



PhD in CHIMICA INDUSTRIALE E INGEGNERIA

CHIMICA / INDUSTRIAL CHEMISTRY AND CHEMICAL ENGINEERING - 39th cycle

PNRR 118 PA Research Field: INVESTIGATION ON LEGISLATIVE MEASURES AND REGULATORY ASPECTS CONCERNING NANOTECHNOLOGIES IN CLINICAL RESEARCH AND THEIR EFFECTS ON INDIVIDUAL HEALTH.

Monthly net income of PhDscholarship (max 36 months)

€ 1400.0

In case of a change of the welfare rates during the three-year period, the amount could be modified.

Context of the research activity

Motivation and objectives of the research in this field

This PhD project aims to investigate the legislative and regulatory challenges surrounding nanotechnologies in clinic and their impact on individual health. The main objectives are: Analyze the existing legislative measures and regulatory frameworks regarding the use of nanotechnologies in clinic. Assess the health effects, both positive and negative, of nanotechnologies on individuals participating in clinical research. These objectives focus on understanding the current regulatory landscape and evaluating the specific health implications of nanotechnologies in clinical trials.

Methods and techniques that will be developed and used to carry out the research

The project will benefit from the expertise in nanotechnology and nanomedicine of the research group led by Professor Francesco Cellesi, affiliated with the Department of Chemistry, Materials, and Chemical Engineering "Giulio Natta" at Politecnico di Milano, as well as the clinical expertise of the group led by Professor Giuseppe Castellano, Director of the Nephrology and Dialysis Unit at Ospedale Maggiore Policlinico. The doctoral program, training, research, and evaluation will be conducted at the administrative and operational locations of Politecnico di Milano. The IRCCS Ca' Granda Ospedale Maggiore Policlinico Foundation commits to hosting the doctoral student for a study period of six



	hosting the doctoral student for a study period of six months during the three-year period at the facilities of the Nephrology and Dialysis Unit.
Educational objectives	The objective will be the training of highly qualified personnel who, due to their educational background, will contribute to making the Public Administration more efficient, effective, and responsive, keeping pace with rapidly evolving technologies
Job opportunities	Opportunities for employment exist both in Public Administration and in the industrial and biomedical sectors, in the field of health and well-being, for an engineer with cross-disciplinary skills, particularly in the areas of nanotechnology and medicine.
Composition of the research group	0 Full Professors 2 Associated Professors 0 Assistant Professors 1 PhD Students
Name of the research directors	Prof. F. Cellesi - Prof. G. Castellano

Contacts
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Additional support - Financial aid per PhD student per year (gross amount)	
Housing - Foreign Students	--
Housing - Out-of-town residents (more than 80Km out of Milano)	--

Scholarship Increase for a period abroad	
Amount monthly	700.0 €
By number of months	0

National Operational Program for Research and Innovation	
Company where the candidate will attend the stage (name and brief description)	Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico di Milano Via Francesco Sforza, 35, 20122 Milano https://www.policlinico.mi.it/
By number of months at the company	6
Institution or company where the candidate will spend the period abroad (name and brief description)	da definire
By number of months abroad	6



Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information

Confidentiality (in case of DM 117 – Agreement with company): since this is a thematic scholarship, the management of Confidential Information, Results and their publication is subordinate to the restrictions agreed upon with the funding company. Upon acceptance of the scholarship, the beneficiary must sign a specific commitment.

Individual budget for research (5.700 euro): 1st year: 1.900 euro; 2nd year: 1.900 euro; 3rd year: 1.900 euro

Teaching assistantship (availability of funding in recognition of supporting teaching activities by the PhD student): there are various forms of financial for activities of support to the teaching practice. The PhD student is encouraged to take part in these activities within the limits allowed by the regulation.