

## PERSONAL INFORMATION Matteo Cerea

## WORK EXPERIENCE

from 2002 **Researcher**

Università degli Studi di Milano, Dipartimento di Scienze Farmaceutiche, Sezione di Tecnologia e Legislazione Farmaceutiche “Maria Edvige Sangalli”, via Giuseppe Colombo 71, 20133 Milano

- Professional activities include the supervision of undergraduate and graduated students for the development of their research projects, as well as the coordination of visiting students, trainees and technicians for the achievement of scientific researches. In addition, contract R&D projects with Italian and European pharmaceutical companies are carried out dealing with preformulation, formulation and scale up studies of oral drug delivery products.
- Teaching experiences:
  - Professor of “Advanced pharmaceutical technologies. Second Module” for the course of Industrial Pharmacy (Academic years 2003/04, 2004/05, 2005/06, 2007/08)
  - Teaching assistant of the laboratory practice for the class of “Pharmaceutical technologies” within the courses of Pharmacy and Industrial Pharmacy (Academic years 2007-2017)
  - Professor of “Control of Cosmetics” module of the class of Pharmacology and Toxicology of the course of Prevention Techniques and Safety Procedures in the Environment and Workplace (Academic year 2007/08)
  - Professor of “Industrial manufacturing of medicinal products” for the course of Industrial Pharmacy (Academic years 2018/19)
  - Professor of “Pharmaceutical Technology I” for the course of Pharmacy at the Catholic University “Zoja e Këshillit të Mirë” of Tirane, Albany (from 2006)

October 2002-October 2003 **Research Scholar**

The University of Texas at Austin, 1 University Station, A1900 Austin, TX

- Internship as visiting scientist under the direction of Dr. James W. McGinity, Division Head of Pharmaceuticals. The research project was focused on controlled release technologies and polymeric drug delivery systems prepared by powder coating. Experiences in direct compression of powder mixtures using single and rotary presses; solid dosage form design using hot-melt extrusion technology; polymer melt extrusion for compounding and production of coating formulations; design and development of novel powder coating processes for preparation of modified release dosage forms.

July 2000-October 2000 **Research grant**

Nicox S.r.l, via L. Ariosto 21, 20091 Bresso (MI)

- Research project on “Studies of pre-formulation and formulation of NCX 4016” under the supervision of Prof. Andrea Gazzaniga in the Laboratory of Pharmaceutical Technology, School of Pharmacy, University of Milan.

June 1999-April 2000 **Military service**

Caserma “Rossi”, via delle Palade, 39012 Merano (BZ)

- Compulsory military service at the 18th Alpine Regiment “Edolo” with the position of Pharmacist and rank Corporal.

May 1998 - August 1998 **Erasmus student**

Freie Universität Berlin, Kelch-strasse 31, Berlin 12169, Germany

- Internship at the Institute of Pharmacy of the University of Berlin (D) under the supervision of Prof. Roland Bodmeier with a research project on the “Application of HPMC-AS to aqueous film coating of soft gelatine capsules”. The research was carried out thanks to a three months grant offered by the European Community through the Erasmus Program.
-

EDUCATION AND TRAINING

- December 2003 **Ph.D. in Pharmaceutical Chemistry** QE.Q.8  
 Università degli Studi di Milano

  - Dissertation entitled: “Applications of powder layering for the preparation of modified release dosage forms” under the supervision of Prof. Andrea Gazzaniga.
  - During the training period the performances of different powder layering technologies were studied for obtaining controlled release dosage forms. Dry coating was applied for obtaining enteric coatings, powder layering was employed for preparing time-dependent/pulsatile delivery dosage forms and powder coating was developed for the preparation of a novel taste masking coating applied to tablets.
- July 2000 **Professional qualification for the Italian Pharmacy license**  
 Università degli Studi di Milano
- July 1999 **Bachelor of Science in Industrial Pharmacy**  
 Università degli Studi di Milano

  - Thesis entitled “Coating of hard and soft gelatine capsules using low viscosity HPMC aqueous solutions for time-specific delivery of liquid and semisolid formulations”, under the supervision of Prof. Andrea Gazzaniga.
  - Topics of interest: statistical optimization of formulations and pharmaceutical processes; direct pelletization of B-cyclodextrin and microcrystalline cellulose mixtures in a rotary fluid-bed equipment; formulation and taste-masking of a mucolytic drug using spray drying and melt pelletization techniques; coating of gelatine capsules with aqueous and organic solution of HPMC (hydroxypropyl methylcellulose) in a conventional fluid bed; in vitro evaluation and in vivo preliminary studies of pulsatile release dosage forms by dissolution test and HPLC analysis of biological samples.

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C1	C1
Advanced ESL Written, 2003, The University of Texas at Austin					
German	B1	B1	B1	B1	A2
German Class, 2 level, 2005, Comune Castelli Calepio (BG)					

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user  
[Common European Framework of Reference for Languages](#)

Organisational / managerial skills

I have worked in various types of research teams and I am involved in organising teams to carry out various scientific projects. Personally I plan and manage research projects commissioned by companies at the Laboratory of Biopharmaceutical and Pharmaceutical Technology of the Department of Pharmaceutical Sciences of the University of Milan. The engagement usually starts from the discussion of the project with the interested parties within a secrecy agreement, continues with the drafting of the formal collaboration agreements on the basis of a shared project, and realises a plan of experimental activities that materialize prototypes and characterization results that are delivered to the company accompanied by a final report.

**Job-related skills** The areas of expertise are mainly related to the formulation development of pharmaceutical forms and include specific experience in the design of solid oral forms for the conventional and modified release of active ingredients. As part of the research activities I was able to deepen the knowledge of the analytical techniques associated with the physico-chemical and technological characterization of the materials involved and of the preparations. I also investigated the application of the Quality by Design approach to the development of new formulations and analytical methods.

I am directly involved in the development of new forms of drug dosage and new technologies with a strong predisposition to patenting innovative discoveries. For this reason I have acquired the necessary notions for the support to the patent offices in the drafting of the international patent application and the answers to the observations of the examiners in order to reach the concession. My current research interests mainly focus on the design of coated oral delivery systems and pharmaceutical coating of solid dosage forms, particularly with regard to melt coating and innovative powder-layering techniques and novel extrusion and injection molding technologies.

#### ADDITIONAL INFORMATION

---

I authored 26 papers, 3 chapters in books and 5 patents, and I presented the results of my researches at several national and international conferences.

Member of AFI (Associazione Farmaceutici Industria), AAPS (American Association of Pharmaceutical Scientists) and CRS (Controlled Release Society).

Reviewer for international scientific journals such as: International Journal of Pharmaceutics, European Journal of Pharmaceutical Sciences, European Journal of Pharmaceutics and Biopharmaceutics, Journal of Pharmacy and Pharmacology, Drug Development and Industrial Pharmacy.

#### PERSONAL INTERESTS

Enjoy practicing sports, in particular running, hiking, climbing and skiing. Love to travel and experience different cultures. I participate actively to the organization of the social and charity activities of ANA (Associazione Nazionale Alpini) as President of the local group of Grumello del Monte (BG).

▪

Personal information

I authorize the handling of personal information in this curriculum, according to D.Lgs n. 196/03 and following modifications and Regulations EU 679/2016 (General Regulations concerning Data Protection or GRDP) and art. 7 of University Regulations concerning protection of personal information.

I authorize, according to D.lgs 14/03/2013 n. 33 concerning transparency, in case of conferment of the position and of the fellowship, the publication of this curriculum in the web site of Università degli Studi di Milano in the section "Amministrazione trasparente", "Consulenti e collaboratori".

Date

Signature