

## Curriculum Vitae Prof. Cristina Prandi

*Born:* Bellinzago Novarese (NO) on 04/10/1965

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## Prof. Cristina Prandi scientific curriculum

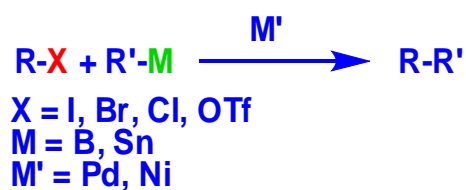
- She graduated in Biology in 1988 with a thesis in Organic Synthesis.
- She enrolled in the doctoral program of Biology and Biotechnology of Fungi, conducted graduate work under the supervision of Professor Iacopo Degani, and received her PH. D in June 1993.
- In July 1993 she was appointed Assistant Professor of Organic Chemistry at the Piemonte Orientale University and started working under the direction of Professor Venturello
- In 2004 she was hosted by the IRCOF Institute in Rouen and she held lectures on the use of superbases in organic synthesis.
- In 2006 she was appointed as associate professor of Organic Chemistry at the Turin University.
- She collaborated with prof. Angelo Albini in the field of the characterization of organic fragments obtained from TiO<sub>2</sub> degradation.
- She is member of the advisory board of the PhD School in Science and Technology of the Turin University.
- Since 2011 she is Head of the Master Degree Course in Advanced Methodologies in Chemistry of the Turin University.
- She has been WG leader of the National Project Converging Technologies **Biobits** whose task was the design and synthesis of Strigolactones analogues.
- Presently she is WG leader of the recently approved national project **SLEPS** focused on the synthesis of both inducers and inhibitors of Strigolactones and on the study of the effects of these molecules on plants.
- She is Chair of the Cost Action FA1206-2013/2017 **STREAM** (Strigolactones Enhance Agricultural Methodologies).

## Courses

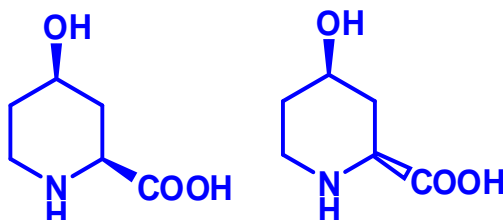
- **Organic Chemistry (corso B)** degree course in Biology
- **New Trends in Organic** Synthesis Master Degree Course in Advanced Methodologies in Chemistry
- **Organic Chemistry (corso A)** degree course in Chemistry

At the present, her research interests include organometallic chemistry, cross coupling transition metal catalyzed reactions and natural products synthesis

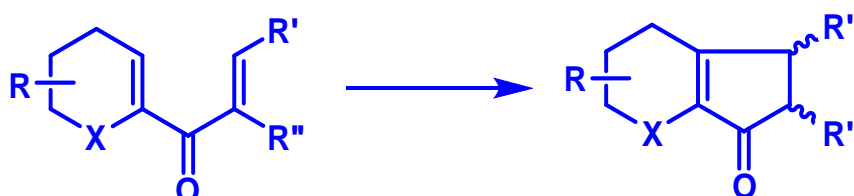
- Transition metal catalyzed cross-coupling reactions



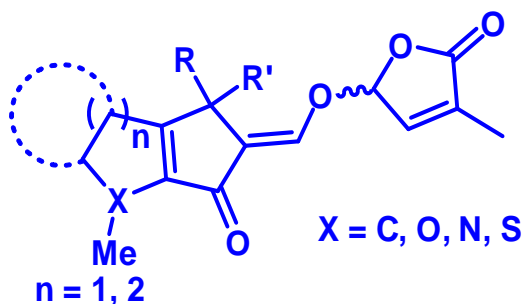
- Diastereo and enantioselective synthesis of 4-hydroxypipercolic acids



- Nazarov electrocyclization and heterocyclic systems synthesis



- Organocatalytic version of the Nazarov reaction.
- Synthesis of Structural analogues of Strigolactones as potent branching factor in mycorrhizal-arbuscular fungi (MA fungi).



## Recent Publications

### 1. Use of strigolactones and strigolactone analogs for treating proliferative conditions such as cancer

PCT Int. Appl. (2013), WO 2013042124 A1

Georgetow University; Kapulnik, Yoram; Koltai, Hinanit; Yarden, Ronit; Prandi, Cristina

2. **Analoghi sintetici degli strigolattoni, loro usi e metodi per la loro preparazione**  
Domanda di brevetto italiano: TO2011A00045  
Università di Torino; *Prandi Cristina*, Occhiato Ernesto Giovanni, Tabasso Silvia, Bonfonte Paola, Bova Maria Elena, Novero Mara
3. **Suzuki-Miyaura cross-coupling in acylation reactions, scope and recent developments**  
Blangetti, Marco; Rosso, Helena; *Prandi, Cristina*; Deagostino, Annamaria; Venturello, Paolo  
*Molecules* (2013), 18, 1188-1213
4. **Structure-Function Relations of Strigolactone Analogs: Activity as Plant Hormones and Plant Interactions**  
Cohen, Maja; *Prandi, Cristina*; Occhiato, Ernesto G.; Tabasso, Silvia; Wininger, Smadar; Resnick, Nathalie; Steinberger, Yosef; Koltai, Hinanit; Kapulnik, Yoram  
*Molecular Plant* (2013), 6(1), 141-152
5. **Strigolactone Analogs as Molecular Probes in Chasing the (SLs) Receptor/s: Design and Synthesis of Fluorescent Labeled Molecules**  
*Prandi, Cristina*; Rosso, Helena; Lace, Beatrice; Occhiato, Ernesto G.; Oppedisano, Alberto; Tabasso, Silvia; Alberto, Gabriele; Blangetti, Marco  
*Molecular Plant* (2013), 6(1), 113-127
6. **Synthesis of both enantiomers of the Streptomyces alkaloid 4-epi-SS20846A**  
Scarpi, Dina; Avataneo, Ottavia; *Prandi, Cristina*; Venturello, Paolo; Occhiato, Ernesto G.  
*Synthesis* (2012), 44(23), 3688-3692
7. **One-Pot Regio- and Stereoselective Synthesis of a'-Methoxy-g-pyrones: Biological Evaluation as Mitochondrial Respiratory Complex Inhibitors**  
Rosso, Helena; De Paolis, Michael; Collin, Valerie C.; Dey, Sriloy; Hecht, Sidney M.; *Prandi, Cristina*; Richard, Vincent; Maddaluno, Jacques  
*Journal of Organic Chemistry* (2011), 76(22), 9429-9437
8. **Polar organometallic reagents, an evergreen tool for tuning the reactivity of unsaturated systems**  
Deagostino, Annamaria; *Prandi, Cristina*; Tabasso, Silvia; Venturello, Paolo  
*Current Organic Chemistry* (2011), 15(14), 2390-2412
9. **New Potent Fluorescent Analogues of Strigolactones: Synthesis and Biological Activity in Parasitic Weed Germination and Fungal Branching**  
*Prandi, Cristina*; Occhiato, Ernesto G.; Tabasso, Silvia; Bonfante, Paola; Novero, Mara; Scarpi, Dina; Bova, Maria Elena; Miletto, Ivana  
*European Journal of Organic Chemistry* (2011), 2011(20-21), 3781-3793
10. **Superbase promoted synthesis of dienamides as useful intermediates for the synthesis of a-ketoamides, g-lactams and cyclic imino ethers**  
Blangetti, Marco; Deagostino, Annamaria; Gervasio, Giuliana; Marabello, Domenica; *Prandi, Cristina*; Venturello, Paolo  
*Organic & Biomolecular Chemistry* (2011), 9(7), 2535-2538
11. **Asymmetric synthesis of ethoxydienamines in superbasic medium mediated by chiral sulfinyl group**  
Blangetti, Marco; Croce, Gianluca; Deagostino, Annamaria; Mussano, Eleonora; *Prandi, Cristina*; Venturello, Paolo  
*Journal of Organic Chemistry* (2011), 76(6), 1814-1820

- 12. A concise route to  $\alpha'$ -methoxy- $\gamma$ -pyrones and verticipyronone based upon the desymmetrization of  $\alpha, \alpha'$ -dimethoxy- $\gamma$ -pyrone**  
De Paolis, Michael; Rosso, Helena; Henrot, Matthias; *Prandi, Cristina*; d'Herouville, Florent; Maddaluno, Jacques  
Chemistry - A European Journal (2010), 16(37), 11229-11232
- 13. The Heck reaction applied to 1,3- and 1,2-unsaturated derivatives, a way towards molecular complexity**  
Deagostino, Annamaria; *Prandi, Cristina*; Tabasso, Silvia; Venturello, Paolo  
Molecules (2010), 15, 2667-2685
- 14. Chemistry of lactam-derived vinyl phosphates: stereoselective synthesis of (+)-fagomine**  
Bartali, Laura; Scarpi, Dina; Guarna, Antonio; *Prandi, Cristina*; Occhiato, Ernesto G.  
Synlett (2010), (5), 839
- 15. A new, practical and efficient method for protecting alcohols as tert-butyl ethers**  
Barge, Alessandro; Occhiato, Ernesto G.; *Prandi, Cristina*; Scarpi, Dina; Tabasso, Silvia; Venturello, Paolo  
Synlett (2010), (5), 812-816
- 16. Heck reaction on protected 3-alkyl-1,2-dien-1-ols: an approach to substituted 3-alkenylindoles, 2-alkoxy-3-alkylidene-2,3-dihydrobenzofuranes and indolidines**  
Boi, Tommaso; Deagostino, Annamaria; *Prandi, Cristina*; Tabasso, Silvia; Toppino, Antonio; Venturello, Paolo  
Organic & Biomolecular Chemistry (2010), 8(9), 2020-2027
- 17. 1,3- and 1,2-Unsaturated derivatives as valuable synthetic tools in organometallic syntheses**  
Deagostino, Annamaria; *Prandi, Cristina*; Tabasso, Silvia; Venturello, Paolo  
Current Organic Chemistry (2010), 14(3), 230-263
- 18. Carbonylative palladium-catalyzed reactions of lactam-, lactone-, and thiolactone-derived vinyl triflates and phosphates for the synthesis of N-, O-, and S-heterocycles**  
Occhiato, Ernesto G.; Scarpi, Dina; *Prandi, Cristina*  
Heterocycles (2010), 80(2), 697-724
- 19. A new class of conjugated strigolactone analogues with fluorescent properties: synthesis and biological activity**  
Bhattacharya, Chaitali; Bonfante, Paola; Deagostino, Annamaria; Kapulnik, Yoram; Larini, Paolo; Occhiato, Ernesto G.; *Prandi, Cristina*; Venturello, Paolo  
Organic & Biomolecular Chemistry (2009), 7(17), 3413-3420
- 20. o-Benzenedisulfonimide as a powerful and recyclable organocatalyst for the Nazarov reaction**  
Barbero, Margherita; Cadamuro, Silvano; Deagostino, Annamaria; Dughera, Stefano; Larini, Paolo; Occhiato, Ernesto G.; *Prandi, Cristina*; Tabasso, Silvia; Vulcano, Rosaria; Venturello, Paolo  
Synthesis (2009), (13), 2260-2266
- 21. LIC-KOR-Promoted Synthesis of Alkoxydienyl Amines: An Entry to 2,3,4,5-Tetrasubstituted Pyrroles**

Blangetti, Marco; Deagostino, Annamaria; *Prandi, Cristina*; Tabasso, Silvia; Venturello, Paolo

Organic Letters (2009), 11(17), 3914-3917

**22. Predicting reactivity and stereoselectivity in the Nazarov reaction: a combined computational and experimental study**

Cavalli, Andrea; Pacetti, Alessandro; Recanatini, Maurizio; *Prandi, Cristina*; Scarpi, Dina; Occhiato, Ernesto G.

Chemistry - A European Journal (2008), 14(30), 9292-9304