CURRICULUM VITAE DI PASQUALE STANO

1. Studi e Titoli Scientifici e Accademici

LAUREA IN CHIMICA (110/110 E LODE)
presso il Dipartimento di Chimica e Chimica Industriale, Università di Pisa, sotto la supervisione del Prof. Mauro Isola, con una tesi dal titolo: "*Sintesi di leganti bis-bidentati eterotopici contenenti una unità salicilaldimminica ed una fenolo-piridinica, e relativi complessi con nichel(II) e rame(II)*".

ABILITAZIONE SCIENTIFICA NAZIONALE
Abilitazione in Chimica Organica (03/C1) – professore di II fascia, conseguita l'11 Dicembre 2013
Abilitazione in Biochimica (05/E1) – professore di II fascia, conseguita il 16 Giugno 2014

ABILITAZIONE ALL'ESERCIZIO DELLA PROFESSIONE DI CHIMICO
Conseguita nel Novembre 2001 presso l'Università di Pisa.

2. Percorso Accademico

In corso	Dottorato di Ricerca presso il Dip. di Chimica Inorganica e Analitica, Università di Jena (Germania), sotto la supervisione del Prof. W. Weigand, titolo della tesi "*The use of lipid vesicles as cellular model*".
Nov. 2013 ad oggi	Ospite scientifico presso il Dip. Scienze Università Roma Tre
Gen. 2013 – ott. 2013	Borsista presso l'Univ. Studi di Roma Tre, sul tema "*Biologia Sintetica*"
Feb 2012 – Gen. 2012	Ospite presso il Dip. Biologia Università Roma Tre
Feb 2011 – Gen 2012	Assegno di Ricerca annuale "Preparazione, caratterizzazione e analisi dinamica (autoriproduzione) di liposomi piccoli e giganti contenenti macromolecole (proteine, enzimi, DNA, RNA) o piccole molecole (marcatori) nell'ambito dello studio delle cellule semi-sintetiche e dei modelli di protocellule" nell'ambito del progetto PRIN 2008 "*Approcci sperimentali e teorici per la costruzione di cellule semi-sintetiche*" (Nr. 2008FY7RJ4), Dip. Biologia, Univ. RomaTre
Feb. 2008 – gen 2010	Assegno di Ricerca (tre anni consecutivi) "*Studi sulla auto-riproduzione di vescicole per la realizzazione di una cellula minimale*" nell'ambito del progetto europeo (EU-FP6) SYNTHCELLS "*Approaches to the Bioengineering of Synthetic Minimal Cells*" (Nr. 043359), Dip. Biologia, Univ. RomaTre
Nov 2007 – Gen 2008	Contratto di collaborazione continuata e continuativa nell'ambito del progetto europeo (FP6) SYNTHCELLS "*Approaches to the Bioengineering of Synthetic Minimal Cells*" (Nr. 043359)
Gen. 2005 – Dec. 2007	Contratto di Ricerca (Triennale) "Junior Grants" presso il Museo Storico della Fisica e Centro Studi "E. Fermi" – *The Minimal Cell Project*.
Feb. 2004 – Dic. 2004	Assegno di Ricerca "*Veicolazione e rilascio di peptidi ad attività antimicrobica per mezzo di liposomi*" presso il Dipartimento di Biologia della Terza Università di Roma.
Gen. 2002 – Dic. 2003	Wissenschaftlicher Mitarbeiter presso il Politecnico Federale di Zurigo (ETH) (Svizzera) su temi inerenti il drug delivery per mezzo di liposomi, in collaborazione con la Sigma-Tau (Pomezia, Roma) e i processi di auto-riproduzione di liposomi.

3. Attività Didattica

A. PROFESSORE A CONTRATTO, PER UN TOTALE DI 10 ANNI ACCADEMICI

- Per due anni accademici (AA 2005/06 e 2006/07): Titolare del corso "Complementi di Biochimica Applicata ed Enzimologia" (laurea specialistica in Biologia, indirizzo Biomolecolare): Modulo II (16 ore): *Metodi Spettroscopici in Biochimica*.

- Per quattro anni accademici (dall'AA 2007/08 all'AA 2010/11): Titolare del corso "Biochimica e Biologia Molecolare (laurea specialistica in Biologia, indirizzo Biomolecolare): Modulo II (16 ore): *Metodi Spettroscopici in Biochimica.*
- Per un anno accademico (AA 2007/08): Titolare del corso "Biochimica e Biologia Molecolare Applicata" (laurea specialistica in Biologia, indirizzo Biomolecolare): Modulo I (16 ore): *Enzimologia*.
- Per tre anni accademici (dall'AA 2008/09 al 2010/11): Titolare del corso "Chimica fisica dei Colloidi e delle Interfasi" (aa. 2008/2009), Scienze dei Materiali - Università Ca' Foscari, Venezia. (Laurea magistrale classe LM 54 ord. 270/04), II modulo (16 ore): Colloidi derivanti dall'auto-assemblamento di composti anfifilici e lipidi.

B. ALTRE ATTIVITÀ DIDATTICHE

- Docente del Master in Nanotechnologie (Modulo di Biotecnologia, lezioni dal 29 giugno al 3 luglio, modulo Liposome Technology 2-3 luglio 2009. Durata: 6 ore). CIVEN Venezia.
- Contratto di didattica integrativa per il corso di Biochimica, AA 2011/2012 – Dip. Biologia, Università di Roma3.
- Contratto di didattica integrativa per il corso di Biochimica e Biologia Molecolare Applicata, AA 2012/13 – Dip. Scienze, Università di Roma3.
- Nominato (2004/05) "Cultore della Materia", nell'ambito del corso "Complementi di Biochimica Applicata ed Enzimologia" (laurea specialistica in Biologia, indirizzo Biomolecolare): Modulo II: *Metodi Spettroscopici in Biochimica*.
- Nominato (2010/1) "Cultore della Materia", nell'ambito del corso "Biofisica" (laurea specialistica in Biologia, indirizzo Biomolecolare).
- Ciclo di seminari (12 ore) nell'ambito del corso di Biochimica Fisica, AA 2013/14 e AA 2014/15 – Dip. Scienze, Università di Roma3: *Self-assembly e liposomi nell'origine della vita, veicolazione di farmaci, e biologia sintetica.*
- Ciclo di seminari (12 ore) nell'ambito del corso di Biochimica e Biologia Molecolare Applicata, AA 2013/14 e AA 2014/15 – Dip. Scienze, Università di Roma3: *spettroscopia in biochimica*
- Ciclo di seminari nell'ambito del corso di Biologia Applicata (AA. 2005/06, 2007/08, 2008/09, 2009/10), Univ. Roma3: *Liposomi: Proprietà ed Applicazioni*; *Veicolazioni di farmaci per mezzo di liposomi*
- Membro di Commissioni di Laurea in Biologia - Uniroma3 (vecchio ordinamento, laurea magistrale e laurea triennale) del 16-05-2007; del 18-07-2007; del 19-03-2008.

4. Organizzazione di Conferenze/Workshops

- WIVACE 2015 – WORKSHOP ITALIANO DI VITA ARTIFICIALE E COMPUTAZIONE EVOLUTIVA – 23-24 September 2015, Bari, IT (organizers F. Mavelli, D. Caimano, F. Rossi, P. Stano)
- SATELLITE WORKSHOP in ECAL 2015 - 13TH EUROPEAN CONFERENCE ON ARTIFICIAL LIFE - July 22 2014, York, UK - "*What can Synthetic Biology offer to Artificial Intelligence (and vice versa)?*" (organizers P. Stano, L. Damiano, Y. Kuruma)
- SATELLITE WORKSHOP in ALIFE 2014 - 14TH INTERNATIONAL CONFERENCE ON ARTIFICIAL LIFE - July 30 - August 2 2014, New York, US - "*What can Synthetic Biology offer to Artificial Intelligence and vice versa?* (organizers P. Stano, L. Damiano, Y. Kuruma)
- SATELLITE WORKSHOP in ECAL 2013 - 12TH EUROPEAN CONFERENCE ON ARTIFICIAL LIFE - September 2-6 2013, Taormina, Italy - "*What Synthetic Biology can offer to Artificial Intelligence? Perspectives in the Bio-Chem-ICT and other scenarios*" (organizers P. Stano, L. Damiano, Y. Kuruma)
- SATELLITE MEETING in ALIFE XII "*Open workshop on molecular self-organization, molecular evolution, auto-catalysis and prebiotic chemistry*" – Odense August 2010. (organizers Mark Doerr, Pasquale Stano, and Andy Pratt).
- INTERNATIONAL SCHOOL ON COMPLEXITY – 9TH COURSE – "*Emergence in the physical*

*and biological world: a notion in search of clarificatio*n" – Erice, Sicily, 12-16 April 2006 (35 participants). Director of the Course: P. L. Luisi. Organizzatori: H. Bersini (Univ. Bruxelles, P. Stano (Uniroma3), P. L. Luisi (Uniroma3).

- COST WG0007 Meeting – "*Functionalized Vesicles*" – COST D27 Action – Prebiotic Chemistry and Early Evolution – Erice 3-4 October 2006 (15 participants).
- INTERNATIONAL SCHOOL ON COMPLEXITY – 4TH COURSE – "*Basic questions about the origin of life*" – Erice, Sicily, 1-6 October 2006 (50 participants). Directors of the Course: L. Pietronero and P. L. Luisi.

5. Partecipazione a Network Scientifici e a Società Scientifiche Nazionali e Internazionali

- Dal 15/05/2014 al 19/02/2015: Delegato Nazionale dell'Azione COST TD1308 "Origins and evolution of life on Earth and in the Universe (ORIGINS)"
- Dal 17/12/2013 ad oggi: Partecipante all'azione COST CM1304 "Emergence and Evolution of Complex Chemical Systems"
- Ottobre-Novembre 2013: Selezionato come host partner per la realizzazione di due missioni nell'ambito del progetto EU-FP7 COBRA (grant #1: Angelo Lanzilotto, da Univ. Bari; grant #2: Luisa Damiano, da Univ. Bergamo).
- Dal 29/11/2011 al 28/11/2015: Partecipante all'azione COST TD1102 "Phototech"
- Dal 3/4/2008 al 2/4/2012: Delegato Nazionale dell'Azione COST CM0703 "Systems Chemistry"
- Nel 2013 membro dell'American Institute of Biological Science
- Dal 2012 membro del network ESARG - Epistemology of the Sciences of the Artificial Research Group (presso il Centro di Ricerca sulla Complessità CERCO, Univ. Bergamo).
- Nel 2012 membro della American Chemical Society
- Nel 2010 e 2013 membro della International Society for Artificial Life
- Dal 2006 al 2009 membro della Società Italiana di Biofisica Pura ed Applicata
- Dal 2006 al 2009 membro dell'International Liposome Society
- 2009: Membro del network SynBioNT (Synthetic Biology Network, Nottingham, UK).

6. Pubblicazioni

- Autore di 115 pubblicazioni di cui:
  - 23 come autore principale (corresponding author), e di queste, 11 come unico autore;
  - 28 come primo autore (non corresponding);
  - 64 come co-autore
- Autore di 31 posters a conferenze nazionali e internazionali

Lista completa delle pubblicazioni

1. Luisi, P. L.; **Stano, P.**; Rasi, S.; Mavelli, F. A Possible Route to Prebiotic Vesicle Reproduction. *Artificial Life* 2004, *10*, 297-308.
2. **Stano, P.**; Bufali, S.; Pisano, C.; Bucci, F.; Barbarino, M.; Santaniello, M.; Carminati, P.; Luisi, P. L. Novel Camptothecin Analogue (Gimatecan)-containing Liposomes prepared by the Ethanol Injection Method. *Journal of Liposome Research* 2004, *14*, 87-109.
3. Zumbuehl, A.; Jeannerat, D.; Martin, S. E.; Sohrmann, M.; **Stano, P.**; Vigassy, T.; Clark, D. D.; Hussey, S. L.; Peter, M.; Peterson, B. R.; Pretsch, E.; Walde, P.; Carreira, E. M. An Amphotericin B-Fluorescein Conjugate as a Powerful Probe for Biochemical Studies of the Membrane. *Angewandte Chemie International Edition* 2004, 43, 5181-5185.
4. Zumbuehl, A.; **Stano, P.**; Herr, D.; Walde, P.; Carreira, E. M. Amphotericin B as a Potential Probe of the Physical State of Vesicle Membranes. *Organic Letters* 2004, *6*, 3683-3686.
5. **Stano, P.**; Bufali, S.; Domazou, A.; Luisi, P. L. Effect of Trp oligopeptides on the size distribution of POPC

liposomes. A dynamic light scattering and turbidimetric Study. *Journal of Liposome Research* 2005, *15*, 29-47.

6. Osfouri, S.; **Stano, P.**; Luisi, P. L. Condensed DNA in lipid microcompartments. *Journal of Physical Chemistry B* 2005, *109*, 19929-19935.

7. Luisi, P. L.; Ferri, F.; **Stano, P.** Approaches to a semi-synthetic minimal cell: a review. *Naturwissenschaften* 2006, *93*, 1-13.

8. Ruiz-Mirazo, K.; **Stano, P.**; Luisi, P. L. Lysozyme effect on oleic acid/oleate vesicles. *Journal of Liposome Research* 2006, *16*, 143-154.

9. **Stano, P.**; Wehrli, E.; Luisi, P. L. Insights on the self-reproduction of oleate vesicles. *Journal of Physics: Condensed Matter* 2006, *18*, S2231-S2238.

10. **Stano, P.**; Ferri, F.; Luisi, P. L. From the minimal genome to the minimal cell: theoretical and experimental investigations. In "*Life as we know it (Series: Cellular Origin, Life in Extreme Habitats and Astrobiology; vol. 10)*", ed. J. Seckbach, Springer, Berlin, 2006, pp. 181-198.

11. Sanna, C.; La Mesa, C.; Mannina, L.; **Stano, P.**; Viel, S.; Segre, A. L. A new class of aggregates in aqueous solution: NMR, thermodynamic and light scattering study. *Langmuir* 2006, *22*, 6031-6041.

12. Chiarabelli, C.; Vrijbloed, J. W.; De Lucrezia, D. ; Thomas, R. M. ; **Stano, P.** ; Polticelli, F. ; Ottone, T.; Papa, E., Luisi, P. L. Investigation of de novo totally random biosequences. Part II. On the folding frequency in a totally random library of de novo proteins obtained by phage display. *Chemistry & Biodiversity* 2006, *3*, 840-859.

13. Luisi, P. L.; Chiarabelli, C.; **Stano, P.** From the Never Born Proteins to the Minimal Living Cell: Two Projects in Synthetic Biology. *Origins of Life and Evolution of the Biosphere* 2006, *36*, 605-616.

14. Zumbuehl, A.; **Stano, P.**; Sohrmann, M.; Peter, M.; Walde, P.; Carreira, E. M., A novel strategy for bioconjugation: Synthesis and preliminary evaluation with amphotericin B. *Organic & Biomolecular Chemistry* 2007, *5*, 1339-1342.

15. **Stano, P.**, Luisi, P. L. (Guest Eds.) Basic Questions About the Origins of Life: Proceedings of the Erice International School of Complexity (Fourth Course). *Origins of Life and Evolution of Biospheres.* 2007, *37*, 303-476.

16. **Stano, P.**, Luisi, P. L. Basic Questions About the Origins of Life: Proceedings of the Erice International School of Complexity (Fourth Course). *Origins of Life and Evolution of Biospheres.* 2007, *37*, 303-307.

17. **Stano, P.** Question 7: New aspects of interactions among vesicles. *Origins of Life and Evolution of Biospheres.* 2007, *37*, 439-444.

18. Luisi, P. L.; **Stano, P.**; Murtas, G.; Kuruma, Y.; Ueda, T. En route to semi-synthetic minimal cells. In: "*Proceedings of the Bordeaux Spring School on Modelling Complex Biological Systems in the Context of Genomics. April 3rd - 7th 2006*". P. Amar; F. Képès; V. Norris; M. Beurton-Aimar; J.-P. Mazat. EDP Sciences, 2007, Les Ulis (Paris), pp. 19-30.

19. Fiordemondo, D.; **Stano, P.** Lecithin-based water-in-oil compartments as dividing bioreactors. *ChemBioChem*, 2007, *8*, 1965-1973.

20. Ramundo-Orlando, A; Gallerano, G. P.; **Stano, P.**; Doria, A.; Giovenale, E.; Messina, G.; Cappelli, M.; D'Arienzo, M.; Spassovsky, I. Permeability changes induced by 130 GHz pulsed radiation on cationic liposomes loaded with carbonic anhydrase. *Bioelectromagnetics*, 2007, *28*, 587-598.

21. Marcocci, L.; Casadei, M.; Faso, C.; Antoccia, A.; **Stano, P.**; Leone, S.; Mondovì, B.; Federico, R.; Tavladoraki, P. Inducible expression of maize polyamine oxidase in the nucleus of MCF7 human breast cancer cells confers sensitivity to etoposide. *Amino Acids* 2008, *34*, 403-412.

22. Spedaletti V.; Polticelli, F.; Capodaglio, V.; Schininà, M. E.; **Stano, P.**; Federico, R.; Tavladoraki, P. Characterization of a lysine-specific histone demethylase from Arabidopsis thaliana. *Biochemistry* 2008, *47*, 4936-4947.

23. Norris, V.; Zemirline, A.; Amar, P.; Ballet, P.; Ben-Jacob, E.; Bernot G.; Beslon, G.; Danos, V.; Giavitto, J.-L.; Greussay, P.; Hutzler, G.; Kepes, F.; Michel, O.; Misevic, G.; Molina, F.; Signorini, J.; **Stano, P.**; Thierry, A. Bactoputing Perspective: Computing with bacteria. In: "*Proceedings of the Lille Spring School on Modelling Complex Biological Systems in the Context of Genomics. Lille, France*". Poudret M.; Comet J.-P.; Le Gall P.; Képès F.; Arnould A.; Meseure P.; Verbavatz J.-M.; Rambourg A. (eds.). EDP Sciences, 2008, Les Ulis (Paris), pp. 133-160.

24. **Stano, P.**; Luisi, P. L. Self-reproduction of micelles, reverse micelles and vesicles. Compartments disclose a general transformation pattern. In: *Advances on Planar Lipid Bilayers and Liposomes*, A. Leitmannova Liu

(Ed.). 2008, Elsevier, Amsterdam, pp. 221-263.

25. **Stano, P.**; Approaches to the Construction of the Minimal Cell. In: *Proceedings of the Third International Conference "Smart Material Structures Systems" (CIMTEC 2008)* Acireale 8-13/06/2008; P. Vincenzini and S. Graziani (Eds.). *Advances in Science and Technology* 2008, *58*, 10-19.

26. Luisi, P. L.; Souza, T.; **Stano, P.** Vesicle behaviour: In search of explanations. *J. Phys. Chem. B* 2008, *112*, 14655-14664.

27. Gorlero, M.; Wieczorek, R.; Adamala, K.; Giorgi, A.; Schininà, M. E.; **Stano, P.**; Luisi, P. L. Ser-His catalyses the formation of peptides and PNAs. *FEBS Letters* 2008, 583, 153-156.

28. Kuruma, Y.; **Stano, P.**; Ueda, T.; Luisi, P. L., A synthetic biology approach to the construction of membrane proteins in semi-synthetic minimal cells. *Biochim. Biophys. Acta* 2009, *1788*, 567-574.

29. **Stano, P.**, Self-reproduction of vesicles and other compartments: a review. In CRC Handbook of Surface and Colloid Chemistry – Third Edition – 2009, K. S. Birdi (ed.), CRC Press, Taylor and Francis Group, LLC, Boca Raton, USA; pp. 681-702.

30. **Stano, P.**; Murtas, G.; Luisi, P. L. Semi-Synthetic Minimal Cells: New Advancements and Perspectives. In: "*Protocells. Bridging Nonliving and Living Matter*". S. Ransmussen, M. A. Bedau, L. Chen, D. Deamer, D. C. Krakauer, N. H. Packard and P. F. Stadler (eds.); MIT Press, 2009, Cambridge, Massachusetts; pp. 39-70.

31. Souza, T.; **Stano, P.**; Luisi, P. L. The minimal size of liposome-based model cells brings about a remarkably enhanced entrapment and protein synthesis. *ChemBioChem*, 2009, *10*, 1056-1063.

32. **Stano, P.**, Luisi, P. L. Precellular Evolution: Vesicles and Protocells. In: *Prebiotic Evolution and Astrobiology*. A. Lazcano and J. T. Wong (eds.), 2009, Landes Bioscience, Austin, Texas US; pp. 94-105.

33. Zumbuehl, A.; **Stano, P.**; Sohrmann, M.; Dietiker, R.; Peter, M.; Carreira, E. M. Synthesis and Investigation of Tryptophan–Amphotericin B Conjugates. *ChemBioChem.* 2009, 10, 1617-1620.

34. **Stano, P.**; Systems Biology and Synthetic Biology. Edited by Pengcheng Fu and Sven Panke. *ChemBioChem* 2009, *10*, 2672-2673.

35. Chiarabelli, C.; **Stano, P.**; Luisi, P. L. Chemical Approaches to Synthetic Biology. *Curr. Opin. Biotech*. 2009, *20*, 492-497.

36. **Stano, P.** Prove di vita minima. *Sapere* 2009, *5*, 20-27.

37. **Stano, P.**; Luisi, P. L. Semi-synthetic minimal cells. In: *Artificial Life and Evolutionary Computation. Proceedings of Wivace 2008*; R. Serra, M. Villani, I. Poli (eds); World Scientific Publishing Co Pte Ltd., 2010, 315-324.

38. **Stano, P.** Cellule artificiali: dall'attuale quadro teorico-sperimentale al loro uso come robot molecolari. In: *Modelli, sistemi e applicazioni di Vita Artificiale e Computazione Evolutiva – Atti del Convegno WIVACE 2009*. O. Miglino, M. Ponticorvo, A. Rega, F. Rubinacci (eds.); Fridericiana Editrice Universitaria, Napoli, 2009. Pp. 193-198.

39. **Stano, P.**; Kuruma, Y.; Souza, T. P., Luisi, P. L. Biosynthesis of proteins inside liposomes. *Methods in Molecular Biology* 2010, 606, 127-145.

40. Mavelli, F.; **Stano, P.** Kinetic models for autopoietic chemical systems: role of fluctuations in homeostatic regime, *Physical Biology* 2010, *7*, 016010.

41. Walde, P.; Cosentino, K.; Hengel, H.; **Stano, P.** Giant Vesicles: Preparations and Applications. *ChemBioChem* 2010, *11*, 848-865.

42. Caschera, F.; **Stano, P.**; Luisi, P. L. Reactivity and fusion between cationic vesicles and fatty acid anionic vesicles. *Journal Colloid Interface Science* 2010, *345*, 561-565.

43. **Stano, P.**; Luisi, P. L. Achievements and open questions in the self-reproduction of vesicles and synthetic minimal cells. *ChemComm* 2010, *46*, 3639-3653.

44. **Stano, P.** Synthetic biology of minimal living cells: protocells models and semi-synthetic cells. *Systems and synthetic biology* 2010, *4*, 149-156.

45. **Stano, P.**; Luisi, P. L. Reactions in Liposomes. In "*Molecular Encapsulation: Organic Reactions in Constrained Systems*" U. H. Brinker and J.-L. Mieusset (eds.) Wiley, 2010. Pp. 455-492.

46. **Stano, P.**; Luisi, P. L. Chemical approaches to synthetic biology: From vesicles self-reproduction to semi-synthetic minimal cells. Artificial Life XII. *Proceedings of the Twelfth International Conference on the Synthesis and Simulation of Living Systems*. MIT press, Cambridge (MA), 2010. Pp. 147-153.

47. Luisi, P. L.; Allegretti, M.; Souza, T.; Steineger, F.; Fahr, A.; **Stano, P.** Spontaneous protein crowding in liposomes: A new vista for the origin of cellular metabolism. *ChemBiochem* 2010, *11*, 1989-1992.

48. **Stano, P.**; Luisi, P. L. Costruire une cellule de toutes pièces. *La Recherche* 2010, *445*, 48-51.

49. Fabrini, F.; Bocedi, A.; Pallottini, V.; Canuti, L.; De Canio, M.; Urbani, A.; Marzano, V.; Cornetta, T.; **Stano, P.**; Giovanetti, A.; Stella, L.; Canini, A.; Federici, G.; Ricci, G. Nuclear shield: A multi-enzyme task-force for nucleus protection. *Plos ONE* 2010, *5*, e14125.

50. Tavladoraki, P.; Cervelli, M.; Antonangeli, F.; Minervini, G.; **Stano, P.**; Federico, R.; Mariottini, P.; Polticelli, F. Probing mammalian spermine oxidase enzyme-substrate complex through molecular modeling, site-directed mutagenesis and biochemical characterization. *Amino Acids* 2011, *40*, 1115-1126.

51. Luisi, P. L. and **Stano, P.** (Eds.) *The Minimal Cell*. Springer, 2011. Springer, Dordrecht.

52. **Stano, P.**; Souza, T. P.; Allegretti, M.; Kuruma, Y.; Luisi, P. L. New and unexpected insights on the formation of protocells from a synthetic biology approach: The case of entrapment of biomacromolecules and protein synthesis inside vesicles. In: "*Minimal Cells*", **P. Stano**, P. L. Luisi (Eds.) 2011, Springer, Dordrecht. Pp. 195-216.

53. Norris, V.; Zemirline, A.; Amar, P.; Audinot, J. N.; Ballet, P.; Ben-Jacob, E.; Bernot, G.; Beslon, G.; Cabin, a.; Fanchon, E.; Giavitto, J.-L.; Glade, N.; Greussay, P.; Grondin, Y.; Foster, J. A.; Hutzler, G.; Jost, J.; Kepes, F.; Michel, O.; Molina, F.; Signorini, J.; **Stano, P.**; Thierry, A. R. Computing with bacterial constituents, cells and populations: From bioputing to bactoputing. *Theory in Biosciences* 2011, *130*, 211-228.

54. **Stano, P.**; Ferri, F.; Luisi, P. L. Semi-synthetic minimal living cells. In: "*Chemical Synthetic Biology*", P. L. Luisi, C. Chiarabelli (Eds.) Wiley, Chichester, 2011. Pp. 247-286.

55. **Stano, P.**, Luisi, P. L. On the construction of minimal cell models in synthetic biology and origins of life studies. In: "*Design and Analysis of Biomolecular Circuits: Engineering Approaches to Systems and Synthetic Biology*", H. Koeppl; G. Setti; M. Di Bernardo; D. Densmore (Eds.), Springer, Dordrecht, 2011; pp. 337-368.

56. **Stano, P.**; Minimal cells: Relevance and interplay of physical and biochemical factors. *Biotechnology Journal* 2011, *6*, 850-859.

57. **Stano, P.**; Carrara, P.; Souza, T., Luisi, P. L. An update on the minimal cell project: From the physics of solute encapsulation to the experimental modeling of cell communities. In: "*Advances in Artificial Life, ECAL 2011: Proceedings of the Eleventh European Conference on the Synthesis and Simulation of Living Systems*", T. Lenaerts, M. Giacobini, H. Bersini, P. Bourgine, M. Dorigo and R. Doursat (Eds.), MIT Press, Cambridge (MA), 2011. Pp. 779-780.

58. **Stano, P.**; Advances in minimal cell models: A new approach to synthetic biology and origin of life. In "*Progress in Molecular and Environmental Bioengineering – From Analysis and Modeling to Technology Applications*" A. Carpi (Ed.), Intech - Open Access Publisher, Rijeka, Croatia, 2011. Pp. 23-44.

59. Luisi, P. L.; **Stano, P.** Minimal cell mimicry. *Nature Chem.* 2011, *3*, 755-756.

60. Souza, T.; Steiniger, F.; **Stano, P.**; Fahr, A., Luisi, P. L. Spontaneous crowding of ribosomes and proteins inside vesicles: A possible mechanism for the origin of cell metabolism. *ChemBioChem* 2011, *12*, 2325-2330.

61. **Stano, P.**; Carrara, P.; Kuruma, Y.; Souza, T.; Luisi, P. L. Compartmentalized reactions as a case of soft-matter biotechnology: Synthesis of proteins and nucleic acids inside lipid vesicles. *Journal of Material Chemistry*, 2011, *21*, 18887-18902.

62. **Stano, P.**; Kuruma, Y.; Souza, T.; Carrara, P., Luisi, P. L. Synthetic Biology and the Minimal Cell Project. In: "*4th European Conference on Chemistry for Life Sciences – Budapest, Hungary, August 31 – September 3, 2011"*, M. Kiss, A. Perczel (Eds.), Medimond, Pianoro (Italy), 2011. Pp. 109-112.

63. **Stano, P.** Autopoietic self-reproduction as a distinctive feature of structural and dynamic organization in microcompartment systems: From self-assembled micelles to synthetic cells. In: "*Self-Healing at the Nanoscale: Mechanisms and Key Concepts of Natural and Artificial Systems*", V. Amendola, M. Meneghetti (Eds.), CRC Press Taylor & Francis Group, Boca Raton, 2012. Pp. 333-356.

64. **Stano, P.**; Rampioni, G.; Damiano, L.; D'Angelo, F.; Carrara, P.; Leoni, L.; Luisi, P. L. Experimental perspectives for a chemical communication between synthetic and natural cells. *Proceedings of the Italian Workshop on Artificial Life and Evolutionary Computation (Parma, 20-21 February 2012) ISBN 978-88-903581-2-8* [Published on CD], S. Cagnoni, M. Mirolli, M. Villani (Eds.), 2012, Pp. 1-12.

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112. **Stano, P.**; Mavelli. F. Protocells Models in Origin of Life and Synthetic Biology (Editorial). *MDPI Life* 2015, *5*, 1700-1702.

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Manoscritti sottomessi per futura pubblicazione

116. Alabdallah, O.; Ahou, A.; Macone, A.; Pashkoulov, D.; Mancuso, N.; **Stano, P.**; Cona, A.; Angelini, R.; Tavladoraki, P. The Arabidopsis Polyamine oxidase/dehydrogenase 5 integrates cytokinin and auxin signaling to control xylem differentiation. *Plant Physiology* 2016 *submitted*.

117. Bracciali, A.; Cataldo, E.; Damiano, L.; Felicioli, C.; Marangoni, R.; **Stano, P.** From cells as computation to cells as apps. *IFIP Advances in Information and Communication Technology* 2016, *submitted*.

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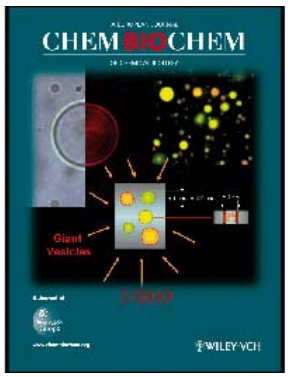

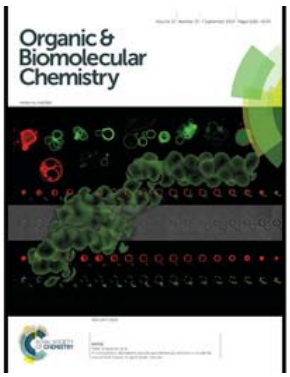

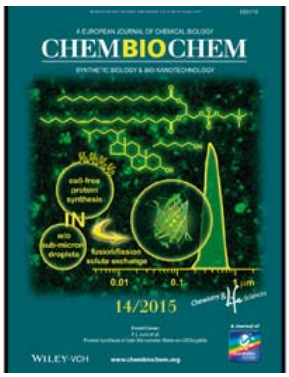

7. Speaker a Conferenze/Workshop/Seminari

1. WORKSHOP: DNA SUPRAMOLECULAR ASSEMBLIES Universite d'Avignon, Avignon (Francia), 5-6 Maggio 2004: "*Condensed DNA in lipid micro-compartments*".
2. COST D27 MEETING, WORKING GROUP 0004-02, Università La Sapienza, Roma (Italia), 28-29

Maggio 2004: "*Matrix Effect and Vesicle Reproduction in the Oleate Vesicles Formation*".

3. COST D27 3RD WORKSHOP, Hersonissos, Heraklion (Creta), 30 Settembre - 2 Ottobre 2004: "*Matrix effect and vesicle splicing by addition of a surfactant precursors*".
4. MEETING ORIGINE DELLA VITA ED EVOLUZIONE PRIMORDIALE in vista di ISSOL 2008, Cortona (AR), 1-2 Aprile 2005: "*Towards a synthetic biology: the Minimal Cell Project"*.
5. CHEMBIOGENESIS 2005 – COST Action D27 – Prebiotic Chemistry and Early Evolution (Midterm evaluation conference), Venice, Italy, 28 Settembre-1 Ottobre 2005: "*Protein synthesis in compartments: EGFP expression in w/o macroemulsions*".
6. N&N05 – NANOSCIENCE AND NANOTECHNOLOGY 2005, Villa Mondragone, Monteporzio Catone (Roma), Italy; 14-16 Novembre 2005: "*Reactivity of compartments: from the self-reproduction of sub-micrometric vesicles to protein expression within compartments*".
7. FIRST MAGA CIRCE CONFERENCE ON METABOLIC SYSTEMS ANALYSIS; Sabaudia (Monte Circeo), March 26-29, 2006: "*Reconstruction of biosynthetic pathways in lipid vesicles: an approach to minimal cells*".
8. MODELISATION DE SYSTEMES BIOLOGIQUES COMPLEXES DANS LE CONTEXTE DE LA GENOMIQUE; Bordeaux, April 2-7, 2006: "*En route to semi-synthetic minimal cells*".
9. CHEMBIOGENESIS 2006 – COST Action D27 – Prebiotic Chemistry and Early Evolution, Barcelona, Spain, 15-16 December 2006: "*Self-reproduction and reactivity of vesicles*".
10. CHEMBIOGENESIS 2007 – COST Action D27 – Prebiotic Chemistry and Early Evolution, Dubrovnik, Croatia, 11-13 May 2007: "*On the use of vesicles as cellular models*" (as a final report of WG 0007)
11. PREMIO ETTORE MAJORANA – ERICE – SCIENZA PER LA PACE 2006 – Pontifical Acedemy of Science, The Vatican, Rome, 20-12-2007 "*The Minimal Life Project*". **[invited]**
12. PROTOCELLS MODELLING WORKSHOP – ECLT, VENICE – 10-12 Marzo 2008 "*The use of vesicles and other compartments as cellular models*". **[invited]**
13. ACTA BIOPHYSICA ROMANA – Uniroma3, ROME, 10-11 Aprile 2008 "*On the use of lipid vesicles as cellular models: From self-reproduction to semi-synthetic minimal cells*".
14. FIRST ITALIAN ASTROBIOLOGY SOCIETY WORKSHOP – CORTONA – 29-30 Maggio 2008 "*Populations of fatty acid vesicles: self-reproduction, competition and selection*"
15. THIRD INTERNATIONAL CONFERENCE ON SMART MATERIALS, STRUCTURES, SYSTEMS (CIMTEC 2008) – ACIREALE – 8-13 Giugno 2008 "*Approaches to the construction of the Minimal Cell*"
16. XII ISSOL MEETING – XV INTERNATIONAL CONFERENCE ON THE ORIGIN OF LIFE – FLORENCE – 24-29 Agosto 2008 "*Chemical Synthetic Biology*"
17. WORKSHOP ITALIANO VITA ARTIFICIALE E COMPUTAZIONE EVOLUTIVA (WIVACE) 2008 – VENICE – 8-10 September 2008 "*Semi-synthetic Minimal Cells*"
18. ESF COST SYSTEMS CHEMISTRY – MARATEA (PZ) – 3-8 October 2008 "*Vesicles systems and semi-synthetic minimal cells*"
19. BIOLOGIA SI' – CNR – ROMA – 18 December 2008 "*Chemical synthetic biology*"
20. SYNBIONT KICKOFF MEETING – NOTTINGHAM – 12-13 March 2009 "*Semi-synthetic minimal cells*"
21. ECSB II: DESIGN, PROGRAMMING AND OPTIMISATION OF BIOLOGICAL SYSTEMS – ESF-UB Conference – SAN FELIU DE GUIXOLS (SP) – 29/3-3/4-2009 "*Lipid vesicles as cellular models: from self-reproduction to semi-synthetic minimal cells*"
22. SYSTEMS CHEMISTRY WG3 MEETING – COST WORKING GROUP MEETING – ZURICH – 18-19 April 2009 "*Lipid-producing minimal cells as a route to synthetic self-reproduction*"
23. INTRODUCTORY LECTURES ON ASPECTS OF COMPLEXITY – MANCHESTER – 6-8 July 2009 "*Lipid vesicles as cellular models: From the self-reproduction to the construction of minimal cells*". **[invited]**
24. EVOLUTION OF THE BIOSPHERE - ERASMUS Education Programme - BANYULS SUR MER (France) – 17-28 August 2009 "*Vesicles systems: From self-reproduction to semi-synthetic minimal cells*".
25. SYSTEMS CHEMISTRY ANNUAL MEETING – LAKE BALATON (HUNGARY) – 24-26 October 2009 "*Achievements and perspectives in the construction of liposome-based cell models*"
26. WORKSHOP ITALIANO VITA ARTIFICIALE E COMPUTAZIONE EVOLUTIVA (WIVACE) 2009 – NAPLES – 23-24 November 2009 "*Cellule artificiali: dall'attuale quadro teorico-sperimentale al loro uso come robot molecolari*"

27. FOSTERING SYSTEMS AND SYNTHETIC BIOLOGY IN SOUTHERN EUROPE (5º Meeting of the Spanish Network of Systems Biology (REBS)) – MADRID – 13-15 December 2009 "*Synthcells: A semi-synthetic approach for the construction of minimal living cells*"
28. TECHISCHE UNIVERSITEIT EINDHOVEN (TU/e) – EINDHOVEN – 8 February 2010 – invited speaker – "Synthetic (Constructive) Biology: From Vesicles Self-Reproduction to Semi-Synthetic Minimal Cells" **[invited]**
29. CHALLENGES IN TOP-DOWN, BOTTOM-UP AND COMPUTATIONAL APPROACHES IN SYNTHETIC BIOLOGY – NOTTINGHAM – 18-22 March 2010 – invited speaker – "*Synthetic (Constructive) Biology: From Vesicles Self-Reproduction to Semi-Synthetic Minimal Cells"*
30. XII INTERNATIONAL ARTIFICIAL LIFE CONFERENCE (ALIFEXII) - Odense (DK) - 20-23 August 2010 - invited speaker - "*Minimal cells: from origin of life to synthetic biology*"
31. ALIFEXII OPEN WORKSHOP ON MOLECULAR SELF-ORGANIZATION, MOLECULAR EVOLUTION, AUTO-CATALYSIS AND PREBIOTIC CHEMISTRY – Odense (Denmark) 21 August 2010 – co-organizer - "*Condensation chemistry and compartmentation*"
32. EVOLUTION OF THE BIOSPHERE - ERASMUS Education Programme - BANYULS SUR MER (France) – 23 August-3 September 2010 "*Vesicles systems: From self-reproduction to semi-synthetic minimal cells*". **[invited]**
33. INTERNATIONAL CONFERENCE ON SYNTHETIC BIOLOGY – EVRY (France) – 15-16 December 2010 "*Synthetic (constructive) biology: From vesicles self-reproduction to semi-synthetic minimal cells*".
34. CIB CENTRO DE INVESTIGACIONES BIOLÓGICAS – MADRID (Spain) – 27 May 2011 "*The use of liposomes as cell models: toward the construction of semi-synthetic minimal cells*". **[invited]**
35. 11th EUROPEAN CONFERENCE ON ARTIFICIAL LIFE (ECAL'11) - PARIS (France) - 8-12 August 2011 "*An update on the minimal cell project: From the physics of solute encapsulation to the experimental modeling of cell communities*"
36. 4th EUROPEAN CONFERENCE ON CHEMISTRY FOR THE LIFE SCIENCES – BUDAPEST (Hungary) – 31 August – 3 September 2011 "*Towards the construction of semi-synthetic minimal cells*"
37. COST SYSTEMS CHEMISTRY FINAL MEETING – HERAKLION (Greece) – 28-29 October 2011 "*Encapsulation of proteins and ribosomes inside lipid vesicles*"
38. NEW BIOTRENDS TO SMARTER DRUGS – DORTMUND (Germany) – 8-9 December 2011 "*Towards the bottom-up synthesis of artificial cells: relevance in basic and applied science*"
39. COST SYSTEMS CHEMISTRY WG3 MEETING – ODENSE (Denmark) – 9-10 December 2011 "*Recent advancements on minimal cell research*".
40. UNIVERSITY OF PISA, INFORMATICS DEPT. – PISA (Italy) – 25 January 2012 "*La cellula minima: dall'origine della vita alla biologia sintetica*" **[invited]**
41. WIVACE 2012 – PARMA (Italy) – 20-21 February 2012 "*Experimental perspectives for a chemical communication between synthetic and natural cells*".
42. UNIVERSITY OF JENA, PHARMACY INSTITUTE – JENA (Germany) – 9 March 2012 "*Lipid vesicles in origin of life*" **[invited]**
43. UNIVERSITY OF BARI, CHEMISTRY INSTITUTE – BARI (Italy) – 20 March 2012 "*The use of lipid vesicles as cell model: from origin of life to synthetic biology*". **[invited]**
44. AMERICAN CHEMICAL SOCIETY SPRING 2012 MEETING – SAN DIEGO, CA – Invited speaker – 28 March 2012 – "*Towards the construction of semi-synthetic minimal cells. From origin of life to synthetic biology"*. **[invited]**
45. OPEN QUESTIONS ON ORIGIN OF LIFE 3 – LEICESTER, UK – 1 May 2012 – "*The 'super-encapsulation' of solutes inside lipid vesicles: A new vista for the origin of metabolism*".
46. THEMATIC SCHOOL "MODELLING COMPLEX BIOLOGICAL SYSTEMS IN THE CONTEXT OF GENOMICS" – EVRY, FR – 21-25 May 2012 – "*Semi-synthetic minimal cells: Relevance in origin of life and synthetic biology*"
47. WORKSHOP ON NANOTECHNOLOGIES FOR HEALTHCARE – TRENTO, IT – 25-26 May 2012 – "*Semi-synthetic minimal cells: from origin of life to synthetic biology*"
48. INTERNATIONAL SynBioTA WORKSHOP: VISIONS OF SYNTHETIC BIOLOGY – Bremen, DE – 27-29 June 2012 – "*Towards the bottom-up synthesis of artificial cells: Relevance in basic and applied science"*
49. UNIVERSITY OF DELFT, NANOSCIENCE DEPARTMENT – Delft, NL – 3 July 2012 – "*Semi-synthetic minimal cells: from the Origin of Life to Synthetic Biology*" **[invited]**

50. 21ST INTERNATIONAL CONFERENCE ON PHYSICAL ORGANIC CHEMISTRY ICPOC-2012 – Durham, UK – 9-13 September 2012 – "*Complex compartmentalized (bio)chemical systems: The case of semi-synthetic minimal cells*"
51. 1ST INTERNATIONAL SUMMER SCHOOL ON BIO/CHEM-ICT COBRA 2012 – San Candido, IT – 9-21 September 2012 – Four Lectures: "*1. Lipids, surfactants and liposome technology*", "*2. Minimal cells: from origin of life to synthetic biology*", "*3. Liposomes as drug delivery agents*", "*4. Semi-synthetic minimal cells as a tool for bio/chem-ICT*". **[invited]**
52. UNIVERSITY OF TOKYO, DEPARTMENT OF MEDICAL GENOME SCIENCES – Tokyo, JP – 3 October 2012 - "*Semi-synthetic minimal cells: from the Origin of Life to Synthetic Biology*"
53. UNIVERSITY OF OSAKA, GRADUATE SCHOOL OF INFORMATION SCIENCE AND TECHNOLOGY – Osaka, JP – 4 October 2012 – "*Semi-synthetic minimal cells: from the Origin of Life to Synthetic Biology*"
54. DOSHISHA UNIVERSITY KYOTO, FACULTY OF LIFE AND MEDICAL SCIENCES – Kyoto, JP – 5 October 2012 – "*Semi-synthetic minimal cells: from the Origin of Life to Synthetic Biology*"
55. WORKSHOP "THE SYNTHETIC MODELLING OF LIFE AND COGNITION: EPISTEMOLOGICAL, SOCIAL AND ETHICAL ISSUES" @ RITSUMEIKAN UNIVERSITY KYOTO – Kyoto, JP – 6 October 2012 - "*Semi-synthetic minimal cells: from the Origin of Life to Synthetic Biology*"
56. UNIVERSITY OF TOKYO, DEPARTMENT OF BASIC SCIENCE – Tokyo, JP – 8 October 2012 - "*Semi-synthetic minimal cells: from the Origin of Life to Synthetic Biology*"
57. LIPOSOME RESEARCH DAYS 2012 – Hangzhou, CN – 10 October 2012 – "*Semi-synthetic minimal cells: from the Origin of Life to Synthetic Biology*". **[invited]**
58. COST TD1102 PHOTOTECH FIRST PLENARY WORKSHOP – Antwerp, Belgium – 11 April 2013 – "*Semi-synthetic minimal cells: from the Origin of Life to Synthetic Biology*"
59. 6th ECCOMAS THEMATIC CONFERENCE ON SMART STRUCTURES AND MATERIALS (SMART2013) – Torino, Italy – 24-26 June 2013 – "*Synthetic cells: Recent biophysical issues about the preparation of solute-filled lipid vesicles*"
60. SYNTHETIC BIOLOGY 6.0 – London, UK – 9-11 July 2013 – "*Semi-synthetic minimal cells: From origin of life to synthetic biology*"
61. ECAL 2013: 12th European Conference on Artificial Life – Taormina, Italy – 2-6 September 2013 – "*Recent advancements in synthetic cells research*"
62. ECAL 2013 SATELLITE WORKSHOP: What can Synthetic Biology offer to Artificial Intelligence? Perspectives in the Bio-Chem-ICT and other scenarios – Taormina, Italy – 6 September 2013 – "*Synthetic biology projects that might be relevant for biochemICT and AI*"
63. INTERNATIONAL WORKSHOP: FROM SOFT MATTER TO PROTOCELL – Sendai, JP – 18-20 September 2013 – "*Semi-synthetic minimal cells: from origin of life to synthetic biology*". **[invited]**
64. EARTH AND LIFE SCIENCE INSTITUTE – Tokyo, JP – 25 September 2013 – "*Semi-synthetic minimal cells: from the Origin of Life to Synthetic Biology*". **[invited]**
65. RINGBERG SYNTHETIC BIOLOGY SEMINAR – Ringberg Castle, Munich, D – 28 November 2013 – "*Minimal cell models in origin of life and synthetic biology*". **[invited]**
66. SHORT WINTER SCHOOL ON NANO- AND BIOTECHNOLOGY – Trieste, IT – 27-28 January 2014 – "*Semi-synthetic minimal cells: from origin of life to synthetic biology*". **[invited]**
67. BITS ANNUAL MEETING 2014 – Roma, IT – 26-28 February 2014 – "*Advancements and open questions in synthetic cells: new challenges for systems biology?*" **[invited]**
68. WIVACE 2014 – Vietri sul Mare, IT – 14-15 May 2014 – "*One-way molecular communication between synthetic and natural cells: preliminary in silico modeling*"
69. SYSTEMS CHEMISTRY 2014 – San Sebastian, ES – 9-12 June 2014 – "*Protocells: the encapsulation of solutes*"
70. CELL MODEL SYSTEMS SUMMER SCHOOL – CNR Tor Vergata – Rome, IT – 16-20 June 2014 – "*Compartmentalized reactions as model for biological cells*" **[invited]**
71. GIORNATA SULLE NANOTECNOLOGIE (GioNa) 2015 – Dipertimento di Scienze Uniroma3 – Roma, IT – 28-29 January 2015 "*I liposomi nelle "nano-biotecnologie": dai modelli di membrane cellulari alla biologia sintetica*" **[invited]**
72. CELL MODEL SYSTEM SUMMER SCHOOL 2015 – Roma, IT – 7-11 June 2015 – "*Compartmentalized reactions as model for biological cells*" **[invited]**
73. HISTORY AND PHILOSOPHY OF COMPUTING (HaPoC) 2015 – Pisa, IT – 8-11 October 2015 – "*From "Cells as Computation" to "Cells as Apps""*

8. Attività di Editore (guest editor di special issues), Editore di Monografie, Revisione di Manoscritti per riviste internazionali, Revisione di progetti nazionali e internazionali

- Co-editore del libro: *The Minimal Cell*. **2011**. Luisi, P. L. and Stano, P. (Eds.), Springer, Dordrecht.

- Guest Editor, con P. L. Luisi, per *Origins of Life and Evolution of Biospheres*, di una special issue sulla International School on Complexity – 4th course – "Basic questions about the origins of life", Erice 1-6 ottobre 2006.
- Guest Editor, con P. L. Luisi, H. Bersini e M. Bedau, per *Synthese* di una special issue sulla International School on Complexity – 9th course – "Philosophical and Scientific Perspectives on Emergence", Erice, 12-16 Aprile 2008.
- Guest Editor, con P. L. Luisi e C. Chiarabelli, per *Current Opinion of Chemical Biology,* di una special issue sulla "Biologia Sintetica" (2014, volume)
- Guest Editor, con F. Mavelli, per *Life MDPI,* di una special issue su "Protocells" (2014/15)
- Guest Editor, con L. Damiano e Y. Kuruma, per *Biosystems*, di una special issue su "What can synthetic biology offer to artificial intelligence, and vice versa" (2015/16).

- Referee di circa 180 manoscritti per conto di riviste scientifiche internazionali (AAPS PharmSciTech, Accounts of Chemical Research, ACS Synthetic Biology, Advanced Materials, Analytical and Bioanalytical Chemistry, Analytical Chemistry, Analytical Methods, Angewantde Chemie, Artificial Life, Beilstein J. Nanotechnology, BioEssays, Biomacromolecules, BioPhysChem, Biophysical Chemistry, BMC Research Notes, ChemBioChem, Chemical Communications, Chemical Society Reviews, Chemistry European J., ChemPhysChem, Colloids and Surfaces B: Biointerfaces, Current Opinion Chemical Biology, Entropy, Enzyme and Microbial Technologies, Eur. J. Pharmaceutics and Biopharmaceutics, FEBS letters, FEBS Open Bio, Frontiers in Synthetic Biology, Geochem. Cosmochem. Acta, J. Molecular Evolution, J. Physical Chemistry, J. Surfactant and Detergents, J. Systems Chemistry, Langmuir, Life MDPI, Materials, Nanoscale, Natural Computing, Nature Chemistry, Nature Communications, Nature Methods, New Journal of Chemistry, Origin of Life and Evolution of Biospheres, RCS Advances, Scientific Reports, Soft Matter, Systems & Synthetic Biology, Trends in Cell Biology).

- Book-reviewer per Springer: Stano, P.; Systems Biology and Synthetic Biology. Edited by Pengcheng Fu and Sven Panke. *ChemBioChem* **2009**, *10*, 2672-2673.
- Reviewer di e-book per Bentham Science Publishers.

- Revisore di progetti scientifici: ESF (EUROCORES Programme EuroSYNBIO, Era-Syn-Bio-Net), ERC Consolidator Grant, FIRB Giovani, Appel à Projets (Francia), Institut des systèmes complexes de Paris Île-de-France (Francia), Innovational Research Incentives Scheme Veni (Olanda), NWO (Olanda).

- Membro dei Program Committees delle conferenze europee e internazionali di vita artificiale (ECAL 2013, ALIFE 2014, ECAL 2015, ALIFE 2016), e del Workshop italiano di vita artificiale e computazione evolutiva (WIVACE).

9. Scrittura e Gestione di progetti scientifici finanziati

- Scrittura e gestione, insieme al PI Prof. Pier Luigi Luisi del progetto EU-FP6/NEST-2005-Path-SYN: "*Synthcells: Approaches to the bioengineering of synthetic minimal cells*." (2006-2010)
- Scrittura e gestione, insieme al PI Prof. Pier Luigi Luisi e al ricercatore Dott. G. Murtas, del progetto HFSP: "*Minimal cells*." (2007-2009)
- Scrittura e gestione, insieme al PI Prof. Pier Luigi Luisi, del progetto PRIN2008: "*Approcci sperimentali e teorici alla costruzione di cellule minime semi-sintetiche*" (2009)

- Scrittura, insieme al co-responsabile di area chimica Prof. Pierre-Alain Monnard, al gruppo proponente, e al PI Prof. Muriel Gargaud, del progetto Azione COST "*Origins and evolution of life on Earth and in the Universe (ORIGINS)*" (2013-2017)

- Scrittura, in collaborazione con vari colleghi, di 15 progetti che non hanno raggiunto una valutazione sufficiente per il finanziamento.

10. Supervisione di Tesi di Laurea e di Dottorato

a. Co-supervisione con il Prof. Pier Luigi Luisi (studenti interni al gruppo) – Università di RomaTre
   1. Laura Gallace, 23/05/2005, *Preparazione di Organogeli contenenti Retinoidi Atipici e loro Valutazione Farmacologica*. Laurea Magistrale.
   2. Deborah Fiordemondo, 19/10/2005, *Utilizzo di Emulsioni come Bioreattori per Modelli Cellulari*. Laurea Magistrale.
   3. Filippo Caschera, 19/05/2006, *Fusione tra Vescicole come Modello di Processi Cellulari*. Laurea Magistrale
   4. Chiara D'Ottavio, 25/10/2006, *Quanto è possibile ridurre la complessità strutturale dei ribosomi, e mantenerne la funzionalità?*. Laurea Triennale
   5. Ilaria D'Angeli, 25/10/2006, *Riassemblaggio di strutture cellulari in vitro*. Laurea Triennale
   6. Valentina Gallo, 26/02/2009, *Espressione di proteine in bioreattori: Le microemulsioni come modelli cellulari*. Laurea Magistrale
   7. Valentina Orticelli, 25/05/2009, *Le camptotecine: dal meccanismo d'azione alla veicolazione liposomale*. Laurea Triennale
   8. Erica D'Aguanno, 14/12/2009, *Studi su modelli prebiotici di ribosomi*. Laurea Magistrale
   9. Matteo Allegretti, 25/05/2010, *Liposomi come modelli cellulari: compartimentazione di una proteina*. Laurea Magistrale
   10. Paolo Carrara, 20/12/2010. *Constructing a minimal cell*. Tesi di dottorato.

b. Co-supervisione con altri gruppi di ricerca
   1. Amina Antonacci, 19/07/2006, *Espressione eterologa del dominio START di fattori di trascrizione appartenenti alla famiglia HD-Zip di Arabidopsis thaliana*. Tesi Magistrale. Co-supervisione con la Dott.ssa Pina Rea (CNR Roma Montelibretti) e Prof. Rodolfo Federico (Univ. RomaTre)
   2. Francesca D'Angelo, 22/3/2012, *Studio delle basi molecolari per lo sviluppo di sistemi di comunicazione tra batteri e cellule semi-sintetiche*. Laurea Triennale. Co-supervisione con il Dr. Giordano Rampioni (Univ. RomaTre)
   3. Lorenzo Calviello, 20/07/2012, *Quasi-Cellular Systems: Stochastic Simulation Analysis at Nanoscale Range*. Laurea Magistrale. Co-supervisione con il Dr. Roberto Marangoni (Univ. Pisa)
   4. Valentina Balducci, 25/02/2013, *Synthesis and structure/antioxidant activity relationship of lipophilic hydroxytyrosyl esters and their analogues.* Tesi di dottorato. Co-supervisione con Dr. Daniela Tofani, Prof. A. Gambacorta, Prof. S. Incerpi (Univ. RomaTre)
   5. Francesca D'Angelo, 21/02/2014, *Applicazione dei principi della biologia sintetica per lo sviluppo di "cellule artificiali" in grado di interagire con cellule naturali*. Laurea Magistrale. Co-supervisione con Dr. G. Rampioni (Univ. RomaTre).
   6. Emiliano Altamura, 21/3/2015, *Bio-mimetic cell-like soft-matter systems.* Tesi di dottorato europeo. Co-supervisione con Dr. Fabio Mavelli (Univ. Bari).
   7. Alessio Fanti, 23/07/2014, *A Synthetic and Systems Biology Approach for studying Liposome Extrusion.* Laurea Magistrale. Co-supervisione con Dr. R. Marangoni (Univ. Pisa).
   8. Alessandro Zennaro, 26/05/2015, *Studio preliminare per lo sviluppo di modelli cellulari sintetici in grado di interagire con cellule "naturali"*. Laurea Magistrale. Co-supervisione con Dr. G. Rampioni (Univ. RomaTre).
   9. Erica D'Aguanno, 08/12/2015, *Experimental studies on the spontaneous entrapment of macromolecules inside liposomes:synthetic models of minimal cell.* Tesi di dottorato. Co-supervisione con Prof. Dr. A. Fahr (Univ. Jena, Germania).
   10. Carola Tortora, 16/12/2015, *Studio di epossidazioni organocatalitiche di alfa-alchilidenossindoli*

condotte all'interno di liposomi. Laurea Magistrale. Co-supervisione con Dr. T. Gasperi (Univ. RomaTre) e Prof.ssa M. A. Loreto (Univ. La Sapienza)

11. Consulenza e collaborazione industriale

Dal 2006 al 2010: collaborazione in progetti di ricerca finanziati dalla Sigma-Tau (Pomezia) relativi allo studio di formulazioni liposomali in soluzione acquosa o in gel per la veicolazione di principi attivi idrofilici e idrofobici per varie applicazioni. I dettagli dei progetti sono coperti da segreto industriale. Referenti: Dott. C. Pisano, Dott.ssa M. O. Tinti.

- Supervisione di 4 collaboratori scientifici dedicati ai progetti.

Roma 16 Aprile 2016

Pasquale Stano