IIT Governance

Leadership

President
Gabriele Galateri di Genola

Scientific Director
Giorgio Metta
**IIT Governance**

**Executive Committee**
Responsible for ordinary and extraordinary administration activities (5 members)

- Gabriele Galateri di Genola
- Giorgio Metta
- Vittorio Terzi
- Luciana Vaccaro
- Giuseppe Zampini

**Board**
Responsible for the planning and approval of the Institute’s main strategies (up to 15 members)

- Andrea Montanino (Chairman)
- Davide Bassi
- Rita Cucchiara
- Elena Goitini
- Luigi Gubitosi
- Alessandro Nasi
- Alessandro Profumo
- Alessandro Rivera
- Carlo Rosa
- Donatella Sciuto
- Raffaele Squitieri
- Francesco Stellacci
- Mariarosaria Taddeo
- Gianmario Verona
IIT Governance

Scientific Technical Committee

General advisory role with regard to the technical and scientific evaluation of research activities (17 members)

- Giorgio Margaritondo (Chairman)
- Lia Addadi
- Patrick Aebischer
- Adriano Aguzzi
- Tamim Asfour
- Uri Banin
- Aude Billard
- Roberto Car
- Martin Chalfie
- Gianaurelio Cuniberti
- Adrienne Corboud Fumagalli
- Giulia Galli
- Oussama Khatib
- Sonja Kotz
- Arto Nurmiiko
- Jean-Jacques Slotine
- Alberto Sangiovanni Vincentelli

Board of Statutory Auditors

To ensure compliance with the law and internal regulations and the proper keeping of accounts (3 members)

- Francesco Alì (President)
- Vincenzo Di Felice
- Enrico Vassallo
IIT Internal Committee

Committee of the Scientific Director
To support the Scientific Director’s work on various strategic, scientific and organizational topics (15 members + 3 invited)

Athanassia Athanassiou
Darwin Caldwell
Marco De Vivo
Paolo Decuzzi
Tommaso Fellin
Stefano Gustincich
Ilka Kriegel
Liberato Manna
Barbara Mazzolai
Lorenzo Natale
Teresa Pellegrino
Raffaella Tonini
Velia Siciliano
Nicola Tirelli
Agnieszka Wykowska
Fabrizio Moscone*
Lorenzo De Michieli*
Francesca Cagnoni*
IIT Internal Committee

Management Committee
To support the Scientific Director in formulating and developing IIT’s policies and strategies.

Fabrizio Moscone
Stefano Bencetti
Francesca Cagnoni
Andrea Caporali
Lorenzo De Michieli
Giuliano Greco
Antonella Fontana
Massimiliano Gatti
Enzo Gelati
Ilaria Monaldi
Marco Monga
Alessandro Roscini
IIT Values

**Integrity**
We adhere to scientific and moral integrity. We value and strive for openness, honesty, authenticity, sincerity, and transparent behavior. We communicate transparently.

**Courage**
We like challenges and we face them with determination, striving for excellence.

**Societal responsibility**
We aim to benefit humanity worldwide. We strive to help society develop for the common good.

**Inclusion**
We welcome and cherish diversity in every form. We do not tolerate discrimination in any form. We are always inclusive, respecting individual freedom.
Research Vision

Social Challenges

- Sustainability
- Healthcare
- Aging Society

Research Domains

- COMPUTATIONAL SCIENCES
- LIFETECH
- NANOMATERIALS
- ROBOTICS

Scientific Mission

- Advancing the State of the Art

Tech Transfer Mission

- Clinical Translation
- Industrial Translation
“[...] reflects our overarching priority of developing Human-Centered Science and Technology with an approach that is not merely multidisciplinary, but rather merges different skills and expertise into a truly interdisciplinary synthesis”

From the Strategic Plan 2018-2023
### Research Domains

<table>
<thead>
<tr>
<th>Domain</th>
<th>Areas of Research</th>
<th>Scientists (Researchers, PostDocs and PhD students)</th>
<th>Technicians</th>
<th>Facility Coordinators</th>
<th>PIs</th>
<th>ERC Grant Holders</th>
<th>Ongoing European Projects</th>
<th>Patents</th>
</tr>
</thead>
</table>
| **COMPUTATIONAL SCIENCES** | Development HPC Algorithms and Software  
Computational Modeling  
Machine Learning, Deep Learning and A.I.  
Computer Vision | 146 scientists  
22 technicians (3 technologists)  
1 facility coordinator  
10 PIs  
2 ERC grant holders (2 grants ongoing)  
19 ongoing European projects  
99 patents | 70 technicians (6 technologists)  
7 facility coordinators  
31 PIs  
14 ERC grant holders (12 grants ongoing)  
45 ongoing European projects  
298 patents | 10 PIs |
| **LIFETECH** | Neuroscience and Brain Technologies  
RNA Technologies  
Technologies for Healthcare | 342 scientists  
70 technicians (6 technologists)  
7 facility coordinators  
31 PIs  
14 ERC grant holders (12 grants ongoing)  
45 ongoing European projects  
298 patents | 63 technicians (9 technologists)  
5 facility coordinators  
24 PIs  
18 ERC grant holders (15 grants ongoing)  
71 ongoing European projects  
461 patents | 24 PIs |
| **NANOMATERIALS** | Nanomaterials for Sustainability  
Nanotechnologies for Human Health  
Nanomaterials Energy  
Exploratory Material Sciences | 374 scientists  
63 technicians (9 technologists)  
5 facility coordinators  
24 PIs  
18 ERC grant holders (15 grants ongoing)  
71 ongoing European projects  
461 patents | 5 facility coordinators  
24 PIs  
18 ERC grant holders (15 grants ongoing)  
71 ongoing European projects  
461 patents | |
| **ROBOTICS** | Mechatronics  
Soft Robotics  
Social Cognition and Human Robot Interaction  
Biomedical Robotics  
Intelligent Companion Robots | 292 scientists  
147 technicians (7 technologists)  
5 facility coordinators  
14 PIs  
6 ERC grant holders (5 grants ongoing)  
33 ongoing European projects  
281 patents | 5 facility coordinators  
24 PIs  
18 ERC grant holders (15 grants ongoing)  
71 ongoing European projects  
461 patents | |
Scientific Initiatives
Visionary research that address the major societal challenges to break new ground

Cognitive Architectures (iCog)
Designing, building, and sharing a common cognitive architecture for an embodied artificial system.

AI for Materials Sciences (iMat)
Applying Artificial Intelligence (AI) to new challenges in Materials Science.

RNA Technology (iRNA)
Investigating non-coding RNAs whose knowledge has experienced the most rapid growth in recent years.

Robotics for a Better Life (RBL)
Advance research for making robots self-aware, adaptable, and interactive.

Sustainability
Facing sustainability goals of global economic, societal and environmental importance.

Visualization of Nanomaterials in Operando
Visualizing molecular interactions and electronic processes at nano-interfaces.
Strategic Research Directions
Research aimed at addressing the Horizon Europe program of promoting strong alliances in artificial intelligence, data, and robotics

Artificial Intelligence (AI)
First ELLIS node in Italy (with the University of Genoa). The ELLIS Society is a highly prestigious European network for fostering research in machine learning and artificial intelligence (several IIT PIs involved).
IIT Technology Transfer plans to create a business accelerator to complement the AI ecosystem with Industry 4.0 resources (Competence Centers), the EDIH, and a network of VCs, funds, and so on.

Atomistic and Molecular Simulation
New methods to calculate the thermodynamics and kinetics of molecular systems in life science and materials science.
IIT has been a pioneer in molecular simulations applied to drug discovery with a focus on kinetics and residence-time prediction. The next frontier, in this field, will be the systematic combination of atomistic and molecular simulations with machine learning and artificial intelligence.

Non-Turing Computation
Exploration of new avenues in non-Turing computation. Starting from exploring quantum technology (QT) based on state-of-the-art hardware and software and moving towards next-generation code for QT.
The challenges include scalability and precision.
IIT aims to build a network of Italian academic and industrial players to develop innovative QC applications.

Integrative Neuroscience
IIT neuroscientists work with diverse tools and at multiple levels of organization (molecular, cellular, circuits, systems, and behavior) to link fundamental neuronal mechanisms to behavior and cognition.
The promotion of mutual reinforcement between neuroscience, artificial intelligence, materials science, and robotics will strategically advance our neuroscientific knowledge and facilitate the flow of basic neuroscience into applications.
IIT in numbers

18 Centers
- 16 in Italy
- 2 US outstations
- 50,000 m² of labs

1895 Staff
- 71 countries
- 35 years average age
- 44% female, 82% scientific staff

803 Scientific Projects
- 443.1 MEUR
- 260 ongoing

18900+ Publications
- 560k citations

903 Commercial Projects
- 103.1 MEUR
- 173 ongoing

1281 Patents
- 404 inventions

20 Joint Labs

33 Start Ups
IIT Centers

50,000 m² of labs
IIT Staff

- 71 countries
- 35 years average age
- 44% female
- 82% scientists

1895
IIT Staff

- 1895
- 71 countries
- 35 years average age
- 44% female
- 82% scientists

Origin of the Scientific Staff (%)

- 49%
- 21%
- 30%
IIT Staff

- 71 countries
- 35 years average age
- 44% female
- 82% scientists

Composition of the Scientific Staff (%):

- 6
- 8
- 17
- 30
- 39

- Ph.D. Students
- Post Docs
- Technicians
- Researchers
- Group Leaders
Projects

- 1706 projects
  - 803 scientific
    - 443.1 MEUR
  - 903 commercial
    - 103.1 MEUR
  - in-kind
    - 28.3 MEUR

433 ongoing
Projects

803 scientific
443.1 MEUR

903 commercial
103.1 MEUR

1706 projects
433 ongoing

in-kind
28.3 MEUR

Ongoing Scientific Projects
by funding source (on the left) and by research domain (on the right) (%)

- 163 European projects
- 44 national projects
- 44 foundation projects
- 9 international projects
Projects

1706 projects
433 ongoing

803 scientific
443.1 MEUR

903 commercial
103.1 MEUR

in-kind
28.3 MEUR

European Research Council (ERC) grants
by grant type (on the left) and by research domain (on the right) (%)

- 59 secured grants
- 40 ERC grant holders
- 34 grants ongoing
Publications

18.9k publications
560k citations
(Scopus - Elsevier B.V.)

14k journal papers
104k IF

3.7k conference proceedings

1.2k books/book series

Publications Types (%)

- Journals (~74%)
- Conferences (20%)
- Books/Book Series (6%)
Patents

1281 patents
404 inventions

- 9% Computational Sciences
- 26% LifeTech
- 41% Nanomaterials
- 24% Robotics

Patent Portfolio

Patents Coverage Map
IIT Joint Labs (20)
IIT Start Ups (33)

(a selection)