



## Europass Curriculum Vitae

**Personal information** **Giorgio Facchetti**

### Work experience

January 2021 Researcher fellow (type A)- Department of Pharmaceutical Sciences (DISFARM) - University of Milan

July 2020 Visiting researcher at University of Strasbourg, Laboratory of Supramolecular Biomaterials and Chemistry, Professor L. De Cola. Synthesis and Characterization of luminescent complexes for bioimaging

August 2016-July 2020 Post-doctoral research grant UNIMI  
Project Title: Peptides muse ligands for transition-metal homogeneous catalysis  
Department of Pharmaceutical Sciences (DISFARM) - University of Milan

- Synthesis of hybrid catalysts (“artificial metallo-enzymes”), complexes in which the catalytic metal core is embedded within a host protein (biotin/strept(avidin) technology) or surrounded by biomolecules used as a source of chirality.
- Synthesis and molecular characterization of new chiral ligands to use in the coordination chemistry of ruthenium, iridium and palladium to apply in homogeneous catalysis to produce biologically active molecules in enantiopure form.
- Synthesis of transition metal complexes in which ligands are brief aminoacidic sequences, chiral, that mimic the naturally occurring ones. These types of catalysts are applied to different asymmetric reactions involving pharmaceutical relevant substrates: ketone and imine reduction, Henry reaction, diethyl zinc addition.

June 2015-June 2016 Post-doctoral research fellowship F.Ili Confalonieri-  
Project Title: Imidazole-based platinum (II) complexes: synthesis, characterization and pharmacological evaluation on cisplatin-resistant cancer cell lines  
Department of Pharmaceutical Sciences (DISFARM) - University of Milan

### Education and training

December 2014 PhD in Chemical Sciences (UNIMI research fellowship)  
Project Title: New antiproliferative transition metal complexes: development and synthesis  
Department of Pharmaceutical Sciences (DISFARM) - University of Milan

July 2011 Bachelor's degree in Pharmaceutical Chemistry and Technologies (110/110)  
*Curriculum:* Organic Synthesis and Molecular Characterization  
University of Milan

July 1999 High School Diploma in scientific studies (95/100)  
Liceo Scientifico G. Galiei, Caravaggio (BG)

**Personal skills and competences**Mother tongue(s) **Italian**

Other language(s)

*European level (\*)***English**

Understanding		Speaking		Writing
Listening	Reading	Spoken interaction	Spoken production	
<b>C1</b>	<b>C1</b>	<b>C1</b>	<b>C1</b>	<b>C1</b>

(\*) [Common European Framework of Reference for Languages](#)

Social skills and competences

Good relationship and communication skills  
 Ready to work in multicultural teams  
 Strongly motivated  
 Methodical and well-organized

Technical skills and competences

Synthesis of transition metal complexes, especially based on Ru, Pd and Pt, and their molecular and biological characterization;  
 Synthesis and characterization of new chiral ligands for the preparation of new metallic catalysts useful for asymmetric homogeneous catalysis;  
 Molecular characterization by using <sup>1</sup>H-NMR, <sup>13</sup>C-NMR and <sup>31</sup>P-NMR spectroscopy;  
 GC and HPLC techniques; ESI and FAB Mass Spectroscopy

Computer skills and competences

Use of Office programs and scientific programs: Word, Excel, Powerpoint, Internet Explorer, SciFinder, ChemDraw, MestReNova

Other skills and competences

English: ESB Level 2 Certificate in ESOL, level C1 dated 05/30/2015 by British Institute, Milan

Pharmacist apprenticeship at "Farmacia Piccinelli-Siliprandi"  
 Via Verga 1, Treviglio (BG)

Driving licence

B

**Additional information**

Adjunct Professor of Organometallic Chemistry for CTF course, University of Milan: aa 2020-2019; aa 2019-2018; aa 2018-2017  
 Member of Gruppo Italiano Staminali Mesenchimali (GISM), 2018  
 Member of the Società Chimica Italiana (SCI), Inorganic Chemistry Division; Catalysis Group and Organometallic Chemistry Group (G.I.C.O.)  
 Co-author of 34 peer-reviewed papers (*h*-index: 12) and international/national congress proceedings (18 posters, 4 oral communications)  
 Co-author of "Eserciziario di Chimica" - Milan, EDISES, 2015  
 Participant to the research project PRIN 2010-2011 (20105YY2HL\_007): "Natural and synthetic systems endowed with anticancer activities"  
 Co-tutor of students' graduation theses in CTF (9), BTF (4), SSCTA (2) and STE (2) courses, University of Milan

**Annexes** Five most relevant papers:

“Alternative strategy to obtain artificial imine reductase by exploiting Vancomycin/D-Ala-D-Ala interactions with an iridium metal-complex” Facchetti, G.; Bucci, R.; Fusè, M.; et al. Pellegrino, S.; Rimoldi, I. *Inorganic Chemistry*, **2021**, doi.org/10.1021/acs.inorgchem.0c02969

“Asymmetric hydrogenation of 1-aryl substituted-3,4-dihydroisoquinolines with iridium catalysts bearing different phosphorus-based ligands” **Facchetti, G.**; Christodoulou, M.S.; Binda, E.; Fusè, M.; Rimoldi, I. *Catalysts*, **2020**, 10(8), pp. 1–11, 914

“Biological properties of new chiral 2-Methyl-5,6,7,8-tetrahydroquinolin-8-amine-based compounds” **Facchetti, G.**; Christodoulou, M.S.; Mendoza, L.B.; et al. Rimoldi, I. *Molecules* **2020**, 25(23), 5561.

“Vancomycin-iridium (III) interaction: An unexplored route for enantioselective imine reduction” **Facchetti, G.**; Pellegrino, S.; Bucci, R.; Nava, D.; Gandolfi, R.; Christodoulou, M.S.; Rimoldi, I. *Molecules*, **2019**, 24(15), 2771-2779.

“Ctr-1 Mets7 motif inspiring new peptide ligands for Cu(I)-catalyzed asymmetric Henry reactions under green conditions” Pellegrino, S.; **Facchetti, G.**; Contini, A.; Gelmi, M.L.; Erba, E.; Gandolfi, R.; Rimoldi, I. *RSC Advances*, **2016**, 6 (75), 71529-71533;

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