

CURRICULUM VITAE

MARTA DE ZOTTI

(senza riferimenti a contatti e dati personali)

Professional Experience

- 2021 - 2030 **National Scientific Habilitation to Full Professor** - "Professore di I fascia" (Settore Concorsuale 03/C1, Chimica Organica).
- 2021 - ... **Associate Professor**- "Professore di II fascia"
Department of Chemical Sciences
University of Padova, Padova, Italy.
- 2018 - 2021 **Researcher** (RTDb)
Department of Chemical Sciences
University of Padova, Padova, Italy.
- 2017 **National Scientific Habilitation to Associate Professor** - "Professore di II fascia"
(Settore Concorsuale 03/C1, Chimica Organica).
- 2014 - 2018 **Future in Research-researcher** (RTDa)
Department of Chemical Sciences
University of Padova, Padova, Italy.
- July 2016 **Invited Visiting Professor**
Département de Chimie
Université de Montréal, Montreal, Quebec (Canada).
- 2011 - 2013 **Senior Postdoctoral Fellow**
Research topic: *Supramolecular peptide helical bundles in model membranes.*
Department of Chemical Sciences
University of Padova, Padova, Italy.
Advisor: Prof. Fernando Formaggio
- 2012 **Royal Society of Chemistry Postdoctoral Fellow**
Research topic: *Synthesis of peptides based on sterically hindered α -amino acids.*
School of Chemistry
University of Manchester, UK.
Advisor: Prof. Jonathan Clayden

- 2007 - 2011 **Postdoctoral Fellow**
Research topic: *Synthesis and conformation of membrane-active peptaibols.*
Department of Chemical Sciences
University of Padova, Padova, Italy.
Advisor: Prof. Claudio Toniolo
- November 2007 **Visiting Postdoctoral Fellow**
Research topic: *Antimicrobial activity and proteolytic stability of peptides.*
Department of Biotechnology
Chosun University, Gwangju, South Korea.
Advisor: Prof. Kyung-soo Hahm
- December 2006 **Visiting Researcher**
Research topic: *Chiral analysis of α -amino acids.*
Research Center for BioSystems, Land Use and Nutrition
University of Giessen, Giessen, Germany.
Advisor: Prof. Hans Brückner
- 2000 **Undergraduate Researcher (7 months)**
Research topic: *Enantioselective reductions of β -ketoesters catalyzed by enzymes.*
Department of Chemistry
Norwegian University of Science and Technology (NTNU), Trondheim, Norway.
Advisor: Prof. Thorleif Anthonsen

Education

- 2007 **Ph.D.** in Chemistry
University of Padova, Italy.
Title of thesis: *Peptaibid inhibitors of HIV-integrase.*
- 2002 **Master's Degree** in Chemistry
University of Padova, Italy.
Title of thesis: *Rigid peptide systems for dissociative electron transfer studies.*
Final mark: 109/110

International prizes, awards and honors

- 2021 **Winner** of the Dr. Comm. Alceste **Mion Award 2020**, assigned every five years by the University of Padova (Italy) *in recognition of work/research of exceptional scientific importance in the field of pure chemistry.*

- 2019 Invited by the Italian Republic President Sergio Mattarella to the traditional reception for the Republic Day (June 1st, 2019) as a "*Young Researcher who have distinguished herself in one of the various fields of science, technology or art*".
- 2017 Vittorio Erspamer **Young Investigators Prize 2017 - Honorable Mention** granted by the Italian Peptide Society.
- 2013 **Future in Research Grant** (RBFR13RQXM) by the Italian Ministry for University and Research. *2nd highest score in the PE domain.*
- 2013 **Cover image of the year 2013** of Biochim. Biophys. Acta (Biomembranes) [Bobone S., Gerelli Y., De Zotti M., et al., *BBA-Biomembranes*, 1828, 1013 (2013)].
- 2012 **Winner** of the **Royal Society Fellowship 2012 in Chemistry** through the Italian "Accademia dei Lincei".
- 2011 **Winner** of a two-year Senior Post-Doctoral **Fellowship "Assegno Senior"** granted by the University of Padova (Italy).
- 2011 **Selected** to give an oral presentation **as Young Investigator** at the 22nd American Peptide Symposium (San Diego, CA, June 25-30, 2011).
- 2010 **Selected** to give an oral presentation at the "**Murray Goodman**" **Young Investigator's** Session at the 12th Naples Workshop on Bioactive Peptides (Naples, June 4-7, 2010).
- 2004 **Awarded** the **Membership** to the American Peptide Society.
- 2004 **Winner** of the **Poster competition** at the 28th European Peptide Symposium (September 5-10, 2004, Prague, Czech Republic).
- 2004 **Winner** of a **Fellowship** to attend the 28th European Peptide Symposium (September 5-10, 2004, Prague, Czech Republic).
- 2000 **Awarded** an **ERASMUS** Fellowship at the Department of Chemistry of the Norwegian University of Science and Technology (NTNU), Trondheim, Norway. **Granted** a **Fellowship** by the Biocatalysis group of Prof. T. Anthonsen.

Press releases (*a selection*)

- 2019 **Il Mattino:** Ricerca Premiata: Marta De Zotti ricevuta da Mattarella al Quirinale.
- 2019 **Le Scienze:** Prodotto in laboratorio un filo molecolare che si auto-assembla: è un peptide bionico che si accende e trasforma la luce in corrente elettrica. /4356495/
- 2019 **Radio24:** Bio-elettronica appesa a un filo (molecolare) - Intervista 16/04/2019

- 2019 **Il Gazzettino**: Filo molecolare fa corrente. Quotidiano in stampa il 04/04/2019
- 2019 **PadovaOggi**: Agrofarmaci biodegradabili contro le malattie delle piante: il progetto "Peptbio" incanta Flormart. 30/09/2019.

Funding track record as *Principal Investigator*

- 2021 - ... **Project:** Sviluppo di un nuovo approccio ECONomico ed ECOSostenibile per la produzione di PEPTidi ad azione fitosanitaria (ECOPEP)
Role: **Principal Investigator**
Funding Agency: University of Padova
Funding Scheme: (Proof of Concept)PoC@UniPD
Amount: 68 k€
- 2020 - ... **Project:** Peptidi nella difesa fitosanitaria ecosostenibile delle culture. Sintesi e prove in campo (2105-0028-1463-2019)
Role: **Principal Investigator**
Funding Agency: European Social Fund, Regione Veneto
Funding Scheme: POR FSE 2014 - 2020 - (interdisciplinary projects)
Amount: 88 k€
- 2020 - ... **Project:** Selection of tricogine-derived peptides to control crop diseases
Role: **Principal Investigator**
Funding Agency: Sipcam OXON - Agrochemicals
Funding Scheme: Accordi Commerciali
Amount: 20 k€
- 2019 - ... **Project:** Antifungal activity of peptaibol analogs: synthesis, bioactivity evaluation and study of the mode of action (P-DiSC#04BIRD2019-UNIPD)
Role: **Principal Investigator**
Funding Agency: Università di Padova
Funding Scheme: P-DiSC
Amount: 35 k€
- 2018 - 2019 **Project:** PEPTBIO. Utilizzo di peptidi di origine naturale per la difesa sostenibile di colture rilevanti per il comparto ortofrutticolo veneto (2105-54-11-2018)
Role: **co-Principal Investigator** (with Prof. L. Sella, University of Padova)
Funding Agency: European Social Fund, Regione Veneto
Funding Scheme: POR FSE 2014 - 2020 - (interdisciplinary projects)
Amount: 59 k€

- 2017 - 2018 **Project:** Nuove biomolecole per la difesa fitosanitaria di prodotti ortofrutticoli e loro trasformati (2105-77-2216-2016)
Role: **co-Principal Investigator** (with Prof. F. Favaron, University of Padova)
Funding Agency: European Social Fund, Regione Veneto
Funding Scheme: POR FSE 2014 - 2020 - *tipologia B (collaborative projects)*
Amount: 56 k€
- 2016 - 2017 **Project:** Peptidi come anticrittogamici ecocompatibili. Sintesi su scala pre-industriale e studio dell'efficacia sul campo (2105-17-2121-2015)
Role: **Principal Investigator**
Funding Agency: European Social Fund, Regione Veneto
Funding Scheme: FSE 2014 - 2020 - *tipologia A*
Amount: 24 k€
- 2014 - ... **Project:** Peptide-based Conformational Switches: Design, Synthesis, and Applications (RBFR13RQXM)
Role: **National Coordinator**
Funding Agency: Italian Ministry for University and Research
Funding Scheme: Future in Research - *Futuro in Ricerca*
Amount: 502 k€
- 2016 **Project:** SRCD and fluorescence conformational study of antimicrobial lipopeptaibol analogues under cryogenic conditions that have been shown to correlate with the active conformation *in vivo* (SM13463)
Role: **Principal Investigator**
Funding Agency: Diamond Light Source, Oxford, UK
Funding Scheme: AP19
Amount: 2 k€; 5 days at the B23 beamline, Synchrotron Science Facility.
- 2015 **Project:** SRCD and fluorescence conformational study of lipopeptaibols (SM11528 and SM14298)
Role: **Principal Investigator**
Funding Agency: Diamond Light Source, Oxford, UK
Funding Scheme: AP17
Amount: 2.5 k€; 7 days at the B23 beamline, Synchrotron Science Facility.

Patents

- 2021 Italian Patent No. 102021000005057 (04/03/2021). Title: PEPTIDI AD AZIONE FITOSANITARIA. Pending.
- 2021 European Patent N° 19752555.3 (deposited date: 27.01.2021). Title: PEPTIDES SIMILAR TO THE NATURAL PEPTAIBOL TRICHOGIN GA IV WITH PHYTOSANITARY ACTIVITIES (*Scopus Index*: WO2020003220; PCT/IB2019/055484). Pending.
- 2020 US Patent N° 17/254,365 (deposited date: 21.12.2020). Title: PEPTIDES SIMILAR TO THE NATURAL PEPTAIBOL TRICHOGIN GA IV WITH PHYTOSANITARY ACTIVITIES (*Scopus Index*: WO2020003220; PCT/IB2019/055484). Pending.
- 2018 Italian Patent N° 102018000006817. Title PEPTIDI ANALOGHI DEL PEPTAIBOLICO NATURALE TRICOGINA GA IV CON ATTIVITA' FITOSANITARIA. Granted by the Italian Ministry of the Economic Development on 14/07/2020.

Teaching activities

Courses at the B.S.- and M.S.-level (*lauree triennali e magistrali*)

- 2014 - ... **Corso di Chimica Generale, Inorganica e Organica** (8 CFU) (64 hour-Course and 16 hours of Laboratory) for Bachelor's degree students of "*Riassetto del Territorio e tutela del paesaggio*" at the School of Agriculture and Veterinary Medicine, University of Padova, Italy. Average student satisfaction mark: **9/10**).
- 2004 - 2013 **Didattica di Supporto** (Laboratory Assistant and Tutor of Organic Chemistry) for B.S. and M.S. degrees in Chemistry, Industrial Chemistry, Materials Science, Biotechnology, and Viticulture and Enology Sciences and Technologies, University of Padova, Italy.

Supervision of students

- 2007 - 2015 Training and assistance of approximately **25** undergraduate students, **2** Ph.D. students, and **3** postdoctoral fellows.

Supervision of students as PI (*Relatore/Scientific Responsible*)

- 2015 - ... Supervisor to **6** Master and **9** Bachelor undergraduate students, **5** postgraduate fellows and **2** post-doc fellow.

Additional teaching activities

- 2014 - ... "Controrelatore" of several Master Thesis at the University of Padova.

2014 - ... Member of several B.S.- and M.S.-thesis evaluation commissions for the *Laurea Specialistica in Chimica*, *Laurea Specialistica in Chimica Industriale*, *Biotechnologie industriali* and *Laurea Triennale in Chimica* and *Laura triennale in Riassetto del Territorio e Tutela del Paesaggio* at the University of Padova.

Organization of conferences

- 2019 1-day workshop titled: *Innovazioni nella difesa fitosanitaria ecosostenibile delle colture* at the International Exhibition of Horticulture Flormart (26 September, Padova, Italy).
Role: **Organizer**.
- 2010 National Congress of the Division of Chemistry of the Biological Systems of the Italian Chemical Society (9-11 September, San Vito di Cadore, BL, Italy).
Role: **chief Organizer**, webmaster, front desk, editor of book of Proceedings.
- 2007 National Congress of the Division of Chemistry of the Biological Systems of the Italian Chemical Society (8-10 November, Montagnana, PD, Italy).
Role: **Organizer**, front desk, editor of book of Proceedings.

Institutional activities

- 2020 - ... **Responsible** and Promoter of the Memorandum for Bilateral Agreement between University of Padova and Universidad Nacional del Litoral, Argentina.
- 2016 **Organizer** of a *Frontiers in Chemistry* seminar, sponsored by the Department of Chemistry, University of Padova, Italy.
- 2014 - ... **Member** of the *Consiglio di Corso di Studi in Riassetto del Territorio e Tutela del Paesaggio*, University of Padova, Italy.
- 2013 - ... **Member** of the *Commissione Divulgazione Scientifica* of the Department of Chemistry, University of Padova, Italy.
- 2011 - ... **Organizer and responsible** for the stand of the Department of Chemistry, University of Padova, Italy, at the European Researchers' Night.

Commissions of trust

- 2011 - ... Reviewer for ISI journals among which: *RSC Adv.*, *J. Am. Chem. Soc.*, *Organic Letters*, *Eur. J. Org. Chem.*, *Biophys. J.*, *Tetrahedron*, *Biopolymers*, *J. Pept. Sci.*,

Chem. Biol. Drug Des., MDPI Journals; in the last two years, 35 manuscripts were evaluated. Reviewer of research projects for other Institutions.

Memberships

2021 - ...	Affiliation to the Centro Studi Levi Cases
2015 - ...	Italian Peptide Society (ItPS)
2010 - ...	European Peptide Society (EPS)
2004	American Peptide Society (awarded)
2002 - ...	Italian Chemical Society (SCI)

Scientific Contributions

Publications in peer-reviewed journals

Publications: **81** (of which **0** in press, **11** as corresponding author and **23** as first author).

co-Author of **3** invited articles, **2** cover-articles and **2** featured articles.

International Symposium Proceedings: **35** (**18** as corresponding author and **16** as first author).

Total citations: **1195**(*Google Scholar*)

H-index value: **21**(*Google Scholar*); **19** (*Web of Science*); **18** (*Scopus*)

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Bibliographic data related to the citations were obtained on 09/03/2021.

Oral and Poster Presentations

26 oral presentations (**5** invited: **4** at International Symposia and **1** at a National Symposium).

About **70** poster communications presented at National and International Meetings.

Other research experiences and habilitations

2013-2014 Postdoctoral research activity (CO.CO.CO. contract).

2002 Italian Habilitation to the profession as chemist.

Career breaks

2005 – 2006 Maternity Leave.

2008 – 2009 Maternity Leave.

Personal skills and competences

Organic chemistry. General organic synthesis. Solution and solid-phase synthesis of peptides containing coded and non-coded α -amino acids. Experience in orthogonal protection of amino acid side chains (amines, alcohols, carboxylic groups, thiols). Purification, chemical and physico-chemical characterizations of products. Enzyme-mediated organic reactions (*i.e.*, enantioselective reductions catalyzed by enzymes).

Purification and analysis. Flash chromatography. Sep-pack. Analytical and preparative RP-HPLC. Chemical and physico-chemical characterizations of products. Infrared absorption spectroscopy (FT-IR). 1D and 2D ^1H - and/or ^{13}C -Nuclear Magnetic Resonance (NMR). ESI-MS spectrometry. UV Absorption and fluorescence spectroscopies. Chiral and achiral gas chromatography. Cyclic voltammetry.

Conformational studies. Studies of peptide conformation in solution, in membrane-mimicking environment or in the presence of liposomes by circular dichroism, FT-IR absorption, 2D-NMR and molecular dynamics calculations. Single crystal growth for X-ray diffraction analysis.

Biochemistry. Proteolytic stability assays, preparation of bacterial cultures and extraction of enzymatic mixtures from fungi. Study of peptide interactions with model membranes (leakage experiments on small unilamellar vesicles of different lipid compositions), minimal inhibitory concentration against Gram-positive and Gram-negative bacteria.

Computer competence. Web developer. Systems: Windows, Macintosh, Linux. Applications: Office, Origin, ISIS Draw, ChemOffice, WebLab, MestreNova, XEasy, Molmol, XPlo, Sparky, Corel, Adobe and others. Instruments: among others, GC Varian 3300 and 3400 with Software Varian Star; Bruker NMR with Xwinnmr or TopSpin; CD Jasco; HPLC (Agilent, Shimadzu, Pharmacia); Purification system Biotage, UV Shimadzu.

Technical and organizing skills. Laboratory management. Assembly, maintenance and care of instrumentation and PCs. Project coordinator. Responsible for orders/quotations for chemicals/equipment.

Major research interests. Bioactive (antitumor/antimicrobial) peptides. 3D-structures. Mechanisms of peptide-membrane interaction. Peptide-based molecular devices.

Funding track record as participant

- 2021 - ... **Project:** BIOMOLECULAR DSSCs / CELLE SOLARI A BASE DI BIOMOLECOLE
 Role: **Participant**
 Funding Agency: Levi Cases Centre
 Funding Scheme: Levi Cases Call for projects
 Amount: 60 k€
- 2012 - 2016 **Project:** Antitumor activity mechanism of short peptaibols: study of the peptide-membrane interaction in healthy and cancer cells
 Role: **Participant**
 Funding Agency: Fondazione Cassa di Risparmio di Padova e Rovigo
 Funding Scheme: Eccellenza-2012
 Amount: 175 k€
- 2007 - ... additional **10** National and **2** International **Projects**
 Role: **Participant**
 Funding Agency: *among others*, Italian Ministry for University and Research
 Funding Scheme: *among others*, PRIN, Bilateral Project Italy-Korea 2006-2009.

Publications on ISI JOURNALS

* indicates corresponding author. # indicates co-first author

- 81*. Kubitzky S., Venanzi M., Biondi B., Lettieri R., De Zotti M.*, Gatto E., A pH-induced reversible conformational switch able to control the photocurrent efficiency in a peptide supramolecular system. *Chem. Eur. J.*, 27, 2810–2817 (2021). DOI: 10.1002/chem.202004527
80. Syryamina V.N., Sannikova N.E., De Zotti M., Gobbo M., Formaggio F., Dzuba S.A., Tylopeptin B peptide antibiotic in lipid membranes at low concentrations: self-assembling, mutual repulsion and localization. *Biochim. Biophys. Acta (Biomembranes)*, 1863, 183585 (2021). DOI: 10.1016/j.bbamem.2021.183585
79. Bertran A., Henbest K.B., De Zotti M., Gobbo M., Timmel C.R., Di Valentin M., Bowen A.M., Light-induced triplet–triplet electron resonance spectroscopy. *J. Phys. Chem. Lett.*, 12, 80–85. DOI: 10.1021/acs.jpcclett.0c02884 (2021).
- 78*. De Zotti M.*, Sella L., Bolzonello A., Gabbatore L., Peggion C., Bortolotto A., Elmaghraby I., Tundo S., Favaron F., Targeted amino acid substitutions in a *trichoderma* peptaibol confer activity against fungal plant pathogens and protect host tissues from *Botrytis cinerea* infection. *Int. J. Mol. Sci.*, 21, 7521 (2020).

77. Golysheva E.A., Samoilova R.I., De Zotti M., Formaggio F., Gobbo M., Dzuba S.A., ESE-detected molecular motions of spin-labeled molecules on a solid inorganic surface: motional models and onset temperatures. *Appl. Magn. Reson.*, 51, 1019–1029. DOI: 10.1007/s00723-020-01212-2 (2020).
76. De Zotti M., Corvi G., Gatto E., Di Napoli B., Mazzuca C., Palleschi A., Placidi E., Biondi B., Crisma M., Formaggio F., Toniolo C., Venanzi M., Controlling the formation of peptide films: fully developed helical peptides are required to obtain a homogenous coating over a large area. *ChemPlusChem*, 84,1688-1696 (2019).
- 75*. Gatto E., Kubitzky S., Schriever M., Cesaroni S., Mazzuca C., Marafon G., Venanzi M., De Zotti M.*, Building supramolecular DNA-inspired nanowires on gold surface: from 2D to 3D. *Angew. Chem. Int. Ed.*, 58, 7308-7312 (2019).
74. Golysheva E.A., Samoilova R.I., De Zotti M., Toniolo C., Formaggio F., Dzuba S.A., Electron spin echo detection of stochastic molecular librations: Non-cooperative motions on solid surface. *J. Magn. Reson.*, 309, 106621 (2019).
- 73*. De Zotti M.*, Syryamina V.N., Hussain R., Longo E., Siligardi G., Dzuba S.A., Stella L., Formaggio F., A temperature-driven, reversible helical handedness inversion in peptaibol analogs tuned by the C-terminal capping moiety. *ChemBioChem*, 20, 2125-2132 (2019).
- COVER ARTICLE.**
72. Salnikov E.S., De Zotti M., Bobone S., Mazzuca C., Raya J., Siano A.S., Peggion C., Toniolo C., Stella L., Bechinger B., Trichogin GA IV alignment and oligomerization in phospholipid bilayers. *ChemBioChem*, 20, 2141-2150 (2019).
71. Messina G.M.L., Di Napoli B., De Zotti M., Mazzuca C., Formaggio F., Palleschi A., Marletta G., A molecular sponge: pH-driven reversible squeezing of stimuli-sensitive peptide monolayers. *Langmuir*, 35, 4813-4824 (2019).
- 70*. De Zotti M.*, Clayden J., Extended diethylglycine homopeptides formed by desulfurization of their tetrahydrothiopyran analogues. *Org. Lett.*, 21, 2209–2212 (2019).
- 69.# Zanella S., Bocchinfuso G., De Zotti M.^{#co-first author}, Arosio D., Marino F., Raniolo S., Pignataro L., Sacco G., Palleschi A., Siano A. S., Piarulli U., Belvisi L., Formaggio F., Gennari C., Stella L., Rational design of antiangiogenic helical oligopeptides targeting the vascular endothelial growth factor receptors. *Front. Chem. - Chemical Biology*, 7, no. 170 (2019). DOI: 10.3389/fchem.2019.00170
68. Afanasyeva E.F., Syryamina V.N., De Zotti M., Formaggio F., Toniolo C., Dzuba S.A., Peptide antibiotic trichogin in model membranes: Self-association and capture of fatty acids. *Biochim. Biophys. Acta (Biomembranes)*, 1861, 524-531 (2019).
67. De Zotti M., Muzzi B., Gatto E., Di Napoli B., Mazzuca C., Palleschi A., Placidi E., Formaggio F., Toniolo C., Venanzi M., Tuning the morphology of nanostructured peptide films by

- introduction of a secondary structure conformational constraint: a case-study of hierarchical self-Assembly. *J. Phys. Chem. B*, 122, 6305-6313 (2018).
66. Syryamina V.N., De Zotti M., Toniolo C., Formaggio F., Dzuba S.A., Alamethicin self-assembling in lipid membranes: concentration dependence from pulsed EPR of spin labels. *Phys.Chem.Chem.Phys.*, 20, 3592-3601 (2018).
65. Gatto E., Palleschi M.E., Zangrilli B., De Zotti M., Di Napoli B., Palleschi A., Mazzuca C., Formaggio F., Toniolo C., Venanzi M., The several facets of trichogin GA IV: high affinity Tb (III) binding properties. a spectroscopic and molecular dynamics simulation study. *Peptide Science*, 110, e24081 (2018). **INVITED ARTICLE.**
64. Biondi B., Peggion C., De Zotti M., Pignaffo C., Dalzini A., Bortolus M., Oancea S., Hilma G., Bortolotti A., Stella L., Pedersen J.Z., Syryamina V.N., Tsvetkov Yu. D., Dzuba S.A., Toniolo C., Formaggio F., Conformational properties, membrane interaction, and antibacterial activity of the peptaibiotic chalciporin A: multi-technique spectroscopic and biophysical investigations on the natural compound and labeled analogs. *Peptide Science*, 110, e23083 (2018). **INVITED ARTICLE.**
63. Golysheva E.A., De Zotti M., Toniolo C., Formaggio F., Dzuba S.A., Low-temperature dynamical transition in lipid bilayers detected by spin-label ESE spectroscopy, *Appl. Magn. Reson.*, 49, 1369–1383 (2018).
- 62*. De Zotti M.,* Wright K., d'Aboville E., Toffoletti A., Toniolo C., Longhi G., Mazzeo G., Abbate S., Formaggio F., Synthesis of intrinsically blue-colored bis-nitronyl nitroxide peptidomimetic templates and their conformational preferences as revealed by a combined spectroscopic analysis, *J. Org. Chem.*, 82, 10033–10042 (2017).
61. Marafon G., Menegazzo I., De Zotti M., Crisma M., Toniolo C., Moretto A., Tuning morphological architectures generated through living supramolecular assembly of a helical foldamer end-capped with two complementary nucleobases, *Soft Matter*, 13, 4231-4240 (2017).
- 60.# Bortolus M.#, Dalzini A., Maniero A.L., Panighel G., Siano A., Toniolo C., De Zotti M. #co-first author, Formaggio F., Insights into peptide-membrane interactions of newly synthesized, nitroxide-containing analogs of the peptaibiotic trichogin GA IV using EPR, *Biopolymers (Pept. Sci.)*, 108, e22913 (2017).
59. Salnikov E. S., Raya J., De Zotti M., Zaitseva E., Peggion C., Ballano G., Toniolo C., Raap J., Bechinger B., Alamethicin supramolecular organization in lipid membranes from ¹⁹F solid-state NMR, *Biophys. J.*, 111, 2450–2459 (2016).
58. De Zotti M., Peggion C., Biondi B., Crisma M., Formaggio F., Toniolo C., Endothiopeptides: A conformational overview, *Biopolymers (Pept. Sci.)*, 106, 697-713 (2016).

- 57*. Marafon G., Mosconi D., Mazzier D., Biondi B., De Zotti M.* Moretto A., Shaping bioinspired photo-responsive microstructures by the light-driven modulation of selective interactions, *RSC Adv.*, 6, 73650-73659 (2016).
56. Messina G.M.L., De Zotti M., Lettieri R., Gatto E., Venanzi M., Formaggio F., Toniolo C., Marletta G., Design of lipidic platforms anchored within nanometric cavities by peptide hooks, *RSC Adv.*, 6, 46984-46993 (2016).
55. Dalzini A., Bergamini C., Biondi B., De Zotti M., Panighel G., Fato R., Peggion C., Bortolus M., Maniero A.M., The rational search for selective anticancer derivatives of the peptide Trichogin GA IV: a multi-technique biophysical approach, *Sci. Rep.*, 24000 (2016).
54. Tavano R., Malachin G., De Zotti M., Peggion C., Biondi B., Formaggio F., Papini E., Comparison of bactericidal and cytotoxic activities of trichogin analogs, *Data in Brief*, 6, 359-367 (2016).
53. Milov A. D., Tsvetkov Yu. D., Raap J., De Zotti M., Formaggio F., Toniolo C., Conformation, self-aggregation, and membrane interaction of peptaibols as studied by pulsed electron double resonance (PELDOR) spectroscopy, *Biopolymers (Pept. Sci.)*, 106, 6-24 (2016). **COVER ARTICLE.**
52. Syryamina V.N., Samoilova R.I., Tsvetkov Yu.D., Ischenko A.V., De Zotti M., Gobbo M., Toniolo C., Formaggio F., Dzuba S.A., Peptides on the surface: Spin-label EPR and PELDOR study of adsorption of the antimicrobial peptides trichogin GA IV and ampullosporin A on the silica nanoparticles. *Appl.Magn.Reson.*, 47, 309-320 (2016).
- 51.# Bobone S.#, De Zotti M.#co-first author, Bortolotti A., Biondi B., Ballano G., Palleschi A., Toniolo C., Formaggio F., Stella L., The fluorescence and infrared absorption probe *para*-cyanophenylalanine: effect of labeling on the behavior of different membrane-interacting peptides, *Biopolymers (Pept. Sci.)*, 104, 521-532 (2015).
50. Zanella S., Mingozi M., Dal Corso A., Fanelli R., Arosio D., Cosentino M., Schembri L., Marino F., De Zotti M., Formaggio F., Pignataro L., Belvisi L., Piarulli U., Gennari C. Synthesis, characterization and biological evaluation of a dual action ligand targeting $\alpha V\beta 3$ integrin and VEGF receptors, *ChemistryOpen*, 4, 633-641 (2015). **SPOTLIGHTED on CHEM. EUR. J.**
49. Crisma M., De Zotti M., Moretto A., Peggion C., Drouillat B., Wright K., Couty F., Toniolo C., Formaggio F., Single and multiple peptide γ -turns: literature survey and recent progress, *New J. Chem.*, 39, 3208-3216 (2015). **PERSPECTIVE ARTICLE.**
48. Crisma M., De Zotti M., Formaggio F., Peggion C., Moretto A., Toniolo C., Handedness preference and switching of peptide helices. Part II: Helices based on noncoded α -amino acids, *J. Pept. Sci.*, 21, 148-177 (2015).
47. De Zotti M., Bobone S., Bortolotti A., Longo E., Biondi B., Peggion C., Formaggio F., Toniolo C., Dalla Bona A., Kaptein B., Stella L., 4-cyano- α -methyl-L-phenylalanine as a spectroscopic

- marker for the investigation of peptaibiotic-membrane interactions, *Chem. Biodivers.*, 12, 513-527 (2015).
46. Tavano R., Malachin G., De Zotti M., Peggion C., Biondi B., Formaggio F., Papini E., The peculiar N- and C-termini of trichogin GA IV are needed for membrane interaction and human cell death induction at doses lacking antibiotic activity, *Biochim. Biophys. Acta (Biomembranes)*, 1848, 134–144 (2015)
45. De Zotti, M., Formaggio, F., Crisma, M., Peggion, C., Moretto, A., Toniolo, C., Handedness preference and switching of peptide helices. Part I: Helices based on protein amino acids, *J. Pept. Sci.*, 20, 307-322 (2014).
44. Torsello M., Orian L., De Zotti M., Saini R., Formaggio F., Polimeno A., Energetics of oxo- and thio-dipeptides formation via amino acid condensation: a systematic computational analysis, *PhysChemChemPhys*, 16, 17515-17522 (2014).
- 43*. De Zotti M.*, Ballano G., Jost M., Salnikov E.S., Bechinger B., Oancea S., Crisma M., Toniolo C., Formaggio F., Solution synthesis, conformational analysis, and antimicrobial activity of three alamethicin F50/5 analogs bearing a trifluoroacetyl label, *Chem. Biodivers.*, 11, 1163-1191 (2014).
42. Iftemi S., De Zotti M., Formaggio F., Toniolo C., Stella L., Luchian T., Electrophysiology investigation of trichogin GA IV activity in planar lipid membranes reveals ion channels of well-defined size, *Chem. Biodivers.*, 11, 1069-1077 (2014).
41. Žukauskaitė A., Moretto A., Peggion C., De Zotti M., Šačkus A., Formaggio F., De Kimpe N., Mangelinckx S., Synthesis and conformational study of model peptides containing N-substituted 3-aminoazetidino-3-carboxylic acids, *Eur. J. Org. Chem.*, 2312-2321 (2014).
40. Wright K., d'Aboville E., Scola J., Margola T., Toffoletti A., De Zotti M., Crisma M., Formaggio F., Toniolo C., A quaternary nitronyl nitroxide α -amino acid: synthesis, configurational and conformational assignments, and physico-chemical properties, *Eur. J. Org. Chem.*, 1741-1752 (2014).
39. Gatto E., Quatela A., Caruso M., Tagliaferro R., De Zotti M., Formaggio F., Toniolo C., Di Carlo A., Venanzi M., Mimicking nature: a novel peptide-based bio-inspired approach for solar energy conversion, *ChemPhysChem*, 15, 64-68 (2014).
38. Orcel U., De Poli M., De Zotti M., Clayden J., The N-terminal nonapeptide of cephaibols A and C: a naturally occurring example of mismatched helical screw-sense control, *Chem. Eur. J.*, 19, 16357–16365 (2013).
37. De Poli M., De Zotti M., Raftery J., Aguilar J., Morris G., Clayden, J., Left-handed helical preference in an achiral peptide chain is induced by an L-amino acid in an N-terminal type II β -turn, *J. Org. Chem.*, 78, 2248-2255 (2013). **FEATURED ARTICLE.**

36. Bortolus M., De Zotti M., Formaggio F., Maniero A.L., Alamethicin in bicelles: orientation, aggregation, and bilayer modification as a function of peptide concentration, *Biochim. Biophys. Acta (Biomembranes)*, 1828, 2620-2627 (2013).
35. Peggion C., Biondi B., Battistella C., De Zotti M., Oancea S., Formaggio F., Toniolo C., Spectroscopically labeled peptaibiotics. synthesis and properties of selected trichogin GA IV analogs bearing a side-chain monofluorinated aromatic amino acid for ¹⁹F NMR Analysis, *Chem. Biodivers.*, 10, 904-919 (2013).
34. Gatto E., Bocchinfuso G., Palleschi A., Oancea S., De Zotti M., Formaggio F., Toniolo C., Venanzi M., 3D-Structure, dynamics, and activity of synthetic analogs of the peptaibiotic trichodecenin I, *Chem. Biodivers.*, 10, 887-903 (2013).
33. Peggion C., Biondi B., De Zotti M., Oancea S., Formaggio F., Toniolo C., Spectroscopically labeled peptaibiotic analogs. The 4-nitrophenylalanine infrared absorption probe inserted at different positions into trichogin GA IV, *J. Pept. Sci.*, 19, 246-256 (2013).
32. Bobone S., Gerelli Y., De Zotti M., Bocchinfuso G., Farrotti A., Orioni B., Sebastiani F., Latter E., Penfold J., Senesi R., Formaggio F., Palleschi A., Toniolo C., Fragneto G., Stella L., Membrane thickness and the mechanism of action of the short peptaibol trichogin GA IV, *Biochim. Biophys. Acta (Biomembranes)*, 1828, 1013–1024 (2013). **COVER ARTICLE.**
31. Milov A. D., Tsvetkov Yu. D., De Zotti M., Prinzivalli C., Biondi, B., Formaggio F., Toniolo C., Gobbo M., Aggregation modes of the spin mono-labeled tylopeptin B and heptaibin peptaibiotics in frozen solutions of weak polarity as studied by PELDOR spectroscopy, *J. Struct. Chem.*, 54 S1, S73-S85 (2013).
30. Milov A. D., Tsvetkov Yu. D., Maryasov A.G., Gobbo M., Prinzivalli C., De Zotti M., Formaggio F., Toniolo C., Conformational properties of the spin-labeled tylopeptin B and heptaibin peptaibiotics based on PELDOR spectroscopy data, *Appl. Magn. Reson.*, 44, 495-508 (2013).
- 29*. De Zotti M.*, Biondi B., Crisma M., Hjørringgaard C.U., Berg A., Brückner H., Toniolo C., Isovaline in naturally occurring peptides: a nondestructive methodology for configurational assignment, *Biopolymers (Pept. Sci)*, 98, 36-49 (2012).
28. Bobone S., Roversi D., Giordano L., De Zotti M., Formaggio F., Toniolo C., Park Y., Stella L., Lipid dependence of antimicrobial peptide activity is an unreliable experimental test for different pore models, *Biochemistry*, 51, 10124-10126 (2012).
27. Syryamina V.N., De Zotti M., Peggion C., Formaggio F., Toniolo C., Raap J., Dzuba S.A., A molecular view on the role of cholesterol upon membrane insertion, aggregation, and water accessibility of the antibiotic lipopeptide trichogin GA IV as revealed by EPR, *J. Phys. Chem. B*, 116, 5653–5660 (2012).
26. Nelissen J., Nuyts K., De Zotti M., Lavigne R., Lamberigts C., De Borggraeve W.M., Total synthesis of Septocylindrin B and C-terminus modified analogues, *Plos One*, 7, e51708 (2012).

- 25*. De Zotti M.*, Biondi B., Park Y., Hahm K.-S., Crisma M., Toniolo C., Formaggio F., Antimicrobial lipopeptaibol trichogin GA IV: role of the three Aib residues on conformation and bioactivity, *Amino Acids*, 43, 1761-1777 (2012).
24. De Zotti M., Biondi B., Peggion C., De Poli M., Fathi H., Oancea S., Toniolo C., Formaggio F., Partial thioamide scan on the lipopeptaibiotic trichogin GA IV. Effects on folding and bioactivity, *Beilstein J. Org. Chem.*, 8, 1161–1171 (2012). **INVITED ARTICLE.**
23. De Zotti M., Biondi B., Peggion C., Formaggio F., Park Y., Hahm K.-S., Toniolo C., Trichogin GA IV: a versatile template for the synthesis of novel peptaibiotics, *Org. Biomol. Chem.*, 10, 1285-1299 (2012).
- 22*. De Zotti M.*, Biondi B., Peggion C., Park Y., Hahm K.-S., Formaggio F., Toniolo C., Synthesis, preferred conformation, protease stability, and membrane activity of heptaibin, a medium-length peptaibiotic, *J. Pept. Sci.*, 17, 585-594 (2011).
21. Smeazzetto S., De Zotti M., Moncelli M.R., A new approach to detect and study ion channel formation in microBLMs, *Electrochem. Commun.*, 13, 834-836 (2011).
20. Jose R. A., De Zotti M., Peggion C., Formaggio F., Toniolo C., De Borggraeve W. M., Comparison of distance information in [TOAC¹, Glu(OMe)^{7,18,19}] alamethicin F50/5 from paramagnetic relaxation enhancement measurements with data obtained from an X-ray diffraction-based model, *J. Pept. Sci.*, 17, 377-382 (2011).
19. De Zotti M., De Borggraeve W., Kaptein B., Broxterman Q.B., Singh S.B., Felock P.J., Hazuda, D.J., Formaggio F., Toniolo C., Triple Hyp→Pro replacement in integramide A, a peptaib inhibitor of HIV-1 integrase: Effect on conformation and bioactivity, *Biopolymers (Pept. Sci.)*, 96, 49–59 (2011).
18. Annese C. D'Accolti L., De Zotti M., Fusco C., Toniolo C., Williard P., Curci R., Concerning selectivity in the oxidation of peptides by dioxiranes. Further insight into the effect of carbamate protecting groups, *J. Org. Chem.*, 75, 4812–4816 (2010).
17. De Zotti M., Schievano E., Mammi S., Kaptein B., Broxterman Q.B., Singh S.B., Brückner H., Toniolo C., Configurational assignment of D- and L-isovalines in intact, natural and synthetic, peptides by 2D-NMR spectroscopy, *Chem. Biodivers.*, 7, 1612-1624 (2010).
16. Gobbo M., Poloni C., De Zotti M., Peggion C., Biondi B., Ballano G., Formaggio F., Toniolo C., Synthesis, preferred conformation, and membrane activity of medium-length peptaibiotics: Tylopeptin B, *Chem. Biol. Drug. Des.*, 75, 169-181 (2010).
15. De Zotti M., Damato F., Formaggio F., Crisma M., Schievano E., Mammi S., Kaptein B., Broxterman Q.B., Felock P.J., Hazuda D.J., Singh S.B., Kirschbaum J., Brückner H., Toniolo C., Total synthesis, characterization, and conformational analysis of the naturally-occurring hexadecapeptide integramide A and its diastereomer at positions 14 and 15, *Chem. Eur. J.*, 16, 316-327 (2010).

14. De Zotti M., Biondi B., Formaggio F., Toniolo C., Stella L., Park Y., Hahm K.-S., Trichogin GA IV: an antibacterial and protease-resistant peptide, *J. Pept. Sci.*, 15, 615-619 (2009).
13. De Zotti M., Formaggio F., Kaptein B., Broxterman Q.B., Felock P.J., Hazuda D.J., Singh S.B., Brückner H., Toniolo C., Complete absolute configuration of integramide A, a natural, 16-mer, peptide inhibitor of HIV-1 integrase, elucidated by total synthesis, *ChemBioChem*, 10, 87-90 (2009).
12. Milov A.D., Samoilova R.I., Tsvetkov Yu.D., De Zotti M., Formaggio F., Toniolo C., Handgraaf J.-W., Raap J., Structure of self-aggregated alamethicin in ePC membranes detected by PELDOR and ESEEM spectroscopies, *Biophys. J.*, 96, 3197-3209 (2009).
11. Salnikov E.S., De Zotti M., Formaggio F., Li X., Toniolo C., O'Neil J.D.J., Raap J., Dzuba S.A., Bechinger B., Alamethicin topology in phospholipid membranes by oriented solid-state NMR and EPR spectroscopies: a comparison, *J. Phys. Chem.(B)*, 113, 3034-3042 (2009).
10. Milov A.D., Samoilova R.I., Tsvetkov Yu.D., De Zotti M., Toniolo C., Raap J., PELDOR conformational analysis of bis-labeled alamethicin aggregated in phospholipid vesicles, *J. Phys. Chem. (B)*, 122, 13469-13472 (2008).
9. Dutot L., Wright K., Gaucher A., Wakselman M., Mazaleyra J.-P., De Zotti M., Peggion C., Formaggio F., Toniolo C., The Bip method, based on the induced circular dichroism of a flexible biphenyl probe in terminally protected -Bip-Xaa*- dipeptides, for assignment of the absolute configuration of β -amino acids, *J. Am. Chem. Soc.*, 130, 5986-5992 (2008).
8. Dutot L., Wright K., Wakselman M., Mazaleyra J.-P., Peggion C., De Zotti M., Formaggio F., Toniolo C., Central-to-axial chirality transfer and induced circular dichroism in 6,7-dihydro-5H-dibenz[c,e]azepine derivatives of α - and β -amino esters, *Tetrahedron Lett.*, 49, 3475-3479 (2008).
7. Wright K., Lohier J.-F., Wakselman M., Mazaleyra J.-P., Formaggio F., Peggion C., De Zotti M., Toniolo C., Synthesis of enantiopure, axially chiral, C $^{\alpha}$ -tetrasubstituted α -amino acids with binaphthyl-based crowned side chains and 3D-structural analysis of their peptides, *Tetrahedron*, 64, 2307-2320 (2008).
6. Wright K., Anddad R., Lohier J.-F., Steinmetz V., Wakselman M., Mazaleyra J.-P., Formaggio F., Peggion C., De Zotti M., Keiderling T.A., Huang R., Toniolo C., Synthesis, ion complexation study, and 3D-structural analysis of peptides based on crown-carrier, C $^{\alpha}$ -methyl-L-DOPA amino acids, *Eur. J. Org. Chem.*, 1224-1241 (2008).
5. Bartucci R., Guzzi R., De Zotti M., Toniolo C., Sportelli L., Marsh D., Backbone dynamics of alamethicin bound to lipid membranes: spin-echo electron paramagnetic resonance of TOAC-spin labels, *Biophys. J.*, 94, 2698-2705 (2008).
4. Crisma M., Andreetto E., De Zotti M., Moretto A., Peggion C., Formaggio F., Toniolo C., Crystal-state of novel, Aib-based, turn and helical peptides, *J. Pept. Sci.*, 13, 190-205 (2007).

3. Crisma M., Moretto A., De Zotti M., Formaggio F., Kaptein B., Broxterman Q. B., Toniolo C., Turn stabilization in short peptides by C^α-methylated α-amino acids, *Biopolymers (Pept. Sci.)*, 80, 279-293 (2005).
2. Sundby E., De Zotti M., Anthonsen T., The enantioselectivity of reduction of ethyl 4-halo-3-oxobutanoate catalyzed by *Geotrichum Candidum* depends on the cofactor, *J. Mol. Catal. B: Enzymatic*, 21, 63-66 (2003).
1. Moretto A., De Zotti M., Scipionato L., Formaggio F., Crisma M., Toniolo C., Antonello S., Maran F., Broxterman Q. B., Serendipitous discovery of peptide dialkyl peroxides, *Helv. Chim. Acta*, 85, 3099-3112 (2002).

Other ISI Articles

- L. Falvello, P. Lotti, C. Massera, S. C. Tarantino, M. Zema, H. Puschmann, M. Y. Agbahoungbata, J. Andreo, S. A. Sahadevan, A. Bismuto, G. Bonfant, S. A. S. Bonou, C. Carraro, M. De Zotti, et al., Poly[(μ -phenylphosphonato)zinc(II)], *IUCrData*, 4, x191222 (2019).

Book Chapters

- Luca Sella, Van V. Vu, Alessandra Quarantin, Rocco Caracciolo, Rakshita Govind, Angela Bolzonello, Silvio Tundo, Marta De Zotti, Francesco Favaron, Hoang D. Nguyen, Quynh L. Le, Trung T. Nguyen, Le T. Do, Hung M. Nguyen, Sustainable Methods to Control *Pyricularia oryzae*, the Causal Agent of Rice Blast Disease. In: Innovations in Land, Water and Energy for Vietnam's Sustainable Development, Editor: Dr. Mariano Anderle. Springer International Publishing (2021).

Proceedings

- C32.* De Zotti M., Guryanov I., Tennikova T., Bhattacharya M., Urtti A., Trichogin analogs for retinal drug delivery. In Proceedings of the 35th European Peptide Symposium, 2018, pp. 289-291.
- C31.* De Zotti M., Sella L., Quarantin A., Castiglioni C., Bolzonello A., Favaron F., Picco A.M., Govind R., Tundo S., Odorizzi S., Do L.T., Van V.V., Hung N.M., Novel peptide-based control measures against the rice fungal pathogen *Pyricularia oryzae*, In Proceedings of the 35th European Peptide Symposium, 2018, pp. 248-250.
- C30.* De Zotti M., Wright K., d'Aboville E., Toffoletti A., Toniolo C., Longhi G., Mazzeo G., Abbate S., Formaggio F., The Helical Screw Sense of Blue-Colored, *bis*-Nitronyl Nitroxide Peptides as Revealed by a Vibrational Circular Dichroism Analysis, In Peptides 2016: Proceedings of the 34th European Peptide Symposium, 2016, pp. 102-103.
- C29.* De Zotti M., Di Napoli B., Mazzuca C., Palleschi A., Messina G.M.L., Marletta G., Formaggio F., A Study on the Structural Stability of the Peptide 2.0(5)-Helix by Infrared Absorption Spectroscopy, In Peptides 2015: Proceedings of the 24th American Peptide Symposium, Srivastava V., Yudin A., Lebl M. Eds., Orlando, FL, 2015, pp. 210-211.

- C28.* Caruso M., Gatto E., Palleschi A., De Crescenzi M., Wright K., Longo E., De Zotti M., Formaggio F., Toniolo C., Venanzi M., A New Concept: A Peptide Monolayer for Accurate Positioning of Electroactive Probes at Close Distance from a Gold Surface, In Peptides 2015: Proceedings of the 24th American Peptide Symposium, Srivastava V., Yudin A., Lebl M. Eds., Orlando, FL, **2015**, pp. 141-142.
- C27. Toniolo C., Bortolus M., Dalzini A., De Zotti M., Maniero A.L. Lipid bicelles as a model system to study the interaction of hydrophobic and amphipathic antimicrobial peptides with lipid membranes, In Peptides 2014 Proceedings of the 33rd European Peptide Symposium, Naydenova E., Pajpanova T., Danalev D. Eds., Sofia, Bulgaria, **2014**, pp. 298-299.
- C26. Iftemi S., De Zotti M., Formaggio F., Toniolo C., Stella L. and Luchian T., Trichogin GA IV forms ion channels of well-defined size in planar lipid membranes, In Peptides 2014 Proceedings of the 33rd European Peptide Symposium, Naydenova E., Pajpanova T., Danalev D. Eds., Sofia, Bulgaria, **2014**, pp. 296-297.
- C25. Bobone S., Bortolotti A., De Zotti M., Ballano G., Formaggio F., Toniolo C. and Stella L., Spectroscopic study of antimicrobial peptides labeled with (pCN)Phe and (α Me)(pCN)Phe, In Peptides 2014 Proceedings of the 33rd European Peptide Symposium, Naydenova E., Pajpanova T., Danalev D. Eds., Sofia, Bulgaria, **2014**, pp. 292-293.
- C24. Wright K., d Aboville E., Toffoletti A., De Zotti M., Formaggio F. and Toniolo C. The first helical peptide with two pendant nitronyl nitroxide free radical units, In Peptides 2014 Proceedings of the 33rd European Peptide Symposium, Naydenova E., Pajpanova T., Danalev D. Eds., Sofia, Bulgaria, **2014**, pp. 188-189.
- C23. Stella L., Bocchinfuso G., Bobone S., Farrotti A., Roversi D., Vaezi Z., Palleschi A., Park Y., De Zotti M., Formaggio F. and Toniolo C. Behaviour of antimicrobial peptides in phospholipid membranes: insights by combined spectroscopic and simulative studies, In Peptides 2014 Proceedings of the 33rd European Peptide Symposium, Naydenova E., Pajpanova T., Danalev D. Eds., Sofia, Bulgaria, **2014**, pp. 39-41.
- C22. De Poli M., De Zotti M., Raftery J., Aguilar J.A., Morris G.A. and Clayden J., Left-Handed Helical Preference in an Achiral Peptide Chain is Induced by an L-Amino Acid in an N-Terminal Type II β -Turn, In Peptides Across the Pacific: Proceedings of the 23rd American Peptide Symposium, Lebl M. Ed., San Diego, CA, **2013**, pp. 118-119.
- C21.* De Zotti M., Biondi B., Tavano R., Peggion C., Crisma M., Formaggio F., Papini E. and Toniolo C., Trichogin GA IV and Selected Analogs as New Antitumor Agents: Synthesis, Conformational Analysis and Cytotoxicity Evaluation, In Peptides 2012 Proceedings of the 32nd European Peptide Symposium, Kokotos G., Constantinou-Kokotou V., Matsoukas J. Eds., Athens, Greece, **2012**, pp. 192-193.

- C20.* De Zotti M., Biondi B., Peggion C., De Poli M., Fathi H., Oancea S., Formaggio F. and Toniolo C., Peptaibiotic Folding and Bioactivity: Role of Backbone Endothioamide Linkages, In Peptides 2012 Proceedings of the 32nd European Peptide Symposium, Kokotos G., Constantinou-Kokotou V., Matsoukas J. Eds., Athens, Greece, **2012**, pp. 176-177.
- C19. Roversi D., Giordano L., De Zotti M., Bocchinfuso G., Farrotti A., Bobone S., Palleschi A., Park Y., Hahm K.-S., Formaggio F., Toniolo C. and Stella L., Membrane-Perturbing Effects of Antimicrobial Peptides: a Systematic Spectroscopic Analysis, In Peptides 2012 Proceedings of the 32nd European Peptide Symposium, Kokotos G., Constantinou-Kokotou V., Matsoukas J. Eds., Athens, Greece, **2012**, pp. 166-167.
- C18. Gobbo M., Biondi B., De Zotti M., Milov A.D., Tsvetkov Yu.D., Maryasov A.G., Formaggio F. and Toniolo C., Conformational Properties of the Spin-Labeled Tylopeptin B and Heptaibin Peptaibiotics Based on PELDOR Spectroscopy Data, In Peptides 2012 Proceedings of the 32nd European Peptide Symposium, Kokotos G., Constantinou-Kokotou V., Matsoukas J. Eds., Athens, Greece, **2012**, pp. 150-151.
- C17. Bobone S., Gerelli Y., De Zotti M., Bocchinfuso G., Farrotti A., Orioni B., Palleschi A., Sebastiani F., Latter E., Penfold J., Senesi R., Formaggio F., Toniolo C., Fragneto G. and Stella L., Membrane Thickness and the Mechanism of Action of the Short Peptaibol Trichogin GA IV, In Peptides 2012 Proceedings of the 32nd European Peptide Symposium, Kokotos G., Constantinou-Kokotou V., Matsoukas J. Eds., Athens, Greece, **2012**, pp. 138-139.
- C16.* De Zotti M., Biondi B., Crisma M., Hjørringgaard C.U., Berg A., Brückner H. and Toniolo C., A Nondestructive Methodology for the Configurational Assignment of Iva Residues in Peptaibiotics, In Peptides Building Bridges: Proceedings of the 22nd American Peptide Symposium, Lebl M. Ed., San Diego, CA, U.S.A., **2011**, pp. 260-261.
- C15.* Benedusi M., Fasoli A., Bobone S., Orioni B., De Zotti M., Formaggio F., Toniolo C., Stella L. and Rispoli G., Single-Channel Properties of Peptides Inserted in Natural and Artificial Membranes, In Peptides Building Bridges: Proceedings of the 22nd American Peptide Symposium, Lebl M. Ed., San Diego, CA, U.S.A., **2011**, pp. 258-259.
- C14.* Gatto E., Bocchinfuso G., Palleschi A., Stella L., Venanzi M., Oancea S., De Zotti M., Formaggio F. and Toniolo C., Structure, Dynamics, and Bioactivity of Synthetic Analogues of the Antimicrobial Peptide Trichodecenin I, In Peptides Building Bridges: Proceedings of the 22nd American Peptide Symposium, Lebl M. Ed., San Diego, CA, U.S.A., **2011**, pp. 256-257.
- C13.* Syryamina V.M., Isaev N.P., De Zotti M., Peggion C., Formaggio F., Toniolo C., Raap J. and Dzuba S.A., Pulsed ESR Study of the Topology and Dynamics of a Spin-Labeled Lipopeptaibol Antibiotic in a Lipid Membrane, In Peptides Building Bridges: Proceedings of the 22nd American Peptide Symposium, Lebl M. Ed., San Diego, CA, U.S.A., **2011**, pp. 250-251.

- C12.* De Zotti M., Schievano E., Mammi S., Kaptein B., Broxterman Q. B., Singh S. B., Brückner H. and Toniolo C., Isovaline Containing Peptides: Configurational Assignment Using 2D-NMR Spectroscopy, In Peptide 2010 Proceedings of the 31st European Peptide Symposium, Lebl M., Meldal M., Jensen K. J., Hoeg-Jensen T. Eds., Copenhagen, Denmark, **2010**, pp. 542-543.
- C11. Bobone S., De Zotti M., Bortolotti A., Ballano G., Formaggio F., Toniolo C. and Stella L., Membrane Insertion of Para-Cyanophenylalanine Labeled Alamethicin Analogues. Correlation of Fluorescence and Infrared Absorption Data, In Peptide 2010 Proceedings of the 31st European Peptide Symposium, Lebl M., Meldal M., Jensen K. J., Hoeg-Jensen T. Eds., Copenhagen, Denmark, **2010**, pp. 372-373.
- C10.* De Zotti M., De Borggraeve W., Kaptein B., Broxterman Q. B., Singh S. B., Felock P. J., Hazuda D. J., Formaggio F. and Toniolo C., Role of Triple Hyp-Pro Substitution on Conformation and Bioactivity of Integramide A, In Peptide 2010 Proceedings of the 31st European Peptide Symposium, Lebl M., Meldal M., Jensen K. J., Hoeg-Jensen T. Eds., Copenhagen, Denmark, **2010**, pp. 292-293.
- C9. Gobbo M., Biondi B., De Zotti M., Formaggio F. and Toniolo C., Synthesis and Preliminary Conformational Analysis of TOAC Spin-Labelled Analogues of the Medium-Length Peptaibiotic Tylopeptin B, In Peptide 2010 Proceedings of the 31st European Peptide Symposium, Lebl M., Meldal M., Jensen K. J., Hoeg-Jensen T. Eds., Copenhagen, Denmark, **2010**, pp. 382-383.
- C8.* De Zotti M., Biondi B., Peggion C., Crisma M., Formaggio F. and Toniolo C., Increasing Amphiphilicity in Peptaibiotics: Gly to Lys Replacements in Trichogin GA IV, In Peptide 2010 Proceedings of the 31st European Peptide Symposium, Lebl M., Meldal M., Jensen K. J., Hoeg-Jensen T. Eds., Copenhagen, Denmark, **2010**, pp. 390-391.
- C7.* De Zotti M., Biondi B., Peggion C., Crisma M., Formaggio F. and Toniolo C., Synthesis, Preferred Conformation, and Membrane Activity of Heptaibin, a Medium-Length Peptaibiotic, In Peptide 2010 Proceedings of the 31st European Peptide Symposium, Lebl M., Meldal M., Jensen K. J., Hoeg-Jensen T. Eds., Copenhagen, Denmark, **2010**, pp. 392-393.
- C6 Gobbo M., Poloni C., De Zotti M., Peggion C., Biondi B., Formaggio F. and Toniolo C., Solution and Solid-Phase Syntheses and Conformational Analysis of a Novel Medium-Length Peptaibiotic, In Breaking Away: Proceedings of the 21st American Peptide Symposium, Lebl M. Ed., Bloomington, IN, U.S.A., **2009**, pp. 286-287.
- C5.* Biondi B., De Zotti M., Peggion C., Formaggio F. and Toniolo C., Role of the Strongly Helicogenic Aib Residues on the Properties of the Lipopeptaibol Trichogin GA IV, In Breaking Away: Proceedings of the 21st American Peptide Symposium, Lebl M. Ed., Bloomington, IN, U.S.A., **2009**, pp. 284-285.
- C4.* De Zotti M., Damato F., Formaggio F., Crisma M., Schievano E., Mammi S., Kaptein B., Broxterman Q.B., Felock P.J., Hazuda D.J., Singh S.B., Kirschbaum J., Brückner H. and

- Toniolo C., Synthesis and Conformational Analysis of a Natural Peptide Inhibitor of HIV-1 Integrase, In *Breaking Away: Proceedings of the 21st American Peptide Symposium*, Lebl M. Ed., Bloomington, IN, U.S.A., **2009**, pp. 231-232.
- C3.* De Zotti M., Toniolo C., Formaggio F., Kaptein B., Broxterman Q.B., Felock P.J., Hazuda D.J., Singh S.B. and Brückner H., The Chiral Sequence of a Natural Peptide Inhibitor of HIV-1 Integrase Elucidated, In *Peptides 2008*, Lankinen H. Ed., Helsinki, Finland, **2009**, pp. 310-311.
- C2. Toniolo C., De Zotti M., Formaggio F., Stella L., Kim M.-H., Park Y. and Hahm K.-S., Antibacterial Activity and Resistance to Proteolytic Degradation of Trichogin GA IV and Selected Analogues, In *Peptides 2008*, Lankinen H. Ed., Helsinki, Finland, **2009**, pp. 308-309.
- C1.* De Zotti M., Antonello S., Polo F., Formaggio F., Maran F. and Toniolo C., Electron Transfer Across Aib Oligopeptides, In *Peptides 2004*, Flegel M., Fridkin M., Gilon C. and Slaninova J. Eds., Kenes International, Geneva, Switzerland, **2005**, pp. 1005-1006.

Invited oral presentations

- IO5. De Zotti M., invited presentation at the "Giornata Scientifica ItPS dedicata ai Soci Giovani", National Meeting of the Italian Peptide Society, Firenze, Italy (23 September, **2017**).
- IO4. De Zotti M., Molecular wires based on bionic peptides, invited keynote at the E-MRS Spring Meeting 2017, Strasbourg, France (22-26 May, **2017**).
- IO3. De Zotti M., Synthesis, Conformational Analysis and Bioactivity Evaluation of Peptaibols, invited lecture at the Département de chimie, Université de Montréal, Canada (27 July, **2016**).
- IO2. De Zotti M., Tavano R., Biondi B., Peggion C., Papini E., Formaggio F., Peptide cytotoxicity as a function of capping moieties: trichogin GA IV, invited presentation at the 14th Naples Workshop on Bioactive Peptides, Napoli, Italy (12-14 June, **2014**).
- IO1. De Zotti M., Biondi B., Tavano R., Peggion C., Formaggio F., Papini E., Toniolo C., Short peptaibiotics as new antitumor agents: synthesis, conformational analysis and cytotoxicity evaluation of trichogin GA IV and selected analogs thereof, invited presentation at the 13th Naples Workshop on Bioactive Peptides, Napoli, Italy (7-10 June, **2012**).

Oral communications (without invited presentations)

- O21. De Zotti M., Peptaibol Analogs as Antitumor Agents, presented at the Congresso Nazionale della Divisione di Chimica dei Sistemi Biologici of the Italian Chemical Society, Siena, Italy (September 11-13, **2019**).
- O20. De Zotti M., Peptides as Biopesticides, presented at The 35th European Peptide Symposium, Dublin, Ireland (August 26-31, **2018**).

- O19. De Zotti M., Analogs of the Peptaibol Trichogin as Biopesticides, presented at the International 16th Naples Workshop on Bioactive Peptides, Napoli, Italy (June 7-9, **2018**).
- O18. De Zotti M., Molecular Wires Based on Bioactive Peptides, presented at The Third International Conference on Peptide Materials for Biomedicine and Nanotechnology (PepMat), London, UK (July 16-18, **2018**).
- O17. De Zotti M., Spin-Labeled Bioactive and Model Peptides, presented at the international congress Spin-2017: The 8th Conference on Nitroxide Radicals, Padova, Italy (September 10-14, **2017**).
- O16. De Zotti M., Sella L., Favaron F. Peptaibols: naturally occurring peptides as biopesticides, presented at the Congresso Nazionale della Società Chimica Italiana, Paestum, Italy (September 10-15, **2017**).
- O15. De Zotti M., Messina G.M.L., Conformationally Tunable Peptides as Building Blocks: Towards Biomolecular Devices, presented at the Congresso Nazionale della Divisione di Chimica dei Sistemi Biologici of the Italian Chemical Society, Verona, Italy (September 21-23, **2016**).
- O14. De Zotti M., Moretto A., Messina G.M.L., Marletta G., Bionic peptides based on sterically hindered amino acids as building blocks towards biomolecular devices, presented at the Congresso Nazionale della Divisione di Chimica Organica of the Italian Chemical Society, Mestre (VE), Italy (September 18-22, **2016**).
- O13. De Zotti M., Bocchinfuso G., Raniolo S., Palleschi A., Formaggio F., Arosio D., Piarulli U., Zanella S., Pignataro L., Belvisi L., Gennari C., Stella L., Helical Oligopeptides Inhibiting the VEGF/VEGFR Protein-Protein Interaction for Cancer Therapy, presented at the Congresso Nazionale della Divisione di Chimica dei Sistemi Biologici of the Italian Chemical Society, Siracusa, Italy (September 24-25, **2015**).
- O12. De Zotti M., Formaggio F., Longo E., Siligardi G., Synchrotron Radiation Circular Dichroism (SRCD) Conformational Study of Peptaibols, presented at the National Congress on Chirality "ChirItaly", Roma, Italy (September 8-10, **2015**).
- O11. De Zotti M., Peggion C., Biondi B., Crisma M., Formaggio F., Exploiting the chirality of rigid peptides for CD and NMR investigations. Thioamidated peptides, presented at the National Congress on Chirality "ChirItaly", Pisa, Italy (June 18-20, **2014**).
- O10. De Zotti M., Peggion C., Crisma M., Formaggio F., Thioamidated peptides: synthesis, conformation and biological properties, presented at the Congresso Nazionale della Divisione di Chimica dei Sistemi Biologici, Bertinoro (FC), Italy (September 19-20, **2013**).
- O9. De Zotti M., Tavano R., Peggion C., Biondi B., Formaggio F., Hahm K.-S., Papini E., Toniolo C., Short Peptaibiotics as New Antimicrobial and Antitumor Agents: Synthesis, Conformational Analysis, Antimicrobial and Cytotoxic Evaluations of Trichogin GA IV and Selected Analogues thereof, presented at the Congresso Nazionale della Società Chimica Italiana, Lecce, Italy (September 11-16, **2011**).

- O8. De Zotti M., Biondi B., Crisma M., Hjørringgaard C.U., Berg A., Brückner H., Toniolo C., A Nondestructive Methodology for the Configurational Assignment of Iva Residues in Peptaibiotics, presented at the 22nd American Peptide Symposium, San Diego (U.S.A.) (June 25-30, **2011**).
- O7. De Zotti M., Formaggio F., Singh S.B., Kaptein B., Broxterman Q.B., Toniolo C., Synthesis, Conformation, and Bioactivity of Integramide A, a Peptide Inhibitor of HIV-1 Integrase, and Selected Analogs, presented at the Congresso Nazionale della Divisione di Chimica dei Sistemi Biologici, San Vito di Cadore (BL), Italy (September 9-11, **2010**).
- O6. De Zotti M., Formaggio F., Singh S.B., Kaptein B., Broxterman Q.B., Toniolo C., Synthesis, Conformation, and Bioactivity of Integramide A, a Peptide Inhibitor of HIV-1 Integrase, and Selected Analogs, "Murray Goodman" session at the Naples Workshop on Bioactive Peptides, Napoli, Italy (June 4-7, **2010**).