

C.V. prof. GIOVANNI GOTTE

Name and Surname: GIOVANNI GOTTE

Date and Place of Birth: February 17th, 1968; Padova, Italy.

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Associate Professor

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EDUCATION AND ACADEMIC POSITION

July 1994: Degree in Chemistry. Post-lauream studies of “Interactions between chinolones drugs and DNA: role of Fe ions”, the University of Padova).

1995: “Procter & Gamble” grant. Metallic activators of hydrogen peroxide (C.M.R.O., University of Padova).

Nov1995-Nov1999: PhD in Biochemical Sciences: “Ribonuclease A oligomers: structural, catalytical and biological properties”: investigations on RNase A oligomers obtained with bifunctional crosslinking or by induced aggregation of the enzyme Inst. of Biological Chemistry, University of Verona).

2000-2001: Grant of ‘Consorzio Studi Universitari’, Verona, to study “RNase A oligomers: structural and lfunctional determinations of the RNase A aggregates and their possible physio-pathological role” and “Biochemical aspects in the ‘shock-waves’ therapy” in the University of Verona).

Nov2001-Nov2005: Post-doc grant for “Studies on protein aggregation processes. Implications for Amyloid Formation”, Biological Chemistry Section: new methods to induce RNase A aggregation and further investigations on the aggregation mechanisms and biological actions of the oligomers of the enzyme.

March 1st 2006: Permanent Position, confirmed in March 2009, Research Assistant in Biochemistry (BIO-10, now BIOS-07/A) in the same Biological Chemistry Section, University of Verona.

October 1st 2015 to date: Associate Professor in Biochemistry (BIO-10, now BIOS-07/A), Biological Chemistry Section, Dept of Neuroscience, Biomedicine and Movement Sciences, the University of Verona.

March 2017: National Scientific Qualification as Full Professor in Biochemistry (BIO-10, now BIOS-07/A).

PUBLICATIONS and PARAMETERS

54 publications, 53 in international journals with medium-high Impact Factor (I.F.).

18 publications with first name, **10 second**, **17 last name** and/or 'Corresponding Author'.

In 2014, chapter in 'e-Book-Open Access' as first author and 'corresponding'.

Total I.F. (“Journal Citation Report” 2023-24): **214.8**; I.F. average I.F.: **4.05**.

Total number of “**Scopus**” citations, updated to 27-02-2025: **1723**; H-Index = **24**.

RESEARCH TOPICS AND EXPERTISE

Structural and functional investigations on oligomers and multimers of proteins in general, and of many pancreatic-type ribonucleases in particular, obtained by means of chemical modifications and/or cross-linking, or through aggregation through the three dimensional domain swapping (3D-DS) mechanism.

In particular, several of these studies are focused on the molecular determinants governing the 3D-DS aggregation mechanism that is similar or identical in proteins directly involved in neurodegenerative pathologies. Other studies are currently focused on the modification or magnification of the enzymatic and/or biological activity of the oligomers of various RNases, especially bovine seminal RNase and onconase in their native, or subjected to self-association forms. Also angiogenin (RNase 5) and human pancreatic (HP)-RNase, or RNase 1 are now objects of the studies.

In the recent past, investigations have been focused also on the dimerization-oligomerization mechanisms of proteins different from RNases, in particular human alanine:glyoxilate amino-transferase (hAGT) and STAT-3, and in collaboration with other national or foreign research groups.

In these years the prof. G. Gotte acquired expertise of various lab. techniques, such as different chromatography purification and analytical approaches, non-denaturing and SDS-PAGE electrophoresis, Western Blot, spectroscopic analyses (UV-Vis, CD, fluorescence). Expertise is also in limited proteolysis, protein cross-linking, covalent derivatization and metalation or other modifications of protein adducts, as well as in heterologous production of WT and site-specific protein mutagenesis.

INVITED COMMUNICATIONS AND/OR SEMINARS

- 'S.I.B.' Meeting , Catania, Italy, June 11-13, 1998: **Gotte, G.** & Libonati, M. "Ribonucleasi A oligomerica: proprietà strutturali, catalitiche e biologiche". Congress Proceedings.
- 'N.A.N.G.' Meeting, Rosa Marina (BR), Italy, June 9-11, 2002. **Gotte, G.**, Matousek, J., Pouckova, P., Soucek, J., Slavik, T., Vottariello, F., & Libonati, M. "Biological Actions of RNase A oligomeric aggregates". Proceedings, p.17.
- "Istituto di Chimica Fisica 'Rocasolano', Madrid, Spain, Oct 7, 2004, Seminar. **Gotte, G.** "Structural versatility of Ribonuclease A: Two novel 3D domain swapped tetramers".
- '7th International Engelhardt Conference On Molecular Biology', Suzdal (Russia), Nov 28–Dec 2, 2004. **Gotte, G.**, & Libonati, M. "Two novel RNase A tetramers". Proceedings.
- Scientific Meeting 'Aggregazione di proteine', C.N.R., Rome, April 18, 2005. **Gotte, G.**, & Libonati M. Oligomerizzazione della ribonucleasi A: proprietà strutturali dei multimeri.
- 7th International Meeting on Ribonucleases, Stará Lesná, Slovak Republic, June 16-20th, 2005. **Gotte, G.**, Donadelli, M., Morbio, M., Vottariello, F., & Libonati, M. "Oligomerization by Three Dimensional Domain-Swapping of Three Ribonuclease A Mutants". Proceedings.
- 20-22 October, 2010: Chairman at the "8th International RNase Congress", Naples 20-22 October 2010, two posters presented.
- 27 June 2023: Invited seminar "Oligomerization of pancreatic-type RNases: novelties by some variants of the super-family", PhD Course University of Naples, Federico II.

Other **27 Posters** and/or Selected Oral Communications have been presented in various National or International Meetings have been presented.

FUNDINGS

-**PRIN 1999** (PhD student) Member of the the project entitled - "Oligomeri di ribonucleasi A: caratterizzazione, attività catalitica, azione antitumorale" – Local P.I., prof. M. Libonati, Univ. Verona; National P.I. prof. P.L. Ipata, Univ. Pisa; 2 yrs. Funded

-**PRIN 2002** (PostDoc) - "Oligomeri di ribonucleasi A da pancreas bovino: studi strutturali e funzionali" - Local P.I., prof. M. Libonati, Univ. Verona; National P.I. prof. G. D'Alessio, Univ. Naples "Federico II"; 2 yrs. Funded.

-**PRIN 2004** (PostDoc) - "Indagini sul meccanismo di formazione di oligomeri di ribonucleasi A e sulle loro attività biologiche" - Local P.I., prof. M. Libonati, Univ. Verona; National P.I. prof. P.L. Ipata, Univ. Pisa; 2 yrs. Funded.

PRIN 2008 (Researcher, P.I.): "Pancreatic-type RNases aggregation: from RNase A toward angiogenin. Implications for the Amyotrophic Lateral Sclerosis (ALS) incoming.". Positively evaluated (score 54/60). For this project: funding as 'Incentivo alla ricerca per progetti valutati positivamente' from Verona University, Italy.

- **Telethon 2010** (Researcher, Participant)- "Development of new strategies for the treatment of Primary Hyperoxaluria Type I" – P.I.: Prof. Carla Voltattorni, University of Verona. Funded, 3 yrs.

PRIN 2010-2011 (Researcher, Participant) "Enzimi e coenzimi piridinici e flavinici in neuropatologie umane: approcci molecolari e cellulari per terapie innovative". Local P.I. dr. Barbara Cellini; National P.I. Prof. Andrea Mozzarelli. Positively evaluated (score 91/100).

PRIN 2017- Participant "The possible use of exosomes enriched with angiogenic ribonucleases and antioxidant proteins as a new therapeutic strategy in Amyotrophic Lateral Sclerosis". Under Evaluation

ACADEMIC ACTIVITY

-Since 2007, member of the PhD Research School in Biosciences. Then, since 2013, PhD School in Biomolecular Medicine Research, University of Verona.

-Member of the Bachelor Commission for Biomedical Lab Techniques Bachelorate, since 2008-2009.

-Assistant supervisor or tutor for the bachelor of eight students and for three PhD students since 2007-2008.

-2011- Responsible of one-year Research Grant, of the Banca Popolare di Verona, Fondo "CTBPOPGOTT", € 20000, Primary Hyperoxaluria Type I: identification of small molecules as "enzyme enhancement therapy".

-18 July, 2014: Referee for "Senior Grants", Area 'Scienze del Farmaco' Dipartimento di Scienze del Farmaco, University of Padova.

- January 2015-September 2018: elected in the Academic Senatus of the University of Verona. The same since October 2024 to date.

TEACHING

Since 2001/2002 to 2005/2006 teaching of Chemistry and Biochemistry as a professor on contract in the Bachelor Courses of Nursing, Biomedical Laboratory Techniques, Dental Hygiene, Techniques of Ambient and Worksites Prevention, and Physiotherapy. Poles of Verona, Trento, Rovereto (TN).

2006/2007 to 2015/2016 teaching of the same subjects in the same Bachelor Courses (Chemistry only in "Biomedical Laboratory Techniques"), poles of Verona and Rovereto (TN).

2016-17, 2017-18, 2018-19, 2019-20, 2020-21, 2021-22, 2022-23, 2023-24, 2024-25

- Teaching of Chemistry, Integrated Course of 'Structural and Functional Sciences of Biomolecules', of the 1st year of the degree course in 'Biomedical Laboratory Techniques', University of Verona, Educational Center of Verona, 30 hours, 3 CFU.

- Teaching of Biochemistry, Integrated Course of 'Physical and Biological Propaedeutic Sciences' 1st year, Degree Course in 'Physiotherapy', University of Verona, Verona Campus, 20 hours, Vicenza, 20 hours, and Rovereto (TN), 20 hours. (*since A.A. 2019-20 not in Vicenza*).

In the Rovereto Campus (A.A. 2015-16): borrowed from the Biochemistry module for the Degree Courses in Dental Hygiene, Psychiatric Rehabilitation Techniques.

2016-17, 2017-18, 2018-19, 2019-20, 2020-21, 2021-22

- Teaching of Biochemistry (BIO/10), Integrated Course of 'Biological and Biochemical Sciences' 1st year, Degree Course in 'Techniques of Cardiocirculatory Pathophysiology and Cardiovascular Perfusion', University of Verona, Verona Campus, 20 hours.

2022-23, 2023-24

- Teaching of Biochemistry (BIO/10), Integrated Course of 'Biomedical Sciences' 1st year, Degree Course in 'Health Care', University of Verona and Trento, Trento Campus, 20 hours, 2 CFU.

2024-25

- Teaching of Organic Chemistry and Preparatory Biochemistry, Integrated Course of "Chemistry and Biological Chemistry" 1st year, Course in 'Medicine and technology', University of Verona, 24 hours, 2 CFU.

Teaching of Biochemistry (BIO/10), Integrated Course of "Structural and Functional Sciences of Biomolecules" 1st year, Degree Course in 'Biomedical Laboratory Techniques', University of Verona and Trento, Educational Center of Trento, 30 hours, 3 CFU.

2014 - 2019: Invited by the *LUISS-Guido Carli "Summer School"* for two to four hour-lessons in Chemistry and Biochemistry applied to medical topics.

Tutor of PhD Course of 5 students' Course; Relator of the Master Degree of 3 students, Relator of three-yr Bachelor Degree's of 9 students;

SCIENTIFIC COLLABORATIONS

Beyond the colleagues present in the Verona Institute, collaborations with:

Prof. Delia Picone, Università 'Federico II', Napoli.

Prof. Antonello Merlino, Università 'Federico II', Napoli.

Prof. Stefano Moro, Università degli Studi di Padova.

Prof. Vincenzo De Filippis, Università degli Studi di Padova.

Prof. David Eisenberg, U.C.L.A., Los Angeles, U.S.A.

Prof. Thomas Laue, University of New Hampshire, U.S.A.

Dr. Douglas V. Laurents, Instituto de Química Física 'Rocasolano', Madrid, Spagna.

Prof. Josef Matousek, Academy of Sciences of the Czech Republic, Libechov, Repubblica Ceca.

Prof. Ester Boix, The University of Barcelona, Spain

PUBLICATIONS

1. Bertoldi M., **Gotte G.**, Sorrentino S. & Libonati M. Artificial Ribonuclease A oligomers degrade double-stranded RNA with efficiency that increases as a function of the size of the oligomer. *It J. Biochem.* (1996) **45**, pp. 186-187 ISSN: 0021-2938. **NO I.F.**
2. **Gotte G.**, Testolin L., Costanzo C., Sorrentino S., Armato U. & Libonati M. Cross-linked trimers of bovine ribonuclease A: activity on double-stranded RNA and antitumor action. *FEBS Lett.* (1997) **415** (3), 308-312.
3. **Gotte G.** & Libonati M. Two different forms of aggregated dimers of Ribonuclease A. *Biochim. Biophys. Acta* (1998) **1386** (1), 106-112.

4. **Gotte G.**, Bertoldi M. & Libonati M. Structural versatility of bovine ribonuclease A: distinct conformers of trimeric and tetrameric aggregates of the enzyme. *Eur. J. Biochem.* (1999) **265** (2), 680-687.
5. Sorrentino S., Barone R., Bucci E., **Gotte G.**, Russo N., Libonati M. & D'Alessio G. The two dimeric forms of RNase A. *FEBS Lett.* (2000) **466** (1), 35-39.
6. Nenci A., **Gotte G.**, Maras B. & Libonati M. Different susceptibility of the two dimers of ribonuclease A to subtilisin. Implications for their structure. *Biochim. Biophys. Acta* (2001) **1545** (1-2), 255-262.
7. Liu Y., **Gotte G.**, Libonati M. & Eisenberg D. A domain-swapped RNase A dimer with implications for amyloid formation. *Nat. Struct. Biol.* (2001) **8** (3), 211-214.
8. Nenci A., **Gotte G.**, Bertoldi M. & Libonati M. Structural properties of trimers and tetramers of ribonuclease A. *Protein Sci.* (2001) **10** (10), 2017-2027.
9. Liu Y., **Gotte G.**, Libonati M. & Eisenberg D. Structures of the two 3D domain-swapped RNase A trimers. *Protein Sci.* (2002) **11** (2), 371-380.
10. **Gotte G.**, Amelio E., Russo S., Marlinghaus E., Musci G. & Suzuki H. Short-time non-enzymatic nitric oxide synthesis from L-arginine and hydrogen peroxide induced by shock waves treatment. *FEBS Lett.* (2002) **520** (1-3), 153-155. **I.F. 3.623**
11. **Gotte G.**, Vottariello F. & Libonati M. Thermal Aggregation of Ribonuclease A. A contribution to the understanding of the role of 3D domain swapping in protein aggregation. *J. Biol. Chem.* (2003) **278** (12), 10763-10769.
12. Matousek J., **Gotte G.**, Pouckova P., Soucek J., Slavik T., Vottariello F. & Libonati M. Antitumor Activity and Other Biological Actions of Oligomers of Ribonuclease A. *J. Biol. Chem.* (2003) **278** (26), 23817-23822.
13. **Gotte G.**, Libonati M. & Laurents D.V. Glycosylation and Specific Deamidation of Ribonuclease B Affect the Formation of Three-dimensional Domain-swapped Oligomers. *J. Biol. Chem.* (2003) **278** (47), 46241-46251.
14. Libonati M. & **Gotte G.** Oligomerization of bovine ribonuclease A. Structural and functional features of its multimers. *Biochem. J.* (2004) **380** (2), 311-327.
15. **Gotte G.** & Libonati M. Oligomerization of Ribonuclease A. Two novel three-dimensional domain-swapped tetramers. *J. Biol. Chem.* (2004) **279** (35), 36670-36679.
16. Naddeo M., Vitagliano L., Russo A., **Gotte G.**, D'Alessio G. & Sorrentino S. Interactions of the cytotoxic RNase A dimers with the cytosolic ribonuclease inhibitor. *FEBS Lett.* (2005) **579** (12), 2663-2668.
17. **Gotte G.**, Laurents D.V. & Libonati M. Three-dimensional domain-swapped oligomers of ribonuclease A: identification of a fifth tetramer, pentamers and hexamers, and detection of trace heptameric, octameric and nonameric species. *Biochim. Biophys. Acta (BBA) – Prot. & Proteom.* (2006) **1764** (1), 44-54.
18. Pouckova, P., Skvor, J., **Gotte G.**, Vottariello, F., Slavik, J.T., Matousek, J., Laurents, D.V., Libonati, M., & Soucek, J. Some biological actions of PEG-conjugated RNase A oligomers. *Neoplasma* (2006) **53** (1), 79-85.
19. Lopez-Alonso J.P., Bruix M., Font J., Ribo M., Vilanova M., Rico M., **Gotte G.**, Libonati M., Gonzales C., & Laurents D.V. Formation, structure, and dissociation of the ribonuclease S three-dimensional domain-swapped dimer. *J. Biol. Chem.* (2006) **281** (14), 9400-9406.

20. **Gotte G.**, Donadelli M., Laurents D.V., Vottariello F., Morbio M. & Libonati M. Increase of RNase a N-terminus polarity or C-terminus apolarity changes the two domains' propensity to swap and form the two dimeric conformers of the protein. *Biochemistry* (2006) **45** (36) 10795-10806.
21. Pouckova P., Morbio M., Vottariello F., Laurents D.V., Matoušek J., Soucek J., **Gotte G.**, Donadelli M., Costanzo C. & Libonati M. Cytotoxicity of polyspermine-ribonuclease a and polyspermine-dimeric ribonuclease A. *Bioconjugate Chem.* (2007) **18** (6), 1946-1955.
22. Matoušek J., Tomanek M., Vottariello F., Morbio M., **Gotte G.** & Libonati M. Degenerative action on mice and rats testes of polyspermine and its complexes with RNase A. *J. Appl. Biomed.* (2007) **5** (4), 195-207.
23. Cozza G., Moro S. & **Gotte G.**[#] Elucidation of the ribonuclease A aggregation process mediated by 3D domain swapping: A computational approach reveals possible new multimeric structures. *Biopolymers* (2008) **89** (1), 26–39.
24. **Gotte G.**[#] & Libonati M. Oligomerization of ribonuclease A under reducing conditions. *Biochim. Biophys. Acta (BBA) – Prot. & Proteom.* (2008) **1784** (4), 638-650.
25. Libonati M., **Gotte G.** & Vottariello F. Novel Biological Actions Acquired by Ribonuclease A Through Oligomerization. *Curr. Pharm. Biotech.* (2008) **9** (1), 200-209.
26. López-Alonso J.P., **Gotte G.** & Laurents D.V. Kinetic Analysis Provides Insight into the Mechanism of Ribonuclease A Oligomer Formation. *Arch. Biochem. Biophys.* (2009) **489** (1-2), 41-47.
27. Lopez-Alonso J.P., Diez-Garcia F., Font J., Ribò M., Vilanova M., Scholtz J.M., Gonzalez C., Vottariello F., **Gotte G.**, Libonati M. & Laurents, D.V. Carbodiimide EDC Induces Cross-Links That Stabilize RNase A C-Dimer against Dissociation: EDC Adducts Can Affect Protein Net Charge, Conformation, and Activity. *Bioconjugate Chem.* (2009) **20** (8), 1459–1473.
28. Vottariello F., Costanzo C., **Gotte G.** & Libonati M. “Zero-length” Dimers of Ribonuclease A: Further Characterization and No Evidence of Cytotoxicity. *Bioconjugate Chem.* (2010) **21** (4), 635–645.
29. Vottariello F., Giacomelli E., Pozzi N., Frasson, R., De Filippis, V., & **Gotte G.**[#] Ribonuclease A domain-swapped oligomerization is affected by a residue located out of the domains involved in the swapping-mechanism. *Biochimie* (2011) **93** (10), 1846-1857.
30. **Gotte G.**[#], Mahmoud Helmy A., Ercole C., Spadaccini R., Laurents D.V., Donadelli M. & Picone D. Double Domain Swapping in Bovine Seminal RNase: Formation of Distinct N- and C-swapped Tetramers and Multimers with Increasing Biological Activities. *PLoS One* (2012) **7** (10) e46804.
31. **Gotte G.**, Laurents D.V., Merlino A., Picone D. & Spadaccini R. Structural and functional relationships of natural and artificial dimeric bovine ribonucleases: New scaffolds for potential antitumor drugs. *FEBS Lett.* (2013) **587** (22), 3601-3608.
32. Fiorini C., **Gotte G.**[#], Donnarumma F., Picone D. & Donadelli M.[#] Bovine seminal ribonuclease triggers Beclin1-mediated autophagic cell death in pancreatic cancer cells. *Biochim. Biophys. Acta – Mol. Cell. Res.* (2014) **1843** (5), 976-984.
33. Fiorini C., Cordani M., **Gotte G.**, Picone D. & Donadelli M. Onconase promotes Beclin1-mediated autophagy and ROS/Akt/mTOR pathway prompting pancreatic cancer cell chemosensitivity. *Biochim. Biophys. Acta – Mol. Cell. Res.* (2015) **1853** (3), 549-560.
34. Picone D., Donnarumma F., Ferraro G., Russo Krauss I., Fagagnini A., **Gotte G.** & Merlino A. Platinated oligomers of bovine pancreatic ribonuclease: structure and stability. *J. Inorg. Biochem.* (2015) **146**, 37-43.

35. Montioli R., Oppici E., Dindo M., Alessandro Roncador, **Gotte G.**, Cellini B. & Borri Voltattorni C. Misfolding caused by the pathogenic mutation G47R on the minor allele of alanine:glyoxilate aminotransferase and chaperoning activity of pyridoxine. *Biochim. Biophys. Acta (BBA) – Prot. & Proteom.* (2015) **1854**, 1280-1289.
36. Butturini E., **Gotte G.**, Dell’Orco D., Chiavegato G., Marino V., Canetti D., Cozzolino F., Monti M., Pucci P. & Mariotto S. Intermolecular disulfide bond influences unphosphorylated STAT3 dimerization and function. *Biochem. J.* (2016) **473**, 3205-3219.
- 37- Fagagnini A., Montioli R., Caloiu A., Ribó M., Laurents D.V. & **Gotte G.**[#] Extensive Deamidation Inhibits RNase A Oligomerization through 3D Domain Swapping. *Biochim. Biophys. Acta (BBA)– Prot & Proteom.* (2017) **1865** (1), 76-87.
- 38- Picone D., Donnarumma F., Ferraro G., **Gotte G.**, Fagagnini A., Butera G., Donadelli M., & Merlino A. A comparison study on RNase A oligomerization induced by cisplatin, carboplatin and oxaliplatin. *J. Inorg. Biochem.* (2017) **173**, 106-112.
- 39- Fagagnini A., Pica A., Fasoli S., Montioli R., Donadelli M., Cordani M., Butturini E., Acquasaliente L., Picone D., & **Gotte G.**[#] Onconase Dimerization Through 3D Domain Swapping: Structural Investigations and Increase In The Apoptotic Effect In Cancer Cells. *Biochem. J.* (2017) **474**, 3767-3781.
- 40- Zaffini R., **Gotte G.**, & Menegazzi M. Asthma and poly (ADP-ribose) polymerase inhibition: a new therapeutic approach. *Drug Des. Develop. Ther.* (2018) **12**, 281-293.
41. Raineri A., Prodomini S., Fasoli S., **Gotte G.**, and Menegazzi M. Influence of Onconase in the Therapeutic Potential of PARP Inhibitors in A375 Malignant Melanoma Cells. *Biochem. Pharmacol.* (2019) **167**, 173-181.
42. **Gotte G.**[#] & Menegazzi M. Biological Activities of Secretory RNases: Focus on Their Oligomerization to Design Antitumor Drugs. *Front Immunol.* (2019) **10**, art. 2626.
43. Raineri A., Fasoli S., Campagnari R., **Gotte G.**[#] & Menegazzi M.[#] Onconase Restores Cytotoxicity in Dabrafenib-Resistant A375 Human Melanoma Cells and Affects Cell Migration, Invasion and Colony Formation Capability. *Int. J. Mol. Sci.* (2019) **20**, art. 5980.
44. **Gotte G.**[#] New Promising Horizons In The Antitumor Activity Of Onconase. *Am. J. Biomed. Sci. & Res.* (2020). **8** (5), 397-404.
45. Fagagnini A., Garavís M., Gómez-Pinto I, Fasoli S., **Gotte G.**[#] & Laurents D.V.[#] NMR Characterization of Angiogenin Variants and tRNA^{Ala} Products Impacting Aberrant Protein Oligomerization. *Int. J. Mol. Sci.* (2021) **22**, art. 1439.
46. Montioli R., Campagnari R., Fasoli S., Fagagnini A., Caloiu A., Smania M., Menegazzi M.[#] & **Gotte G.**[#] RNase A Domain-Swapped Dimers Produced through Different Methods: Structure–Catalytic Properties and Antitumor Activity. *Life* (2021) **11**, art. 168.
47. Fasoli S., Bettin I., Montioli R., Fagagnini A., Peterle D., Laurents D.V & **Gotte G.**[#] Dimerization of Human Angiogenin and of Variants Involved in Neurodegenerative Diseases. *Int. J. Mol. Sci.* (2021) **22**, art. 10068.

48. **Gotte G.**[#], Campagnari R., Loreto D., Bettin I., Calzetti F., Menegazzi M.[#] & Merlino A.[#]. The crystal structure of the domain-swapped dimer of onconase highlights some catalytic and antitumor activity features of the enzyme. *Int. J. Biol. Macromol.* (2021) **191**, 560-571. **I.F. 7.70, 8 cit.**
49. De Tomi E., Campagnari R., Orlandi E., Cardile A., Zanrè V., Menegazzi M.[#], Gomez-Lira M. & **Gotte G.** Upregulation of miR-34a-5p, miR-20a-3p and miR-29a-3p by Onconase in A375 Melanoma Cells Correlates with the Downregulation of Specific Onco-Proteins. *Int. J. Mol. Sci.* (2022) **23**, art. 1647.
50. Menegazzi, M. & **Gotte G.** Role of the Ribonuclease ONCONASE in miRNA Biogenesis and tRNA Processing: Focus on Cancer and Viral Infections. *Int. J. Mol. Sci.* (2022) **23**, art. 6556.
51. **Gotte G.**[#], Butturini E., Bettin I., Noro I., Mahmoud Helmy A., Fagagnini A., Cisterna B. & Malatesta M. Slow Evolution toward “Super-Aggregation” of the Oligomers Formed through the Swapping of RNase A N-termini: A Wish for Amyloidosis? *Int. J. Mol. Sci.* (2022) **23**, art. 11192.
52. **Gotte G.**[#] & Menegazzi M. Protein Oligomerization. (Editorial). *Int. J. Mol. Sci.* (2023) **24**, art. 10648.
53. Noro I., Bettin I., Fasoli S., Smania M., Lunardi L., Giannini M., Andreoni L., Montioli R. & **Gotte G.**[#] Human RNase 1 can extensively oligomerize through 3D domain swapping thanks to the crucial contribution of its C-terminus. *Int. J. Biol. Macromol.* (2023) **249**, art. 126110.
54. **Gotte G.**[#] Effects of Pathogenic Mutants of the Neuroprotective RNase 5-Angiogenin in Amyotrophic Lateral Sclerosis (ALS). *Genes* (2024) **15**, art. 00738.
55. Ferraro G., Pracharova J., **Gotte G.**, Massai L., Berecka M., Starha P., Messori L. & Merlino A. Cytotoxicity and binding to DNA, lysozyme, ribonuclease A and human serum albumin of the diiodido analog of picoplatin. *Inorganic Chemistry* (2025) Under minor revision.

#Corresponding Author

TOTAL I.F. 214.8

BOOK Chapter (Corresponding Author)

Gotte G. & Libonati M. (2014). Capitolo libro (E-Book): “Protein Oligomerization” **cap. 8**, pp 239-278, in *Oligomerization of Chemical and Biological Compounds*, InTech - OpenBook, Editor: C. Lesieur, ISBN: 978-953-51-1617-2, <http://www.intechopen.com/books/oligomerization-of-chemical-and-biological-compounds/protein-oligomerization>, doi.org/10.5772/57489.

Verona, February 27th, 2025