POLITECNICO
MILANO 1863

PhD School - Politecnico di Milano

Regulations of the PhD Programme in:

BIOENGINEERING

Cycle XXXVIII

1. General Information

PhD School - Politecnico di Milano

PhD Programme: BIOENGINEERING

Course start: November 2022

Location of the PhD Programme: Milano Leonardo

Promoter Departments: Department of Electronics, Information and Bioengineering & Department of Chemistry, Materials and Chemical Engineering "G. Natta"

Scientific Disciplinary Sectors:

- ING/INF 06 - Electronic and Informatics Bioengineering
- ING-IND 34 - Industrial Bioengineering

PhD School Website: http://www.polimi.it/phd
PhD Programme Website: http://www.phdbioengineering.polimi.it/

Areas:
Area 09 – Industrial and Information Engineering

2. General presentation

The PhD Programme aims at developing high scientific profiles who intend to practice their major activities in the field of Bioengineering. The Programme addresses theoretical and experimental activities in four major research areas:

- Biomimetic engineering and micro-nano technologies
- Rehabilitation engineering and technology
- Technologies for therapy
- Physiological modelling and non-invasive diagnostics.

More specific areas include but are not limited to: Molecular and cellular engineering; Biomaterials; Tissue engineering; Bio-artificial interfaces and devices; Neuro-prostheses; Movement analysis; Cardiovascular and respiratory system bioengineering; Central nervous system signal and image processing for rehabilitation; Biomechanics; Computational fluid-dynamics; Computer assisted surgery and radiotherapy; Artificial organs; Implantable devices; Biomedical signal and image processing; E-health; Bioinformatics, functional genomics and molecular medicine; Robotics.
Research focuses on theoretical models, methods and technologies to support design of applications, software and hardware systems, together with tools and prototype device development. Involvement of industrial and clinical partners reinforces the mix between theory and application, which is the strength of this PhD Programme.

Stage periods in distinguished research institutes in Italy and abroad all over the world, are essential features in the PhD candidate training.
Scientific and research activities of the PhD candidates are strongly grounded in research laboratories located inside and outside the Departments, in cooperation with other research institutes and university hospitals.
Publications in scientific peer-reviewed journals, participation in international projects and the numerous collaborations confirm the excellence level of the activities carried out in this PhD Programme.
The PhD course is managed by a Coordinator and a Faculty Board composed by professors and researchers from the Department of Electronics, Information and Bioengineering (DEIB), and the Department of Chemistry, Materials and Chemical Engineering "G. Natta" (CMIC). The Coordinator chairs the Faculty Board, coordinates the preparation of the annual Educational Programme and organises the general educational activities of the PhD course (see Attachment A1). The Faculty Board is responsible for the Educational Programme implementation and for teaching and administrative activities related to the PhD course (see Attachment A2).

3. Objectives

The main objective of the PhD Programme in Bioengineering is to prepare PhD candidates to the development of scientific research projects dealing with a complex problem which can be at different scales, from the molecular and the cellular levels to living organisms up to biomedical systems. They investigate original methods, devices, and systems with different purposes: increasing knowledge, proposing innovative methods for diagnosis and therapy as well as improving healthcare and daily life structures and services. The PhD Programme aims at developing high level engineering problem-solving abilities in biomedical, healthcare and life sciences, within research groups or in private/public industrial or clinical contexts, through a strong interdisciplinary training, bridging engineering to medical/biological know-how.
At the end of the PhD Programme, the candidates are expected to be able to carry out innovative projects and research development in the Bioengineering field, by proposing new methodological and technical solutions and properly evaluating the technology impact in healthcare, life science and biomedical industry.

4. Professional opportunities and job market

Graduated PhDs in Bioengineering have a wide range of professional opportunities, including research positions in universities, public and private research institutions, and public health services, as well as in the industrial or healthcare context.
More in general, the competencies of graduated PhDs are particularly appreciated for the coordination and management of research projects. In addition, the PhD Programme also encourages the opportunity to generate spin-off and start-up initiatives where to exploit innovative results.
Fellowships directly sponsored by external subjects may easily lead to work opportunities.

5. Enrolment

5.1 Admission requirements

Italian and foreign citizens can apply. Candidates are requested to either possess a degree according to the Italian legislation preceding the Ministerial Decree D.M. 3.11.1999 no. 509, or have a Master of Science degree according to the Decree D.M. 3.11.1999 no. 509, or have a Master of Science degree according to the Decree D.M. 22.10.2004 no. 270, or a similar academic title obtained abroad, equivalent for duration and content to the Italian title, with an overall duration of university studies of at least five years.

Certified knowledge of the English language is a requirement for admission. Please refer to the PhD School website for details.

The admission to the programmes will be established according to the evaluation of the candidate's curriculum, motivation letter, and an illustrative report describing the development of a possible PhD research, which the candidate has submitted contextually with his/her application to the admission announcement.

5.2 Admission deadlines and number of vacancies

The number of available positions is indicated in the Call for admission to the 38th PhD cycle Programmes:

http://www.polimi.it/phd

Scholarships on both general and specific themes are available, in accordance with provisions in the call for admission.

6. Contents

6.1 Requirements for the PhD title achievement

The achievement of the PhD title in Bioengineering requires a study and research activity of at least three years' equivalent full time study and research and the development of the PhD thesis.

A mandatory, formal requirement is that PhD candidates in Bioengineering must earn a minimum of 30 course credits (see paragraph 6.3 below), and continuously conduct studies and research.

Once a year the PhD Faculty Board assesses the advancements of the PhD candidates' activities in order to allow the admission to the next year or to the final exam for PhD title awarding. The evaluation criteria adopted by the Board comprise the originality and scientific value of the research, as well as the quality and results of the education programme. In addition, the activity of the PhD candidate is evaluated also considering quantitative and qualitative indicators related to scientific publications which must report the affiliation of the candidate to Politecnico di Milano (see point 6.5 for further details).

At the beginning of the course, the Faculty Board assigns a tutor to every PhD candidate to supervise and assist him/her in the overall training programme. The tutor shall be a professor belonging to the Faculty Board. The tutors assist the candidates in the choice of courses to be included in the study plan, which is eventually submitted for approval to the Coordinator of the PhD Programme (see also section 6.4 below).

The Faculty Board may assign extra course credits to one or more candidates, in case they need to complete their preparation in specific topics, relevant for their research projects.

6.2 Research development

The main aim of all Politecnico di Milano PhD programmes is the development in the candidates of a research-oriented mind-set, with expertise and skills in a specific research topic. To this end, candidates develop a problem-solving capability in complex contexts, including the capacity of performing deep problem analysis, identifying original solutions, and evaluating their applicability in practical contexts. These skills provide the PhD candidates with major opportunities of development in their research both in the academic field, and in public and private organisations.

PhD candidates are requested to develop an original research contribution. The PhD thesis must thus contribute to increase the knowledge in the candidate's research field. Besides, it has to be coherent with the research topics developed in the Department where the PhD Programme is carried out.

The original research results are collected in the PhD thesis, where the candidate's contribution is put in perspective with respect to the research state of the art in the specific research field.

The PhD research is developed under the guidance of a supervisor ("Relatore"), who supports the candidate in the setting-out and in the everyday activities related to the thesis development. The supervisor is not necessarily a member of the Faculty Board, and may also belong to an institution different from Politecnico di Milano. The supervisor can be supported by one or more co-supervisors.

Further activities, intended to develop the candidate's personal skills and research expertise, are encouraged during the PhD path.

Candidates must acquire the capability to present and discuss their work in their research community. Consequently, both the participation in international conferences and the publication of the research results in peer-reviewed journals are encouraged.

The PhD programme favors the candidates' research interactions with other groups in their research field, preferably abroad. Research visits of at least three months are strongly encouraged, as through them the candidates may acquire further skills to develop their research work and thesis.

The duration of the programme is normally three years.

6.3 Objectives and general framework of the teaching activities

The PhD Programmes and the PhD School activate teaching forms of different kind and credit value, including courses, seminars, project workshops, laboratories. Teaching activities both cover the basic research issues (problems, theories, methods), which represent the founding element of the PhD Programme and identify clearly its cultural position, and deepening in a specialist way some research issues connected with the problems developed in the theses.

Lessons are usually held in English, except when indicated otherwise. The PhD Programme includes at least one complete path delivered in English language.

Structured teaching activities allow earning of ECTS credits. Other activities, typically specialistic and for which it is difficult to evaluate and quantify the learning content, fall within the scientific activities taken into account by the Faculty Board in the overall evaluation, but they do not allow earning ECTS credits.

The PhD School of Politecnico di Milano proposes a set of courses aiming to train the PhD candidates in soft and transferable skills. The skills and abilities provided by these courses are expected to help candidates across different areas of their careers in order to respond to the rapidly evolving needs of

the global economy and society at large. The PhD School courses activated for the 2022-2023 Academic Year are summarized in the following table.

Professor	Course name
Armondi Simonetta	Strengthening Critical Spatial Thinking
Biscari Paolo	English for Academic Communication
Biscari Paolo	Industrial Skills
Biscari Paolo	Scientific Communication in English
Brunetto Domenico	Innovative Teaching Skills
Canina Maria Rita	Creative Design Thinking
Cardilli Lorenzo	European Culture
Di Blas Nicoletta	Professional Communication
Fuggetta Alfonso	Project Management Basics
Oxoli Daniele	The Copernicus Green Revolution for Sustainable Development
Iarossi Maria Pompeiana	Power of Images and Visual Communication for Research Dissemination
Masarati Pierangelo	Ethical Aspects of Research on Dual-Use Technologies
Mauri Michele	Research Communication. Issue mapping: exploring public debates surrounding academic topics
Ossi Paolo Maria	Sulla responsabilità tecnica
Oppio Alessandra	How to support Complex decisions: Approaches and Tools
Paganoni Anna Maria	La comunicazione nella Scienza
Pizzocaro Silvia Luisa	Practicing Research Collaboration
Raos Guido	Science, Technology, Society and Wikipedia
Sancassani Susanna	Teaching Methodologies, Strategies and Styles
Sciuto Donatella	Research Skills
Volonte' Paolo Gaetano	Introduction to Academic Research
Mancini Mauro	Project Management (In Action)
Tanelli Mara	Cognitive biases and discriminations: implications, risks and opportunities
Balducci Alessandro	Approaches to Resilience: Social, Economic, Environmental and Technological Challenges of Contemporary Human Settlements Modeling and Automated Verification of Real-Time Systems

At least 10 out of the 30 course credits that each candidate is required to earn shall be obtained through soft and transferable skill courses organized by the PhD School.
At least 15 out of the 30 credits each candidate is required to earn, shall be obtained through courses offered by the PhD Programme in Bioengineering (see Table A), which are specific of the Bioengineering area ('characterizing courses').
Since the XXXIV cycle, the offer includes every year, at least:

a. A course on biostatistics and experimental design;
b. A course on methods and techniques for modelling (alternating multi-scale models of biomedical systems, on one year, and biomedical data, signals and images modelling, on the following year);

c. A course on experimental methods and techniques for laboratory measurements (alternating electronic technologies in biomedical engineering, on one year, and experimental biomechanics, on the following year);
d. At least one course on new perspectives and trends in biomedical engineering technologies;
e. A cycle of seminars (at least five per year, covering the following topics: Image processing, Signal processing biomechanics of the musculo-skeletal system, biomechanics of the cardio-vascular system, regenerative medicine (biomaterials and mechanobiology), neuroengineering/rehabilation/robotics, wearables).

The offer includes, every year, also the school of the National Bioengineering Group, which takes place yearly for one week in Bressanone-Brixen (BZ). Every year, the School is focused on a different topic.
The remaining 5 credits can be chosen either among those offered by the PhD School, or those offered by the PhD Programme in Bioengineering or by other PhD Programmes (in the last case upon approval of the Faculty Board).
Normally, each course has a weight of 5 ETCS (25-30 hours). The candidates are strongly encouraged to attend all the courses within the first two years, thus entirely devoting most of the second and the third years to research and development of the PhD thesis. However, the candidates should relentlessly dedicate most of their working time to the research activity, following the lead of their supervisors and the Faculty Board.
The tables below summarizes the candidate's path (as regards coursework activities).

First/Second Year

Courses	*Possible details or reference to following tables*	*Number of credits (min-max)*	*Note*
PhD School Courses		*10- 15*	
Courses characterising the PhD Programme	*Table A*	*15-20*	Minimum 1 Annual Bioengineering School (Bressanone-Brixen)
Other PhD courses		*0-5*	

Third year

In the third year the candidate should devoted him/herself entirely to the research and the development of the PhD thesis.

PhD Course List

A) The PhD Programme in Bioengineering organizes the **Characterizing Courses** listed in table A.
For the admission to the final exam the acquisition of at least 15 credits in this list is **mandatory**.

B) The PhD School organises every year general and interdoctoral courses. The acquisition of **at least**

10 credits is **mandatory** among the courses of B type. The list of PhD courses organized by the PhD School is available at the website
https://www11.ceda.polimi.it/manifestidott/manifestidott/controller/MainPublic.do

C) Other PhD courses

A maximum of 5 mandatory credits can be obtained by choosing among courses provided by other PhD Programmes at Politecnico di Milano and/or external Institutions (in this case the preliminary approval by the tutor and the coordinator is mandatory).

PREPARATORY COURSES (only if foreseen)

If the supervisor and the tutor find it useful or necessary that the candidate attends preparatory courses (chosen among the activated courses at the Politecnico di Milano) the Faculty Board of the PhD Programme may assign some extra-credits to be acquired to complete the training path. The credits acquired in this way will be considered as additional, in relation to the mandatory credits to be acquired with the PhD courses.

SPECIALISTIC COURSES, LONG-TRAINING SEMINARS

The attendance of Specialist Courses, Workshops, Schools, Seminar cycles is strongly encouraged and (if these seminars, workshops are certified and evaluated) may permit to acquire credits according the modalities established by the Faculty Board and the preliminary approval of the study plan submitted by the candidate.

The scheduled course planning for the academic year 2022-2023 follows. Other courses may be activated during the year. In this case the candidates will be promptly informed, and will be allowed to insert these new courses in their study plan.

Table A: PHD COURSES CHARACTERISING THE PHD PROGRAMME IN BIOENGINEERING

Name of the Course	Professor/s	A.A./Semester	Language	Credits
Biostatistics and Experimental Design	Caiani Enrico Mainardi Luca Pattini Linda	2022-2023	English	5
Electronics Technologies in Biomedical Engineering	Ferrante Simona Piccini Luca	2022-2023	English	5
Advanced Modelling in Biomechanics	Gautieri Alfonso La Barbera Luigi Luraghi Giulia	2022-2023	English	5
Perspectives in Biomedical Engineering Technologies: Enabling Cardiovascular Technologies for Testing and Validation	Manning Keefe B. Redaelli Alberto	2022-2023	English	5
Perspectives in Biomedical Engineering Technologies: Bioengineering in Forensic Engineering	Galli Manuela Villa Tomaso	2022-2023	English	5
Seminars in Biomedical Engineering	Barbieri Riccardo Candiani Gabriele Dellaca' Raffaele Soncini Monica Villa Tomaso	2022-2023	English	5
External Course Bio	Dubini Gabriele (resp.)	2022-2023	English	5
Annual School of Bioengineering (Bressanone-Brixen 2023)	Dubini Gabriele (resp.)	2022-2023	English	5

Table B SUGGESTED CROSS –SECTORAL COURSES

Name of the Course	Professor	Semester	Language	Credits
Ethics in research	Aliverti Andrea	2022-2023	English	5

6.4 Presentation of the study plan

PhD candidates must submit a study plan, which may be revised periodically (approximately every three months), in order to align them to possible changes in the course list or needs motivated by the development of their PhD career. The study plans must be approved by the PhD Programme Coordinator, according to the modalities established by the Faculty Board of the PhD Programme itself.

6.5 Yearly evaluations

At the end of each academic year, the candidates have to pass an annual evaluation to be admitted to the next PhD year. The evaluation is based on a written report and an oral presentation offered to a Commission composed of 3 to 5 Faculty Board members. In the first year, the presentation is given to

the Tutor who will report to the Faculty Board.
The written report should include: i) a brief description of the specific activities of the candidate on her/his PhD project; ii) a brief description of the other research activity of the candidate during the year under examination; iii) the publications of the candidate in the year.
Activities of PhD candidates that can provide additional elements for the evaluation typically include: internships, external courses (held at other academic institutions, companies or other), national and international seminars, conferences and workshops, participation in national and international research projects, scientific paper writing and paper presentations on research results, support to teaching activities.
The third year evaluation establishes the candidate's admission to the final PhD defense.
As a result of each annual evaluation, the candidates receive an evaluation expressed with the following grades: A (excellent), B (very good), C (good), D (fair), E (poor, insufficient to pass the exam).
In the case of grades from A to D, the candidate is admitted either to the next year (1st and 2nd year evaluation) or to the final exam (3rd year evaluation). In the case of grade E, the candidate is qualified as "Repeating candidate" (Er) or "unable to carry on with the PhD (Ei)".
After the final year, candidates who have achieved sufficient results but need more time to draw up their theses, may obtain a prorogation of up to 12 months.

6.6 PhD thesis preparation

The main objective of the PhD career is the development of an original research contribute. The PhD thesis is expected to contribute to the advance of knowledge in the candidate's research field.
The PhD study and the research work is carried out, full time, during the three years of the PhD course. Stages or study periods in companies or other institutions – either in Italy or abroad – may complete the candidate's preparation.
The PhD research is developed under the lead of a supervisor, who supports the candidate in the setting out and in the everyday activities regarding the thesis development. The PhD candidate must prepare an original thesis, making it clear how the thesis contributes to the advancement of the state of the art in the research field. The contents of the thesis need also to be coherent with the research themes of the Department where the PhD Programme is developed.
At the conclusion of the PhD studies, the Faculty Board evaluates the candidate's work. The candidates who receive a positive evaluation can submit their thesis to two external reviewers for refereeing. If the evaluation provided by the reviewers is positive (or after the revisions required by the external reviewers), the candidates can defend their thesis in a final exam, in front of a Committee composed of three members (at least two of whom must be external experts).

7. Laboratories, PhD Secretary Services

7.1 Laboratories

The scientific research activity of the PhD candidates is performed in experimental laboratories located either at Politecnico di Milano or outside, typically in research centres, hospitals, industries.
When the research is performed within Politecnico, the PhD candidates are usually assigned to one of the following laboratories belonging to DEIB or CMIC:

- Laboratory of Biological Structure Mechanics (LaBS) - CMIC

- Laboratory of Movement Analysis “Luigi Divieti” – DEIB
- Medical Informatics Laboratory – DEIB
- Neuroengineering and Medical Robotics Laboratory (NearLab) - DEIB
- Biosignals, Bioimaging and Bioinformatics (B3 Lab) – DEIB
- Biomaterials Laboratory (BioMatLab) - CMIC
- Biomedical Technology Laboratory (TBMLab), CasCart, LaRes, TechRes, MBMC - DEIB
- Experimental Micro and Biofluid Dynamics (μBS Lab) – DEIB
- Computational Biomechanics Laboratory – DEIB
- Biocompatibility and Cell Culture Laboratory (BioCell) - CMIC
- Bioreactors Laboratory – CMIC.

The Istituto di Elettronica, Ingegneria dell’Informazione e delle Telecomunicazioni (IEIIT) represents another possible option. IEIIT is part of the Consiglio Nazionale delle Ricerche (CNR, the Italian National Research Council) and is located at DEIB.

7.2 Administrative offices of the PhD Programme in Bioengineering

Secretary

Marco Simonini
Department of Electronics, Information and Bioengineering (DEIB)
Building 20, Via Golgi, 33 - Politecnico di Milano – 20133 Milano
Ph: +39 - 02 2399 3632
Fax: +39 - 02 2399 3360
e-mail: PhD-BIO@polimi.it

Administration

Fabio Conti
Department of Electronics, Information and Bioengineering (DEIB)
Building 20, Via Golgi, 33 - Politecnico di Milano – 20133 Milano
Ph: +39 - 02 2399 3431
Fax: + 39 - 02 2399 3417
e-mail: fabio.conti@polimi.it

8. Internationalization and inter-sectoriality

A research internship at external laboratories is strongly recommended.
Politecnico di Milano supports joint PhD paths with international Institutions as well as Joint and Double PhD programmes. Further information is available in the PhD School website and the PhD programme website.
Interaction with and exposure to non-academic sectors provide significant benefits to doctoral candidates as well as to research and innovation intensive employment sectors. Direct exposure to the challenges and opportunities in non-academic sectors of economy and society at large is fostered by networking, connectivity, inter-sectoral mobility and wide access to knowledge. In particular, the PhD Programme in Bioengineering considers the following collaborations: European Training Networks (ETN) - Marie Skłodowska Curie Actions (MSCA), international agreements such as CSF-Confap (Brazil) and CSC (China), several agreements with industries (Medtronic (USA), E-Novia Spa, LIFE CORPORATION

Sa (LUX), ALASCOM Services Srl, Medteor GmbH (GER), AB.ACUS Srl, Qura Srl, Kalpa Srl, AZCOM Technology Srl, Lifecharger Srl, Linkverse Srl), research and clinical centres, such as CNR Institutes (STIIMA, IEIIT); IRCCS (E. Medea, Policlinico S. Donato, Besta, Ist. Maugeri, Ist. Nazionale dei Tumori, Ist. Europeo di Oncologia, Humanitas, Ente Ospedaliero Cantonale (CH), Houston Methodist Research Institute (USA)), Foundations (Fond. IIT, Fond. Grigioni).

Attachment A1 – PhD Programme Coordinator

Gabriele Dubini is the Chairman (Coordinator) of the PhD Programme in Bioengineering for the period 2022-24. He is Full Professor at the Department of Chemistry, Materials and Chemical Engineering 'Giulio Natta' (CMIC), Politecnico di Milano. He teaches Thermodynamics and Heat Transfer in the BSc programme and Transport Phenomena in Biological Systems in the MSc programme in Bioengineering. He received his MSc degree in Mechanical Engineering in 1988 and the PhD in Bioengineering in 1993 from Politecnico di Milano.
Research Assistant in the Cardiothoracic Unit of Great Ormond Street Hospital for Children - NHS Trust in London, UK, 1993-94. Assistant Professor of Thermodynamics and Heat Transfer at the Energy Engineering Department of Politecnico di Milano (1996). Associate Professor (2001) and Full Professor (2007) in Industrial Bioengineering at the Department of Structural Engineering of Politecnico di Milano and the Department of Chemistry, Materials and Chemical Engineering 'Giulio Natta' since 2013.
From 2003 to 2007 he was the Director of the Laboratory of Biological Structure Mechanics (LaBS). He was a member of the Scientific Panel of the Coordination Centre on NanoBiotechnologies and Nanomedicine at Politecnico di Milano from 2007 to 2012 and a member of the Council of the European Society of Biomechanics (ESB) from 2008 to 2012, the Secretary-General for the 2010-12 biennium. He was a member of the Board of Directors of Fondazione Politecnico di Milano, Milan, Italy (2015-19) and the Deputy Head of the Department of Chemistry, Materials and Chemical Engineering 'Giulio Natta' (2017-19). He was elected EAMBES Fellow, Class of 2019; EAMBES is the European Alliance for Medical and Biological Engineering Sciences. His research activity has focused on the vascular microcirculation, the virtual planning of paediatric cardiac surgery procedures, and the design and characterization of endovascular devices and microfluidic devices for biomedical applications. He co-authored more than 300 scientific works, of which more than 190 published in peer-reviewed international journals. h index: 46 (Scopus, as of 23 Jan. 2022).

Attachment A2 – PhD Faculty Board

Name	Affiliation	Scientific Disciplinary Sector
Aliverti Andrea	DEIB	ING-INF/06
Andreoni Giuseppe	DESIGN	ICAR/13
Bianchi Anna Maria	DEIB	ING-INF/06
Boschetti Federica	CMIC	ING-IND/34
Candiani Gabriele	CMIC	ING-IND/34
Cerveri Pietro	DEIB	ING-INF/06
Cimolin Veronica	DEIB	ING-INF/06
Corino Valentina	DEIB	ING-INF/06
Dellaca' Raffaele	DEIB	ING-INF/06
De Momi Elena	DEIB	ING-INF/06
Dubini Gabriele (Coordinator)	CMIC	ING-IND/34
Draghi Lorenza	CMIC	ING-IND/22

Fare' Silvia	CMIC	ING-IND/34
Ferrario Manuela	DEIB	ING-INF/06
Fiore Gianfranco Beniamino	DEIB	ING-IND/34
Gastaldi Dario	CMIC	ING-IND/34
Guazzoni Chiara	DEIB	ING-INF/01
La Barbera Luigi	CMIC	ING-IND/34
Mantero Sara	CMIC	ING-IND/34
Pattini Linda	DEIB	ING-INF/06
Petrini Paola	CMIC	ING-IND/34
Pedrocchi Alessandra	DEIB	ING-INF/06
Pozzi Giuseppe	DEIB	ING-INF/05
Rasponi Marco	DEIB	ING-IND/34
Ravazzani Paolo	CNR @ DEIB	ING-INF/06
Rodriguez Matas José Felix	CMIC	ING-IND/34
Signorini Maria Gabriella	DEIB	ING-INF/06
Soncini Monica	DEIB	ING-IND/34
Villa Tomaso	CMIC	ING-IND/34

Attachment A3 – PhD Advisory Board

Name	Affiliation
Antiga Luca	Orobix
Bechi Giulia	Fondazione Cariplo
Bottinelli Elena	Gruppo San Donato
Castellano Barbara	Panakes
Chiesi Andrea	Chiesi Farmaceutica
Mainetti Stefano	Polihub
Varinelli Claudio	AB Medica