dentofacial Orthopedics*, vol. 148, n. 1, pp. 174-183, 2015, Mosby
 66. Giunti, G; Canale, A; Messing, RH; Donati, E; Stefanini, C; Michaud, JP; Benelli, G; 'Parasitoid learning: current knowledge and implications for biological control', *Biological control*, vol. 90, n. , pp. 208-219, 2015, Academic Press
 67. He, Dan; LIU, Weiting; Ruan, Yuan; FU, Xin; STEFANINI, Cesare; 'Preliminary study on piezoresistive and piezoelectric properties of a double-layer soft material for tactile sensing', *Materials Science*, vol. 21, n. 2, pp. 238-243, 2015
 68. Benelli, Giovanni; Donati, Elisa; Romano, Donato; Ragni, Giacomo; Bonsignori, Gabriella; Stefanini, Cesare; Canale, Angelo; 'Is bigger better? Male body size affects wing-borne courtship signals and mating success in the olive fruit fly, *Bactrocera oleae* (Diptera: Tephritidae)', *Insect science*, 2015

69. Liu, Weiting; Zhou, Maoying; Stefanini, Cesare; Fu, Xin; 'Modeling and preliminary analysis of a miniaturized rotary motor driven by single piezoelectric stack actuator', *Journal of Intelligent Material Systems and Structures*, 1045389X15595293, 2015, SAGE Publications
70. Saviozzi, Giacomo; Buselli, Elisa; Stefanini, Cesare; Laschi, Cecilia; Dario, Paolo; 'A multi-depth sensorised micro sampling system', *OCEANS 2015-Genova*, pp. 42376, 2015, IEEE
71. Carniel, Emanuele L; Mencattelli, Margherita; Bonsignori, Gabriella; Fontanella, Chiara G; Frigo, Alessandro; Rubini, Alessandro; Stefanini, Cesare; Natali, Arturo N; 'Analysis of the structural behaviour of colonic segments by inflation tests: Experimental activity and physio-mechanical model', *Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine*, vol. 229, n. 11, pp. 794-803, 2015, SAGE Publications
72. Danti, S; Mota, C; Trombi, L; D'Alessandro, D; Panetta, D; Stefanini, C; Chiellini, F; Moroni, L; Berrettini, S; 'Biofabrication Strategies in Otosurgery: From the Outer to the Inner Ear', *Tissue Engineering Part A*, vol. 21, pp. S9-S9, 2015
73. Carniel, Emanuele Luigi; Gramigna, Vera; Fontanella, Chiara Giulia; Stefanini, Cesare; Natali, Arturo N; 'Constitutive formulations for the mechanical investigation of colonic tissues', *Journal of Biomedical Materials Research Part A*, vol. 102, n. 5, pp. 1243-1254, 2014
74. Carniel, Emanuele Luigi; Gramigna, Vera; Fontanella, Chiara Giulia; Stefanini, Cesare; Natali, Arturo Nicola; 'Analysis Of The Passive Mechanical Behavior of Taeniae Coli: Experimental and Numerical Approach', *Journal of Mechanics in Medicine and Biology*, vol. 14, n. 2, 1450012, 2014, World Scientific Publishing Company
75. Carniel, EL; Gramigna, V; Fontanella, CG; Frigo, A; Stefanini, C; Rubini, A; Natali, AN; 'Characterization of the anisotropic mechanical behaviour of colonic tissues: experimental activity and constitutive formulation', *Experimental physiology*, vol. 99, n. 5, pp. 759-771, 2014
76. Benelli, Giovanni; Bonsignori, Gabriella; Stefanini, Cesare; Raspi, Alfio; 'First quantification of courtship behavior in a silver fly, *Leucopis palumbii* (Diptera: Chamaemyiidae): role of visual, olfactory and tactile cues', *Journal of insect behavior*, vol. 27, n. 4, pp. 462-477, 2014, Springer US
77. Calì, Renato; Rongala, Udaya Bhaskar; Camboni, Domenico; Milazzo, Mario; Stefanini, Cesare; de Petris, Gianluca; Oddo, Calogero Maria; 'Piezoelectric energy harvesting solutions', *Sensors*, vol. 14, n. 3, pp. 4755-4790, 2014, Multidisciplinary Digital Publishing Institute
78. Benelli, Giovanni; Kavallieratos, Nickolas G; Donati, Elisa; Mencattelli, Margherita; Bonsignori, Gabriella; Stefanini, Cesare; Canale, Angelo; Messing, Russell H; 'May the wild male loose? Male wing fanning performances and mating success in wild and mass-reared strains of the aphid parasitoid *Aphidius colemani* Viereck (Hymenoptera: Braconidae: Aphidiinae)', *BioControl*, vol. 59, n. 5, pp. 487-500, 2014, Springer Netherlands

79. Mintchev, Stefano; Donati, Elisa; Marrazza, Stefano; Stefanini, Cesare; 'Mechatronic design of a miniature underwater robot for swarm operations', 2014 IEEE International Conference on Robotics and Automation (ICRA), vol. , n. , pp. 2938-2943, 2014, IEEE
80. Benelli, Giovanni; Stefanini, Cesare; Giunti, Giulia; Geri, Serena; Messing, Russell H; Canale, Angelo; 'Associative learning for danger avoidance nullifies innate positive chemotaxis to host olfactory stimuli in a parasitic wasp', *Naturwissenschaften*, vol. 101, n. 9, pp. 753-757, 2014, Springer Berlin Heidelberg
81. Danti, S; Mota, C; Trombi, L; D'alessandro, D; Inglese, F; Stefanini, C; Panetta, D; Salvadori, PA; Moroni, L; Berrettini, S; 'Human MSC/fibrin clot/3D deposited scaffold constructs as advanced ossicular chain replacements', *Journal of Tissue Engineering and Regenerative Medicine*, vol. 8, n. , pp. 436-437, 2014, Wiley-Blackwell
82. Mencattelli, M; Donati, E; Cultrone, M; Stefanini, C; 'Customized load cell for three-dimensional force-moment measurements in orthodontics', 5th IEEE RAS/EMBS International Conference on Biomedical Robotics and Biomechatronics, pp. 238-243, 2014, IEEE
83. Donati, Elisa; Corradi, Federico; Stefanini, Cesare; Indiveri, Giacomo; 'A spiking implementation of the lamprey's Central Pattern Generator in neuromorphic VLSI', 2014 IEEE Biomedical Circuits and Systems Conference (BioCAS) Proceedings, vol. , n. , pp. 512-515, 2014, IEEE
84. Benelli, Giovanni; Bonsignori, Gabriella; Stefanini, Cesare; Raspi, Alfio; Canale, Angelo; 'The production of female sex pheromone in *Bactrocera oleae* (Rossi) young males does not influence their mating chances', *Entomological Science*, vol. 16, n. 1, pp. 47-53, 2013, Blackwell Publishing Asia
85. Russo, Sheila; Harada, Kanako; Ranzani, Tommaso; Manfredi, Luigi; Stefanini, Cesare; Menciassi, Arianna; Dario, Paolo; 'Design of a robotic module for autonomous exploration and multimode locomotion', *IEEE/ASME Transactions on Mechatronics*, vol. 18, n. 6, pp. 1757-1766, 2013, IEEE
86. Liu, Weiting; Li, Fei; Fu, Xin; Stefanini, Cesare; Bonsignori, Gabriella; Scarfogliero, Umberto; Dario, Paolo; 'Jumping like an insect: from biomimetic inspiration to a jumping minirobot design', *Advanced Mechatronics and MEMS Devices*, pp. 207-221, 2013, Springer New York
87. Liu, Weiting; Li, Fei; Fu, Xin; Stefanini, Cesare; Dario, Paolo; 'Development of Bioinspired Artificial Sensory Cilia', *Advanced Mechatronics and MEMS Devices*, pp. 193-206, 2013, Springer New York
88. Benelli, Giovanni; Bonsignori, Gabriella; Stefanini, Cesare; Dario, Paolo; Canale, Angelo; 'Male wing fanning performance during successful and unsuccessful mating in the parasitic wasp *Lariophagus distinguendus* Förster (Hymenoptera: Pteromalidae)', *Journal of insect behavior*, vol. 26, n. 2, pp. 228-237, 2013, Springer US
89. Carniel, EL; Fontanella, CG; Stefanini, C; Natali, AN; 'A procedure for the computational investigation of stress-relaxation phenomena', *Mechanics of Time-Dependent Materials*, vol. 17, n. 1, pp. 25-38, 2013, Springer Netherlands

90. Bonsignori, Gabriella; Stefanini, Cesare; Scarfogliero, Umberto; Mintchev, Stefano; Benelli, Giovanni; Dario, Paolo; 'The green leafhopper, *Cicadella viridis* (Hemiptera, Auchenorrhyncha, Cicadellidae), jumps with near-constant acceleration', *Journal of Experimental Biology*, vol. 216, n. 7, pp. 1270-1279, 2013, The Company of Biologists Ltd
91. Canale, Angelo; Germinara, Salvatore Giacinto; Carpita, Adriano; Benelli, Giovanni; Bonsignori, Gabriella; Stefanini, Cesare; Raspi, Alfio; Rotundo, Giuseppe; 'Behavioural and electrophysiological responses of the olive fruit fly, *Bactrocera oleae* (Rossi)(Diptera: Tephritidae), to male-and female-borne sex attractants', *Chemoecology*, vol. 23, n. 3, pp. 155-164, 2013, Springer Basel
92. Sutanty, Donny; Buntoro, David; Levi, Paul; Mintchev, Stefano; Stefanini, Cesare; 'Optical-guided autonomous docking method for underwater reconfigurable robot', *Technologies for Practical Robot Applications (TePRA)*, 2013 IEEE International Conference on, 42375, 2013, IEEE
93. Assaf, Tareq; Stefanini, Cesare; Dario, Paolo; 'Autonomous underwater biorobots: A wireless system for power transfer', *IEEE Robotics & Automation Magazine*, vol. 20, n. 3, pp. 26-32, 2013, IEEE
94. Manfredi, Luigi; Assaf, Tareq; Mintchev, Stefano; Marrazza, Stefano; Capantini, L; Orofino, Stefano; Ascari, Luca; Grillner, Sten; Wallén, Peter; Ekeberg, Örjan; 'A bioinspired autonomous swimming robot as a tool for studying goal-directed locomotion', *Biological cybernetics*, vol. 107, n. 5, pp. 513-527, 2013, Springer Berlin Heidelberg
95. Servagent, Noël; Jawad, Brahim; Bouvier, Stéphane; Boyer, Frédéric; Girin, Alexis; Gomez, Francesco; Lebastard, Vincent; Stefanini, Cesare; Gossiaux, Pol-Bernard; 'Electrolocation sensors in conducting water bio-inspired by electric fish', *IEEE Sensors Journal*, vol. 13, n. 5, pp. 1865-1882, 2013, IEEE
96. Benelli, Giovanni; Bonsignori, Gabriella; Stefanini, Cesare; Canale, Angelo; 'Courtship and mating behaviour in the fruit fly parasitoid *Psyttalia concolor* (Szépliget)(Hymenoptera: Braconidae): the role of wing fanning', *Journal of Pest Science*, vol. 85, n. 1, pp. 55-63, 2012, Springer-Verlag
97. Stefanini, C; Orofino, S; Manfredi, L; Mintchev, S; Marrazza, S; Assaf, T; Capantini, L; Sinibaldi, E; Grillner, S; Wallén, P; 'A novel autonomous, bioinspired swimming robot developed by neuroscientists and bioengineers', *Bioinspiration & biomimetics*, vol. 7, n. 2, pp. 25001, 2012, IOP Publishing
98. Benelli, Giovanni; Canale, Angelo; Bonsignori, Gabriella; Ragni, Giacomo; Stefanini, Cesare; Raspi, Alfio; 'Male wing vibration in the mating behavior of the olive fruit fly *Bactrocera oleae* (Rossi)(Diptera: Tephritidae)', *Journal of insect behavior*, vol. 25, n. 6, pp. 590-603, 2012, Springer US
99. De Cristofaro, S; Funaro, N; Feriti, GC; Rostagno, M; Comoglio, M; Merlo, A; Stefanini, C; Dario, P; 'High-speed micro-milling: novel coatings for tool wear reduction', *International Journal of Machine Tools and Manufacture*, vol. 63, pp. 16-20, 2012, Pergamon

100. Stefanini, Cesare; Ruffier, Franck; 'Special issue featuring selected papers from the International Workshop on Bio-Inspired Robots (Nantes, France, 6-8 April 2011)', *Bioinspiration & biomimetics*, vol. 7, n. 2, pp. 20201, 2012, IOP Publishing
101. Mintchev, Stefano; Stefanini, Cesare; Girin, Alexis; Marrazza, Stefano; Orofino, Stefano; Lebastard, Vincent; Manfredi, Luigi; Dario, Paolo; Boyer, Frederic; 'An underwater reconfigurable robot with bioinspired electric sense', *Robotics and Automation (ICRA)*, 2012 IEEE International Conference on, pp. 1149-1154, 2012, IEEE
102. Li, Fei; Liu, Weiting; Fu, Xin; Bonsignori, Gabriella; Scarfogliero, Umberto; Stefanini, Cesare; Dario, Paolo; 'Jumping like an insect: Design and dynamic optimization of a jumping mini robot based on bio-mimetic inspiration', *Mechatronics*, vol. 22, n. 2, pp. 167-176, 2012, Pergamon
103. Stefanini, Cesare; Orofino, Stefano; Manfredi, Luigi; Mintchev, Stefano; Marrazza, Stefano; Assaf, Tareq; Capantini, L; Sinibaldi, Edoardo; Grillner, Sten; Wallen, Peter; 'A compliant bioinspired swimming robot with neuro-inspired control and autonomous behavior', *Robotics and Automation (ICRA)*, 2012 IEEE International Conference on, pp. 5094-5098, 2012, IEEE
104. Berrettini, S; Danti, S; De Vito, A; D'Alessandro, D; Forli, F; Mancini, I; Stefanini, C; Bruschini, L; 'Preformed homologous cortical bone prostheses for ossiculoplasty: preliminary clinical results in eighteen patients', *Clinical Otolaryngology*, vol. 37, n. 5, pp. 415-421, 2012, Blackwell Publishing Ltd
105. Sánchez, Luis Alonso; Petroni, Gianluigi; Piccigallo, Marco; Scarfogliero, Umberto; Niccolini, Marta; Liu, Chao; Stefanini, Cesare; Zemiti, Nabil; Menciassi, Arianna; Poignet, Philippe; 'Real-time control and evaluation of a teleoperated miniature arm for single port laparoscopy', 2011 Annual International Conference of the IEEE Engineering in Medicine and Biology Society, pp. 7049-7053, 2011, IEEE
106. Liu, Weiting; Cheng, Xiaoying; Fu, Xin; Stefanini, Cesare; Dario, Paolo; 'Preliminary study on development of PVDF nanofiber based energy harvesting device for an artery microrobot', *Microelectronic Engineering*, vol. 88, n. 8, pp. 2251-2254, 2011, Elsevier
107. Kernbach, Serge; Schlachter, Florian; Humza, Raja; Liedke, Jens; Popesku, Sergej; Russo, Sheila; Ranzani, Tommaso; Manfredi, Luigi; Stefanini, Cesare; Matthias, Rene; 'Heterogeneity for increasing performance and reliability of self-reconfigurable multi-robot organisms', arXiv preprint arXiv:1109.2288, 2011
108. Schmickl, Thomas; Thenius, Ronald; Moslinger, Christoph; Timmis, Jon; Tyrrell, Andy; Read, Mark; Hilder, James; Halloy, Jose; Campo, Alexandre; Stefanini, Cesare; 'CoCoRo-The Self-Aware Underwater Swarm', *Self-Adaptive and Self-Organizing Systems Workshops (SASOW)*, 2011 Fifth IEEE Conference on, pp. 120-126, 2011, IEEE
109. Liu, Weiting; Kang, Jian; Fu, Xin; Stefanini, Cesare; Dario, Paolo; 'Analysis on heat resistance of the micro heat pipe with arteries', *Microelectronic Engineering*, vol. 88, n. 8, pp. 2255-2258, 2011, Elsevier
110. Ghionzoli, A; Genovese, V; Bossi, S; Stefanini, C; Micera, S; 'Preliminary results on the design of a tool for inserting of transverse intrafascicular multichannel electrodes (TIME) into the peripheral nervous system', 2011 Annual International Conference of the IEEE Engineering in Medicine and Biology Society, pp. 7634-7638, 2011, IEEE

111. Berrettini, Stefano; Bruschini, Luca; Stefanini, Cesare; D'Alessandro, Delfo; D'Acunto, Mario; Danti, Serena; 'Good Manufacturing Practices—Grade Preformed Ossicular Prostheses from Banked Bone via Computer Numerically Controlled Micromilling', *Annals of Otology, Rhinology & Laryngology*, vol. 120, n. 1, 42629, 2011, SAGE Publications
112. Fu, Xin; Li, Fei; Liu, Weiting; Stefanini, Cesare; Dario, Paolo; 'Experimental research on thermo-direct fiber drawing technique', *Microelectronic Engineering*, vol. 88, n. 8, pp. 2653-2656, 2011, Elsevier
113. Schmickl, Thomas; Thenius, Ronald; Timmis, Jon; Tyrrell, Andy; Halloy, Jose; Stefanini, Cesare; Manfredi, Luigi; Campo, Alexandre; Sutantyo, Donny; Kernbach, Serge; 'CoCoRo: The self-aware swarm of underwater robots', 2011, IROS 2011-IEEE/RSJ International Conference on Intelligent Robots and Systems
114. Liu, Weiting; Li, Fei; Stefanini, Cesare; Chen, Dajing; Dario, Paolo; 'Biomimetic flexible/compliant sensors for a soft-body lamprey-like robot', *Robotics and Autonomous Systems*, vol. 58, n. 10, pp. 1138-1148, 2010, Elsevier
115. De Cristofaro, S; Stefanini, C; Pak, N Ng; Susilo, E; Carrozza, MC; Dario, P; 'Electromagnetic wobble micromotor for microrobots actuation', *Sensors and Actuators A: Physical*, vol. 161, n. 1, pp. 234-244, 2010, Elsevier
116. Li, Fei; Liu, Weiting; Stefanini, Cesare; Fu, Xin; Dario, Paolo; 'A novel bioinspired PVDF micro/nano hair receptor for a robot sensing system', *Sensors*, vol. 10, n. 1, pp. 994-1011, 2010, Molecular Diversity Preservation International
117. Ascari, L; Stefanini, C; Bertocchi, U; Dario, P; 'Robot-assisted endoscopic exploration of the spinal cord', *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, vol. 224, n. 7, pp. 1515-1529, 2010, SAGE Publications
118. Fu, Xin; Li, Fei; Liu, Weiting; Stefanini, Cesare; Dario, Paolo; 'Design of a bionic saltatorial leg for jumping mini robot', *International Conference on Intelligent Robotics and Applications*, pp. 477-487, 2010, Springer Berlin Heidelberg
119. Assaf, Tareq; Chorley, Craig; Rossiter, Jonathan; Pipe, Tony; Stefanini, Cesare; Melhuish, Chris; 'Realtime Processing of a Biologically Inspired Tactile Sensor for Edge Following and Shape Recognition', *TAROS 2010*, vol. 1, n. 2, pp. 13, 2010
120. Scarfogliero, Umberto; Stefanini, Cesare; Dario, Paolo; 'The use of compliant joints and elastic energy storage in bio-inspired legged robots', *Mechanism and Machine Theory*, vol. 44, n. 3, pp. 580-590, 2009, Elsevier
121. Li, Fei; Bonsignori, Gabriella; Scarfogliero, Umberto; Chen, Dajing; Stefanini, Cesare; Liu, Weiting; Dario, Paolo; Fu, Xin; 'Jumping mini-robot with bio-inspired legs', *Robotics and Biomimetics*, 2008. ROBIO 2008. IEEE International Conference on, pp. 933-938, 2009, IEEE
122. Weiting, Liu; Bilsay, Sumer; Cesare, Stefanini; Arianna, Menciassi; Fei, Li; Dajing, Chen; Paolo, Dario; Metin, Sitti; Xin, Fu; 'A novel artificial hair receptor based on aligned PVDF micro/nano fibers', *Robotics and Biomimetics*, 2008. ROBIO 2008. IEEE International Conference on, pp. 49-54, 2009, IEEE

123. Scarfogliero, Umberto; Bonsignori, G; Stefanini, Cesare; Sinibaldi, Edoardo; Li, Fei; Chen, Dajing; Dario, Paolo; 'Bioinspired jumping locomotion in small robots: natural observation, design, experiments', *Experimental Robotics*, pp. 329-338, 2009, Springer Berlin Heidelberg
124. Danti, Serena; Stefanini, Cesare; D'Alessandro, Delfo; Moscato, Stefania; Pietrabissa, Andrea; Petrini, Mario; Berrettini, Stefano; 'Novel biological/biohybrid prostheses for the ossicular chain: fabrication feasibility and preliminary functional characterization', *Biomedical microdevices*, vol. 11, n. 4, pp. 783-793, 2009, Springer US
125. Quirini, Marco; Menciassi, Arianna; Scapellato, Sergio; Stefanini, Cesare; Dario, Paolo; 'Design and fabrication of a motor legged capsule for the active exploration of the gastrointestinal tract', *IEEE/ASME transactions on mechatronics*, vol. 13, n. 2, pp. 169-179, 2008, IEEE
126. Bertocchi, U; Stefanini, C; Ascari, L; Dario, P; 'Optical-based pressure monitoring system for robot-assisted spinal endoscopy', *Proceedings of the 10th Italian Conference, Sensors and Microsystems, Firenze, Italy, 15-17 February 2005*, pp. 134, 2008, World Scientific Publishing Company Incorporated
127. Scarfogliero, Umberto; Stefanini, Cesare; Dario, Paolo; 'Design and development of the long-jumping" grillo" mini robot', *Proceedings 2007 IEEE International Conference on Robotics and Automation*, pp. 467-472, 2007, IEEE
128. Grillner, Sten; Kozlov, Alexander; Dario, Paolo; Stefanini, Cesare; Menciassi, Arianna; Lansner, Anders; Kotalleski, Jeanette Hellgren; 'Modeling a vertebrate motor system: pattern generation, steering and control of body orientation', *Progress in brain research*, vol. 165, pp. 221-234, 2007, Elsevier
129. Scarfogliero, Umberto; Li, Fei; Chen, Dajing; Stefanini, Cesare; Liu, Weiting; Dario, Paolo; 'Jumping mini-robot as a model of scale effects on legged locomotion', *Robotics and Biomimetics, 2007. ROBIO 2007. IEEE International Conference on*, pp. 853-858, 2007, IEEE
130. Laschi, Cecilia; Maini, Eliseo Stefano; Ascari, Luca; Ciaravella, Gaetano; Bertocchi, Ulisse; Stefanini, Cesare; Dario, Paolo; Berthoz, Alain; 'A vestibular interface for natural control of steering in the locomotion of robotic artifacts: Preliminary experiments', *Robotics Research*, pp. 537-551, 2007, Springer Berlin Heidelberg
131. Schiffer, M; Stefanini, C; Tunestal, P; Obermeier, E; 'Micro Mass Flow Controller for a Mini-HCCI-Motor Driven Power Generator', *TRANSDUCERS 2007-2007 International Solid-State Sensors, Actuators and Microsystems Conference*, pp. 1127-1130, 2007, IEEE
132. Schiffer, Michael; Obermeier, Ernst; Stefanini, Cesare; Manente, Vittorio; Tunestal, Per; 'Low Power Piezoelectric Micro Mass Flow Controller for Liquid Fuel Injection', *Sensors, 2007 IEEE*, pp. 1392-1395, 2007, IEEE
133. Stefanini, Cesare; Menciassi, Arianna; Dario, Paolo; 'Modeling and experiments on a legged microrobot locomoting in a tubular, compliant and slippery environment', *The International Journal of Robotics Research*, vol. 25, n. 42496, pp. 551-560, 2006, SAGE Publications

134. Valdastri, Pietro; Harada, Kanako; Menciassi, Arianna; Beccai, Lucia; Stefanini, Cesare; Fujie, Masakatsu; Dario, Paolo; 'Integration of a miniaturised triaxial force sensor in a minimally invasive surgical tool', IEEE transactions on biomedical engineering, vol. 53, n. 11, pp. 2397-2400, 2006, IEEE
135. Gorini, S; Quirini, M; Menciassi, A; Pernorio, G; Stefanini, C; Dario, P; 'A novel SMA-based actuator for a legged endoscopic capsule', The First IEEE/RAS-EMBS International Conference on Biomedical Robotics and Biomechatronics, 2006. BioRob 2006, pp. 443-449, 2006, IEEE
136. Stefanini, Cesare; Orlandi, Giovanni; Menciassi, Arianna; Ravier, Yann; La Spina, Giovanni; Grillner, Sten; Dario, Paolo; 'A mechanism for biomimetic actuation in lamprey-like robots', The First IEEE/RAS-EMBS International Conference on Biomedical Robotics and Biomechatronics, 2006. BioRob 2006, pp. 579-584, 2006, IEEE
137. Scarfogliero, Umberto; Stefanini, Cesare; Dario, Paolo; 'A bioinspired concept for high efficiency locomotion in micro robots: the jumping robot grillo', Proceedings 2006 IEEE International Conference on Robotics and Automation, 2006. ICRA 2006, pp. 4037-4042, 2006, IEEE
138. Menciassi, Arianna; Stefanini, Cesare; Orlandi, Giovanni; Quirini, Marco; Dario, Paolo; 'Towards active capsular endoscopy: preliminary results on a legged platform', Engineering in Medicine and Biology Society, 2006. EMBS'06. 28th Annual International Conference of the IEEE, pp. 2215-2218, 2006, IEEE
139. Bertocchi, Ulisse; Ascari, Luca; Stefanini, Cesare; Laschi, Cecilia; Dario, Paolo; 'Human-Robot shared control for Robot-Assisted endoscopy of the spinal cord', The First IEEE/RAS-EMBS International Conference on Biomedical Robotics and Biomechatronics, 2006. BioRob 2006, pp. 543-548, 2006, IEEE
140. Bertocchi, Ulisse; Ascari, Luca; Stefanini, Cesare; Laschi, Cecilia; Dario, Paolo; 'Sensory feedback exploitation for robot-assisted exploration of the spinal cord', Proceedings 2006 IEEE International Conference on Robotics and Automation, 2006. ICRA 2006, pp. 601-606, 2006, IEEE
141. Dario, P; Stefanini, C; Menciassi, A; Laschi, C; Vecchi, F; 'Towards a New Generation of Hybrid Bionic Systems for Telepresence: the Lamprey Model', ROMAN 2006-The 15th IEEE International Symposium on Robot and Human Interactive Communication, 2006,
142. Scarfogliero, Umberto; Stefanini, Cesare; Dario, Paolo; 'Bioinspired Jumping Robot with Elastic Actuators and Passive Forelegs', The First IEEE/RAS-EMBS International Conference on Biomedical Robotics and Biomechatronics, 2006. BioRob 2006, pp. 306-311, 2006, IEEE
143. Ascari, Luca; Cavallaro, Ettore; Stefanini, Cesare; Dario, Paolo; 'A Novel Biomimetic micro-Inclinometer: modeling and preliminary prototypes', The First IEEE/RAS-EMBS International Conference on Biomedical Robotics and Biomechatronics, 2006. BioRob 2006, pp. 153-157, 2006, IEEE
144. Dario, Paolo; Stefanini, Cesare; Menciassi, Arianna; 'Modeling and experiments on a legged microrobot locomoting in a tubular, compliant and slippery environment', Experimental Robotics IX, pp. 165-174, 2006, Springer Berlin Heidelberg

145. Salomon, Oded; Kósa, Gábor; Shoham, Moshe; Stefanini, Cesare; Ascari, Luca; Dario, Paolo; Zaaroor, Menashe; 'Enhancing endoscopic image perception using a magnetic localization system', *Computer Assisted Surgery*, 2006
146. Menciassi, A; Moglia, A; Gorini, S; Pernorio, G; Stefanini, C; Dario, P; 'Shape memory alloy clamping devices of a capsule for monitoring tasks in the gastrointestinal tract', *Journal of Micromechanics and Microengineering*, vol. 15, n. 11, pp. 2045, 2005, IOP Publishing
147. Menciassi, Arianna; Gorini, Samuele; Moglia, Andrea; Pernorio, G; Stefanini, Cesare; Dario, Paolo; 'Clamping tools of a capsule for monitoring the gastrointestinal tract problem analysis and preliminary technological activity', *Proceedings of the 2005 IEEE International Conference on Robotics and Automation*, pp. 1309-1314, 2005, IEEE
148. La Spina, G; Stefanini, C; Menciassi, A; Dario, P; 'A novel technological process for fabricating micro-tips for biomimetic adhesion', *Journal of Micromechanics and Microengineering*, vol. 15, n. 8, pp. 1576, 2005, IOP Publishing
149. Quirini, Marco; Menciassi, Arianna; Stefanini, Cesare; Gorini, Samuele; Pernorio, Giuseppe; Dario, Paolo; 'Development of a legged capsule for the gastrointestinal tract: an experimental set-up', *2005 IEEE International Conference on Robotics and Biomimetics-ROBIO*, pp. 161-167, 2005, IEEE
150. Ascari, Luca; Cavallaro, Ettore; Stefanini, Cesare; Dario, Paolo; 'Design and fabrication of a biomimetic inclinometer', *Proceedings of the XIX Eurosensors conference*, 2005,
151. Menciassi, A; Stefanini, C; Gorini, S; Pernorio, G; Kim, B; Park, JO; Dario, P; 'Locomotion of a legged capsule in the gastrointestinal tract: theoretical study and preliminary technological results', *Engineering in Medicine and Biology Society, 2004. IEMBS'04. 26th Annual International Conference of the IEEE*, vol. 1, pp. 2767-2770, 2004, IEEE
152. Menciassi, Arianna; Stefanini, Cesare; Gorini, Samuele; Pernorio, Giuseppe; Dario, Paolo; Kim, Byungkyu; Park, JO; 'Legged locomotion in the gastrointestinal tract', *Intelligent Robots and Systems, 2004.(IROS 2004). Proceedings. 2004 IEEE/RSJ International Conference on*, vol. 1, pp. 937-942, 2004, IEEE
153. Ascari, Luca; Bertocchi, Ulisse; Laschi, Cecilia; Stefanini, Cesare; Starita, Antonina; Dario, Paolo; 'A segmentation algorithm for a robotic micro-endoscope for exploration of the spinal cord', *Robotics and Automation, 2004. Proceedings. ICRA'04. 2004 IEEE International Conference on*, vol. 1, pp. 491-496, 2004, IEEE
154. Phee, Louis; Menciassi, Arianna; Accoto, Dino; Stefanini, Cesare; Dario, Paolo; 'Analysis of robotic locomotion devices for the gastrointestinal tract', *Robotics Research*, pp. 467-483, 2003, Springer Berlin Heidelberg
155. Ascari, Luca; Stefanini, Cesare; Menciassi, Arianna; Sahoo, Sambit; Rabischong, Pierre; Dario, Paolo; 'A new active microendoscope for exploring the sub-arachnoid space in the spinal cord', *Robotics and Automation, 2003. Proceedings. ICRA'03. IEEE International Conference on*, vol. 2, pp. 2657-2662, 2003, IEEE
156. Cutkosky, MR; Dario, P; Stefanini, C; 'A high force miniature gripper fabricated via shape deposition manufacturing', *Robotics and Automation, 2003. Proceedings. ICRA'03. IEEE International Conference on*, vol. 2, pp. 1836-1841, 2003, IEEE

157. Phee, Louis; Accoto, Dino; Menciassi, Arianna; Stefanini, Cesare; Carrozza, Maria Chiara; Dario, Paolo; 'Analysis and development of locomotion devices for the gastrointestinal tract', IEEE Transactions on Biomedical Engineering, vol. 49, n. 6, pp. 613-616, 2002, IEEE
158. Pietrabissa, A; Dario, P; Ferrari, M; Stefanini, C; Menciassi, A; Moretto, C; Mosca, F; 'Grasping and dissecting instrument for hand-assisted laparoscopic surgery', Surgical Endoscopy And Other Interventional Techniques, vol. 16, n. 9, pp. 1332-1335, 2002, Springer-Verlag
159. Dario, P; Menciassi, A; Stefanini, C; Accoto, D; 'Miniaturization of biomedical micromachines', Microtechnologies in Medicine & Biology 2nd Annual International IEEE-EMB Special Topic Conference on, pp. 291-296, 2002, IEEE
160. Accoto, D; Stefanini, C; Phee, L; Arena, A; Pernorio, G; Menciassi, A; Carrozza, MC; Dario, P; 'Measurements of the frictional properties of the gastrointestinal tract', World Tribology Congress, vol. 3, pp. 7, 2001
161. Megali, Giuseppe; Tonet, Oliver; Stefanini, Cesare; Boccadoro, Mauro; Papaspyropoulos, Vassilios; Angelini, Licinio; Dario, Paolo; 'A computer-assisted robotic ultrasound-guided biopsy system for video-assisted surgery', International Conference on Medical Image Computing and Computer-Assisted Intervention, pp. 343-350, 2001, Springer Berlin Heidelberg
162. Phee, L; Stefanini, C; Arena, A; Accoto, D; Menciassi, A; Pernorio, G; Boccadoro, M; Dario, P; 'Mechanical clamping mechanisms for locomotion in the gastrointestinal tract', euspen: european society for precision engineering and nanotechnology. International conference, pp. 770-773, 2001
163. Menciassi, A; Arena, A; Phee, D; Accoto, D; Stefanini, C; Pernorio, G; Gorini, S; Boccadoro, M; Carrozza, MC; Dario, P; 'Locomotion issues and mechanisms for microrobots in the gastrointestinal tract', 32nd International Symposium on Robotics, pp. 428-32, 2001
164. Dario, Paolo; Menciassi, Arianna; Accoto, Dino; Stefanini, Cesare; 'The trend to miniaturization: from macro-to micro-robots', Proc 32nd International Symposium on Robotics ISR, pp. 1430-3, 2001
165. Dario, Paolo; Carrozza, Maria Chiara; Stefanini, Cesare; D'Attanasio, Simona; 'A mobile microrobot actuated by a new electromagnetic wobble micromotor', IEEE/ASME transactions on mechatronics, vol. 3, n. 1, 42629, 1998, IEEE
166. D'Attanasio, Simona; Lazzarini, Roberto; Stefanini, Cesare; Carrozza, Maria Chiara; Dario, Paolo; 'A one cubic centimeter mobile microrobot with a steering control', Intelligent Robots and Systems, 1997. IROS'97., Proceedings of the 1997 IEEE/RSJ International Conference on, vol. 3, pp. 1318-1324, 1997, IEEE
167. Stefanini, C; Corrozza, MC; Dario, P; 'A mobile microrobot driven by a new type of electromagnetic micromotor', Micro Machine and Human Science, 1996., Proceedings of the Seventh International Symposium, pp. 195-201, 1996, IEEE