



## Curriculum vitae Luca Luigi Pignataro

### *Personal information*

*Date of birth:* 4<sup>th</sup> December 1978

*Nationality:* Italian

### *Affiliation and official address*

Università degli Studi di Milano, Dipartimento di Chimica

Via Golgi, 19 - 20133 Milano, Italy

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### *Education*

#### **November 2003-December 2006**

PhD in Industrial Chemistry (PhD advisor: Prof. Franco Cozzi)

Università degli Studi di Milano (University of Milan)

Title of the thesis: "Novel chiral *N*-oxides as organocatalysts for the enantioselective allylation of aromatic aldehydes"

#### **October 1997-March 2003**

Master Degree in Industrial Chemistry (Master advisor: Prof. Franco Cozzi)

Università degli Studi di Milano (University of Milan)

Title of the thesis: "Synthesis of chiral phenantrolines and bipyridines as ligands for asymmetric catalysis"

#### **July 1997**

Grammar school diploma ("Maturità classica")

Liceo Ginnasio "G. Pascoli", Gallarate (VA)

### *Career*

#### **March 2019-present**

Associate professor at the University of Milan (Department of Chemistry) – S.S.D. CHIM/06 | S.C. 03/C1

#### **March 2016-February 2019**

Tenure track researcher/assistant professor ("Ricercatore a Tempo Determinato di tipo B ai sensi della legge 240/2010") at the University of Milan (Department of Chemistry)

#### **October 2012-September 2015**

Researcher/assistant professor ("Ricercatore a Tempo Determinato di tipo A ai sensi della legge 240/2010") at the University of Milan (Department of Chemistry)

#### **February 2009-November 2009**

Post-doctoral fellow ("Assegnista di ricerca") the research group of Prof. Umberto Piarulli at the "Università degli Studi dell'Insubria" (Como)

#### **January 2008-January 2009 and February 2010-September 2012**

Post-doctoral fellow (“Assegnista di ricerca”) in the research group of Prof. Cesare Gennari at the University of Milan (Department of Chemistry)

#### **January 2007-January 2008**

Post-doctoral fellow in the research group of Prof. David Leigh at the University of Edinburgh (UK)

#### **June 2003-February 2004**

Compulsory civil service (alternative to military service) as employed in a non-profit organization (Istituto di Ricerche Farmacologiche “Mario Negri”)

#### ***Current research interests***

- Homogeneous transition metal catalysis: i) asymmetric catalysis; ii) design and synthesis of supramolecular catalysts; iii) development of sustainable and efficient reduction methodologies (iron catalyzed reductions, asymmetric hydrogenation of pyridines and tandem metathesis-hydrogenation processes).
- Synthesis of new peptidomimetics with anti-cancer activity: i) development of small molecule-drug conjugates for the selective release of cytotoxic compounds in tumor tissues

#### ***Scientific publications and bibliometrics***

- ✓ Author of 53 publications in peer-reviewed journals (16 as corresponding author) and 1 book chapter (full list on Page 4); *h* index = 19
- ✓ ORCID number: 0000-0002-7200-9720 | ResearcherID: K-1332-2015 | Scopus Author ID: 8714417500

#### ***Invited Lectures***

- 1) Lecture at the congress *Incontro con l'Università, il CNR e l'Industria*, organized by the Department of Chemistry of the University of Milan (Milano, 5 novembre 2018): “Challenges in the catalytic reduction of C-O and C-N multiple bonds”
- 2) Lecture at the *Third China-Italy Bilateral Symposium on Organic Chemistry* (Wuhan, China, 26<sup>th</sup>-28<sup>th</sup> April 2017): “Pushing the Limits of Asymmetric Hydrogenation”
- 3) Keynote lecture at the meeting *Synthesis and biomedical applications of tumor-targeting peptidomimetics* (Bologna, 14<sup>th</sup>-16<sup>th</sup> February 2016): “Synthesis and Biological Evaluation of RGD Peptidomimetic-Paclitaxel Conjugates for Tumor Targeting”
- 4) Keynote lecture at the *XXV National Congress of the Italian Chemical Society* (Arcavacata di Rende, 7<sup>th</sup>-12<sup>th</sup> September 2014): “Towards a new class of chiral Fe-catalysts for the enantioselective hydrogenation of ketones”

#### ***Other scientific communications***

Author of 4 oral communications and > 20 poster communications at international schools/conferences

#### ***Organization of conferences/meetings***

#### **March 2016-January 2019**

Secretary and member of the organizing/scientific committee of the “A. Corbella” *International Summer School on Organic Synthesis – ISOS* (<http://www.corbellasummerschool.unimi.it/>)

#### **November 2012-January 2016**

Organisation of 5 meetings of the “Marie Skłodowska Curie” EID-ITN network REDUCTO (“Affordable solutions for asymmetric reduction of industrially relevant substrates”, FP7, contract no. PITN-GA-2012-316371, coordinator: Prof. Cesare Gennari)

### ***Funding programmes involved in***

#### **March 2019-present**

Funding Programme: PRIN 2017

Project title: “SURSUMCAT: Raising up Catalysis for Innovative Developments”

Project number: 20174SYJAF

Funding agency: Ministero dell’Istruzione, dell’Università e della Ricerca (MIUR)

Coordinator: Prof. Pier Giorgio Cozzi (Università degli Studi di Bologna)

Role within the project: local coordinator of the ‘University of Milan’ research unit

#### **June 2018-present**

Funding Programme: “Piano di Sostegno alla Ricerca 2015-2017 (anno 2018 – Linea 2-Azione A)”

Project title: “Development of new iron-catalytic methodologies for challenging reactions involving reduction of carbon-heteroatom multiple bonds”

Funding agency: Università degli Studi di Milano

Role within the project: Principal Investigator

#### **January 2018-present**

Funding Programme: “Piano di Sostegno alla Ricerca 2015-2017 (anno 2017 – Linea 2-Azione A)”

Project title: “Synthesis of new chiral (cyclopentadienone)iron complexes featuring a stereogenic plane, and test of their catalytic properties in the enantioselective reduction of C=O and C=N bonds”

Funding agency: Università degli Studi di Milano

Role within the project: Principal Investigator

#### **November 2017**

Recipient of “Fondo per il finanziamento delle attività base di ricerca” (FFABR)

Funding agency: Ministero dell’Istruzione, dell’Università e della Ricerca (MIUR)

#### **January 2015-December 2018**

Funding Programme: “Marie Skłodowska-Curie” ITN-ETN Network (Horizon 2020), contract no. 642004

Project title: “Peptide-Drug Conjugates for Targeted Delivery in Tumor Therapy” (MAGICBULLET)

Funding agency: European Commission

Coordinator: Prof. Norbert Sewald (University of Bielefeld, Germany)

Partner units: University of Milan (UMIL), 6 other academic partners and 2 industrial partners

Scientist in Charge of the UMIL unit: Prof. Cesare Gennari

Role within the project: member of the UMIL unit

#### **October 2012-September 2016**

Funding Programme: “Marie Skłodowska-Curie” EID-ITN Network (FP7), contract no. PITN-GA-2012-316371

Project title: “Affordable Solutions for Asymmetric Reductions of Industrially Relevant Substrate” (REDUCTO)

Funding agency: European Commission

Coordinator: Prof. Cesare Gennari (University of Milan)

Partner units: University of Milan (UMIL) and DSM Innovative Synthesis BV (The Netherlands)

Role within the project: member of the UMIL unit

**Other projects involved in:** Piano di Sostegno alla Ricerca 2015-2017 – Università degli Studi di Milano (year 2016 – Line 3 – Action B); Piano di sviluppo dell’Ateneo – Università degli Studi di Milano (year 2014 –

Line B.1); PRIN 2010-11 (project no. 2010NRREPL); PRIN 2008 (project no. 2008J4YNJY); PRIN 2006 (project no. 2006030449)

### **Tutoring/mentoring activity**

- Supervision of 9 PhD students (5 foreign), > 15 MSc students, 1 Postdoc

### **Current teaching activity**

- Teacher in the course “Concepts and Methods in Organic Synthesis”, Master Course in Industrial Chemistry (lectures delivered in English)
- Teacher in the the course “Chimica Organica B”, Master Course in Chemical Sciences (“Laurea Magistrale in Scienze Chimiche”)
- Teacher in the module “Laboratory of Chemistry (with safety aspects)” of the course “Organic Chemistry and Laboratory of Chemistry”, Bachelor Course in Biological Sciences

### **Full list of publications in peer reviewed journals**

- 1) “Chiral (cyclopentadienone)iron complexes with a stereogenic plane as pre-catalysts for the asymmetric hydrogenation of polar double bonds”, X. Bai, M. Cettolin, G. Mazzocanti, M. Pierini, U. Piarulli, V. Colombo, A. Dal Corso, L. Pignataro,\* C. Gennari, *Tetrahedron* **2019**, *75*, 1415-1424
- 2) “Neutrophil Elastase Promotes Linker Cleavage and Paclitaxel Release from an Integrin-Targeted Conjugate”, A. Raposo Moreira Dias, A. Pina, A. Dean, H.-G. Lerchen, M. Caruso, F. Gasparri, I. Fraietta, S. Troiani, D. Arosio, L. Belvisi, L. Pignataro, A. Dal Corso, C. Gennari, *Chemistry - A European Journal*, **2019**, *25*, 1696-1700
- 3) “Improving C=N Bond Reductions with (Cyclopentadienone)iron Complexes: Scope and Limitations”, M. Cettolin, X. Bai, D. Lübken, M. Gatti, S. Vailati Facchini, U. Piarulli, L. Pignataro,\* C. Gennari, *European Journal of Organic Chemistry* **2019**, 647-654
- 4) “Synthesis and Biological Evaluation of Paclitaxel Conjugates Involving Linkers Cleavable by Lysosomal Enzymes and  $\alpha_v\beta_3$ -Integrin Ligands for Tumor Targeting”, P. López Rivas, I. Randelović, A. Raposo Moreira Dias, A. Pina, D. Arosio, J. Tóvári, G. Mező, A. Dal Corso, L. Pignataro, C. Gennari, *European Journal of Organic Chemistry* **2018**, 2902-2909
- 5) “Synthesis and biological evaluation of RGD and isoDGR peptidomimetic- $\alpha$ -amanitin conjugates for tumor-targeting”, L. Boderó, P. López Rivas, B. Korsak, T. Hechler, A. Pahl, C. Müller, D. Arosio, L. Pignataro, C. Gennari, U. Piarulli, *Beilstein J. Org. Chem.* **2018**, *14*, 407-415
- 6) “Efficient Synthesis of Amines by Iron-Catalyzed C=N Transfer Hydrogenation and C=O Reductive Amination”, S. Vailati Facchini, M. Cettolin, X. Bai, G. Casamassima, L. Pignataro,\* C. Gennari, U. Piarulli, *Advanced Synthesis & Catalysis* **2018**, *360*, 1054-1059
- 7) “Enantioselective Reductions Promoted by (Cyclopentadienone)iron Complexes”, U. Piarulli, S. Vailati Facchini, L. Pignataro, *Chimia* **2017**, *71*, 580-585
- 8) “Investigating the Interaction of Cyclic RGD Peptidomimetics with  $\alpha_v\beta_6$  Integrin by Biochemical and Molecular Docking Studies”, M. Civera, D. Arosio, F. Bonato, L. Manzoni, L. Pignataro, S. Zanella, C. Gennari, U. Piarulli, L. Belvisi, *Cancers* **2017**, *9*, 128
- 9) “Multivalency Increases the Binding Strength of RGD Peptidomimetic-Paclitaxel Conjugates to Integrin  $\alpha_v\beta_3$ ”, A. Raposo Moreira Dias, A. Pina, A. Dal Corso, D. Arosio, L. Belvisi, L. Pignataro,\* M. Caruso, C. Gennari, *Chemistry - A European Journal* **2017**, *23*, 14410-14415
- 10) “Targeting Integrin  $\alpha_v\beta_3$  with Theranostic RGD-Camptothecin Conjugates Bearing a Disulfide Linker: Biological Evaluation Reveals a Complex Scenario”, A. Pina, A. Dal Corso, M. Caruso, L. Belvisi, D. Arosio, S. Zanella, F. Gasparri, C. Albanese, U. Cucchi, I. Fraietta, A. Marsiglio, L. Pignataro, D. Donati, C. Gennari, *ChemistrySelect* **2017**, *2*, 4759-4766
- 11) “Tumor Targeting with an isoDGR-Drug Conjugate”, S. Zanella, S. Angerani, A. Pina, P. López Rivas, C. Giannini, S. Panzeri, D. Arosio, M. Caruso, F. Gasparri, I. Fraietta, C. Albanese, A. Marsiglio, L. Pignataro, L. Belvisi, U. Piarulli, C. Gennari, *Chemistry - A European Journal* **2017**, *3*, 7910-7914
- 12) “Use of the Trost Ligand in the Ruthenium-Catalyzed Asymmetric Hydrogenation of Ketones”, M. Cettolin, P. Puylaert, L. Pignataro,\* S. Hinze, Cesare Gennari, J. G. de Vries, *ChemCatChem* **2017**, *9*, 3125-3130
- 13) “Synthesis of [bis(hexamethylene)cyclopentadienone]iron tricarbonyl and its application to catalytic reductions of C=O bonds”, U. Piarulli, S. Vailati Facchini, J.-M. Neudörfl, L. Pignataro,\* M. Cettolin, C. Gennari, A. Berkessel, *ChemCatChem* **2017**, *9*, 1461-1468
- 14) “Insights into the Binding of Cyclic RGD Peptidomimetics to  $\alpha_5\beta_1$  Integrin by using Live-Cell NMR And Computational Studies”, I. Guzzetti, M. Civera, F. Vasile, D. Arosio, C. Tringali, U. Piarulli, C. Gennari, L. Pignataro, L. Belvisi, D. Potenza, *ChemistryOpen* **2017**, *6*, 128-136
- 15) “Expanding the Catalytic Scope of (Cyclopentadienone)iron Complexes to the Hydrogenation of Activated Esters to Alcohols”, P. Gajewski, A. Gonzalez-de-Castro, M. Renom-Carrasco, U. Piarulli, C. Gennari, J. G. de Vries, L. Lefort, L. Pignataro,\* *ChemCatChem* **2016**, *8*, 3431-3435
- 16) “Riding the Wave of Monodentate Ligand Revival: From the A/B Concept to Noncovalent Interactions”, L. Pignataro, C. Gennari, *The Chemical Record* **2016**, *16*, 2544-2560
- 17) “A Mixed Ligand Approach for the Asymmetric Hydrogenation of 2-Substituted Pyridinium Salts”, M. Renom-Carrasco, P. Gajewski, L. Pignataro, J. G. de Vries, U. Piarulli, C. Gennari, L. Lefort, *Advanced Synthesis & Catalysis* **2016**, *358*, 2589-2593

- 18) "Asymmetric Hydrogenation of 3-Substituted Pyridinium Salts", M. Renom-Carrasco, P. Gajewski, L. Pignataro, J. G. de Vries, U. Piarulli, C. Gennari, L. Lefort, *Chemistry - A European Journal* **2016**, *22*, 9528-9532
- 19) "Toward the identification of neuroprotective agents: g-scale synthesis, pharmacokinetic evaluation and CNS distribution of (R)-RC-33, a promising Sigma1 receptor agonist", A. Marra, D. Rossi, L. Pignataro, C. Bigogno, A. Canta, N. Oggioni, A. Malacrida, M. Corbo, G. Cavaletti, M. Peviani, D. Curti, G. Dondio, S. Collina, *Future Medicinal Chemistry* **2016**, *8*, 287-295
- 20) "Asymmetric Transfer Hydrogenation of Ketones with Modified Grubbs Metathesis Catalysts: On the Way to a Tandem Process", M. Renom-Carrasco, P. Gajewski, L. Pignataro, J. G. de Vries, U. Piarulli, C. Gennari, L. Lefort, *Advanced Synthesis & Catalysis* **2016**, *358*, 515-519
- 21) " $\alpha_v\beta_3$  Integrin-Targeted Peptide/Peptidomimetic-Drug Conjugates: In-Depth Analysis of the Linker Technology", A. Dal Corso, L. Pignataro, L. Belvisi, C. Gennari, *Current Topics in Medicinal Chemistry* **2016**, *16*, 314-329
- 22) "Synthesis of a 4-Vinyltetrahydrocarbazole by Palladium-Catalyzed Asymmetric Allylic Alkylation of Indole-Containing Allylic Carbonates", L. Pignataro,\* D. Fiorito, V. Vece, R. Ferraccioli, C. Gennari, *European Journal of Organic Chemistry* **2015**, 6669-6678
- 23) "Synthesis of (R)-BINOL-Derived (Cyclopentadienone)iron Complexes and Their Application in the Catalytic Asymmetric Hydrogenation of Ketones", P. Gajewski, M. Renom-Carrasco, S. Vailati Facchini, L. Pignataro,\* L. Lefort, J. G. de Vries, R. Ferraccioli, U. Piarulli, C. Gennari, *European Journal of Organic Chemistry* **2015**, 5526-5536
- 24) "Assisted Tandem Catalysis: Metathesis Followed by Asymmetric Hydrogenation from a Single Ruthenium Source", M. Renom-Carrasco, P. Gajewski, L. Pignataro,\* J. G. de Vries, U. Piarulli, C. Gennari, L. Lefort, *Advanced Synthesis & Catalysis* **2015**, *357*, 2223-2228
- 25) "Synthesis, characterization and biological evaluation of a dual action ligand targeting  $\alpha_v\beta_3$  integrin and VEGF receptors", S. Zanella, M. Mingozzi, A. Dal Corso, R. Fanelli, D. Arosio, M. Cosentino, L. Schembri, F. Marino, M. De Zotti, F. Formaggio, L. Pignataro, L. Belvisi, U. Piarulli, C. Gennari, *ChemistryOpen* **2015**, *4*, 633-641
- 26) "Synthesis and Biological Evaluation of RGD Peptidomimetic-Paclitaxel Conjugates Bearing Lysosomally Cleavable Linkers", A. Dal Corso, M. Caruso, L. Belvisi, D. Arosio, U. Piarulli, C. Albanese, F. Gasparri, A. Marsiglio, F. Sola, S. Troiani, B. Valsasina, L. Pignataro, D. Donati, C. Gennari, *Chemistry - A European Journal* **2015**, *21*, 6921-6929
- 27) "Cyclic *iso*DGR and RGD Peptidomimetics Containing Bifunctional Diketopiperazine Scaffolds are Integrin Antagonists", S. Panzeri, S. Zanella, D. Arosio, L. Vahdati, A. Dal Corso, L. Pignataro, M. Paolillo, S. Schinelli, L. Belvisi, C. Gennari, U. Piarulli, *Chemistry - A European Journal* **2015**, *21*, 6265-6271
- 28) "Chiral (Cyclopentadienone)iron Complexes for the Catalytic Asymmetric Hydrogenation of Ketones", P. Gajewski, M. Renom-Carrasco, S. Vailati Facchini, L. Pignataro,\* L. Lefort, J. G. de Vries, R. Ferraccioli, A. Forni, U. Piarulli, C. Gennari, *European Journal of Organic Chemistry* **2015**, 1887-1893
- 29) "Tsuji-Trost Type Functionalization of Allylic Substrates with Challenging Leaving Groups: Recent Developments", R. Ferraccioli, L. Pignataro, *Current Organic Chemistry* **2015**, *19*, 106-120
- 30) "Enantioselective synthesis of 1-vinyltetrahydroisoquinolines through palladium-catalysed intramolecular allylic amidation with chiral PhthalaPhos ligands", L. Pignataro,\* E. Marelli, C. Gennari, R. Ferraccioli, *Tetrahedron: Asymmetry* **2014**, *25*, 844-850
- 31) "Synthesis and biological evaluation of dual action *cyclo*-RGD/SMAC mimetic conjugates targeting  $\alpha_v\beta_3/\alpha_v\beta_5$  integrins and IAP proteins", M. Mingozzi, L. Manzoni, D. Arosio, A. Dal Corso, M. Manzotti, F. Innamorati, L. Pignataro, D. Lecis, D. Delia, P. Seneci, C. Gennari, *Organic & Biomolecular Chemistry* **2014**, *12*, 3288-3302
- 32) "Studies on the Enantiomers of RC-33 as Neuroprotective Agents: Isolation, Configurational Assignment, and Preliminary Biological Profile", D. Rossi, A. Pedrali, A. Marra, L. Pignataro, D. Schepmann, B. Wünsch, L. Ye, K. Leuner, M. Peviani, D. Curti, O. Azzolina, S. Collina, *Chirality* **2013**, *25*, 814-822
- 33) "Chemical, Pharmacological, and in vitro Metabolic Stability Studies on Enantiomerically Pure RC-33 Compounds: Promising Neuroprotective Agents Acting as  $\sigma_1$  Receptor Agonists", D. Rossi, A. Pedrali, R. Gaggeri, A. Marra, L. Pignataro, E. Laurini, V. Dal Col, M. Fermeiglia, S. Pricl, D. Schepmann, B. Wünsch, M. Peviani, D. Curti, S. Collina, *ChemMedChem* **2013**, *8*, 1514-1527
- 34) "Cyclic *iso*DGR Peptidomimetics as Low-Nanomolar  $\alpha_v\beta_3$  Integrin Ligands", M. Mingozzi, A. Dal Corso, M. Marchini, I. Guzzetti, M. Civera, U. Piarulli, D. Arosio, L. Belvisi, D. Potenza, L. Pignataro, C. Gennari, *Chemistry - A European Journal* **2013**, *19*, 3563-3567
- 35) "SupraBox: Chiral Supramolecular Oxazoline Ligands", M. Durini, E. Russotto, L. Pignataro, O. Reiser, U. Piarulli, *European Journal of Organic Chemistry* **2012**, 5451-5461
- 36) "A Library Approach to the Development of BenzaPhos: Highly Efficient Chiral Supramolecular Ligands for Asymmetric Hydrogenation", L. Pignataro,\* C. Bovio, M. Civera, U. Piarulli, C. Gennari, *Chemistry - A European Journal* **2012**, *18*, 10368-10381
- 37) "Rhodium-Catalyzed Asymmetric Hydrogenation of Olefins with PhthalaPhos, a New Class of Chiral Supramolecular Ligands", L. Pignataro,\* M. Boghi, M. Civera, S. Carboni, U. Piarulli, C. Gennari, *Chemistry - A European Journal* **2012**, *18*, 1383-1400
- 38) "Stereoselectivity in (Z)-Vinylmetal Additions to the Dictyostatin C1-C9  $\beta$ -Silyloxy Aldehyde", A. Ambrosi, L. Pignataro, C. Zanato, C. Gennari, *European Journal of Organic Chemistry* **2012**, 144-153
- 39) "Highly Stereoselective Total Synthesis of (+)-9-*epi*-Dictyostatin and (-)-12,13-*bis-epi*-Dictyostatin", C. Zanato, L. Pignataro, A. Ambrosi, Z. Hao, C. Trigili, J. F. Díaz, I. Barasoain, C. Gennari, *European Journal of Organic Chemistry* **2011**, 2643-2661
- 40) "Supramolecular ligand-ligand and ligand-substrate interactions for highly selective transition metal catalysis", S. Carboni, C. Gennari, L. Pignataro,\* U. Piarulli, *Dalton Transactions* **2011**, *40*, 4355-4373
- 41) "A Highly Stereoselective Total Synthesis of (+)-9-*epi*-Dictyostatin", C. Zanato, L. Pignataro, A. Ambrosi, Z. Hao, C. Gennari, *European Journal of Organic Chemistry* **2010**, 5767-5771
- 42) "PhthalaPhos: Chiral Supramolecular Ligands for Enantioselective Rhodium-Catalyzed Hydrogenation Reactions", L. Pignataro, S. Carboni, M. Civera, R. Colombo, U. Piarulli, C. Gennari, *Angewandte Chemie International Edition* **2010**, *49*, 6633-6637
- 43) "Combination of a binaphthol-derived phosphite and a  $C_1$ -symmetric phosphinamine generates heteroleptic catalysts in Rh- and Pd-mediated reactions", L. Pignataro, B. Lynykaite, R. Colombo, S. Carboni, M. Krupička, U. Piarulli, C. Gennari, *Chemical Communications* **2009**, 3539-3541
- 44) "Chiral (salen)Co(III)(*N*-benzyl-L-serine)-derived phosphites: monodentate P-ligands for enantioselective catalytic applications", S. Carboni, L. Pignataro, C. Gennari, U. Piarulli, *Tetrahedron: Asymmetry* **2009**, *20*, 1185-1190

- 45) "Combinations of Acidic and Basic Monodentate Binaphtholic Phosphites as Supramolecular Bidentate Ligands for Enantioselective Rh-Catalyzed Hydrogenations", L. Pignataro, B. Lynikaite, J. Cvengroš, M. Marchini, U. Piarulli, C. Gennari, *European Journal of Organic Chemistry* **2009**, 2539-2547
- 46) "Unusual Mechanistic Course of Some NHC-Mediated Transesterifications", L. Pignataro,\* T. Papalia, A. M. Z. Slawin, S. M. Goldup, *Organic Letters* **2009**, *11*, 1643-1646
- 47) "A Practical Synthesis of the C1–C9 Fragment of Dictyostatin", C. Zanato, L. Pignataro, Z. Hao, C. Gennari, *Synthesis* **2008**, 2158-2162
- 48) "A New Class of Chiral Lewis Basic Metal-Free Catalysts for Stereoselective Allylations of Aldehydes", V. Simonini, M. Benaglia, L. Pignataro, S. Guizzetti, G. Celentano, *Synlett* **2008**, 1061-1065
- 49) "Stereoselective reactions involving hypervalent silicate complexes", M. Benaglia, S. Guizzetti, L. Pignataro, *Coordination Chemistry Reviews* **2008**, *252*, 492-512
- 50) "Enantioselective allylation of aldehydes with allyltrichlorosilane promoted by new chiral dipyrldimethane *N*-oxides", G. Chelucci, N. Belmonte, M. Benaglia, L. Pignataro, *Tetrahedron Letters* **2007**, *48*, 4037-4041
- 51) "A multifunctional proline-based organic catalyst for enantioselective aldol reactions", S. Guizzetti, M. Benaglia, L. Pignataro, A. Puglisi, *Tetrahedron: Asymmetry* **2006**, *17*, 2754-2760
- 52) "Structurally Simple Pyridine *N*-Oxides as Efficient Organocatalysts for the Enantioselective Allylation of Aromatic Aldehydes", L. Pignataro, M. Benaglia, R. Annunziata, M. Cinquini, F. Cozzi, *The Journal of Organic Chemistry* **2006**, *71*, 1458-1463
- 53) "Readily Available Pyridine- and Quinoline-*N*-Oxides as New Organocatalysts for the Enantioselective Allylation of Aromatic Aldehydes with Allyl(trichloro)silane", L. Pignataro, M. Benaglia, M. Cinquini, F. Cozzi, G. Celentano, *Chirality* **2005**, *17*, 396-403

### **Book chapters**

- 1) "Recent Applications of Phosphorus Reagents: from Organic Synthesis to Stereoselective Catalysis", L. Pignataro, U. Piarulli, in *Seminars in Organic Synthesis, XXXVI "A. Corbella" Summer School*, 13<sup>th</sup>-17<sup>th</sup> June 2011, pp. 129-158, Società Chimica Italiana, **2011**; ISBN: 978-88-86208-68-0)

Milano, 5<sup>th</sup> March 2019

Signature

