

## PERSONAL INFORMATION

## Michele Francesco Maria Sciacca

 18, Via Paolo Gaifami – 95126 Catania, Italy

 +39 095 7338422

 [michelefrancescomaria.sciacca@cnr.it](mailto:michelefrancescomaria.sciacca@cnr.it)  
[michele.sciacca@ic.cnr.it](mailto:michele.sciacca@ic.cnr.it)

 0000-0002-9981-3321

Sex Male | Date of birth 27/03/1980 | Nationality Italian

## WORK EXPERIENCE

July 2020 – to date **Research Scientist**

Researcher III level

Italian National Research Council- Institute of Crystallography

February 2015 – June 2020 **Associate Research Scientist**

Italian National Research Council - Institute of Biostructure and Bioimaging

March 2014 – September 2014 **Associate Research Scientist**

University of Catania- Department of Chemistry

January 2011 – December 2012 **Postdoc Fellow**

University of Michigan, USA- Department of Chemistry and Biophysics

January 2010 – November 2010 **Associate Research Scientist**

Italian National Research Council - Institute of Biostructure and Bioimaging

January 2005 – July 2007 **Associate Research Scientist**

University of Catania- Department of Chemistry

## EDUCATION AND TRAINING

November 2006 – November 2009 **PhD in Chemical Science**

University of Catania - Department of Chemistry

Thesis: Molecular mechanisms in protein misfolding diseases.

October 1998 – December 2004 **Master's degree in Industrial Chemistry**

University of Catania - Department of Chemistry

Thesis: Molecular interpretation of conformational diseases: Chemico-physical study of Amylin-membranes interactions.

Vote : 110/110

## ADDITIONAL INFORMATION

## Bibliometric Indicators

Number of total citation: 1283 (source Scopus); 1581 (source Google Scholar)  
Hirsch Index: 18 (source Scopus); 19 (source Google Scholar)

## National and International Patent

1. National Patent "ASSOCIAZIONE DI DERIVATI DI RESVERATROLO PER LA PREVENZIONE E IL TRATTAMENTO DI MALATTIE DA DISORDINE CONFORMAZIONALE PROTEICO". **Patent Number:** 102016000073131. Co-inventor: C. La Rosa, S. Sciuto, R. Chillemi, **M.F.M. Sciacca**, C. L. Messineo, D. Palmigiano, L. D'Urso, A. Ramamoorthy, J. R. Brender, S. Kotler, D. Milardi. (2016).

## Participation in research project

1. H2020. 2016 INCIPIT INnovative Life sClence Phd Programme in South Italy. Role: Participant.
2. PRIN 2015 (PRIN 2015WZM8A. Role of metal dyshomeostasis and ubiquitin-proteasome system derangement in brain pathologies: risk factors and neuroprotective strategies. Role : Participant.
3. PRIN 2010 (2010L9SH3K\_002). Metodologie chimiche innovative per biomateriali intelligenti. Role: Participant.
4. PRIN 2008 (2008ALLB79\_002). Studio teorico-sperimentale delle segregazioni di fase in polimeri liquido-cristallini per applicazioni fotovoltaiche. Role: Participant.

## Qualification

1. ASN 2018. 03/B1 Fondamenti delle Scienze Chimiche e Sistemi inorganici. Associate professor qualification.
2. ASN 2018. 03/A2 Modelli e Metodologie per le Scienze Chimiche. Associate professor qualification.

## Teaching experience

1. 2016-Tutoring activity in General Chemistry. Università degli Studi di Catania – Dipartimento di scienze biologiche geologiche e ambientali.
2. 2010- Laboratory tutoring in Analysis and characterization of biomolecules II. CNR- Institute of Biostructures and Bioimaging – U.O.S. Catania.

## Conference organization

1. Member of the organization committee of International Symposium on Pathomechanisms of Amyloid Diseases. Catania (Italy) 25-28 August 2022.
2. Member of the organization committee of 1st Conference on Crystallography,Structural Chemistry and Biosystems. Catania (Italy) 4-6 October 2022.
3. Member of the organization committee of International symposium on protein misfolding diseases. Catania (Italy) 31 July – 3 August 2017.
4. Member of the organization committee of 8-th national meeting of the italian liquid crystal society. Acitrezza ,CT (Italy) 4-7 June 2008.

## Referee activity

Referee for the international journals: Biophysical Chemistry, ACS Chemical Neuroscience, Scientific Report, Plos One, BBA-Biomembranes, Biomedicines, Inorganic Chemistry, International Journal of Molecular Sciences, International Journal of Biological Macromolecules, International Journal of Peptide Research and Therapeutics, Molecules, Nanomaterials, Pharmaceuticals, Pharmaceutics, Symmetry, European Journal of Medicinal Chemistry.

## Other

1. Author of the cover of BIOPHYSICAL JOURNAL Volume 111 Number 1 Year 2016.
2. Author of the cover of PHYSICAL CHEMISTRY CHEMICAL PHYSICS Volume 15 Number 23 Year 2013.
3. Author of the cover of NEW JOURNAL OF CHEMISTRY Volume 34 Number 2 Year 2010.

## Scientific Publications

1. G. Di Natale, G. Sabatino, **M.F. M. Sciacca**, R.Tosto, D. Milardi, G. Pappalardo, A $\beta$  and Tau Interact with Metal Ions, Lipid Membranes and Peptide-Based Amyloid Inhibitors: Are These Common Features Relevant in Alzheimer's Disease?, Molecules (2022), 27 (16), 5066. I.F.: 4.411.

2. **M.F.M. Sciacca**, I. Naletova, M. L. Giuffrida, F. Attanasio, Semax, a Synthetic Regulatory Peptide, Affects Copper-Induced Abeta Aggregation and Amyloid Formation in Artificial Membrane Models, *ACS Chemical Neuroscience* (2022), 13(4), 486–496. I.F.: 4.418.
3. L. De Rosa, D. Diana, R. Di Stasi, A. Romanelli, **M.F.M. Sciacca**, D. Milardi, C. Isernia, R. Fattorusso, L. D'Andrea, Probing the helical stability in a VEGF-mimetic peptide, *Bioorganic Chemistry* (2021), 116, 105379. I.F.: 5.275.
4. **M.F.M. Sciacca**, G. Di Natale, D. Milardi, G. Pappalardo, Tau/A $\beta$  chimera peptides: A Thioflavin-T and MALDI-TOF study of A $\beta$  amyloidosis in the presence of Cu (II) or Zn (II) ions and total lipid brain extract (TLBE) vesicles, *Chemistry and Physics of Lipids* (2021), 237, 105085. I.F.: 3.329
5. **M.F.M. Sciacca**, C. La Rosa, D. Milardi, Amyloid-Mediated Mechanisms of Membrane Disruption, *Biophysica* (2021), 1(2), 137-156. I.F.: N/A
6. S. García-Viñuales, **M.F.M. Sciacca**, V. Lanza, A. M. Santoro, G. Grasso, G. R. Tundo, D. Sbardella, M. Coletta, G. Grasso, C. La Rosa, D. Milardi, The interplay between lipid and A $\beta$  amyloid homeostasis in Alzheimer's Disease: risk factors and therapeutic opportunities, *Chemistry and Physics of Lipids* (2021), 236, 105072. I.F.: 3.329
7. **M.F.M. Sciacca**, F. Lolicato, C. Tempra, F. Scollo, B.R. Sahoo, M.D. Watson, S. García-Viñuales, D. Milardi, A. Raudino, J.C. Lee, A. Ramamoorthy, C. La Rosa, Lipid-Chaperone Hypothesis: A Common Molecular Mechanism of Membrane Disruption by Intrinsically Disordered Proteins. *ACS chemical neuroscience* (2020), 11 (24), 4336–4350. I.F.: 4.418
8. S. García-Viñuales, R. Ahmed, **M.F.M. Sciacca**, V. Lanza, M.L. Giuffrida, S. Zimbone, V. Romanucci, A. Zarrelli, C. Bongiorno, N. Spinella, C. Galati, G. Di Fabio, G. Melacini, D. Milardi. Trehalose conjugates of silybin as prodrugs for targeting toxic A $\beta$  aggregates. *ACS Chemical Neuroscience* (2020), 11 (17), 2566-2576. I.F.: 4.418
9. **M.F.M. Sciacca**, G. Di Natale, R. Tosto, D. Milardi, G. Pappalardo. Tau/A $\beta$  chimera peptides: Evaluating the dual function of metal coordination and membrane interaction in one sequence. *Journal of inorganic biochemistry*, (2020) 205, 110996. I.F.: 4.155
10. S. Zimbone, A.M. Santoro, D. La Mendola, C. Giacomelli, M.L. Trincavelli, M.F. Tomasello, D. Milardi, S. García-Viñuales, **M.F.M. Sciacca**, C. Martini, G. Grasso. The Ionophoric Activity of a Pro-Apoptotic VEGF165 Fragment on HUVEC Cells. *International journal of molecular sciences*, (2020), 21 (8), 2866. I.F.: 5.924
11. **M.F.M. Sciacca**, I. Monaco, C. La Rosa, D. Milardi. The active role of Ca 2+ ions in A $\beta$ -mediated membrane damage. *Chemical Communications*, (2018) vol. 9, 54 (29), 3629-3631. I.F.: 6.222
12. G. Di Natale, F. Bellia, **M.F.M. Sciacca**, T. Campagna, G. Pappalardo. Tau-peptide fragments and their copper(II) complexes: Effects on Amyloid-beta aggregation. *Inorganica Chimica Acta*, (2018) 472, 82-92. I.F.: 2.545
13. G. Malgieri, G. D'Abrrosca, L. Pirone, A. Toto, M. Palmieri, L. Russo, **M.F.M. Sciacca**, R. Tate, V. Sivo, I. Baglivo, R. Majewska, M. Coletta, P. V. Pedone, C. Isernia, M. De Stefano, S. Gianni, E. M. Pedone, D. Milardi, R. Fattorusso. Folding mechanisms steer the amyloid fibril formation propensity of highly homologous proteins. *Chemical Science*, (2018) 9 (13), 3290-3298. I.F.: 9.825
14. **M.F.M Sciacca**, R. Chillemi, S. Sciuto, V. Greco, C. Messineo, S.A. Kotler, D.K. Lee, J.R. Brender, A. Ramamoorthy, C. La Rosa, D. Milardi. A blend of two resveratrol derivatives abolishes hIAPP amyloid growth and membrane damage. *Biochimica et Biophysica Acta (BBA)-Biomembranes*, (2018) 1860 (9), 1793-1802. I.F.: 3.747
15. **M.F.M. Sciacca**, C. Tempra, F. Scollo, D. Milardi, C. La Rosa. Amyloid growth and membrane damage: Current themes and emerging perspectives from theory and experiments on A $\beta$  and hIAPP. *Biochimica et Biophysica Acta (BBA)-Biomembranes*, (2018), 1860 (9), 1625-1638. I.F.: 3.747
16. F. Florenzano, C. Veronica, G. Ciasca, M.T. Ciotti, A. Pittaluga, G. Olivero, M. Feligioni, F. Iannuzzi, V. Latina, **M.F.M. Sciacca**, A. Sinopoli, D. Milardi, G. Pappalardo, D. Marco, M. Papi, A. Atlante, A. Bobba, A. Borreca, P. Calissano, G. Amadoro. Extracellular truncated tau causes early presynaptic dysfunction associated with Alzheimer's disease and other tauopathies. *Oncotarget*, (2017) 8, 64745-64778. I.F.: 5.168
17. C. Galati, N. Spinella, L. Renna, D. Milardi, F. Attanasio, **M.F.M. Sciacca**, C. Bongiorno. Strategy to discover full-length amyloid-beta peptide ligands using high-efficiency microarray technology. *Beilstein Journal Of Nanotechnology*, (2017), 8, 2446-2453. I.F.: 3.649
18. **M.F.M. Sciacca**, V. Romanucci, A. Zarrelli, I. Monaco, F. Lolicato, N. Spinella, C. Galati, G. Grasso, L. D'Urso, M. Romeo, L. Diomede, M. Salonna, C. Bongiorno, G. Di Fabio, C. La Rosa, D. Milardi. Inhibition of A beta Amyloid Growth and Toxicity by Silybins: The Crucial Role of Stereochemistry. *ACS chemical neuroscience* (2017), 8, 1767-1778. I.F.: 4.418
19. **M.F.M. Sciacca**, F. Lolicato, G. Di Mauro, D. Milardi, L. D'Urso, C. Satriano, A. Ramamoorthy, C. La Rosa, The Role of Cholesterol in Driving IAPP-Membrane Interactions *Biophysical Journal*, (2016), 111(1), 140-151. I.F.: 4.033
20. J. R. Brender, J. Krishnamoorthy, **M. F. M. Sciacca**, S. Vivekanandan, L. D'Urso, C. La Rosa A. Ramamoorthy, Probing the Sources of the Apparent Irreproducibility of Amyloid Formation: Drastic Changes in Kinetics and a Switch in Mechanism due to Micelle-Like Oligomer Formation at Critical Concentrations of IAPP, *The Journal of Physical Chemistry B*, (2015), 119 (7), 2886–2896. I.F.: 2.991
21. D. Milardi, **M.F.M. Sciacca**, L. Randazzo, A. Raudino, C. La Rosa. The role of calcium, lipid membranes and islet amyloid polypeptide in the onset of type 2 diabetes: innocent bystanders or partners in a crime?. *Frontiers in endocrinology*, (2014), 5: 555
22. J. Zhao, R. Hu, **M.F.M. Sciacca**, J. R. Brender, H. Chen, A. Ramamoorthy, J. Zheng. Non-selective Ion Channel Activity of Polymorphic Human Islet Amyloid Polypeptide (Amylin) Double Channels. *Physical Chemistry Chemical Physics*, (2014), 16 (6), 2368-2377. I.F.: 3.676
23. D.K. Lee, J.R. Brender, **M.F.M. Sciacca**, J. Krishnamoorthy, C. Yu, A. Ramamoorthy. Lipid Composition-Dependent Membrane Fragmentation and Pore-Forming Mechanisms of Membrane Disruption by Pexiganan (MSI-78). *Biochemistry*, (2013), 52 (19), 3254-3263. I.F.: 3.163

24. **M.F.M. Sciacca**, D. Milardi, G.M.L. Messina, G. Marletta, J.R. Brender, A. Ramamoorthy, C. La Rosa Cations as switches of amyloid-mediated membrane disruption mechanisms: Calcium and IAPP. *Biophysical journal*, (2013), 104 (1), 173-184. I.F.: 4.033.
25. S.A. Kotler, **M.F.M. Sciacca**, J.R. Brender, J. Chen, K. Yamamoto, D. Lee, A. Ramamoorthy. Gangliosides Mediate a Two-Step Mechanism of Membrane Disruption by Beta-Amyloid: Initial Pore Formation Followed by Membrane Fragmentation. *Biophysical Journal*, (2013), 104, 217. I.F.: 4.033
26. F. Attanasio, P. De Bona, S. Cataldo, **M.F.M. Sciacca**, D. Milardi, B. Pignataro, G. Pappalardo. Copper (II) and zinc (II) dependent effects on A $\beta$ 42 aggregation: a CD, Th-T and SFM study. *New Journal of Chemistry*, (2013), 37, 1206-1215. I.F.: 3.591
27. **M.F.M. Sciacca**, J.R. Brender, D.K. Lee, A. Ramamoorthy. Phosphatidylethanolamine enhances amyloid fiber-dependent membrane fragmentation. *Biochemistry*, (2012), 51 (39), 7676-7684. I.F.: 3.163
28. M.F.M. Sciacca, S.A. Kotler, J.R. Brender, J. Chen, D. Lee, A. Ramamoorthy. Two-Step Mechanism of Membrane Disruption by A $\beta$  through Membrane Fragmentation and Pore Formation. *Biophysical Journal*, (2012), 103 (4), 702-710. I.F.: 4.033
29. A.J. McHenry, **M.F.M. Sciacca**, J.R. Brender, A. Ramamoorthy. Does cholesterol suppress the antimicrobial peptide induced disruption of lipid raft containing membranes? *Biochimica et Biophysica Acta (BBA)-Biomembranes*, (2012), 1818(12), 3019-3024. I.F.: 3.747
30. **M.F.M. Sciacca**, R. Chillemi, S. Sciuto, M. Pappalardo, C. La Rosa, D. Grasso, D. Milardi. Interactions of two O-phosphorylresveratrol derivatives with model membranes. *Archives of Biochemistry and Biophysics*, (2012), 521 (1), 111-116. I.F.: 4.013
31. D. Milardi, **M.F.M. Sciacca**, M. Pappalardo, D.M. Grasso, C. La Rosa. The role of aromatic side-chains in amyloid growth and membrane interaction of the islet amyloid polypeptide fragment LANFLVH. *Europen Biophysics Journal*, (2011), 1, 1-12. I.F.: 1.733
32. G. Di Natale, G. Pappalardo, D. Milardi, **M.F.M. Sciacca**, F. Attanasio, D. La Mendola, E. Rizzarelli. Membrane Interactions and Conformational Preferences of Human and Avian Prion N-Terminal Tandem Repeats: The Role of Copper(II) Ions, pH, and Membrane Mimicking Environments, *Journal of Physical Chemistry B*, (2010), 114, 13830- 13838. I.F.: 2.991
33. S. Scalisi, **M.F.M. Sciacca**, G. Zhavnerko, D.M Grasso, G. Marletta, C. La Rosa. Self-assembling pathway of hIAPP fibrils within lipid bilayers. *ChemBioChem*, (2010), 11(13), 1856-1859. I.F.: 3.164
34. **M.F.M. Sciacca**, M. Pappalardo, F. Attanasio, D. Milardi, C. La Rosa, D.M. Grasso. Are fibril growth and membrane damage linked processes? An experimental and computational study of IAPP 12-18 and IAPP 21-27 peptides. *New Journal of Chemistry*, (2010), 34(2), 200-207. I.F.: 3.591
35. **M.F.M. Sciacca**, V. Carbone, M. Pappalardo, D. Milardi, C. La Rosa, D.M. Grasso. Interaction of human amylin with phosphatidylcholine and phosphatidylserine membranes. *Molecular Crystals and Liquid Crystals*, (2009), 500, 73-81. I.F.: 0.896
36. M. Pappalardo, **M.F.M. Sciacca**, D. Milardi, D.M. Grasso, C. La Rosa. Thermodynamics of azurin folding: the role of copper ion. *Journal of Thermal Analysis and Calorimetry*, (2008), 93, 575-581. I.F.: 4.626
37. **M.F.M. Sciacca**, M. Pappalardo, D. Milardi, D.M. Grasso, C. La Rosa. Calcium activated membrane interaction of the islet amyloid polypeptide: Implications in the pathogenesis of type II diabetes mellitus. *Archives of Biochemistry and Biophysics*, (2008), 477, 291-298. I.F.: 4.013
38. **M.F.M. Sciacca**, D. Milardi, M. Pappalardo, C. La Rosa, D.M. Grasso. The role of electrostatics in the thermal stability of Ubiquitin. A combined DSC and MM study. *Journal of Thermal Analysis and Calorimetry*, (2006), 86, 311-314. I.F.: 4.626

### Conference Proceeding

1. **M.F.M. Sciacca**, V. Romanucci, F. Lolicato, N. Spinella, C. Galati, G. Grasso, L. D'Urso, M. Romeo, L. Diomede, M. Salmona, C. Bongiorno, G. Di Fabio, C. La Rosa, The role of stereochemistry in the inhibition of A Amyloid growth and toxicity by silybins, SMART eLAB (2021), 16, 70, in: 1st conference in crystallography, structural chemistry and biosystem, Catania 4-6 October 2021.
2. S. Zimbone, A. M. Santoro, D. La Mendola, C. Giacomelli, M. L. Trincavelli, M. F. Tomasello, D. Milardi, S. García-Viñuales, **M.F.M. Sciacca**, C. Martini, E. Rizzarelli, G. Grasso, VEGF bioactive fragments and their copper (II) complexes in angiogenesis, SMART eLAB (2021), 16, 70, in: 1st conference in crystallography, structural chemistry and biosystem, Catania 4-6 October 2021.
3. D. Milardi, A. M. Santoro, **M.F.M. Sciacca**, V. Lanza, G. Grasso, Rescuing proteostasis by small molecules, SMART eLAB, (2021), 16, 27, in: 1st conference in crystallography, structural chemistry and biosystem, Catania 4-6 October 2021.
4. J.R. Brender, J. Krishnamoorthy, **M.F.M. Sciacca**, S. Vivekanandan, A. Ramamoorthy. Divergent Mechanisms in Amyloid Formation Controlled by Critical Points. *Biophysical Journal*, (2013), 104 (2), 51a.
5. S.A. Kotler, **M.F.M. Sciacca**, J.R. Brender, J. Chen, K. Yamamoto, D.-kuk Lee, A. Ramamoorthy, Gangliosides Mediate a Two-Step Mechanism of Membrane Disruption by Beta-Amyloid: Initial Pore Formation Followed by Membrane Fragmentation, *Biophysical Journal* (2013), 104 (2), 217a
6. **M.F.M. Sciacca**, D. Milardi, G.M.L. Messina, G. Marletta, J.R. Brender, A. Ramamoorthy, C. La Rosa Pores Versus Fibrils: Calcium Ions Regulate Different IAPP-Mediated Membrane Damage Mechanisms. *Biophysical Journal* (2013), 104 (2), 395a.
7. J.R. Brender, V. Subramanian, J. Krishnamoorthy, **M.F.M. Sciacca**, A. Ramamoorthy . Tracking Conformational Changes during Amyloidogenesis in Real-Time at Atomic-Resolution by NMR. *Biophysical Journal*, (2012), 102 (3), 242a.

8. **M.F.M. Sciacca**, J.R. Brender, D.K. Lee, A. Ramamoorthy. Phosphatidylethanolamine enhances amyloid fiber-dependent membrane fragmentation. *Biophysical Journal*, (2012), 102 (3), 488a.
9. A.J. McHenry, **M.F.M. Sciacca**, J.R. Brender, K. Hartman, A. Ramamoorthy. The Role of "Raft-Like" Membranes on Antimicrobial Peptide-Lipid Bilayer Interactions *Biophysical Journal*, (2012), 102 (3), 495a

#### Contribution in Conferences

1. V. Romanucci, R. Pagano, D. Milardi, **M.F.M. Sciacca**, F. Lolicato, C. Tempra, A. Zarrelli, G. Di Fabio, Synthesis and characterization of new curcumin derivatives for AD therapy, in: International symposium on pathomechanisms of amyloid diseases, Catania 25-27 August 2022.
2. R. Pagano, V. Romanucci, A. Zarrelli, **M.F.M. Sciacca**, D. Milardi, G. Di Fabio, Silybin-Hydroxytyrosol Hybrids as MultiTarget Directed Ligands (MTDLs) to Contrast Alzheimer's Disease, in: International symposium on pathomechanisms of amyloid diseases, Catania 25-27 August 2022.
3. S. Zimbone, M.L. Giuffrida, D. Milardi, **M.F.M. Sciacca**, G. Grasso, VEGF fragments modulate A $\beta$  aggregation and toxicity on differentiated SH-SY5Y cells, in: International symposium on pathomechanisms of amyloid diseases, Catania 25-27 August 2022.
4. G. Di Natale, R. Tosto, G. Sabatino, G.M.L. Consoli, **M.F.M. Sciacca**, G. Pappalardo, Limited proteolysis studies of A $\beta$  42 by mass spectrometry: an alternative approach to investigate the interactions between A $\beta$  42 and its aggregation inhibitors, in: International symposium on pathomechanisms of amyloid diseases, Catania 25-27 August 2022.
5. S. Zimbone, M.L. Giuffrida, G. Sabatino, G. Di Natale, R. Tosto, D. Milardi, G.Pappalardo, **M.F.M. Sciacca**, Amyloid  $\beta$  8-20 fragment characterization and antiaggregating properties, in: International symposium on pathomechanisms of amyloid diseases, Catania 25-27 August 2022.
6. F. Lolicato, **M.F.M. Sciacca**, C. Tempra, F. Scollo, M. Pannuzzo, D. Milardi, A. Raudino, C. La Rosa, The Lipid-Chaperone Hypothesis: A unifying framework for amyloid-mediated membrane damage, in: International symposium on pathomechanisms of amyloid diseases, Catania 25-27 August 2022.
7. G. Grasso, S. Zimbone, M.L. Giuffrida, D. Milardi, **M.F.M. Sciacca**, VEGF fragments affect A $\beta$  toxicity on differentiated SH-SY5Y, in: National Congress of the Division of Chemistry of Biological Systems, Naples 20-22 June 2022.
8. R. Pagano, V. Romanucci, A. Zarrelli, V. Lanza, **M.F.M. Sciacca**, A.M. Santoro, D. Milardi, G.Di Fabio, Silybin-tyrosol conjugates as promising Multitarget Ligands (MTLs) to contrast neurodegenerative diseases, in: National Congress of the Division of Chemistry of Biological Systems, Naples 20-22 June 2022.
9. V. Lanza, S. García-Viñuales, R. Ahmed, **M.F.M. Sciacca**, M.L. Giuffrida, S. Zimbone, V. Romanucci, A. Zarrelli, C. Bongiorno, N. Spinella, C. Galati, G. Di Fabio, G. Melacini, D. Milardi, Interactions between trehalose-silybins conjugates and A $\beta$  oligomers: a biophysical and *in vitro* study, in: National Congress of the Division of Chemistry of Biological Systems, Naples 20-22 June 2022.
10. **M.F.M. Sciacca**, M.F. Tomasello, M.L. Giuffrida, I. Naletova , F. Attanasio, Semax, a synthetic regulatory peptide, affects copper-induced A $\beta$  aggregation, amyloid formation and ROS production, in: 17<sup>th</sup> Naples workshop on bioactive peptides, Naples 16-18 June 2022.
11. **M.F.M. Sciacca**, V. Romanucci, F. Lolicato, N. Spinella, C. Galati, G. Grasso, L. D'Urso, M. Romeo, L. Diomede, M. Salmona, C. Bongiorno, G. Di Fabio, C. La Rosa, The role of stereochemistry in the inhibition of A Amyloid growth and toxicity by silybins, in: 1st conference in crystallography, structural chemistry and biosystem, Catania 4-6 October 2021.
12. S. Zimbone, A. M. Santoro, D. La Mendola, C. Giacomelli, M. L. Trincavelli, M. F. Tomasello, D. Milardi, S. García-Viñuales, **M.F.M. Sciacca**, C. Martini, E. Rizzarelli, G. Grasso, VEGF bioactive fragments and their copper (II) complexes in angiogenesis, in: 1st conference in crystallography, structural chemistry and biosystem, Catania 4-6 October 2021.
13. D. Milardi, A. M. Santoro, **M.F.M. Sciacca**, V. Lanza, G. Grasso, Rescuing proteostasis by small molecules, in: 1st conference in crystallography, structural chemistry and biosystem, Catania 4-6 October 2021.
14. **M.F.M. Sciacca**, F. Lolicato, C. Tempra, F. Scollo, D. Milardi, A. Raudino, C. La Rosa, A Common Molecular Mechanism of Membrane Disruption by Intrinsically Disordered Proteins, in: XXVII Congresso Nazionale Della Società Chimica Italiana, OnLine Conference 14-23 September 2021.
15. **M.F.M. Sciacca**, G. Di Natale, R. Tosto, D. Milardi, G. Pappalardo, All-in-one multitool: Tau/A $\beta$  chimera peptides: From metal coordination to membrane protection in one sequence, in: BioMet 2021 XX Workshop on Pharmabiometallics, Online Conference, 15-16 April 2021.
16. F. Attanasio , D. Campisi, I. Monaco, **M.F.M. Sciacca**, C. Satriano, M.F. Tomasello, New designed bifunctional peptides modulate Cu(II)-induced amyloidogenicity and redox activity of Amyloid beta peptide, in: BioMet 2018 XVII Workshop on Pharmabiometallics, Naples 16-17 February 2018.
17. **M.F.M. Sciacca**, V. Romanucci, A. Zarrelli, I. Monaco, F. Lolicato, N. Spinella, C. Galati, G. Grasso, L. D'Urso, M. Romeo, L. Diomede, M. Salmona, C. Bongiorno, G. Di Fabio, C. La Rosa, D. Milardi, Inhibition of A $\beta$  amyloid growth and toxicity by Silybins: the crucial role of stereochemistry, in: International Symposium on Protein Misfolding Diseases, Catania, 31 July - 3 August 2017.
18. **M.F.M. Sciacca**, F. Lolicato, G. Di Mauro, D. Milardi, L. D'Urso, C. Satriano, A. Ramamoorthy, C. La Rosa, Role of Cholesterol in Driving IAPP-Membrane Interactions, in: International Symposium on Protein Misfolding Diseases, Catania, 31 July - 3 August 2017.
19. **M.F.M. Sciacca**, I. Monaco, L. D'Urso, A. Ramamoorthy, D. Milardi, C. La Rosa, The role of calcium ion on Abeta fibrillogenesis and membrane

- damage, in: International Symposium on Protein Misfolding Diseases, Catania, 31 July - 3 August 2017.
- 20. F. Attanasio, I. Monaco, I. Naletova, V.G. Nicoletti, C. Satriano, **M.F.M. Sciacca**, F.M.. Tomasello, Non natural peptides that modulate Cu(II)-Induced amyloidogenicity and redox activity of amyloid beta peptide as potential drugs for alzheimer disease, in: 13<sup>th</sup> International conference on Alzheimer's Disease & Parkinson's Disease, Vienna, 29 March - 2 April 2017.
  - 21. M. Palmieri, L. Russo, G. Malgieri, A. Rivellino, J.V. Caso, I. de Paola, L. Zaccaro, **M.F.M. Sciacca**, R. Majewska, M. De Stefano, P.V. Pedone, C. Isernia, D. Milardi, R. Fattorusso, Unfolding mechanism characterization of prokaryotic zinc finger domain, in: XXV Congresso della Società Chimica Italiana, Arcavacata di Rende (CS), 7-12 September 2014.
  - 22. **M.F.M. Sciacca**, D. Milardi, G.M.L. Messina, G. Marletta, J.R. Brender, A. Ramamoorthy, C. La Rosa, Calcium Ions Regulate Different hIAPP-Mediated Membrane Damage Mechanisms, in: 57<sup>th</sup> Annual Meeting of the American Biophysical Society, Philadelphia (USA), 2-6 February 2013.
  - 23. S.A. Kotler, **M.F.M. Sciacca**, J.R. Brender, J. Chen, K. Yamamoto, D. Lee, A. Ramamoorthy, Gangliosides Mediate a Two-Step Mechanism of Membrane Disruption by Beta-Amyloid: Initial Pore Formation Followed by Membrane Fragmentation, in: 57<sup>th</sup> Annual Meeting of the American Biophysical Society, Philadelphia (USA), 2-6 February 2013.
  - 24. J.R. Brender, J. Krishnamoorthy, **M.F.M. Sciacca**, S. Vivekanandan, A. Ramamoorthy, Divergent Mechanisms in Amyloid Formation Controlled by Critical Points., in: 57<sup>th</sup> Annual Meeting of the American Biophysical Society, Philadelphia (USA), 2-6 February 2013.
  - 25. J.R. Brender, V. Subramanian, J. Krishnamoorthy, **M.F.M. Sciacca**, A. Ramamoorthy, Tracking Conformational Changes during Amyloidogenesis in Real-Time at Atomic-Resolution by NMR, in: 56<sup>th</sup> Annual Meeting of the American Biophysical Society, San Diego (USA), 25-29 February 2012.
  - 26. **M.F.M. Sciacca**, J.R. Brender, D.K. Lee, A. Ramamoorthy, Phosphatidylethanolamine enhances amyloid fiber-dependent membrane fragmentation, in: 56<sup>th</sup> Annual Meeting of the American Biophysical Society, San Diego (USA), 25-29 February 2012.
  - 27. A.J. McHenry, **M.F.M. Sciacca**, J.R. Brender, K. Hartman, A. Ramamoorthy, The Role of "Raft-Like" Membranes on Antimicrobial Peptide-Lipid Bilayer Interactions, in: 56<sup>th</sup> Annual Meeting of the American Biophysical Society, San Diego (USA), 25-29 February 2012.
  - 28. G. Pappalardo, P. De Bona, D. Milardi, F. Attanasio, **M.F.M. Sciacca**, S. Cataldo, S., et al., Copper (II) and Zinc (II) interaction with Abeta42: Effects of metal binding on peptide's aggregation rate and morphology of the aggregates, in: XXIV Congresso della Società Chimica Italiana, Lecce (Italy), 11-16 September 2011.
  - 29. S. Scalisi, **M.F.M. Sciacca**, G. Zhavnerko, D.M. Grasso, G. Marletta, C. La Rosa, Self assembling pathway of hIAPP fibrils within bilayer, in: E-MRS 2010 Spring Meeting, Strasbourg (France), 7-11 June 2010.
  - 30. G. Di Natale, G. Pappalardo, D. Milardi, **M.F.M. Sciacca**, F. Attanasio, D. La Mendola, E. Rizzarelli, The role of Cu(II) ions in the conformational preferences and membrane interaction of human and avian prion proteins' N-terminal tandem repeat peptides., in: 10<sup>th</sup> International Symposium on Applied Bioinorganic Chemistry, Debrecen (Hungary), 25-28 September 2009.
  - 31. **M.F.M. Sciacca**, M. Pappalardo, D. Milardi, C. La Rosa, D. Grasso, Dissecting the properties of Islet Amyloid Polypeptide hIAPP12-18 and hIAPP21-28 sequences: amyloidogenic propensity is not associated to membrane damage, in: International Bunsen Discussion Meeting "Structure of Amyloid Fibrils and Mechanism of Amyloid Formation". Halle an der Saale (Germany), 8 - 11 February 2009.
  - 32. S. Scalisi, C. Satriano, **M.F.M. Sciacca**, D.M. Grasso, G. Marletta, C. La Rosa, Lipid bilayers increase fibrils formation of full length human amylin, in: International Bunsen Discussion Meeting "Structure of Amyloid Fibrils and Mechanism of Amyloid Formation". Halle an der Saale (Germany), 8 - 11 February 2009.
  - 33. G. Di Natale, G. Pappalardo, **M.F.M. Sciacca**, D. Milardi, D. La Mendola, F. Attanasio, E. Rizzarelli, Conformational preferences and membrane interaction of the Nterminal octarepeats of the prion protein: the role of Cu (II) ions., in: XXX Annual Congress on Calorimetry, Thermal Analysis and Chemical Thermodynamics, Pisa (Italy), 9-12 December 2008.
  - 34. **M.F.M. Sciacca**, M. Burgio, R. Chillemi, D.M. Grasso, S. Sciuto, Studio delle interazioni del ct-DNA con derivati idrosolubili dell' (E)-resveratolo, in: IV Convegno congiunto della SCI sezioni Calabria e Sicilia, Arcavacata di Rende (CS) (Italy), 1-2 December 2008
  - 35. R. Chillemi, D.M. Grasso, **M.F.M. Sciacca**, S. Sciuto, O-Phosphoryl derivatives of (E)- resveratrol: some biological properties., in: International PSE Symposium on Natural Products in Cancer Therapy, Naples (Italy), 23-26 September 2008.
  - 36. D. Milardi, C. La Rosa, M. Pappalardo, **M.F.M. Sciacca**, D.M. Grasso, Molecular basis of the toxic potential of amyloidogenic peptides: the effect of hIAPP on the liquid-crystalline structure of membranes, in: 8<sup>o</sup> Congresso Nazionale della Società Italiana Cristalli Liquidi, Aci Trezza (CT) (Italy), 4-7 June 2008.
  - 37. **M.F.M. Sciacca**, V. Carbone, M. Pannuzzo, M. Pappalardo, D. Milardi, C. La Rosa, D.M. Grasso, Interaction of human Islet Amyloid Polypeptide with phosphatidylcholine and phosphatidyleserine model membranes, in: 8<sup>o</sup> Congresso Nazionale della Società Italiana Cristalli Liquidi, Aci Trezza (CT) (Italy), 4-7 June 2008.
  - 38. D. Milardi, C. La Rosa, M. Pappalardo, **M.F.M. Sciacca**, D.M. Grasso, Interaction of fibrillogenic hIAPP fragments with liquid-crystalline membranes., in: 8<sup>o</sup> Congresso Nazionale della Società Italiana Cristalli Liquidi, Aci Trezza (CT) (Italy), 4-7 June 2008.
  - 39. C. La Rosa, D. Milardi, **M.F.M. Sciacca**, D.M. Grasso, Gel-Liquid Crystal Phase Transition as a Tool of Cell Membrane-Protein Interaction: The Case of Amylin, in: 7<sup>o</sup> Congresso Nazionale della Società Italiana Cristalli Liquidi, Castiglioncello (Italy), 7-9 June 2006.