

## CURRICULUM VITAE di:

<b>Nominativo</b>	Arianna Menciassi
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### Posizione accademica

<b>Macrosettore:</b>	09
<b>Settore Concorsuale:</b>	G2
<b>Settore Scientifico Disciplinare:</b>	ING IND 34
<b>Qualifica:</b>	Professore Ordinario
<b>Anzianità nel ruolo:</b>	7 anni
<b>Sede Universitaria:</b>	Scuola Superiore Sant'Anna di Pisa - SSSA
<b>Struttura di afferenza (dipartimento o altro)</b>	Istituto di BioRobotica

Posizioni ricoperte precedentemente nel medesimo ateneo o in altri

<b>Periodo</b>	<b>Fascia</b>	<b>Ateneo</b>
2006-2014	II	SSSA
2000-2006	Ric Tempo Determinaro	SSSA

### Publicazioni Scientifiche

Fare riferimento a:

<https://scholar.google.com/citations?user=ml-YzHgAAAAJ&hl=en&oi=ao>

# Titoli <sup>1</sup>

**Arianna Menciassi** is Professor of Bioengineering and Biomedical Robotics at the Scuola Superiore Sant'Anna (SSSA, Pisa, Italy). She graduated in Physics at the Pisa University (1995), she obtained the PhD (1999) at SSSA and she was visiting professor in different universities in France since 2014. She is Full Professor of Biomedical Robotics at SSSA and team leader of the "Surgical Robotics & Allied Technologies" Area at The BioRobotics Institute. She is the Coordinator of the PhD in Biorobotics since 2018, and she was appointed in 2019 as Vice-Rector of the SSSA.

Her main research interests involve surgical robotics, microrobotics for biomedical applications, biomechatronic artificial organs, smart and soft solutions for biomedical devices. She pays a special attention to the combination between traditional robotics, targeted therapy and wireless solution for therapy (e.g. ultrasound- and magnetic-based).

The main research achievements of Menciassi can be summarized as following: 1) development of robotic capsules for endoscopy. She significantly contributed to transform a passive vision sensor into an active and controlled theranostic device, by pushing all technologies of miniaturization, both in terms of active locomotion and active therapy delivery; 2) using robotics for driving and steering energy in a wireless fashion. She used wireless propulsion/triggering solutions for therapy: i.e. magnetic fields for propulsion of therapeutic mini- and micro-devices, and focused ultrasound with robotic steering for targeted and non-invasive therapy.

## **Arianna Menciassi - DETAILED BIOSKETCH**

ID SCOPUS: 7004244810 / Google Scholar: Arianna Menciassi / ORCID: 0000-0001-6348-1081

URL for web site: <https://www.santannapisa.it/en/institute/biorobotics/surgical-robotics-and-allied-technologies-area/> / <https://www.santannapisa.it/en/arianna-menciassi>

From SCOPUS DATABASE, Arianna Menciassi is coauthor of no. 465 publications, for a total of 11363 citations and an H-index equal to 55.

### • EDUCATION

1999 - PhD in Bioengineering – Mark 100/100 cum laude. SSSA, Pisa, Italy

1995 - Master of Science in Physics – Mark 110/110 cum laude. University of Pisa, Italy

### • CURRENT POSITIONS

Since 2014 - Full Professor of Biomedical Engineering (Italian Reference: 09/G2, ING-IND/34), SSSA, The BioRobotics Institute, Pisa, Italy

Since Jan 2021 – Member of the Board of Directors of "Fondazione Toscana Gabriele Monasterio"

Since 2001 - Company member of Ekymed Medical Devices

### • PREVIOUS POSITIONS

Jul. 2014 – Dec. 2014 - Visiting Professor at the Université Pierre Marie Curie, Paris, France

Sept. 2013 – Feb. 2014 - Visiting Professor at the Ecole Nationale Supérieure de Mécaniques et des Microtechniques (ENSMM) of Besançon (France), in the FEMTO Institute

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<sup>1</sup> In via esemplificativa sono indicate alcune voci

2009 – 2013 - Affiliated member to the Italian Institute of Technologies (IIT, Italy), for researches related to MicroBioRobotics

2006 – 2014 - Associate Professor of Biomedical Engineering (SSSA)

2003 – 2006 - Founding member of Era Endoscopy, now Endotics (<http://www.endotics.com/>)

2001 – 2006 - Assistant Professor (untenured) of Biomedical Engineering (SSSA)

- INSTITUTIONAL RESPONSIBILITIES (only the most relevant are listed below)

Since 2019 (May) – Vice Rector (Prorettore Vicario e Prorettore alla Ricerca) of SSSA

Since 2018 - Member of the Ethical Committee for SSSA and Scuola Normale Superiore (Pisa, Italy)

Since 2017 - Deputy Director of the PhD Course in BioRobotics at SSSA/Biorobotics Institute

Since 2016 - 2019 Elected Member of the SSSA Senate (3 years term)

Since 2013 – 2019 Vice Dean for the Class of Experimental Science at SSSA

2008 – 2013 - President of the UJ Consortium (Career and Placement Services), a joint initiative of SSSA, Scuola Normale and Istituto Alti Studi IMT of Lucca, aimed towards placement and orientation activities for graduated and PhD students

- FELLOWSHIPS AND AWARDS (only the most relevant are listed below)

2020 – KUKA Innovation Award for the HIFUSK project (HIFU therapy guided by a KUKA robot)

2017 - The Women Innovation Award, for female scientists in the field of biomedical robotics, by WomenTech (<https://www.womentech.eu>)

2016 - The SupCam project (<http://www.supcam.eu/>) is awarded as Special Electronic Design with the Compasso d'Oro, ADI, 2016, Italy

2015 - The FUTURA project (<http://www.futura-project.eu/>) coordinated by Menciassi has been awarded with the TECHNOLOGY AWARD @ SMIT 2015

2007 - Gonfalone d'Argento from the Tuscany Region as one of the 10 top talented persons of Tuscany

2007 - Well-Tech Award 2007 (Milan, Italy): "Premio per l'innovazione che migliora la qualità della vita" for her activity on endoscopic capsules

2001 - The paper "Force Feedback-based Microinstrument for Measuring Tissue Properties and Pulse in Microsurgery" by A. Menciassi, et al., receives the Best Manipulation Paper Award at ICRA 2001

- SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

Supervisor or tutor of many bachelor, master and PhD students from SSSA and University of Pisa. In the last 10 years, supervisor of about 30 Ph.D. students (including co-supervision with the Italian Institute of Technology, Stazione Zoologica Anton Dohrn and RiverGlobal Ltd.), 80 Master students, 10 Bachelor students. Currently, the Area led by Menciassi includes 12 international PhD students (also including 2 Marie Curie PhD students), 4 PostDoc fellows and 1 Technologist/Project manager.

- TEACHING ACTIVITIES (only the most relevant are listed below)

"Introduction to Medical Robotics" for PhD students in Health Team and for master students in Medicine

"Micro and nano-robotics for medical applications" for PhD students of BioRobotics

"Robotics for minimally invasive therapy" for students of the Master Degree in Bionics Engineering (SSSA & University of Pisa Joint Degree)

“Introduction to robotics at different scales” for Master Students of Engineering and PhD students in BioRobotics

2006 – 2015 - “Biomechatronics” for students of the Master Degree in Biomedical Engineering (University of Pisa)

- ORGANISATION OF SCIENTIFIC MEETINGS (only the most relevant are listed)

2023 – General Co-Chair of ICRA, the International Conference of Robotics and Automation, the largest international conference in robotics

2019 - IEEE International Symposium on Medical Robotics, Publicity Chair

2017 - Conference Co-President of the 29th Conference of the international Society for Medical Innovation and Technology, Torino, Italy (<http://smit2017.com/> - 638 registrations)

2016 - General Chair of CRAS 2016, Pisa, Italy (CRAS - Workshop on New Technologies for Computer/Robot Assisted Surgery, <https://www.cras-eu.org/> - about 120 attendants)

2014 - 2017 - Conference Editorial Board Member of ICRA

Since 2007 - Menciassi has been serving in the Program Committee for special tracks, workshops, special sessions of many Robotics, Microrobotics and Bioengineering conferences (e.g. ICRA, IROS, EMBC, BioRob). She belongs to the International Program Committee of the Hamlyn Symposium on Medical Robotics. She serves in the Steering Committee of MARSS (Int. Conf. Manipulation, Automation and Robotics at Small Scales – Special Session “Multistimuli responsive untethered microsystems” organizer @ MARSS2017)

- COMMISSIONS OF TRUST (only the most relevant are listed)

2019 - 2020 / 2017 – 2018 - Appointed as ERC Starting Panelist for PE7

Since 2015 - Remote reviewer for ERC Consolidator and Starting Grants

2016 - 2018 - Committee Member for the Italian ASN for Bioengineering, Sector 09/G2.

2015 – 2017 - Member for the Italian VQR, Sector: Engineering, Subsector: Bioengineering.

Since 2013 - MIUR Member of the Steering Board of the Italian Institute of Biostructures and Biosystems

Since 2011 - Expert Member of Review Boards for several funding agencies in France (Agence Nationale de la Recherche), in Belgium (<http://www.fwo.be/en/>), in Switzerland (Swiss National Science Foundation), in Israel (USA-Israel Joint Programs), in Portugal (FCT – Fundation for Science and Technology), in Canada (Canadian Institutes of Health Research), in China (National Natural Science Foundation), in Singapore (MRC National Medical Research Council), etc.

2010 – 2016 - Elected Member of the Board of the Bioengineering National Group

- MEMBERSHIPS OF SCIENTIFIC SOCIETIES

Since 2016 - Steering Member of the iSMIT Society (International Society of Medical Innovation and Technology)

Since 2015 - Senior Member, IEEE RAS and EMBS

Since 2011 - Co-Chair of the IEEE RAS Technical Committee in Surgical Robotics

Since 2006 - Member of the National Group of Bioengineering

Since 2001 - Member IEEE, Robotics and Automation Society

Since 2001 - Member IEEE, Engineering in Medicine & Biology Society

- GRANTED PATENTS

Menciassi is co-inventor of 87 patents (national and international). 27 patents have been granted in Italy since the year 2004. 28 patents have been granted also abroad (e.g. in USA, FR, UK, CH, JP, KR).

- EDITORIAL ACTIVITIES

Since 2021 – Associate Editor for IEEE Transactions on Robotics

Since 2019 – Associate Editor for Soft Robotics (Mary Ann Liebert)

Since May 2018 – Editor of APL Bioengineering

Since 2018 - Member of the Editorial Board of Scientific Reports

Since 2015 - Member of the Editorial Board for the Journal of Medical Robotics Research

2013 – 2020 - Topic Editor of the International Journal of Advanced Robotic Systems (SAGE)

2012 – 2019 - Member of the Editorial Board for Soft Robotics (Mary Ann Liebert)

2012 – 2019 - Associate Editor of the Journal of Micro-Bio Robotics (Springer)

2009 – 2013 - Associate Editor of the IEEE/ASME Trans. on Mechatronics

Chapter contribution on Medical Robotics for two Editions (2008 and 2016) of the Springer Handbook of Robotics (awarded in 2008 with the PROSE Award for Excellence in Physical Science and Mathematics).

In fede,



Pisa, 26 maggio 2021