

PERSONAL INFORMATION

Nicola Tirelli



Istituto Italiano di Tecnologia
 Centre for Convergent Technologies
 Via Morego 30, 16163 Genova
 010 289 69 923. 347 097 98 47
Nicola.tirelli@iit.it
<https://www.iit.it/it/people/nicola-tirelli>

Sex Male | Date of birth 15/05/1968 | Nationality Italian

Enterprise	University	EPR
<input type="checkbox"/> Management Level	<input type="checkbox"/> Full professor	<input checked="" type="checkbox"/> Research Director and 1st level Technologist / First Researcher and 2nd level Technologist / Principal Investigator
<input type="checkbox"/> Mid-Management Level	<input type="checkbox"/> Associate Professor	<input type="checkbox"/> Level III Researcher and Technologist
<input type="checkbox"/> Employee / worker level	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	<input type="checkbox"/> Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

WORK EXPERIENCE

- 6/2020 - present **Associate Director for Education**
 Istituto Italiano di Tecnologia; Via Morego 30, 16163 Genova
 Responsible of educational and training activities, specifically for PhD students hosted by IIT
 Business or sector **Education**
- 7/2017 - present **Senior Researcher, tenured**
 Istituto Italiano di Tecnologia
Leader of a research group (Laboratory of Polymers and Biomaterials), in the areas of polymer chemistry, colloid science and pharmaceuticals
 Business or sector **Research & Development**
- 12/14 - 12/17 **Director of the North West Centre for Advanced Drug Delivery**
 University of Manchester, Oxford Road, M13 9PL Manchester, United Kingdom
 Creation and management of a research centre fully funded by pharma industry (AstraZeneca)
 Business or sector **Research & Development / Academia**
- 9/14 - 12/17 **Co-director, then (from 3/16) Director of a Centre of Doctoral Training in Regenerative Medicine**
 University of Manchester
 Creation and management of a doctoral programme funded by EPSRC and MRC
 Business or sector **Education / Academia**
- 12/04 – 12/221 **Full Professor in Polymers and Biomaterials**
 University of Manchester
 2004-2010 Sch. of Pharmacy, 2010-2014 Sch. of Materials, 2014-2021 Sch. of Health Sciences
 Undergraduate and postgraduate teaching, various posts of academic administration, management of an externally funded research group
 Business or sector **Research & Development, Education / Academia**
- 2007-12 **Consultant for ACRAF (Aziende Chimiche Riunite Angelini Francesco) SpA**
 Angelini, stabilimento di Pomezia
 Monthly residential consultancy in formulation science (pharmaceutics)
 Business or sector **Research & Development**
- 1/03-12/04 **Senior Lecturer in Polymers and Biomaterials**
 University of Manchester
 Undergraduate and postgraduate teaching; management of an externally funded research group in the areas of polymer chemistry and drug delivery
 Business or sector **Research & Development, Education / Academia**
- 12/98-12/02 **'Oberassistent' (analogous to research assistant professor)**
 Institute of Biomedical Engineering, Swiss Federal Institute of Technology of Zürich (ETH),
 Management of a section of a larger research group in the areas of tissue engineering and biomaterials; direct supervision of PhD students
 Business or sector **Research & Development, Education / Academia**
- 11/95-11/98 **Postdoctoral Research Assistant / Teaching Assistant**
 Institute for Polymers, Swiss Federal Institute of Technology of Zürich (ETH)
 Independent research in organic materials for optoelectronics; supervision of Master students,
 Business or sector **Research & Development, Education / Academia**

EDUCATION AND TRAINING

- 1992-1995 **PhD in Industrial Chemistry**
University of Pisa, Dept. of Chemistry and Industrial Chemistry, via Risorgimento, 56100 Pisa
▪ Polymer chemistry, organic materials for optoelectronics (photochromism, non-linear optical properties)
- 1986-1992 **Laurea in Chemistry**
University of Pisa, Dept. of Chemistry and Industrial Chemistry, via Risorgimento, 56100 Pisa
▪ Majoring in organic chemistry and physical chemistry

WORK ACTIVITIES

- Editorial activity** - Organization of **conferences**:
1. AFPM 2021 (Advanced Functional Polymers for Medicine meeting), Pisa, 13-16/7/ 2021. 120 attendees – international conference.
2. Nanomanufacturing Day, “Advances in nanoparticle production”, Genova, 13/12/2019. 95 attendees - workshop
3. Polymers for Advanced Technology, Manchester, 11-13/9/2017. 350 attendees – international conference
- Executive Board Member for the Wiley VCH *Macromolecular* journals, and member of the editorial board for 4 journals in the area of polymer science.
- Grants**
1. CN3, Centro Nazionale di Ricerca “Sviluppo di terapia genica e farmaci con tecnologia a RNA”
2. AIRC investigator grant. (PI) 2020-2024; total budget - 624k€
3. H2020, FET-OPEN. GROWBOT (CoI), 2019-23, budget to NT - 300k€
4. King Abdulaziz City of Science and Technology (KACST), Research grant. (PI) 2019-21; total budget – 200k€
- Patents**
1. N. Tirelli, V. Quagliariello, A. Barbarisi, F. Rosso, A. Jain, M. Babarisi, R.V. Iaffaioli, M. Oqal, I.J. Stratford, M. Mehibel, “New polymer-drug conjugate comprising anticancer compound covalently linked to modified hyaluronic acid derivative by pH-labile boron-containing linkage, used for treating cancer and solid tumors”, WO2018020238-A1, US2019282701-A1 (publication date 16/1/2019)
2. “New antiinflammatory and/or antioxidant monomer based on 3,4-dihydro-2H-1,3-benzoxazine derivatives used as part of implantable materials e.g. implantable metallic apparatus and treat e.g. antiinflammatory and/or antioxidant disease” WO2020193293-A1 (publication date 17/3/2020)
3. G. Palazzolo, G. Della Rosa, N. Gostynka, N. Tirelli, “Composizione iniettabile di alginato e relativi usi”, IT 10202000027239, priority date. 13/11/2020

ADDITIONAL INFORMATION

- 8 Number of peer-reviewed papers: 205 (Scopus)
Total number of citations: 8500 (Scopus)
H index: 47 (Scopus)
Recent, relevant publications
1. R. d'Arcy, ... **N. Tirelli**, “A Reactive Oxygen Species-Scavenging ‘Stealth’ Polymer, Poly(thioglycidyl glycerol), Outperforms Poly(ethylene glycol) in Protein Conjugates and Nanocarriers and Enhances Protein Stability to Environmental and Biological Stressors” *J. Am. Chem. Soc.* 144 (2022), 21304. DOI: 10.1021/jacs.2c09232
V. Quagliariello, ... **N. Tirelli***, “Double-responsive hyaluronic acid-based prodrugs for efficient tumour targeting” *Mat Sci Eng C*, 130 (2021) 112475 DOI:10.1016/j.msec.2021.112475
2. J.M. Rios de la Rosa ... **N. Tirelli***, “Binding and internalization in receptor-targeted carriers. The complex role of CD44 in the uptake of hyaluronic acid nanoparticles (siRNA delivery)” *Adv Healthc Mater*, 8 (2019) 1901182
3. O. Rajkovic... **N. Tirelli***, E. Pinteaux*, “Reactive oxygen species-responsive nanoparticles for the treatment of ischemic stroke”, *Adv Therap*, (2019) 1900038.DOI:10.1002/adtp.201900038
4. A. Tirella* ... **N. Tirelli***, “CD44 targeted delivery of siRNA by using HA-decorated nanotechnologies for KRAS silencing in cancer treatment”, *Int J Pharm*, **561** (2019) 114-123, DOI:10.1016/j.ijpharm.2019.02.032
5. E. Lallana, J... **N. Tirelli*** “Chitosan/hyaluronic acid nanoparticles: rational design revisited for RNA delivery”, *Mol Pharm*, 14 (2017) 2422. DOI:10.1021/acs.molpharmaceut.7b00158

Personal data I hereby authorize the use of my personal data in accordance to the GDPR 679/16 - "European regulation on the protection of personal data".

Date...1/2./2022

Signature:

Nicola Tirelli