

# CURRICULUM VITAE of Prof. FABIO MARCHETTI

## Present position

**Full Professor** at the School of Science and Technology, scientific sector CHIM/03 General and Inorganic Chemistry (03/B1), University of Camerino (MC). He is currently a component of the research unit of the CNR ICCOM (Institute of chemistry of organometallic compounds) established in the autumn of 2014 at the University of Camerino.

## Training and Qualification

**School-leaving certificate** obtained in July, 1985 with marks 54/60 at the Scientific Lyceum "Galileo Galilei" of Macerata, Italy.

**Degree in Chemistry** obtained in July 24, 1991 with marks 110/110 "cum laude" at the University of Camerino (MC) by discussing a thesis entitled "Tin(IV) and organotin(IV) derivatives containing 4-acyl-5-pyrazolones and bis(4-acyl-5-pyrazolone) ligands" under the supervision of Prof. Augusto Cingolani and Prof. Flavio Bonati.

**Research contract** with the University of Camerino from September 28, 1991 to May 31, 1992, on the acquisition of two X-ray crystal structures within the research program "Coordination and organometallic chemistry of heavy metals".

**Qualifying Examination for the Profession of Chemist** in November 25, 1991 at the University of Camerino.

**School of Crystallography** at C.N.R. Institute "G. Giacomello" - Area della Ricerca - Monterotondo Stazione (Roma) (November 6-10, 1995).

**PhD in Inorganic Chemistry** (VIII<sup>th</sup> PhD cycle in Chemical Sciences at the University of Camerino, years 1993-1995), obtained in October 1, 1996 at the University of Camerino, by discussing the PhD dissertation entitled "Coordination modes of pyrazoles and pyrazole-containing N- and O-donor ligands towards different metal and organometal acceptors. Analytical, spectroscopic (IR, <sup>1</sup>H-, <sup>13</sup>C-, <sup>31</sup>P- and <sup>119</sup>Sn NMR, UV-Visible, <sup>119</sup>Sn Mössbauer) and structural studies (X-ray diffraction) of metal complexes", under the supervision of Prof. Augusto Cingolani.

**Researcher in General and Inorganic Chemistry** (CHIM/03) since November 14, 1994, at the Faculty of Mathematic, Physical and Natural Sciences of the University of Camerino.

**Visiting Professor** in Zaragoza University, within the **Azione Integrata Italia Spagna** (research activity in the group of Prof. Luis A. Oro, Zaragoza, October-November 1999 and July 2000).

**Associate Professor in General and Inorganic Chemistry** (CHIM/03) since October 1, 2002, at the Faculty of Science and Technology of the University of Camerino.

**Full Professor in General and Inorganic Chemistry** (CHIM/03) since March 28, 2011, at the School of Science and Technology of the University of Camerino.

## Research Activity

### Research Description

Fabio Marchetti is author and co-author of more than **190** papers in international peer-review journals, including **8** invited reviews, and more than **180** communications to national and international congresses. His research activity has been mainly carried out in the field of Coordination Chemistry of N- and O-donor heterocycle-based ligands towards main groups, transition and rare earth metal acceptors. His research has different goals:

- Ligand-design, synthesis and characterization.
- Synthesis of new metal complexes with catalytic activity.
- Synthesis of new metal complexes with selective anticancer and antimicrobial activity.

- Synthesis of new luminescent metal complexes to be applied as sensors.
- Synthesis of new metal complexes as low cost molecular precursors for the deposition of thin metallic films through the MOCVD technique.
- Synthesis of new inorganic coordination polymers and MOFs with antimicrobial activity or features suitable to application in gas-storage, gas-separation and stereoselective heterogeneous catalysis.

Fabio Marchetti has synthesized many hundred of new derivatives containing main groups, transition and rare earth metals. H-index: 36, with 4633 total citations (source: Scopus June 24, 2019). Link to ORCID personal profile: <https://orcid.org/0000-0001-5981-930X>. Scopus Author ID: 7102300433.

## Patents

Fabio Marchetti is author and co-author of 4 patents:

- 1) Claudio Pettinari, Riccardo Pettinari, **Fabio Marchetti**, Corrado Di Nicola, Gretta Veronica Badillo Pazmay, Maura Montani, Cristina Marchini, Giulio Lupidi, Aldo Amici, "Complessi di Rutenio con Attivita' Chemioterapica Antitumorale", Italian Patent **IT MI 2013A001359** (appl. number: **2013IT-MI01359**, appl. data: **07/08/2014**, publ. data: **08/02/2015**).
- 2) Claudio Pettinari, Riccardo Pettinari, **Fabio Marchetti**, Corrado Di Nicola, Gretta Veronica Badillo Pazmay, Maura Montani, Cristina Marchini, Giulio Lupidi, Aldo Amici, "Ruthenium Complexes with Antitumoral Chemotherapy Activites", International Patent **PCT/WO2015019296** (appl. number: **2014WO-IB63825**, appl. data: **06/08/2014**, publ. data: **12/02/2015**).
- 3) Jessica Palmucci, Claudio Pettinari, Mirco Marangoni, Stefania Scuri, **Fabio Marchetti**, Alessandra Crispini, "Complessi Acilpirazolonici di Argento(I) incorporati in Polietilene ad Alta Densita o in Cloruro di Polivinile con Potente Attivita' Antibatterica", Italian Patent **IT RM 2013A000382** (appl. number: **2013IT-RM00382**, appl. data: **28/06/2013**, publ. data: **29/12/2014**).
- 4) Jessica Palmucci, Claudio Pettinari, Mirco Marangoni, Stefania Scuri, **Fabio Marchetti**, Alessandra Crispini, "Silver(I) Acylpyrazolonate Complexes embedded in High Density Polyethylene or in polyvinyl chloride with Potent Antibacterial Activity", International Patent **PCT/IB2014062424** (appl. number: **2014WO-IB62424**, appl. data: **19/06/2014**, publ. data: **31/12/2014**).

## Reviewer Activity

Fabio Marchetti was/is in the evaluation panel of national and international research proposals for public and private institutions. He regularly acts as reviewer for the following international journals:

Inorganic Chemistry, Crystal Growth & Design, ACS Applied Materials & Interfaces, Coordination Chemistry Reviews, European Journal of Inorganic Chemistry, Journal of Organometallic Chemistry, Inorganic Chemistry Communications, New Journal of Chemistry, Polyhedron, Inorganica Chimica Acta, Journal of Molecular Structure, Spectrochimica Acta Part A, Applied Organometallic Chemistry, Journal of Thermal Analysis and Calorimetry, Journal of Photochemistry and Photobiology A, Synthetic Metals, Chemical Papers, Journal of Molecular Catalysis A, Zeitschrift für Anorganische und Allgemeine Chemie, Arabian Journal of Chemistry, International Journal of Chemical Kinetics, Bioinorganic Chemistry and Applications, Phosphorus Sulfur and Silicon and the Related Elements, Main Group Metal Chemistry.

## Scientific Schools, Workshops and Congresses Organization

Fabio Marchetti has been the **member of the organizing committee** of the following:

- **CO.G.I.C.O. '92, 1<sup>st</sup> Congress** of the Interdivisional Group of Organometallic Chemistry, September 9-12, 1992, Camerino.
- **I<sup>st</sup>, II<sup>nd</sup>, III<sup>rd</sup>, IV<sup>th</sup>, V<sup>th</sup>, VI<sup>th</sup>, VII<sup>t</sup>, VIII<sup>th</sup>, IX<sup>th</sup>, X<sup>th</sup> and XI<sup>th</sup> ISOC International School of Organometallic Chemistry**, September 9-13, 1997, September 11-15, 1999, September 9-13, 2001, September 6-10, 2003, September 10-14, 2005, September 8-12, 2007, September 5-9, 2009, August 27-31, 2011, August 30-September 3, 2013, and September 5-9, 2015, respectively, in Camerino. The XI<sup>th</sup> edition, September 2-6, 2017, has been organized in San Benedetto del Tronto.
- **III<sup>rd</sup> EuChem Conference on "Nitrogen Ligands in Organometallic Chemistry and Homogeneous Catalysis"**, September 8-12, 2004, Camerino.

- **1<sup>st</sup> International Workshop on New Hybrid Metal-Organic Materials**, January 16-18, 2009, Camerino.
- **1<sup>st</sup> International AIC School on “Scattering Techniques: From Microscopic To Atomic Structures”**, August 30-September 4, 2009, Camerino.
- **1<sup>st</sup> and 2<sup>nd</sup> editions of the Intensive Programme ERASMUS LLP Project ACAOC** (Advanced Catalysis and Organometallic Chemistry), held in Camerino on August 16-28, 2009 and August 1-12, 2010, respectively.
- **1<sup>st</sup> and 2<sup>nd</sup> editions of the Intensive Programme ERASMUS LLP Project EUCHEME** (EUropean CHemists for Energy, Materials and Environment), held in Camerino on August 7-18, 2012 and on July 31-August 11, 2013, respectively.
- **XLIII<sup>th</sup> National Congress of Inorganic Chemistry Division**, Italian Chemical Society, held in Camerino on September 9-12, 2015.

### *Invited lecturer*

- XXXI<sup>th</sup> Congresso Interregionale TUMA 2012, Francavilla al Mare (CH), Italy, June 18-20, 2012 (“Nuovi derivati arene rutenio(II) con attività catalitica e biologica”).
- XXV<sup>th</sup> ICOMC International Conference on Organometallic Chemistry, Lisbon (Portugal) September 2-7, 2012 (“(Arene)Ruthenium(II) Chemistry, From Organometallics And Catalysis To Biomedical Applications”).
- 6<sup>th</sup> Nanoschool on “Novel Surface Modification Methods and Innovative Nanomaterials for Analytical, Biodevice and Environmental Applications” held in Vilnius (Lithuania) November 7-9, 2012 (“Novel metal derivatives for luminescent and antimicrobial materials”).
- Invited lecture for Chemistry PhD students held at the Dipartimento di Chimica e Tecnologie, University of Calabria, Arcavacata di Rende (CS), Italy, October 26, 2017 (“Silver bullets for antimicrobial materials”).
- Chemistry and Chemical technology Conference 2019, Vilnius, Lithuania, May 16, 2019 (“Novel composite materials for antimicrobial applications”).

## **Teaching Activity**

### *Current teachings*

Fabio Marchetti currently holds the following teachings:

- **Organometallic Chemistry** (M.Sc. “Chemistry and Advanced Chemical Methodologies”) since the academic year 1999-2000.
- **Advanced Inorganic Chemistry** (M.Sc. “Chemistry and Advanced Chemical Methodologies”) since the academic year 2007-2008.
- **General and Inorganic Chemistry** (B.Sc. “Chemistry”) since the academic year 2012-2013.
- **Elements of Chemistry** (M.Sc. “Science of Primary Education” at the University of Macerata, Italy) since the academic year 2013-2014.

### *Supervisor of B.Sc., M.Sc. and PhD theses*

Fabio Marchetti was supervisor of more than 40 experimental B.Sc. and M.Sc. theses and supervisor of 7 PhD thesis.

### *Teaching Staff Periods abroad*

Fabio Marchetti has taken the following teachings abroad:

- Teaching Staff period at the **University of Galati, Romania**, in September 2008, where Fabio Marchetti did 8 h lessons on “Inorganic Solid State Chemistry” to the M.Sc. and PhD students and the invited lectures “Coordination Chemistry of Acylpyrazolones” and “New Luminescent Compounds” at the Department of Chemistry.

- Teaching Staff period at the **University of Seville, Spain**, in September 2010, where Fabio Marchetti did 6 h lessons on “Coordination chemistry: theoretical principle, structural aspects and applications” and “Organometallic chemistry: new compounds and applications in catalysis” to the M.Sc. and PhD students and the invited lecture “Acylpyrazolones Coordination Chemistry and Applications” at the Department of Inorganic Chemistry.
- Teaching Staff period at the **University of Granada, Spain**, in September 2011, where Fabio Marchetti did 6 h lessons on “Coordination chemistry: theoretical principle, structural aspects and applications” and “New organometallic compounds and their applications in catalysis” to the M.Sc. and PhD students and the invited lecture “Acylpyrazolones Coordination Chemistry and Applications” at the Department of Inorganic Chemistry.
- Teaching Staff period at the **University of Lisbon, Portugal**, in September 2012, where Fabio Marchetti did 5 h lessons on “Acylpyrazolones’ coordination chemistry and applications in antimicrobial composite materials” to the M.Sc. and PhD students and the invited lecture “New organometallic compounds and their applications in medicine and catalysis” at the Instituto Superior Tecnico of Technical University of Lisbon.
- Teaching Staff period at the **University of Seville, Spain**, in November 2012, where Fabio Marchetti did 6 h lessons on “Luminescence in metal derivatives: theoretical principle, structural aspects and potential applications” to the M.Sc. and PhD students and the invited lecture “New polynuclear silver(I) derivatives and their applications as antibacterial additives in polymeric materials” at the Department of Inorganic Chemistry.
- Teaching Staff period at the **University of Wroclaw, Poland**, in September 2013, where Fabio Marchetti did 6 h lessons on “Luminescence in metal derivatives: theoretical principle, structural aspects and potential applications” to the M.Sc. and PhD students and the invited lecture “Novel Silver(I) Compounds for Antimicrobial Materials” at the Faculty of Chemistry.
- Teaching Staff period at the **University of Granada, Spain**, in September 2014, where Fabio Marchetti did 6 h lessons on “Luminescence in metal derivatives: theoretical principle, structural aspects and potential applications in composite materials” to the M.Sc. and PhD students and the invited lecture “Composite materials containing Silver(I) additives with permanent antibacterial activity” at the Department of Chemistry of Granada University.

#### **Previous teachings at the University (since 1994)**

- **Laboratory of Chemistry** (Univ. Dipl. in “Technician for Eco-Sustainable Development”) in the academic year 1998-1999.
- **Laboratory of Inorganic Chemistry II** (M.Sc. “Chemistry and Advanced Chemical Methodologies”) from 1997 to 2003.
- **Laboratory of Didactic of Chemistry I** (Interuniversity School of Specialization for Teaching in School, Universities of Macerata and Camerino) from 1999 to 2007.
- **Advanced Didactic of Chemistry** (Interuniversity School of Specialization for Teaching in School, Universities of Macerata and Camerino) in the academic year 2007-2008.
- **Foundations of Chemistry I and II** (B.Sc. “Innovation Technologies”) from 2003 to 2007.
- **Physical Methods in Inorganic Chemistry** (M.Sc. “Chemistry and Advanced Chemical Methodologies”) from 2003 to 2009.
- **Inorganic Solid State Chemistry** (M.Sc. “Chemistry and Advanced Chemical Methodologies”) from 2003 to 2012.
- **Advanced Inorganic Materials** (M.Sc. “Chemistry and Advanced Chemical Methodologies”) in the academic year 2012-2013.
- **Didactic of Chemistry** (B.Sc. “Chemistry”) from 2011 to 2013.

#### **Tutorship in exercitations (1994-2001)**

Within the academic years from 1994 to 2001, Fabio Marchetti did **tutorship in theoretical exercitations** within the following courses:

- General and Inorganic Chemistry (Degree in Chemistry).
- General and Inorganic Chemistry (Degree in Biological Sciences).
- General and Inorganic Chemistry (Degree in Natural Sciences).
- General and Inorganic Chemistry (Degree in Physics).
- General and Inorganic Chemistry (Degree in Pharmacy).
- General and Inorganic Chemistry (Degree in Chemistry and Pharmaceutical Technologies).

He did also **tutorship in practical exercitations** within the following courses:

- Laboratory of General and Inorganic Chemistry (Degree in Chemistry).
- Laboratory of Inorganic Chemistry I (Degree in Chemistry).
- Laboratory of Inorganic Chemistry II (Degree in Chemistry).
- Laboratory of Inorganic Chemistry (Degree in Chemistry and Pharmaceutical Technologies).

### **Previous teachings at High Schools (1991-1994)**

- **Teacher** in "Chemistry", sector 13/A (ex A015), from November 12 1991 to December 9 1991 at I.T.I.S. "E. Mattei" in Recanati (MC)
- **Teacher** in "Chemistry", sector 13/A (ex A015), from January 14 1992 to June 12 1992 at the branch Institute in Castelfidardo (AN) of the I.T.I.S. "V. Volterra" in Torrette di Ancona (AN).
- **Teacher** in "Chemistry", sector 13/A (ex A015), from October 18 1994 to November 10 1994 at the branch Institute in Camerino (MC) of the I.T.I.S. "E. Divini" in S. Severino Marche (MC).

## **Tutoring and other Activities**

### **Seminars and Refresh Courses**

- Fabio Marchetti did many seminars in High Schools of Marche Region as activity of vocational guidance to University.
- Fabio Marchetti did the following invited seminars for teachers of High Schools, as part of the course "**Chemistry in the 21<sup>st</sup> century: a science at service to mankind**" organized by Provveditore agli Studi of Macerata:
  - "**Which Future for Chemistry?**" (March 27, 2000).
  - "**Chemistry as a tool of Society and other disciplines**" (April 19, 2000).
- Fabio Marchetti did the invited seminar "**Degrees and Jobs**" (June 3, 2000) in the Regional Congress "**School and Industry**" in Recanati (MC).
- Fabio Marchetti performed the **Chemistry Course for freshmen** (10 h) at San Benedetto del Tronto (UNICAM), September 2007.
- Fabio Marchetti performed the **Chemistry Course for freshmen** (9 h) at Camerino (UNICAM), October 2008.
- Fabio Marchetti performed a lesson (2 h) within the **Refresher Course for High School Teachers** in the **Energy Project** at Camerino (UNICAM), September 8, 2008.
- Fabio Marchetti has performed, since November 2008, a cycle of lessons (24 h) within the "**Refresher Course in Chemistry for High School Teachers**" in the "**Scientific Degrees Project**" (PLS: Progetto Lauree Scientifiche) at the Scientific Lyceum of Civitanova Marche (MC), organized in collaboration with the Ufficio Scolastico Regionale and with the sponsorship of the MIUR.

### **Organization of Study Days**

Fabio Marchetti have organized or participated to the organization of:

- "**How to teach Chemistry today?**" in Camerino September 25, 2006.
- "**Didactic of the concept of Energy**" in Camerino May 3, 2007.
- "**Analytical applications of Chemistry**" in Camerino November 7, 2008.
- "**Chemistry and its evolution: seminars on History and Didactic of Chemistry**" in collaboration with the S.C.I., in Camerino May 13 and 14.

- **“Chemistry today and tomorrow”** in collaboration with the S.C.I., in Camerino May 25, 2011.
- **“Adopt an Element: an invitation to the Periodic Table”** in Camerino May 24, 2013.

### **Didactical Projects**

- Fabio Marchetti produced in 2003 a **multimedia CD** on the **“Interaction between radiation and matter”** for the e-learning activities of the University of Camerino, as a co-author of Dr. Andrea Perali and Dr. Cristina Cimarelli of the University of Camerino, and in collaboration with Education.spa of Firenze. Such CD was awarded as **third** in its category at the **Pirelli Award edition 2003**.
- Fabio Marchetti produced in 2005 the on-line **“Course in Chemistry” for undergraduates** together with Dr. Riccardo Pettinari, and in 2006 he collaborated to the production of the on-line **“Course of General and Inorganic Chemistry” for the M.Sc. in Pharmacy** by Prof. Claudio Pettinari. Such courses are actually present as e-learning activities in UNICAM platform (<http://master.unicam.it>).
- Fabio Marchetti was member of the *teaching staff* and coordinator of the tasks for the **“Applications of Organometallic Chemistry in the fields of new energetic sources and for Green Chemistry”** in the **IP ERASMUS LLP Project** (network with 9 Universities- Siviglia, Grenada, Lisbona, Wroclaw, Galati, Tolosa, Aberdeen, Ioannina, Camerino): **Advanced Catalysis and Organometallic Chemistry (ACAOC)**, General Coordinator Prof. Claudio Pettinari. The first edition has been held in Camerino, 16-28 August 2009. The second edition has been held in Camerino, 1-12 August 2010.
- Fabio Marchetti was member of the *teaching staff* and coordinator of the tasks for the **“Applications of Organometallic Chemistry in the fields of new energetic sources and for Green Chemistry”** in the **IP ERASMUS LLP Project** (network with 10 Universities - Siviglia, Grenada, Lisbona, Wroclaw, Galati, Tolosa, Aberdeen, Pau, Vilnius, Camerino): **European Chemists for Energy, Materials and Environment (EUCHEME)**, General Coordinator Prof. Claudio Pettinari. The first edition has been held in Camerino, 7-18 August 2012. The second edition has been held in Camerino, 31 July-11 August 2013.
- Fabio Marchetti was the Coordinator and organizer of the **Piano Lauree Scientifiche Chimica** for Marche Region in the period 2010-2012, a national project funded by Minister of Instruction, University and Research, devoted to increase scientific vocations within High School’s students and chemistry’s graduated in Italy.

## **Financial Resources**

### **Research Projects Financed**

Fabio Marchetti is currently involved or has participated to the following Research Projects, by carrying out activity of synthesis and characterization of ligands and metal complexes and by coordinating specific sections and tasks of the projects:

- **Fondazione Carima Project** (1999): **“Synthesis of new Sn, Pt and Au derivatives with anticancer activity”**, Scientific Coordinator Prof. Augusto Cingolani.
- **Azione Integrata Italia Spagna MURST, Unicam-Saragozza** (1999), Scientific Coordinator Prof. Augusto Cingolani.
- **MURST Cooperlink 1999 Unicam-Lomonosov** (1999): **“Synthesis and spectroscopic characterization of new Rh complexes containing N- and/or O-donor ligands as potential catalysts in hydroformilation and hydrogenation reactions”**, Scientific Coordinator Prof. Claudio Pettinari.
- **Intas Call 2000** (INTAS-00-469): **“New mono and heterometallic azolates as new materials and new material sources.”** (Scientific cooperation between Camerino, Saragozza, Mosca and Novosibirsk Universities -registration n.326), Scientific Coordinator Prof. Claudio Pettinari.
- **PRIN 2000** (MM03027791\_001): **“Selective synthesis of organic carbamate, carbonate and carboxylate derivatives through sequential activation of carbon dioxide and other substrates”** Scientific Coordinator and Responsible of the Research Unit Prof. Michele Aresta.

- **MURST Cooperlink 2001 Unicam-Lomonosov** (2001): “Synthesis and spectroscopic characterization of new Rh complexes containing N- and/or O-donor ligands as potential catalysts in hydroformilation and hydrogenation reactions”, Scientific Coordinator Prof. Claudio Pettinari.
- **Fondazione Carima Project** (2001): “Synthesis of new derivatives of TiO<sub>2</sub> as precursors in osteointegration of dental implants through MOCVD technique”, Scientific Coordinator Prof. Claudio Pettinari.
- **PRIN 2003** (2003039774\_003): “Multiple insertion of unsaturated molecules in cationic Palladium complexes for the stereoselective synthesis of complex molecular systems with highly ordered structure” Scientific Coordinator Prof. Michele Aresta and Responsible of the Research Unit Prof.ssa Carla Carfagna.
- **Fondazione Carima Project** (2003): “Synthesis of new Sn, Pt and Au derivatives with anticancer activity”, Scientific Coordinator Prof. Augusto Cingolani.
- **Fondazione Carima Project** (2005): “Synthesis of new Sn, Pt and Au derivatives with anticancer activity”, Scientific Coordinator Prof. Augusto Cingolani.
- **Research Project financed by Dipharma Spa** (2005): “New metal catalysts of hydration reactions of double and triple bonds”, Scientific Coordinator Prof. Claudio Pettinari.
- **Research Project financed by Dipharma Spa** (2006): “Original synthesis of pharmaceutically active derivatives”, Scientific Coordinator Prof. Claudio Pettinari.
- **Research Project financed by Dipharma Spa** (2006): “Original synthesis of pharmaceutically active derivatives”, Scientific Coordinator Prof. Claudio Pettinari.
- **Universities Cooperation Project** (UNICAM ASSCIR06) with Russian Federation (University of Camerino - Lomonosov University of Moscow) for the year 2006: “Synthesis and spectroscopic characterization of new Rh complexes containing N- and/or O-donor ligands as potential catalysts in hydroformilation and hydrogenation reactions”, Scientific Coordinator Prof. Claudio Pettinari.
- **Azione Integrata Italia Spagna, Unicam-Siviglia** (2007): “New polyfunctional porous metallorganic coordination polymers containing N-donor heterocyclic ligands and carboxylate counterions”, Scientific Coordinator Prof. Claudio Pettinari.
- **Universities Cooperation Project** (UNICAM ASSCIR07) with Russian Federation (University of Camerino - Lomonosov University of Moscow) for the year 2007: “Synthesis and spectroscopic characterization of new Rh complexes containing N- and/or O-donor ligands as potential catalysts in hydroformilation and hydrogenation reactions”, Scientific Coordinator Prof. Claudio Pettinari.
- **MIUR Cooperlink Unicam-Lomonosov-Galati** (2007): “Advanced qualification and training of young researchers in the Chemistry of Polyfunctional Innovative materials and of New Sources for Energy and Environment”, Scientific Coordinator Prof. Claudio Pettinari.
- **Universities Cooperation Project** (UNICAM ASSCIR08) with Russian Federation (University of Camerino - Lomonosov University of Moscow) for the year 2008: “Advanced qualification and training of young researchers in the synthesis of new gold coordination complexes with anticancer activity and of new coordination polymers”, Scientific Coordinator Prof. Claudio Pettinari.
- **Progetto Giovani Tecnologi – Regione Marche 2008** “Design and synthesis of a family of new thermoplastic polyurethane materials with new biodegradation and biocompatibility features coupled to conventional properties, for biomedical applications”, Scientific Coordinator Prof. Claudio Pettinari, Scientific Tutor Prof. Fabio Marchetti.
- **Progetto Giovani Tecnologi – Regione Marche 2008** “Protocol for the optimization of the extraction process in the preparation of espresso coffee”, Scientific Coordinator Prof. Riccardo Piergallini, Scientific Tutor for the chemical aspects Prof. Fabio Marchetti.
- **Piano Lauree Scientifiche Chimica** for Marche Region, a national project funded by Minister of Instruction, University and Research, devoted to increase scientific vocations within High School’s students and chemistry’s graduated in Italy, Regional Coordinator Prof. Fabio Marchetti.
- **PRIN 2010-2011** (prot. 2010BNZ3F2): “DESCARTES - Development of Energy-targeted Self-assembled supramolecular systems: a Convergent Approach through Resonant information Transfer between Experiments and Simulations” Scientific Coordinator Prof. Maurizio Casarin and Responsible of the Research Unit Prof. Claudio Pettinari.

- **FAR 2011-2012** (STI000044): “Smart Polymeric Materials For Eco-Friendly Antimicrobial Application” Scientific Coordinator Prof. Fabio Marchetti.
- **POR MARCHE 2007-2013 – Azione 1.1.1.1 - Bando 2015** “GHEC Green Healty and Easy to clean Coffee-machine ” in collaboration with: NUOVA SIMONELLI SPA, CONERO GROUP SRL, GERMAN PLAST SRL, S.T.A.F. S.P.A., UNIVERSITA' POLITECNICA DELLE MARCHE – DIISM, UNICAM - UNIVERSITA' DEGLI STUDI DI CAMERINO – School of Science and Technology, Scientific Coordinator for UNICAM Prof. Fabio Marchetti.
- **PRIN 2015-2017** (prot. 20154X9ATP): “Towards a Sustainable Chemistry: Design of Innovative Metal-Ligand Systems for Catalysis and Energy Applications.” Scientific Coordinator Prof. Alberto Albinati and Responsible of the Research Unit Prof. Claudio Pettinari.
- **Bando COFIN MIN ambiente** (dd\_RIN\_22\_12\_2017\_196): “BIO-PAINT” funded by MINISTERO dell’AMBIENTE, in collaboration with **COSMOB** and **ICA**. Principal Investigator for UNICAM Prof. Fabio Marchetti.

## **Institutional Activity**

### ***Current institutional roles***

Fabio Marchetti currently holds the following institutional roles:

- **Member of the Council of PhD Course in Chemistry** since 2008.
- **Member of the “Board for Rules of Conduct”** of the University of Camerino from 2014.
- **Delegate of UNICAM in the “In Marche” Technological Cluster** since October 2017.

### ***Previous institutional roles***

Fabio Marchetti has previously held the following institutional roles:

- **Delegate of UNICAM in Post-graduate Education** (post secondary courses - IFTS, ITS - and postgraduate courses, TFA, PAS and Specialization Schools) from 2011 to 2017.
- **Regional Coordinator of PLS – section Chemistry** (PLS is “Progetto Lauree Scientifiche”, Scientific Degrees Project, 3<sup>rd</sup> edition 2010-2012, from MIUR the Minister of Instruction, University and Research) from February 2010 to September 2012.
- **Coordinator of the B.Sc. in Chemistry and M.Sc. in Chemistry and Advanced Chemical Methodologies** from 2008 to 2010.
- **Member of the Council of the Department of Chemical Sciences** from 2003 to 2010.
- **Coordinator of the course in Natural Sciences of the SSIS** (Interuniversity School of Specialization for Teaching in School, Universities of Macerata and Camerino) from 2004 to 2008.
- **Delegate of UNICAM in Training of Teachers** from 2004 to 2011.
- **Delegate of UNICAM in the Council of SSIS Marche** designed by the Rector of University of Camerino from 2008 to 2011.
- **Member of the “Steering Committee”** in the School of Advanced Studies of UNICAM from 2014 to 2018.
- **Fabio Marchetti** was one of the academic responsables and signatory of a **Cooperation Agreement** signed in January 21, 2009 concerning **Dual Master's Degree Programmes** between the Instituto Superior Tècnico of Lisbon, Portugal, and the University of Camerino, Italy, for the constitution of a Dual Master in Chemistry between the two Institutions.